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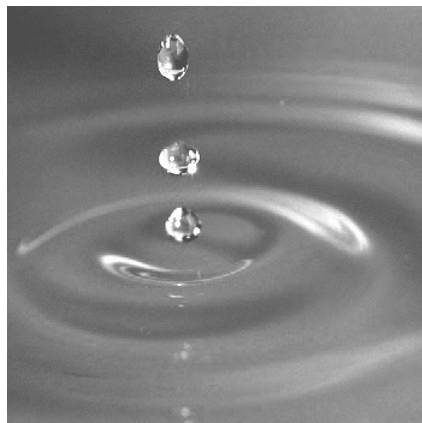
Georgia Power Company
2019 Semiannual Groundwater
Monitoring and Corrective Action
Report

Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit No. 051-010D(LI)

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PROFESSIONAL ENGINEER CERTIFICATION

This 2019 *Semiannual Groundwater Monitoring and Corrective Action Report, Georgia Power Company – Plant McIntosh Landfill No. 4* has been prepared in accordance with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations (CFR) 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with GEI Consultants, Inc.

GEI Consultants, Inc. certifies that all state compliance parameters were below the applicable Georgia maximum contaminant levels (MCL).



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08/20/2019

1. Introduction

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residuals (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D, April 17, 2015) and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, GEI Consultants, Inc. (GEI) has prepared this *2019 Semiannual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company's (GPC's) Plant McIntosh, Coal Combustion By-product Existing Landfill No. 4 (Landfill No. 4) during the first half of 2019.

Groundwater monitoring is currently conducted as per the Permit No. 051-010D(LI) requirements specified in the Design and Operation (D&O) Plan (GPC, 2010). A minor modification, dated August 9, 2017, approved the addition of Appendix III and IV parameters contained in the U.S. Federal regulations 40 CFR 257 Subpart D to the groundwater monitoring plan in Solid Waste Permit No. 051-010D(LI). An application for a new Georgia CCR permit was submitted in November 2018 for the facility to replace the Solid Waste Permit.

This report provides the results of sampling events conducted in January 2019 and March 2019 and includes results for constituents listed in the D&O Plan in the Solid Waste Permit No. 051-010D(LI) and CCR detection monitoring sampling event for US EPA's CCR Appendix III constituents.

1.1 Site Description and Background

The plant property is located at 981 Old Augusta Road Central, in southeast Effingham County, Georgia, approximately 4 miles northeast of the city of Rincon, and 20 miles north-northwest of the city of Savannah. The Site is situated on the west bank of the Savannah River at Big Kiffer Point (Figure 1). Landfill No. 4 receives CCR generated from the plant and is on the western portion of the plant property, approximately 1.5 miles west of the Savannah River and approximately 800 feet south of Lockner Creek.

Landfill No. 4 is composed of Cells 1, 2A, 2B (Figure 2). Closure construction for Cell 1 of Landfill No. 4 began in June 2015 and final cover construction was completed in August 2016. GPC began construction of Cell 2A in June 2015 and received approval to begin receiving solid waste for disposal on July 20, 2017. Cell 2A of Landfill No. 4 began receiving CCR waste in September 2017. Cells 2B, 3, and 4 are for future development.

1.2 Regional Geology and Hydrogeologic Setting

Rincon, Georgia is located within the Coastal Plain Province of Georgia. Coastal Plain sediments are composed of stratified clay, silt, sand, and limestone, resting on much older igneous and metamorphic basement rocks. These older, crystalline rocks dip to the south and east causing the overlying sediments to form a wedge-shaped deposit, which is thickest to the east and the south. The Coastal Plain deposits crop out at the land surface in bands, from the oldest to the most recent, from the Fall Line to the coast. Pleistocene-aged deposits are at the surface in this region. Recharge to the major aquifers in the area is to the northeast of the site, where these formations outcrop (Southern Company Services Earth Science & Environmental Engineering [SCS ES&EE], 2002).

Landfill No. 4 is situated on sediments that were deposited from Cretaceous to Pleistocene and consist of stratified marine deposits and materials eroded from crystalline rock of the Piedmont Region. Boring logs describe soils at Landfill No. 4 as interbedded clays, silts, and sands typical of Coastal Plain sediments.

The uppermost aquifer at Landfill No. 4 is the surficial aquifer, characterized by silty to sandy clays, clayey silts, silty sands, and fine to medium grained sands. Monitoring wells and piezometers were screened in the surficial aquifer between elevation 40 and 12 feet (ft) North American Vertical Datum (NAVD)1988.

1.3 Groundwater Monitoring Well Network

Pursuant to §257.91, a groundwater monitoring system was installed within the uppermost aquifer at Landfill No. 4. The monitoring system is designed to monitor groundwater passing the waste boundary of the unit within the uppermost aquifer. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction relative to constructed waste boundaries (Table 1).

2. Groundwater Monitoring Activities

The following subsections describe monitoring-related activities performed during the first half of 2019. All groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the monitoring system shown on Figure 2. Pursuant to §257.90(e)(3), a summary and description of groundwater sampling events completed at Landfill No. 4 through Spring 2019 is shown on Table 2.

2.1 Monitoring Well Installation and Maintenance

Piezometer and monitoring well locations are shown on Figure 2. Well maintenance was performed in April 2019 on the existing groundwater monitoring network, and included the following activities:

- Cleaned well pad
- Removed rust on latches and replaced expansion caps (as needed)
- Drilled weep holes
- Added universal reflective signs containing the well names

2.2 Alternate Source Demonstrations

Statistically significant increases (SSIs) of Appendix III groundwater monitoring parameters were reported in the *2018 Annual Groundwater Monitoring and Corrective Action Report* (2018 AGMCAR) (GEI, 2019a). The 2018 AGMCAR listed the following SSIs:

- Boron: GWC-10 (January and July 2018)
- Sulfate in GWC-4A (*GWB-4A), GWC-10, and GWC-11 (July 2018)

In accordance with §257.94(e), an alternate source demonstrations (ASD) was completed for boron in April 2018, which was submitted with the 2018 AGMCAR (GEI, 2019a). Additionally, an ASD was prepared in February 2019 for the sulfate SSIs in accordance with 257.94(e), within 90 days of determining an SSI and is included in this report. The result of the ASD was that Landfill No. 4 was not the source of the elevated sulfate concentration. ASDs are provided in Appendix A.

2.3 Detection Monitoring

Detection monitoring events were conducted in January 2019 and March 2019. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to §257.94(a) and for D&O parameters according to the D&O Plan. Copies of the analytical data packages for semiannual detection monitoring events are included in Appendix B.

2.4 Other Sampling

Two semiannual compliance groundwater monitoring events were conducted in January 2019 and March 2019 to comply with the EPD Rules for Solid Waste Management 391-3-4-.14 and the approved EPD Solid Waste Permit No. 051-010D(LI). Groundwater samples were collected from each monitoring well and analyzed for state compliance parameters (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, thallium, vanadium, and zinc) according to the EPD approved D&O Plan and the August 2017 minor modification. Results from the January 2019 semiannual compliance monitoring event were submitted to EPD in the *Semiannual Groundwater Monitoring Report – January 2019* (GEI, 2019b). Copies of the results and the analytical data packages for the January 2019 and March 2019 semiannual compliance events are included in Appendix B.

3. Sample Methodology and Analyses

GEI conducted the field work described herein. The field activities and results of the groundwater sampling events are summarized in the following sections. Copies of the laboratory analytical and field sampling reports are included in Appendix B.

3.1 Groundwater Level Measurement

Prior to conducting each groundwater sampling event, groundwater elevations were collected from PZ-22 and each well in the network at Landfill No. 4. GEI used an electronic water level indicator to measure water levels to the nearest 0.01 foot. The water levels and corresponding groundwater elevations measured during the detection monitoring events are summarized in Table 3.

Potentiometric surface elevation contours and estimated groundwater flow direction were developed using the groundwater elevation data in January 2019 (Figure 3) and March 2019 (Figure 4). Interpretation of the potentiometric surface elevation contours indicates that groundwater flow across Landfill No. 4 is generally to the north but ranges from slightly northeast near Cell 1 to north-northwest near Cell 2A (Figures 3 and 4), which is consistent with previous events.

3.2 Groundwater Gradient and Flow Velocity

Horizontal flow velocity at the Landfill No. 4 was calculated using a derivation of Darcy's Law. Specifically,

$$v = \text{linear velocity} = \frac{Ki}{\eta_e}$$

where :

K = hydraulic conductivity

$$i = \text{hydraulic gradient} = \frac{(h_1 - h_2)}{L}$$

η_e = effective porosity

h_1 and h_2 = groundwater elevation at locations 1 and 2

L = distance between locations 1 and 2

As presented in previous reports, and originally detailed in the July 2002 *Savannah Electric Plant McIntosh Proposed Ash Monofill Site Acceptability Report* (SCS ES&EE, 2002), the average hydraulic conductivity of the Unit 3 aquifer was used in the calculations, which is 0.859 feet per day (ft/day). Soils at the screened intervals of the wells are generally classified as silty sands (SM). The default value for effective porosity for this type soil is 0.20 (USEPA 530/SW-89-031, 1989). To calculate an average gradient across Landfill No. 4, the hydraulic gradient was calculated between three separate well pairs: GWA-3 and GWC-11, GWC-5(*GWB-5) and GWC-23, and GWA-14 and GWC-18 (Table 4). The calculated average groundwater flow velocity at Landfill No. 4 in March 2019 is 0.053 ft/day or 19.35 feet per year (ft/year).

3.3 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a) and the approved D&O Plan. Wells were purged using a peristaltic pump or submersible bladder pump with disposable tubing. The pumps were lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations. While the wells were purged, water level data and purge volumes were recorded electronically and by hand, and the following field parameters were collected:

pH (field)	Oxidation Reduction Potential (ORP)	Temperature
Specific Conductivity	Dissolved Oxygen (DO)	Turbidity

Monitoring wells were purged and sampled and using low-flow sampling procedures. A SmarTroll[®] (In-Situ[®] field instrument) was used to monitor and record field water quality parameters during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 1970-USEPA Compliant Model 2020we[®] or HANNA Instruments Model HI93703[®] USEPA and International Organization for Standardization (ISO) compliant turbidity meter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH.
- ± 5 percent for specific conductance.
- ± 0.2 milligrams per liter (mg/L) or ± 10 percent for DO > 0.5 mg/L (whichever is greater). No criterion applies if DO < 0.5 mg/L.

- Turbidity measurements less than 10 nephelometric turbidity units (NTU).

Once stabilization was achieved, unfiltered samples were collected in laboratory supplied bottles, placed in ice-packed coolers, and submitted to TestAmerica, Inc. (TAL) in Pittsburgh, Pennsylvania following chain-of-custody protocol. Field sampling data sheets are included in Appendix B.

3.4 Laboratory Analyses

Groundwater samples were collected in January 2019 and March 2019 from wells in the certified groundwater monitoring network and analyzed for Appendix III monitoring parameters as part of the detection monitoring program as well as state compliance parameters. Samples were analyzed using methods described in USEPA SW846, Methods for Chemical Analysis of Water and Wastes (MCAWW), and Standard Method for The Examination of Water and Wastewater (SM). Specific methods are identified on the laboratory analytical data reports included in Appendix B. A summary of detection groundwater monitoring data and state compliance parameters collected in January 2019 and March 2019 for Landfill No. 4 is included in Table 5.

Laboratory analyses were performed by an accredited TAL facility. TAL is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed during the groundwater monitoring events in 2019 at Landfill No. 4. In addition, TAL is certified by the state of Georgia to perform analysis. Laboratory reports and chain-of-custody records for the monitoring events are presented in Appendix B.

3.5 Quality Assurance and Quality Control

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

Groundwater quality data in this report was validated in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation consisted of reviewing holding times, laboratory methods, field equipment blanks and control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestions spikes, and reporting limits (RLs) to verify sample integrity. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Flagged data is identified in the statistical analysis reports and described in Section 4.

The data presented in Table 5 are representative of the validated data, and not necessarily that which is included in the laboratory reports. The tables provided in the data validation reports included in Appendix B summarize the contamination and validation actions taken (if warranted) based on data validation.

4. Statistical Analyses

The statistical approach used to evaluate groundwater monitoring data analyzed for Appendix III and state compliance parameters was performed pursuant to §257.93 and according to the PE-certified statistical method for the Site (Section 4.1). State Compliance D&O parameters were statistically evaluated using interwell comparison methods for the January 2019 data and intrawell comparison methods for the March 2019 data, which are the revised statistical methods proposed by Groundwater Stats Consulting, LLC as described below in Section 4.2. A summary of groundwater statistical analysis of January 2019 and March 2019 monitoring data is included with the Sanitas™ statistical outputs in Appendices C and D. Results from these analyses are summarized in the following sections.

4.1 Statistical Methods – Appendix III Parameters

The statistical tests used to evaluate the Appendix III groundwater monitoring data are both the interwell (boron, calcium, chloride, fluoride, pH, and total dissolved solids) and intrawell (sulfate) prediction limit (PL) method combined with the option of a 1-of-2 resample plan.

The interwell PLs pool background data from the network of upgradient wells to calculate a PL, while the intrawell PLs use historical data from within a given well to establish a statistical limit for comparison of compliance data at the same well. An “initial exceedance” occurs when any downgradient well data exceed the PL.

If data from a sampling event initially exceeds the PL, 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 PL, the initial exceedance is verified, and an SSI is identified. When a re-sample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance. The following guidance is also applicable to the statistical method:

- Statistical analyses are not performed on analytes containing 100 percent non-detects (USEPA, 2009).
- When data contain less than 15 percent non-detects in background, simple substitution of one-half the RL is utilized in the statistical analysis. The RL utilized for non-detects is the Practical Quantitation Limit as reported by the laboratory.

- When data contain between 15 to 50 percent 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 RL.
- Nonparametric PL are used on data containing greater than 50 percent non-detects.

The Sanitas™ groundwater statistical software was used to perform the statistical analyses (Sanitas™, 2007). Sanitas™ is a proprietary decision support software package, developed in 1991, that incorporates the statistical tests required of Subtitle C and D facilities according to USEPA regulations and guidance as recommended in the USEPA Unified Guidance (USEPA, 2009) document.

4.2 Statistical Methods – State Compliance Parameters

In accordance with the facility D&O Plan, the statistical test used to evaluate the January 2019 State Compliance groundwater monitoring data was the interwell prediction limit method combined with a 1-of-2 resample plan for all constituents.

The interwell PLs pool background data from the network of upgradient wells to calculate a PL to establish a statistical limit for comparison of compliance data at the same well. An “initial exceedance” occurs when any downgradient well data exceed the PL.

If data from a sampling event initially exceeds the PL, 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 a resample exceeds the PL, the initial exceedance is verified, and an SSI is identified. When a re-sample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance.

In August 2019, analytical data for State Compliance D&O parameters were evaluated to determine an appropriate statistical method for the data set. Groundwater Stats Consulting, LLC evaluated the background D&O parameter data set and recommended that an intrawell upper prediction limit analysis method combined with a 1-of-3 resampling plan for all D&O constituents should be applied to the LF4 data. The statistical evaluation of the March 2019 sampling results using intrawell statistical methods was completed on August 9, 2019.

In an intrawell comparison, analytical results from an individual well are compared to historical analytical results in that same well. If data from a sampling event initially exceeds the PL, the resampling strategy may be used to verify the result. In 1-of-3 resampling, two

independent resamples may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If a resample exceeds the PL, the initial exceedance is verified, and an SSI is identified. When a re-sample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance. The following guidance is also applicable to both the interwell and intrawell statistical methods:

- Statistical analyses are not performed on analytes containing 100 percent non-detects (USEPA, 2009).
- When data contain less than 15 percent non-detects in background, simple substitution of one-half the RL is utilized in the statistical analysis. The RL utilized for non-detects is the Practical Quantitation Limit as reported by the laboratory.
- When data contain between 15 to 50 percent 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 RL.
- Nonparametric PL are used on data containing greater than 50 percent non-detects.

The SanitasTM groundwater statistical software was used to perform the statistical analyses (SanitasTM, 2007). SanitasTM is a proprietary decision support software package, developed in 1991, that incorporates the statistical tests required of Subtitle C and D facilities according to USEPA regulations and guidance as recommended in the USEPA Unified Guidance (USEPA, 2009) document.

4.3 Statistical Analyses Results – Appendix III Parameters

Analytical data from the January 2019 and March 2019 semiannual detection monitoring events at Landfill No. 4 were statistically analyzed in accordance with the PE-certified statistical method. A summary of groundwater statistical analysis of January 2019 and March 2019 Appendix III semiannual monitoring data and comparison to PLs is included with the SanitasTM statistical analysis and outputs are provided in Appendices C1 and C2 for the January and March sampling events, respectively.

Based on the statistical results presented in Appendices C1 and C2, the following PL exceedances were identified:

- Boron in GWC-10 (January 2019)
- Chloride in GWC-9 (March 2019)
- Sulfate in GWC-1, GWC-4A(*GWB-4A), GWC-10, and GWA-13 (January 2019)
- TDS in GWC-10 (January 2019)

The source for elevated boron concentrations was previously addressed with the April 2018 ASD discussed in Section 2.2 and provided in Appendix A. As such GWC-10 was not resampled and there is no SSI for boron.

No verification resampling was conducted for sulfate in GWC-1, GWC-4A(*GWB-4A), GWC-10, or GWA-13. An ASD was prepared in February 2019 for the sulfate SSIs in accordance with 257.94(e). The result of the ASD was that Landfill No. 4 was not the source of the elevated sulfate concentration. A copy of the sulfate ASD is included in Appendix A. As such, GWC-1, GWC-4A(*GWB-4A), GWC-10, and GWA-13 were not resampled and there is no SSI for sulfate.

Verification resampling for chloride in GWC-9 was conducted in June 2019. The reported concentrations of chloride in the resampling event was at or below the PL. Since the resample result did not verify the initial result, there are no SSIs for chloride in GWC-9.

Verification resampling for TDS in GWC-10 was conducted in March 2019. The reported concentration of TDS in the resampling event was below the PL. Since the resample result did not verify the initial result, there are no SSIs for TDS in GWC-10.

4.4 Statistical Analyses Results – State Compliance Parameters

Analytical data from the January 2019 and March 2019 semiannual detection monitoring events at Landfill No. 4 were statistically analyzed in accordance with the approved facility D&O Plan and the minor modification dated August 9, 2019 (GPC, 2019). The EPD approved the minor modification on August 20, 2019. A summary of groundwater statistical analysis of January 2019 and March 2019 monitoring data and comparison to PLs is included with the SanitasTM statistical analysis and outputs, which are provided in Appendices D1 and D2, respectively. Based on the statistical results presented in Appendices D1 and D2, the following PL exceedances were identified:

- Arsenic in GWC-18 (March 2019)

Monitoring well GWC-18 is included in the background monitoring well pool as described in the April 2018 ASD. The SSI of arsenic at this location during the March 2019 sampling event is reflective of background groundwater chemistry. In addition, the arsenic SSI is unverified. GPC will conduct verification resampling during the next semiannual event in September 2019.

5. Monitoring Program Status

Landfill No. 4 is in detection monitoring. Statistical evaluations of the detection groundwater monitoring data for Landfill No. 4 identified SSIs of Appendix III and Georgia EPD D&O groundwater monitoring parameters. In accordance with §257.94(e), ASDs for Appendix III parameters boron and sulfate were completed that concludes that Landfill No. 4 was not the source of the SSIs. The ASDs are included in Appendix A.

An arsenic SSI was identified in GWC-18 (March 2019) during the statistical evaluation completed on August 9, 2019; however, the detected concentration of 0.0019 mg/L is well below the groundwater protection standard (GWPC) of 0.01 mg/L. The arsenic SSI is unverified. GPC will conduct verification resampling during the next semiannual groundwater monitoring event in September 2019. If the resample verifies the original analytical results, GPC will complete ASDs or establish an assessment monitoring program in accordance with §257.94(e).

6. Conclusions and Future Actions

Groundwater monitoring events were conducted in January 2019 and March 2019 at Landfill No. 4, pursuant to the CCR Rule 40 CFR §257.94 and the approved D&O Plan. Statistical evaluations of the groundwater monitoring data for Landfill No. 4 identified SSIs for Appendix III parameters boron in GWC-10 and sulfate in GWC-1, GWC-4A(*GWB-4A), GWC-10, and GWA-13 and D&O parameter arsenic in GWC-18. In accordance with §257.94(e), ASDs for boron and sulfate were completed and are provided in Appendix A. The arsenic SSI is unverified. GPC will conduct verification resampling during the next semiannual groundwater monitoring event in September 2019.

Therefore, GEI recommends the following:

- Perform a resampling event for arsenic in monitoring well GWC-18 in September 2019.
- Perform semiannual groundwater monitoring the of fall 2019.
- Submit a comprehensive annual report for groundwater monitoring activities and statistical analyses conducted during 2019 on January 31, 2020.

7. References

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Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Tables

Table 1. Monitoring Well Network Summary
2019 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant McIntosh Landfill No. 4
Effingham County, Georgia

Well ID	Installation Date	Northing	Easting	Total Depth (ft bTOC)	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Top of Screen Elevation (ft)	Bottom of Screen Elevation (ft)	Location and Purpose
GWC-1	08/17/2004	855431.30	958419.36	28.50	44.06	47.06	29.06	19.06	Downgradient Monitoring Well
GWA-2	08/17/2004	855308.90	958103.93	28.50	50.64	53.64	35.64	25.64	Upgradient Monitoring Well
GWA-3	08/17/2004	855163.12	957786.21	38.50	54.93	57.93	29.93	19.93	Upgradient Monitoring Well
GWC-4A(*GWB-4A)	08/4/2016	855352.55	957496.51	39.00	62.20	64.98	39.98	29.98	Upgradient Monitoring Well
GWC-5(*GWB-5)	08/18/2004	855671.33	957319.99	41.50	59.29	62.29	31.29	21.29	Upgradient Monitoring Well
GWC-9	08/16/2004	856732.82	957909.70	38.50	50.56	53.56	25.56	15.56	Downgradient Monitoring Well
GWC-10	08/19/2004	856429.88	958077.92	33.50	46.55	49.55	26.55	16.55	Downgradient Monitoring Well
GWC-11	08/18/2004	856116.10	958244.61	43.50	54.97	57.97	24.97	14.97	Downgradient Monitoring Well
GWC-12	08/18/2004	855803.80	958413.62	18.76	54.26	57.26	26.26	16.26	Downgradient Monitoring Well
GWA-13	10/23/2015	855669.87	957006.97	40.11	57.74	60.85	31.04	21.04	Upgradient Monitoring Well
GWA-14	10/27/2015	855474.41	956656.96	49.90	58.50	61.40	21.80	11.80	Upgradient Monitoring Well
GWC-15(*GWB-15)	10/27/2015	855322.23	956314.50	40.30	53.42	56.72	26.72	16.72	Upgradient Monitoring Well
GWA-16(*GWB-16)	10/27/2015	855640.15	956094.66	40.27	51.33	54.60	24.63	14.63	Upgradient Monitoring Well
GWC-17**	10/28/2015	856011.50	956102.41	40.05	51.14	54.19	24.44	14.44	Upgradient Monitoring Well
GWC-18**	10/29/2015	856205.99	956438.21	42.20	56.48	59.68	27.78	17.78	Upgradient Monitoring Well
GWC-19	10/29/2015	856400.89	956801.55	36.95	50.67	53.62	26.97	16.97	Downgradient Monitoring Well
GWC-20	10/30/2015	856562.11	957093.85	30.13	44.10	47.23	27.40	17.40	Downgradient Monitoring Well
GWC-21	11/4/2015	856734.08	957390.27	27.16	42.00	45.16	28.30	18.30	Downgradient Monitoring Well
GWC-22(*PZ-22)	11/4/2015	856950.77	957722.65	31.65	47.42	51.07	29.72	19.72	Downgradient Piezometer
GWC-23	05/26/2016	856905.66	957714.42	33.70	NA	52.16	28.76	18.76	Downgradient Monitoring Well

Notes:

bTOC - below top of casing

ft - feet

NA - not applicable or not available

All monitoring wells and piezometers are 2 inches in diameter and casing material is polyvinyl chloride (PVC).

Elevations are in feet relative to North American Vertical Datum (NAVD)88

Northing and easting are in feet North American Datum (NAD)83, State Plane Georgia East Zone

During each groundwater monitoring event, monitoring wells are gauged for water levels and sampled for laboratory analysis and piezometers are gauged for water level only.

Monitoring wells GWC-6, 7, and 8 were abandoned in June 29, 2015 in preparation for Cell 2A construction.

Monitoring well GWC-22 was replaced with GWC-23 in May 2016; GWC-22(*PZ-22) is now used for water level measurement only.

*Change requested in the November 2018 submittal (Well IDs in parentheses are the proposed Well IDs).

**Monitoring wells GWC-17 and GWC-18 are included in the background monitoring statistical pool as described in the April 2018 Alternative Source Demonstration.

Table 2. Groundwater Sampling Event Summary for 2019
2019 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant McIntosh Landfill No. 4
Effingham County, Georgia

Well ID	Hydraulic Location and Purpose	Summary of Sampling Events		
		Detection		Verification
		January 29-30, 2019	March 26-28, 2019	June 17, 2019
GWC-1	Downgradient Monitoring Well	✓	✓	
GWA-2	Upgradient Monitoring Well	✓	✓	
GWA-3	Upgradient Monitoring Well	✓	✓	
GWC-4A(*GWB-4A)	Upgradient Monitoring Well	✓	✓	
GWC-5(*GWB-5)	Upgradient Monitoring Well	✓	✓	
GWC-9	Downgradient Monitoring Well	✓	✓	✓
GWC-10	Downgradient Monitoring Well	✓	✓	
GWC-11	Downgradient Monitoring Well	✓	✓	
GWC-12	Downgradient Monitoring Well	✓	✓	
GWA-13	Upgradient Monitoring Well	✓	✓	
GWA-14	Upgradient Monitoring Well	✓	✓	
GWC-15(*GWB-15)	Upgradient Monitoring Well	✓	✓	
GWA-16(*GWB-16)	Upgradient Monitoring Well	✓	✓	
GWC-17**	Upgradient Monitoring Well	✓	✓	
GWC-18**	Upgradient Monitoring Well	✓	✓	
GWC-19	Downgradient Monitoring Well	✓	✓	
GWC-20	Downgradient Monitoring Well	✓	✓	
GWC-21	Downgradient Monitoring Well	✓	✓	
GWC-23	Downgradient Monitoring Well	✓	✓	

Notes:

*Change requested in the November 2018 submittal (Well IDs in parentheses are the proposed Well IDs).

**Monitoring wells GWC-17 and GWC-18 are included in the background monitoring statistical pool as described in the April 2018 Alternative Source Demonstration.

Table 3. Summary of Groundwater Elevations
2019 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant McIntosh Landfill No. 4
Effingham County, Georgia

Well ID	Top of Casing Elevation (ft NAVD)	Groundwater Elevations (ft NAVD)	
		January 28, 2019	March 25, 2019
GWC-1	47.06	33.42	32.03
GWA-2	53.64	38.09	36.81
GWA-3	57.93	37.22	36.92
GWC-4A (*GWB-4A)	64.98	40.08	39.47
GWC-5 (*GWB-5)	62.29	38.47	37.99
GWC-9	53.56	24.61	24.78
GWC-10	49.55	24.96	25.04
GWC-11	57.97	24.90	24.91
GWC-12	57.26	30.88	30.40
GWA-13	60.85	35.85	35.80
GWA-14	61.40	35.38	35.81
GWC-15 (*GWB-15)	56.72	34.62	34.72
GWA-16 (*GWB-16)	54.60	30.90	30.60
GWC-17	54.19	27.38	27.34
GWC-18	59.68	24.09	24.19
GWC-19	53.62	24.01	24.10
GWC-20	47.23	24.37	24.48
GWC-21	45.16	24.16	24.34
GWC-22 ⁽¹⁾ (*PZ-22)	51.07	23.22	23.43
GWC-23	52.16	23.25	23.46

Notes:

ft - feet

Elevations are in feet relative to North American Vertical Datum (NAVD)88

⁽¹⁾ Monitoring well GWC-22 was replaced with GWC-23 for monitoring in May 2016.

*Change requested in the November 2018 submittal (Well IDs in parentheses are the proposed Well IDs).

Table 4. Groundwater Velocity Calculations
2019 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant McIntosh Landfill No. 4
Effingham County, Georgia

Monitoring Wells	h_1	h_2	K (ft/day)	n_e	dh (ft)	dl (ft)	i (ft/ft)	Velocity (ft/day)	Velocity (ft/year)
GWA-3 and GWC-11	36.92	24.91	0.859	0.20	12.01	1,057	0.011	0.047	17.16
GWC-5(*GWB-5) and GWC-23	37.99	23.46			14.53	1,296	0.011	0.047	17.16
GWA-14 and GWC-18	35.81	24.19			11.62	764	0.015	0.064	23.36
								Avg. (ft/day)	Avg. (ft/year)
								0.053	19.35

Notes:

dh - difference between h_1 and h_2

dl - distance between locations 1 and 2

ft - feet

h_1 and h_2 - groundwater elevation at location 1 and 2

i - hydraulic gradient (dh/dl)

K - hydraulic conductivity

n_e - effective porosity

Velocity = linear velocity = Ki/n_e

All well were gauged on March 25, 2019.

Table 5. Summary of Groundwater Analytical Data
2019 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant McIntosh Landfill No. 4
Effingham County, Georgia

Location Name			GWC-1		GWA-2		GWA-3		GWC-4A (*GWB-4A)		GWC-5 (*GWB-5)		GWC-9			GWC-10			GWC-11		GWC-12		
Sample Name			GWC-1		GWA-2		GWA-3		GWC-4A		GWA-5		GWC-9			GWC-10			GWC-11		GWC-12		
Sample Date			1/30/2019	3/27/2019	1/29/2019	3/27/2019	1/29/2019	3/27/2019	1/29/2019	3/26/2019	1/29/2019	3/26/2019	1/30/2019	3/27/2019	6/17/2019	1/30/2019	Jan.19-DUP	3/27/2019	Mar.19-DUP	1/30/2019	3/27/2019	1/30/2019	3/27/2019
Analyte	Units	CAS No.																					
Field Parameters																							
Specific Conductance	μS/cm	COND	64.24	58.14	42.22	37.54	34.62	31.06	47.14	50.16	40.47	35.00	45.43	46.27	46.61	256.62		217.46		116.66	122.30	29.08	24.31
Dissolved Oxygen	mg/L	DO	2.42	2.15	3.67	3.47	6.19	6.00	2.81	1.29	5.99	5.37	6.93	7.65	6.32	4.31		2.88		2.82	2.21	6.10	5.96
ORP	mV	ORP	87.80	149.70	136.98	198.70	190.46	206.60	371.06	212.80	117.48	184.10	125.36	223.00	287.36	147.65		74.60		16.35	90.10	83.66	191.40
pH	s.u.	pH	5.21	5.15	4.91	4.69	4.98	4.80	4.66	4.72	5.39	5.45	4.88	4.75	5.24	6.2		6.54		6.09	6.32	5.01	4.93
Temperature	deg c	TEMP	16.47	19.50	18.16	17.47	19.17	16.73	18.55	20.82	17.5	21.50	14.95	20.65	23.31	14.57		20.93		15.88	21.41	15.77	21.27
Turbidity	ntu	TURB	1.12	0.96	1.84	1.84	0.47	1.25	1.2	1.19	1.17	0.45	0.83	1.22	0.95	0.77		0.47		1.47	1.07	0.82	0.87
Appendix III Parameters																							
Boron	mg/L	7440-42-8	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	--	0.055	0.059	0.050 J	0.053 J	< 0.030	< 0.021	< 0.030	< 0.021
Calcium	mg/L	7440-70-2	2.5	2.4 J	0.53	0.37 J	0.85	0.73 J	0.83	0.53	3.3	2.8	0.38 J	0.28 J	--	26	26	22 J	20 J	11	13 J	0.68 J	0.62 J
Chloride	mg/L	16887-00-6	6.8	6.8	5.0	4.5	4.0	3.5	3.4	3.6	3.6	3.6	9.1	10	9.4	5.6	5.3	5.3	5.3	4.6	4.0	3.7	3.3
Fluoride	mg/L	16984-48-8	< 0.20	0.029 J	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	< 0.026	0.028 J	< 0.026	< 0.026	--	0.23 J	0.21 J	0.12 J	0.12 J	0.35	0.24	< 0.026	< 0.026
pH	SU	pH	5.21	5.15	4.91	4.69	4.98	4.80	4.66	4.72	5.39	5.45	4.88	4.75	5.24	6.20		6.54		6.09	6.32	5.01	4.93
Sulfate	mg/L	14808-79-8	2.1	1.6	0.64 J	< 0.38	< 0.38	0.70 J	8.7	11	< 0.38	0.68 J	0.58 J	1.2	--	5.0	4.6	4.3	4.5	4.3	5.4	0.65 J	0.67 J
Total Dissolved Solids	mg/L	TDS	55 J	26	36	36	27	35	26	39	34	21	42 J	34	--	160 J	110 J	130	120	89 J	79	22 J	24
State Compliance Parameters																							
Antimony	mg/L	7440-36-0	< 0.0011	< 0.0010	< 0.0011	< 0.0010	< 0.0011	< 0.0010	< 0.0011	< 0.0010	< 0.0011	< 0.0010	< 0.0011	< 0.0010	--	< 0.0011	< 0.0011	< 0.0010	< 0.0010	< 0.0011	< 0.0010	< 0.0011	< 0.0010
Arsenic	mg/L	7440-38-2	< 0.00032	< 0.00046	< 0.00032	< 0.00046	< 0.00032	0.0011 J	< 0.00032	0.0050 J	< 0.00032	< 0.00046	< 0.00032	0.00073 J	--	< 0.0013	< 0.0013	0.0013	< 0.00046	0.0015 J	0.0013	< 0.00032	0.0011 J
Barium	mg/L	7440-39-3	0.050	0.045 J	0.034	0.030 J	0.017	0.014 J	0.025	0.023	0.050	0.046	0.032	0.023 J	--	0.023	0.023	0.019 J	0.017 J	0.014 J	0.013 J	0.011 J	0.0099 J
Beryllium	mg/L	7440-41-7	< 0.00057	< 0.00034	0.000063 J	< 0.00034	< 0.000057	< 0.00034	0.00011 J	< 0.00034	< 0.000057	< 0.00034	< 0.00057	< 0.00034	--	< 0.000057	< 0.00057	< 0.00034	< 0.00034	< 0.000057	< 0.00034	< 0.00057	< 0.00034
Cadmium	mg/L	7440-43-9	< 0.00013	< 0.00034	< 0.00013	< 0.00034	< 0.00013	< 0.00034	< 0.00013	< 0.00034	< 0.00013	< 0.00034	< 0.00013	< 0.00034	--	< 0.00013	< 0.00013	< 0.00034	< 0.00034	< 0.00013	< 0.00034	< 0.00013	< 0.00034
Chromium	mg/L	7440-47-3	< 0.0025	< 0.0011	< 0.0025	0.0016 J	< 0.0025	0.0014 J	< 0.0025	0.0014 J	< 0.0025	< 0.0011	< 0.0025	< 0.0011	--	0.0071 J	0.0063 J	0.0035	0.0030	0.0060 J	0.0031	0.0039 J	0.0019 J
Cobalt	mg/L	7440-48-4	< 0.0025	0.0017 J	0.0010 J	0.0011 J	0.00035 J	< 0.0040	0.0033	0.0037	0.00064 J	0.00064 J	0.00064 J	0.00064 J	--	< 0.000075	< 0.0025	< 0.00040	< 0.00040	< 0.000075	< 0.00040	< 0.0025	0.00051 J
Copper	mg/L	7440-50-8	< 0.0013	< 0.0021	< 0.0013	< 0.0021	< 0.0013	< 0.0021	< 0.0013	< 0.0021	< 0.0013	< 0.0021	< 0.0013	< 0.0021	--	< 0.00013	< 0.0013	< 0.0021	< 0.0021	< 0.0013	< 0.0021	< 0.0013	< 0.0021
Lead	mg/L	7439-92-1	< 0.000094	< 0.00035	< 0.0010	< 0.00035	< 0.0010	< 0.00035	< 0.0010	< 0.00035	< 0.0010	< 0.00035	< 0.00094	< 0.00035	--	< 0.000094	< 0.000094	< 0.00035	< 0.00035	< 0.000094	< 0.00035	< 0.000094	< 0.00035
Nickel	mg/L	7440-02-0	< 0.0025	< 0.0018	0.00063 J	< 0.0018	0.00034 J	< 0.0018	0.0021 J	0.0021 J	< 0.00031	< 0.0018	< 0.0025	< 0.0018	--	< 0.00031	< 0.00031	< 0.00035	< 0.00035	< 0.00018	< 0.0018	< 0.0025	< 0.0018
Selenium	mg/L	7782-49-2	< 0.00081	< 0.00071	< 0.00081	< 0.00071	< 0.00081	< 0.00071	< 0.00081	< 0.00071	< 0.00081	< 0.00071	< 0.00081	< 0.00071	--	< 0.00081	< 0.00081	< 0.00071	< 0.00071	< 0.00081	< 0.00071	< 0.00081	< 0.00071
Silver	mg/L	7440-22-4	< 0.0013	< 0.00011	< 0.00012	< 0.00011	< 0.00012	< 0.00011	< 0.00012	< 0.00011	< 0.00012	< 0.00011	< 0.00012	< 0.00011	--	< 0.00013	< 0.00012	< 0.00011	< 0.00011	< 0.00013	< 0.00011	< 0.00012	< 0.00011
Thallium	mg/L	7440-28-0	< 0.000063	< 0.000085	< 0.000063	< 0.000085	< 0.000063	< 0.000085	< 0.000063	< 0.000085	< 0.000063	< 0.000085	< 0.000063	< 0.000085	--	< 0.000063	< 0.000063	< 0.000085	< 0.000085	< 0.000063	< 0.000085	< 0.000063	< 0.000085
Vanadium	mg/L	7440-62-2	< 0.0025	< 0.0014	< 0.00090	< 0.0025	< 0.00090	0.0047 J	< 0.00090	0.0027	< 0.00090	< 0.0025	< 0.00090	0.0060 J	--	0.0027 J	< 0.0025	0.0065 J	< 0.0014 J	< 0.0025	< 0.0025	< 0.0025	0.0078 J
Zinc	mg/L	7440-66-6	0.0031 J	< 0.0065	0.0064 J	< 0.0065	< 0.0024	< 0.0065	0.0064 J	0.010 J	0.0027 J	< 0.0065	0.051	< 0.0065	--	< 0.0024	< 0.0024	< 0.0065	< 0.0065	< 0.0024	< 0.0065	< 0.0024	< 0.0065

Location Name			GWA-13		GWA-14		GWC-15 (*GWB-15)		GWA-16 (*GWB-16)		GWC-17		GWC-18		GWC-19		GWC-20		GWC-21			GWC-23			
Sample Name			GWA-13		GWA-14		GWA-15		GWA-16		GWC-17		GWC-18		GWC-19		GWC-20		1/30/2019	Jan.19-DUP	3/27/2019	Mar.19-DUP	1/30/2019	3/27/2019	
Sample Date			1/29/2019	3/26/2019	1/29/2019	3/26/2019	1/29/2019	3/26/2019	1/29/2019	3/26/2019	1/29/2019	3/27/2019	1/30/2019	3/27/2019	1/29/2019	3/27/2019	1/29/2019	3/27/2019	1/30/2019	Jan.19-DUP	3/27/2019	Mar.19-DUP	1/30/2019	3/27/2019	
Analyte	Units	CAS No.																							
Field Parameters																									
Specific Conductance	μS/cm	COND	21.67	19.10	28.14	23.70	28.29	24.10	23.57	22.50	37.88	31.58	113.03	94.80	91.32	85.67	46.52	50.20	39.54			38.05		43.43	41.90
Dissolved Oxygen	mg/L	DO	6.49	7.13	6.92	7.03	7.32	6.77	7.52	6.86	7.10	6.26	3.73	3.69	4.05	4.91	5.8	4.83	5.09			5.46		5.88	4.31
ORP	mV	ORP	122.84	231.60	139.25	167.90	127.91	206.70	122.83	198.50	110.48	154.60	56.24	98.50	100.63	116.90	404.56	175.30	284.75			183.10		84.88	137.90
pH	s.u.	pH	4.82	5.07	5.25	5.29	5.18	5.04	4.83	4.95	5.35	5.25	5.93	6.11	5.58	5.59	4.94	4.94	4.65			4.96		5.14	5.30
Temperature	deg c	TEMP	15.76	21.37	17.84	19.28	17.32	18.97	16.58	19.50	15.74	18.43	16.03	19.12	17.69	18.62	18.52	17.82	16.48			20.00		15.31	18.26
Turbidity	ntu	TURB	4.93	2.25	0.72	0.86	1.28	1.91	3.19	1.61	1.23	1.49	4.91	2.92	1.09	2.75	2.10	1.41	0.93			1.07		0.51	0.61
Appendix III Parameters																									
Boron	mg/L	7440-42-8	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.021	< 0.030	< 0.030	< 0.021	< 0.021	< 0.030	< 0.021	
Calcium	mg/L	7440-70-2	0.33	0.30	0.51	0.42	0.91	0.58	0.41	0.37	2.2	2.0 J	14	11 J	9.2	9.2 J	1.8	1.5 J	1.0 J	1.1 J	1.1 J	1.6 J	1.1 J	1.4 J	
Chloride	mg/L	16887-00-6	3.6	3.5	4.0	4.1	3.7	3.8	3.8	3.6	4.5	4.1	4.8	4.3	8.2	7.5	8.8	8.9							


Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

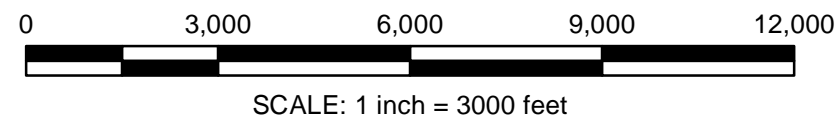
Figures



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND

 Plant McIntosh Approximate Property Boundary



2019 Semiannual Groundwater Monitoring and Corrective
Action Report - Plant McIntosh Landfill No. 4
Effingham County, Georgia

Georgia Power Company
Atlanta, Georgia



Project No. 1901973

PLANT MCINTOSH
SITE LOCATION MAP

Prepared June 2019

Fig. 1



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

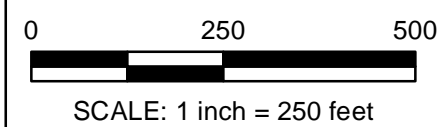
LEGEND

- ⊕ Upgradient Monitoring Well
- ⊕ Downgradient Monitoring Well
- Approximate Property Boundary
- Cell 1 Approximate Boundary
- Cell 2A Approximate Boundary
- Cell 2B Approximate Boundary (Not yet constructed)

NOTES:

* Change requested as a part of the November 2018 submittal. Well designations will be updated once application is approved.

** Monitoring Wells GWC-17 and GWC-18 are included in the background monitoring statistical pool as described in the April 2018 Alternative Source Demonstration.



2019 Semiannual Groundwater Monitoring and Corrective Action Report - Plant McIntosh Landfill No. 4
Effingham County, Georgia

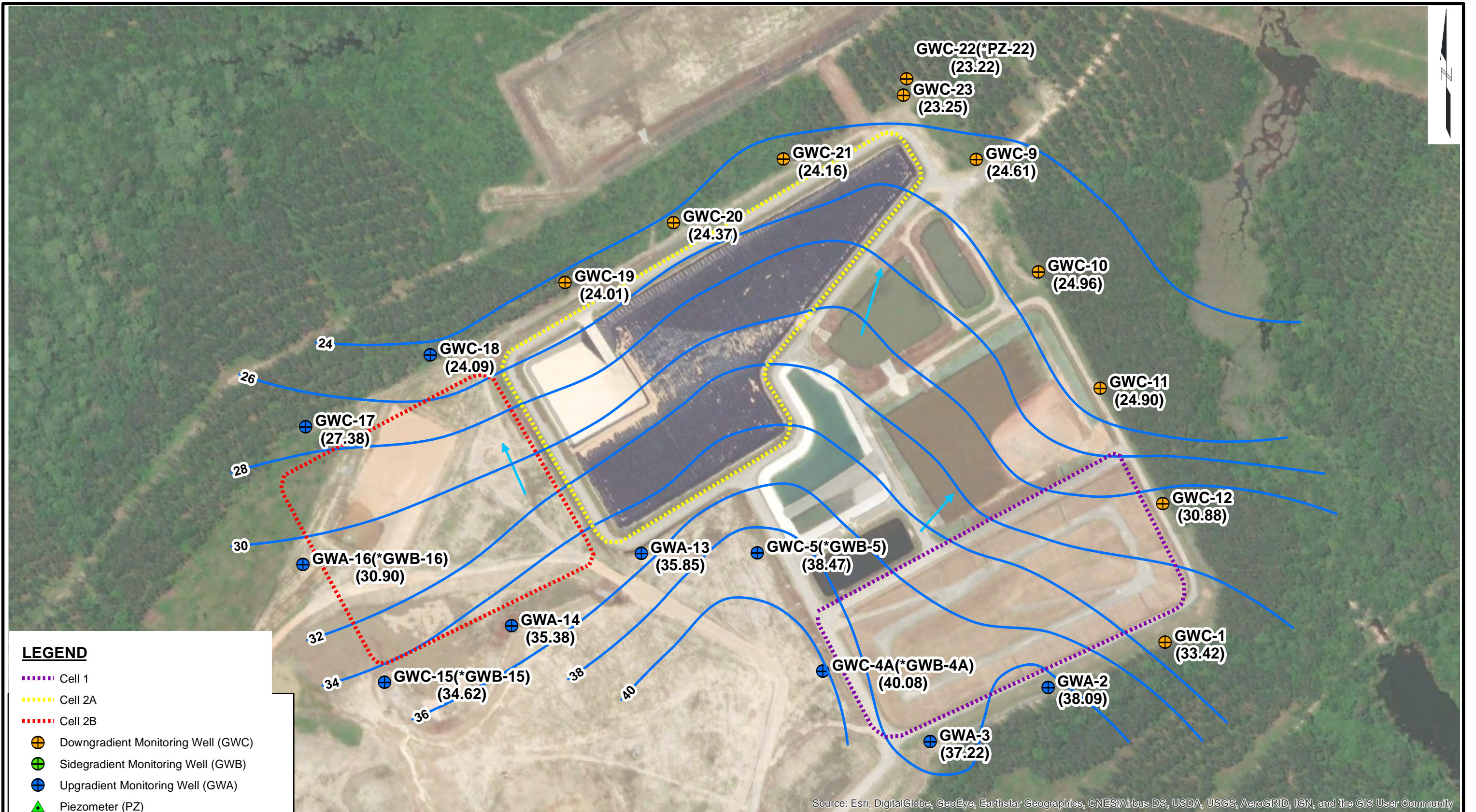
Georgia Power Company
Atlanta, Georgia

Project No. 1901973

LANDFILL NO. 4
WELL LOCATION MAP

Prepared June 2019

Fig. 2

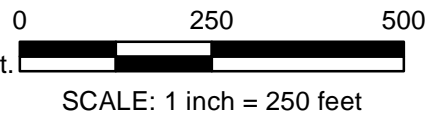


LEGEND

- Cell 1
- Cell 2A
- Cell 2B
- Downgradient Monitoring Well (GWC)
- Sidegradient Monitoring Well (GWB)
- Upgradient Monitoring Well (GWA)
- Piezometer (PZ)
- Apparent Potentiometric Contour (feet)
- Apparent Groundwater Flow Direction

(34.62) = Groundwater elevation measured 01/28/19
 Elevations are in feet relative to North American Vertical Datum (NAVD)88

* Change requested as a part of the November 2018 minor modification request. Well designations will be updated once modification is approved.

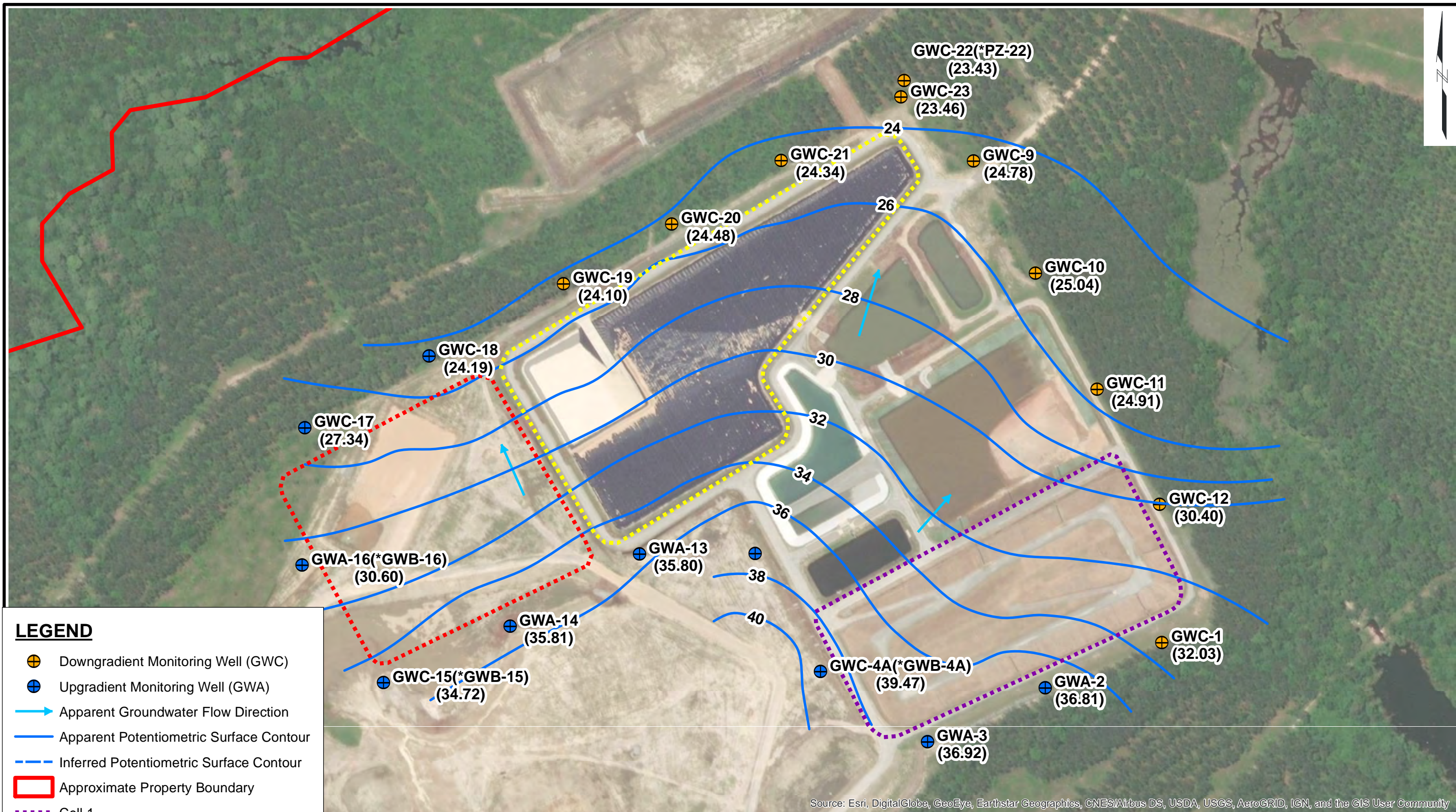


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Semiannual Groundwater Monitoring Report - January 2019
 Plant McIntosh Landfill No. 4
 Effingham County, Georgia
 Georgia Power Company
 Atlanta, Georgia



LANDFILL NO. 4
 POTENTIOMETRIC SURFACE
 CONTOUR MAP
 JANUARY 2019
 Project No. 1901973 Prepared March 2019 Fig. 3

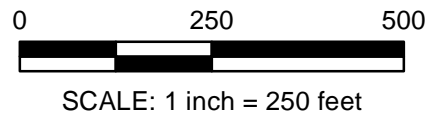


LEGEND

- ⊕ Downgradient Monitoring Well (GWC)
- ⊕ Upgradient Monitoring Well (GWA)
- Apparent Groundwater Flow Direction
- Apparent Potentiometric Surface Contour
- - - Inferred Potentiometric Surface Contour
- Approximate Property Boundary
- - - Cell 1
- - - Cell 2A
- - - Cell 2B
(34.72) = Groundwater elevation measured 03/25/19

Elevations are in feet relative to North American Vertical Datum (NAVD)88

* Change requested as a part of the November 2018 submittal. Well designations will be updated once modification is approved.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

2019 Semiannual Groundwater Monitoring and Corrective Action Report
 Plant McIntosh Landfill No. 4
 Georgia Power Company
 Atlanta, Georgia

Project No. 1901973

LANDFILL NO. 4
 POTENTIOMETRIC SURFACE
 CONTOUR MAP
 MARCH 2019
 Prepared May 2019

Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Appendix A

ASD



Consulting
Engineers and
Scientists

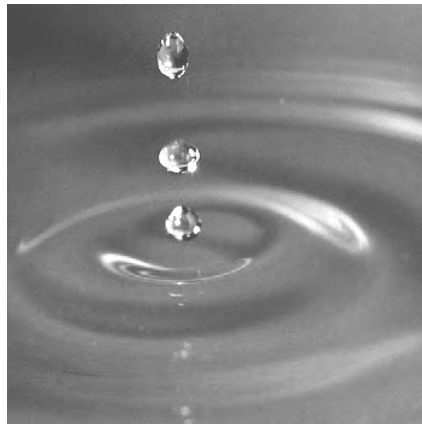
Georgia Power Company
Alternative Source Demonstration

Plant McIntosh Coal Combustion By-Product
Landfill No. 4
Permit No. 051-010D (L) (I)

Prepared by:

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April 16, 2018
Project 1800205



Prepared by: Richard Frappa, P.G.
Senior Consultant

Reviewed By: Michael Cummings, P.G.
Hydrogeologist

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2. Potentiometric Surface Contour Map- October 2017
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4. Box and Whisker Plots- Appendix III Parameters

Appendix

- A. Landfill No. 4 Revised Prediction Limits

PROFESSIONAL ENGINEER CERTIFICATION

“I hereby certify that this Alternative Source Demonstration prepared for Georgia Power’s Plant McIntosh Coal Combustion By-Product Landfill No. 4 meets requirements in United States Environmental Protection Agency, Coal Combustion Residual (CCR) Rule, 40 Code of Federal Regulations (CFR) Part 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015 and that the information used in this report is accurate pursuant to the requirements of 40 CFR §257.94(e)(2). I am a duly licensed Professional Engineer under the laws of the State of Georgia.”

 04/16/2018

John M. Trast, P.E.
License No. PE41928



1. Introduction

This document presents an alternative source demonstration (ASD) for the statistically significant increases (SSIs) of Appendix III groundwater monitoring parameters published in Title 40 Code of Federal Regulations 257 Subpart D (40 CFR Part 257) [the Federal Coal Combustion Residuals (CCR) Rule or CCR Rule] detected in samples collected from monitoring wells at Georgia Power Company's (GPC's) Plant McIntosh Coal Combustion By-Product Landfill No. 4 (Landfill No. 4). This ASD has been prepared pursuant to CCR Rule regulation 40 CFR 257.94(e)(2), which states that,

“the owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.”

Plant McIntosh is located in southeast Effingham County, Georgia, approximately 4 miles northeast of the city of Rincon, and 20 miles north-northwest of the city of Savannah. Landfill No. 4 is permitted for the disposal of CCR. In accordance with the CCR Rule, Landfill No. 4 is classified as a CCR Landfill. Plant McIntosh and Landfill No. 4 are shown on Figure 1.

A 2017 Annual Groundwater Monitoring and Corrective Action Report (2017 Annual Report) was prepared in January 2018 to document 2017 groundwater monitoring activities at Landfill No. 4 to satisfy the requirements of 40 CFR 257.90(e). Landfill No. 4 is in detection monitoring and is sampled in accordance with the monitoring requirements specified in 40 CFR 257.90 through 257.94. Conclusions presented in the 2017 Annual Report identified SSIs for Appendix III parameters in downgradient monitoring wells. Verification samples were collected and analyzed that confirmed the following SSIs:

- Boron: GWC-10
- Calcium: GWC-10, GWC-11, GWC-18, and GWC-19
- Chloride: GWC-9
- Fluoride: GWC-11 and GWC-18
- pH: GWC-10, GWC-11, and GWC-18
- Total dissolved solids (TDS): GWC-10 and GWC-11

This ASD provides sufficient evidence that the SSIs identified in the 2017 Annual Report for calcium, chloride, fluoride, pH, and TDS were caused by an error in statistics that excluded data from two valid background wells (GWC-17 and GWC-18) while determining prediction limits. Further, this ASD demonstrates that the statistical assessment did not account for the natural variability of groundwater using a weight-of-evidence based approach that identified an SSI for boron at GWC-10 in the 2017 Annual Report.

1.1 Background

Landfill No. 4 is partially constructed with CCR placed in Cells 1 and 2A (shown on Figure 2). Closure construction for Cell 1 began in June 2015 and final cover construction was completed in August 2016. GPC began construction of Cell 2A in June 2015, and received approval to begin receiving solid waste for disposal on July 20, 2017. Cell 2A began receiving CCR in September 2017. Cells 2B, 3, and 4 are reserved for future development. CCR placement in Cell 2A has occurred in the far western portion of the constructed cell (shown on Figure 2).

1.2 Geology, Hydrogeology and Geochemistry

Landfill No. 4 is situated on sediments that were deposited from the Cretaceous to Pleistocene period and consist of stratified marine deposits and materials eroded from crystalline rock of the Piedmont Region. Boring logs describe soils at Landfill No. 4 as interbedded clays, silts, and sands typical of Coastal Plain sediments. Approximately 10 feet of laterally extensive clayey sand and sandy clay lies above saturated soils comprised of fine to medium silty sand and clayey sand. The uppermost aquifer at Landfill No. 4 is characterized by saturated silty to sandy clays, clayey silts, silty sands, and fine to medium grained sands below the sandy clay. Monitoring wells and piezometers were screened in the uppermost aquifer between 36 and 11 feet (ft.) above mean sea level (MSL), or from approximate 40 to 14 feet North American Vertical Datum (NAVD) 88. Aquifer materials are heterogeneous as isolated areas of silty clay occur within more permeable silty sand and clayey sand deposits of the uppermost aquifer.

Based on groundwater flow at the site documented in the 2017 Annual Report, the general direction of groundwater flow across the site is toward the northwest, north-northeast, and northeast as shown on Figure 2. The groundwater flow pattern observed during the October 2017 detection monitoring event is historically consistent. The calculated groundwater flow velocity at the Landfill No. 4 is approximately 15 feet/year.

2. Alternative Source Demonstration

A review of sampling methods and laboratory analytical protocols confirmed the causes of the SSIs were not related to sampling or laboratory error. Based on review of site information, the SSIs are the result of an error in statistics that excluded data from two valid background wells (GWC-17 and GWC-18) and did not account for the natural variability of groundwater using a weight-of-evidence based approach. The following lines of evidence discussed below support this conclusion:

1. Incorporating valid background data in the statistics eliminated all but one SSI.
2. The remaining SSI (boron at well GWC-10) is a single-parameter exceedance and other CCR indicator parameters do not exhibit SSIs at that location.
3. Boron at well GWC-10 is variable and does not exhibit a statically significant increasing trend.
4. Soils below Landfill No. 4 are heterogeneous containing variable percentages of sand and silt with interbedded clay which influence the chemical composition of local groundwater chemistry.

2.1 Methods

The evaluation of statistical error in determining false SSIs for Landfill No. 4 data was assessed through review of pooled data from upgradient and downgradient detection monitoring wells and revising the statistical application appropriate for the population. During the analysis, GEI observed that data from wells downgradient of unconstructed landfill Cell 2B were treated as downgradient compliance data, and not background. Since the wells are not downgradient of a constructed landfill cell, it is appropriate to include the results in the background data set.

After updating the background data set, the only remaining SSI was boron at well GWC-10. The evaluation of natural variability for boron was completed through review of concentrations and distribution of constituents in groundwater, evaluation of data compared to other CCR indicators and water quality characteristics, and soil composition at Landfill No. 4.

2.2 Statistical Analysis

Statistical data evaluation presented in the 2017 Annual Report used interwell prediction limits determined from pooled background data from eight (8) select upgradient wells at Landfill No. 4: GWA-2, GWA-3, GWC-4A(*GWB-4A), GWC-5(*GWB-5), GWA-13, GWA-14, GWA-15(*GWB-15), and GWA-16(*GWB-16). Monitoring wells GWC-17 and GWC-18, which are downgradient of undeveloped Cell 2B, were included in the downgradient statistical pool. Monitoring well locations relative to the apparent groundwater flow direction and Cells 1, 2A, and 2B are shown on Figure 2.

Based on the location and sequence of CCR disposal at Landfill No. 4, groundwater flow paths below Cell 1 or the western portion of Cell 2A could not have transported CCR constituents from a theoretical release to wells GWC-17 and GWC-18. Since GWC-17 and GWC-18 are not downgradient of an active or closed waste disposal unit, data from these wells are representative of background groundwater quality. Therefore, the inclusion of these two wells in the upgradient statistical pool of background is justified.

To generate prediction limits indicative of true background conditions, data from GWC-17 and GWC-18 were incorporated into the pooled background data set, statistical limits were recalculated using the comprehensive background pool, and statistical analyses were performed according to the statistical analysis methods certified for the site. Groundwater quality data from the October 2017 detection groundwater monitoring event was compared to the updated prediction limits. Statistical analysis is presented in Appendix A. As shown in Appendix A, using the updated prediction limits eliminates all but one previously reported SSI (boron at GWC-10). This demonstrates that the previously reported SSIs for calcium, chloride, fluoride, pH, and TDS were the result of an error in statistical analysis.

A Mann-Kendall/Sen's Estimate of Slope analysis was performed to evaluate the concentration trend of boron in GWC-10 on Figure 3. The data indicate that the short-term trend evaluated is not statistically significant and likely the result of natural variability.

2.3 Natural Variability of Groundwater

The single SSI of boron in well GWC-10 is not the result of a release from the CCR unit, but is likely the result of natural variability not accommodated by the limited background data set. Information supporting this conclusion includes:

1. The presence of heterogeneous soils at Landfill No. 4.
2. The absence of elevated CCR indicator parameters and any other Appendix III parameter SSIs at this well.

Geochemically, Appendix III parameters (excluding pH) are known as major and secondary cations and anions and occur naturally in groundwater. The concentration of naturally occurring Appendix III parameters is locally influenced by the initial concentration in groundwater (background groundwater quality) and chemical composition of soil surrounding the well screen. As described in Section 1.2, soils at Landfill No. 4 consist of non-uniform interbedded clay, silt, and sand deposits. Groundwater flowing through heterogeneous soil types, especially those containing higher percentages of clay such as that locally present at well GWC-10, would be expected to have somewhat higher and more variable concentrations of major and secondary cations and anions. Other potential differences in groundwater chemistry can occur with changes in oxidation-reduction potential and dissolved oxygen levels caused by ground surface modifications (i.e., general landfill construction activity) (Freeze and Cherry, 1979; USGS, 1998; Leap, D. I., 2017).

Figure 4 illustrates detected concentration ranges using box and whisker plots for each of the Appendix III parameters for each well included in the monitoring well network. Overall, Appendix III parameter concentrations in upgradient and downgradient wells are generally low. As shown in the box and whiskers plots, the upper and lower range of constituent concentrations of each of the Appendix III parameter is bracketed by background chemistry detected in upgradient wells except for boron and chloride (at well GWC-10 - determined not to be an SSI). While boron in well GWC-10 is slightly higher than the range of background values, the concentrations of all other Appendix III parameters in well GWC-10 are within the range of background.

Typically, releases from CCR units increase the concentration of more than one CCR indicator constituent and also cause statistically significant increasing trends in parameters – neither of which occur here. If the SSI at GWC-10 were the result of a CCR release, concentration increases in other indicator parameters would be expected. Based on the presence of a single elevated constituent, insufficient evidence exists to conclude that slightly elevated boron in well GWC-10 is related to a release from the CCR unit. Therefore, data evaluation has demonstrated that the SSI of boron in GWC-10 is the result of variability of naturally occurring constituents in groundwater and not a release from Landfill No. 4.

3. Conclusion

Based on review of the information presented in this ASD, Plant McIntosh Landfill No. 4 is not the source of SSIs identified in the 2017 Annual Report. As presented here, the SSIs were primarily caused by an error in statistics that omitted valid background data. A single SSI of boron at well GWC-10 is attributed to natural groundwater variability. In accordance with 40 CFR 257.94(e)(2), this serves as Georgia Power's demonstration that the CCR Unit is not the source of the SSIs. Pursuant to 40 CFR 257.94(e)(2), Plant McIntosh Landfill No. 4 may continue detection monitoring.

4. References

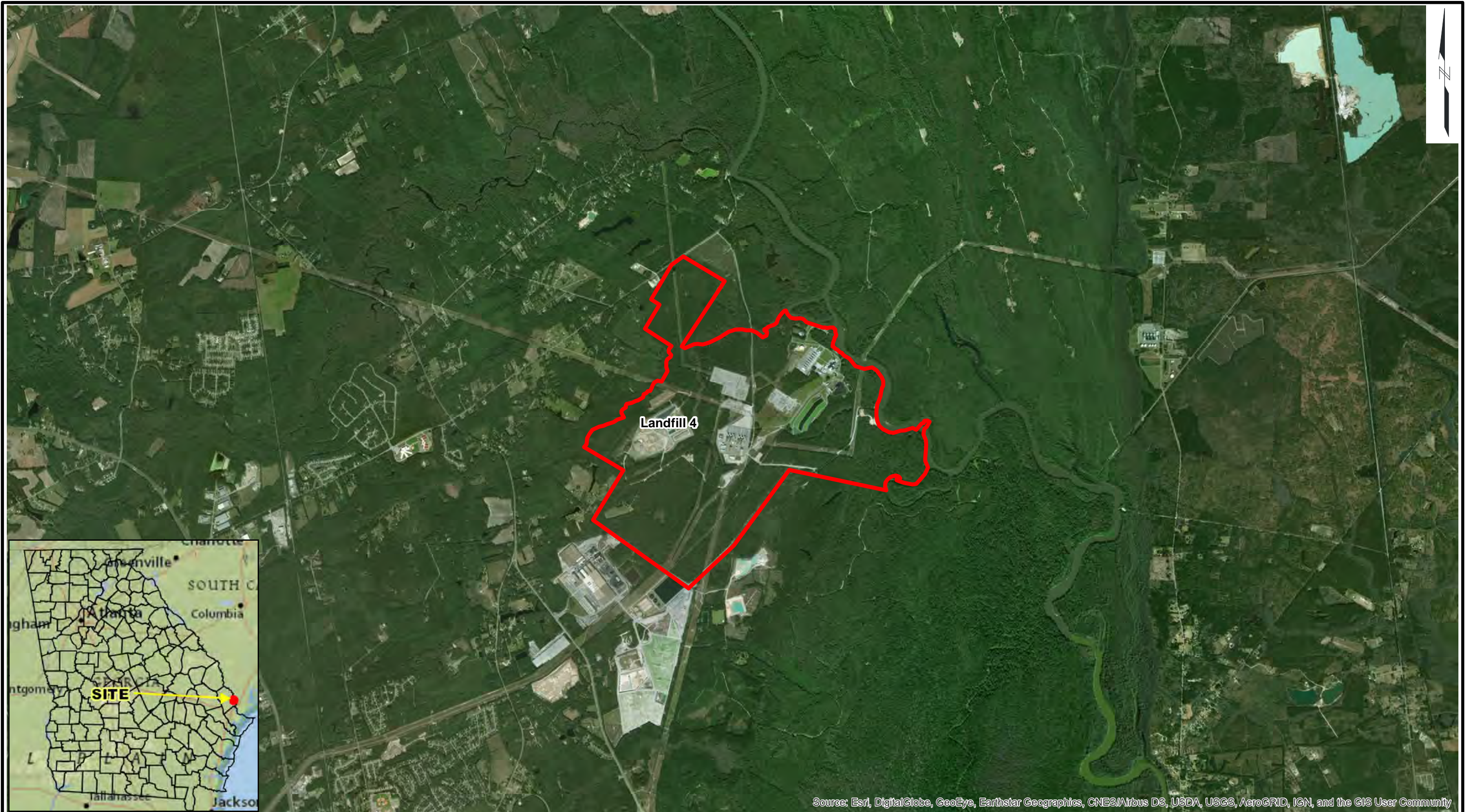
ERM, 2018. 2017 Annual Groundwater Monitoring and Corrective Action Report for Plant McIntosh Coal Combustion By-product Landfill No. 4.

Freeze, R.A., and Cherry, J.A., 1979. Groundwater: Englewood Cliffs, NJ, Prentice-Hall, 604 p.

Leap, D. I., 2017. Geological Occurrence of Groundwater; in The Handbook of Groundwater Engineering, Third Edition; J.H Cushman and D. M. Tartakovsky, editors; CRC Press Boca Raton, FL, 1074 p.

US Geological Survey, 1998. Ground Water and Surface Water: A Single Resource, USGS Circular 1139.

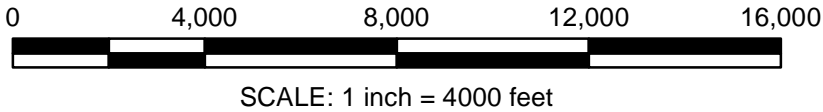
Figures




Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND

 Approximate Property Boundary



Alternative Source Demonstration		SITE LOCATION MAP PLANT MCINTOSH
Georgia Power Company Atlanta, Georgia	Project No. 1800205	April 2018 Fig. 1

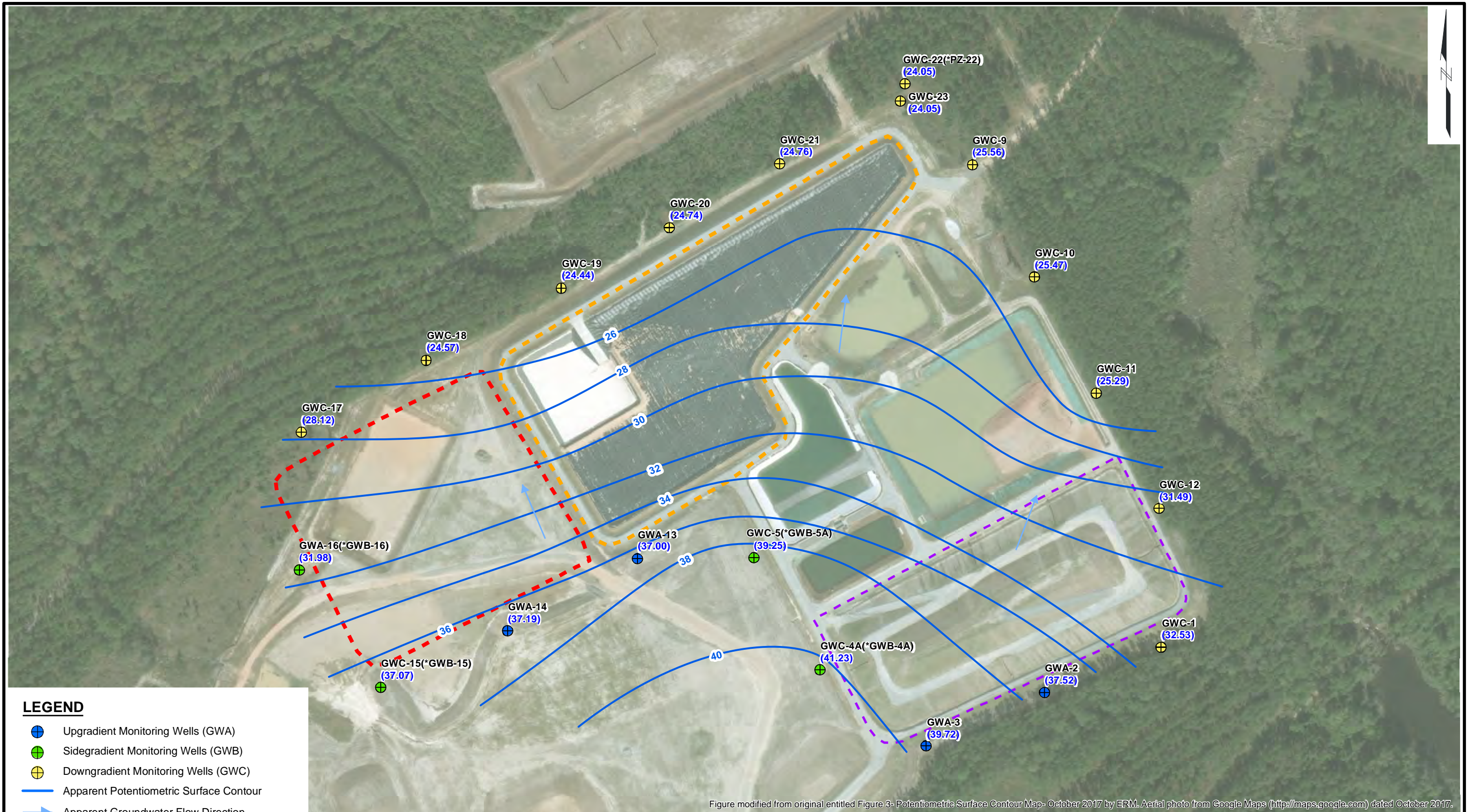
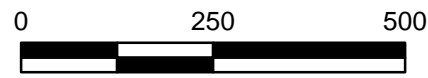


Figure modified from original entitled Figure 3- Potentiometric Surface Contour Map- October 2017 by ERM. Aerial photo from Google Maps (<http://maps.google.com>) dated October 2017.

LEGEND


- ⊕ Upgradient Monitoring Wells (GWA)
- ⊕ Sidegradient Monitoring Wells (GWB)
- ⊕ Downgradient Monitoring Wells (GWC)
- Apparent Potentiometric Surface Contour
- Apparent Groundwater Flow Direction
- - - Approximate Boundary of Cell 1
- - - Approximate Boundary of Cell 2A
- - - Approximate Boundary of Cell 2B -Not Yet Constructed

(37.19) = Groundwater Elevation Measured in feet by ERM October 9, 2017

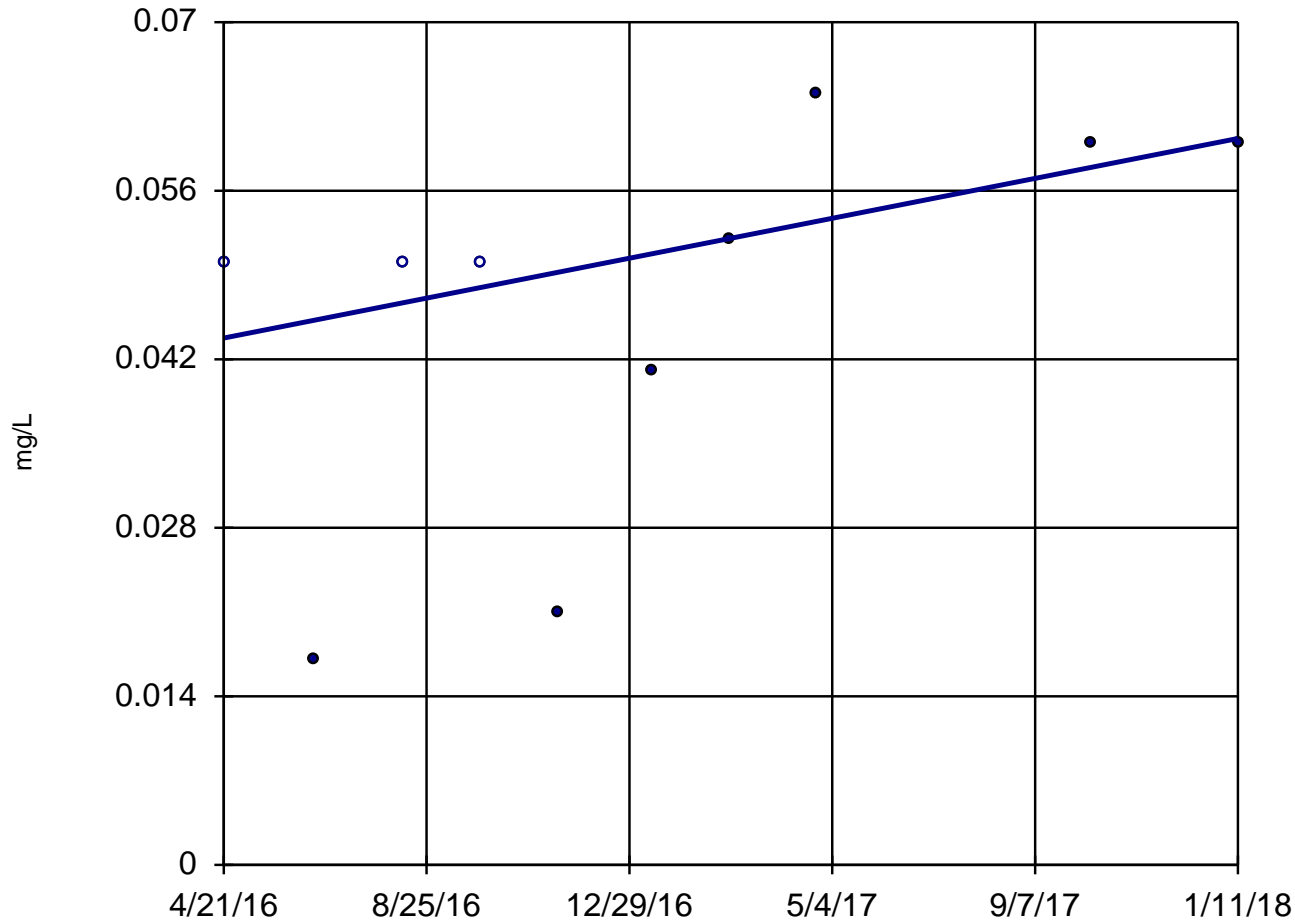


SCALE: 1 inch = 250 feet

* Change requested in the March 2017 minor modification request. Well designations will be updated once modification is approved.

Alternative Source Demonstration		POTENTIOMETRIC SURFACE CONTOUR MAP- OCTOBER 2017
Georgia Power Company Atlanta, Georgia		Project No. 1800205 April 2018

Sen's Slope Estimator GWC-10 Boron



n = 10

Slope = 0.009605
units per year.

Mann-Kendall
statistic = 23
critical = 23

Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

LEGEND

- Detected Boron Concentration
- Non-detected Boron Concentration
(data point represents laboratory
method detection limit)

Alternative Source Demonstration

Georgia Power Company
Atlanta, Georgia



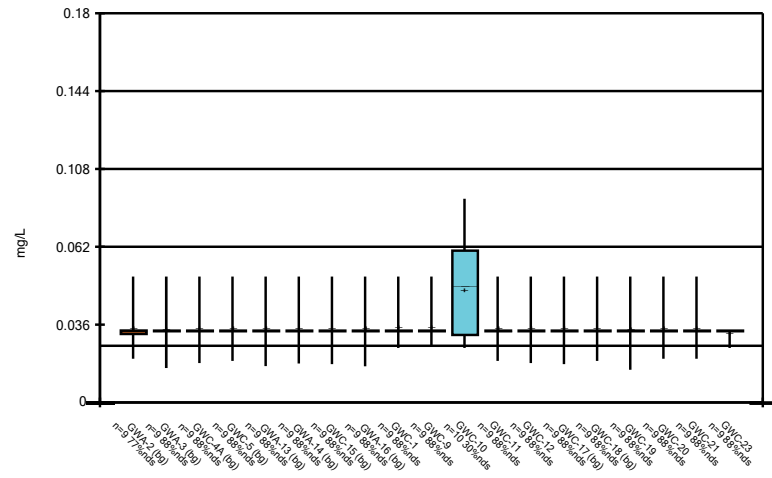
Project 1800205

MANN-KENDALL
CONCENTRATION
TREND ANALYSIS

April 2018

Fig. 3

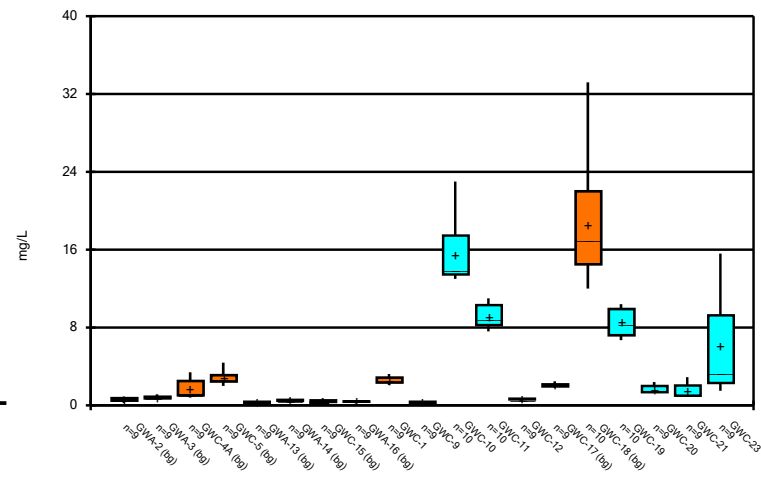
BORON



Constituent: Boron Analysis Run 2/28/2018 9:37 AM
Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

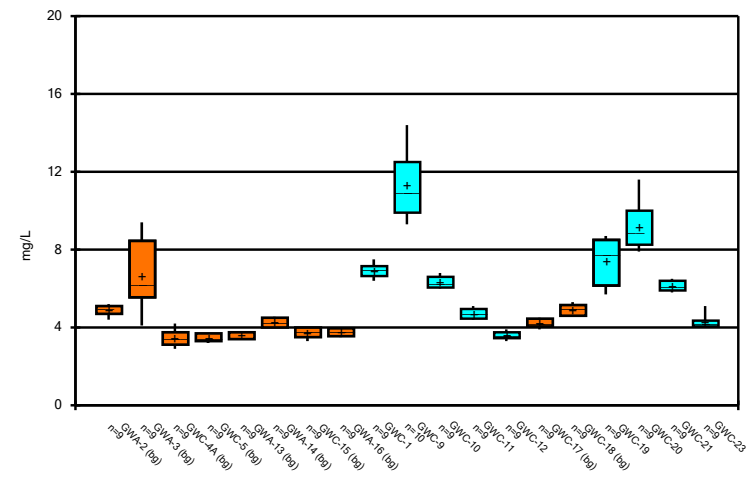
CALCIUM



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Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

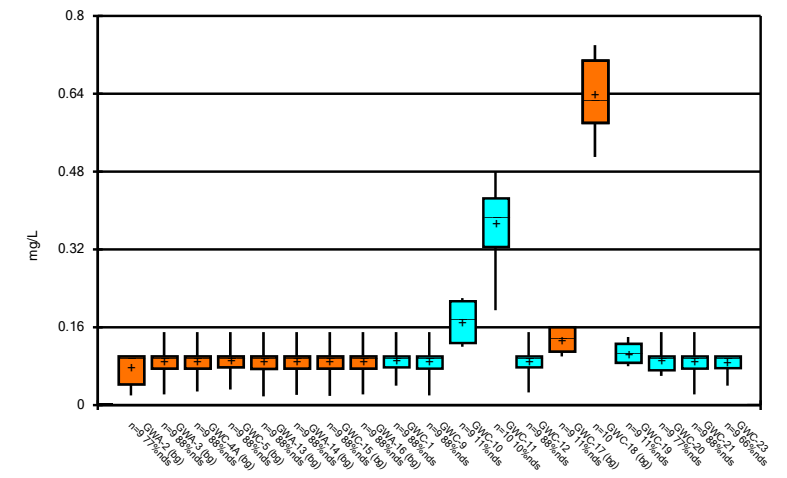
CHLORIDE



Constituent: Chloride Analysis Run 2/28/2018 9:31 AM
Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

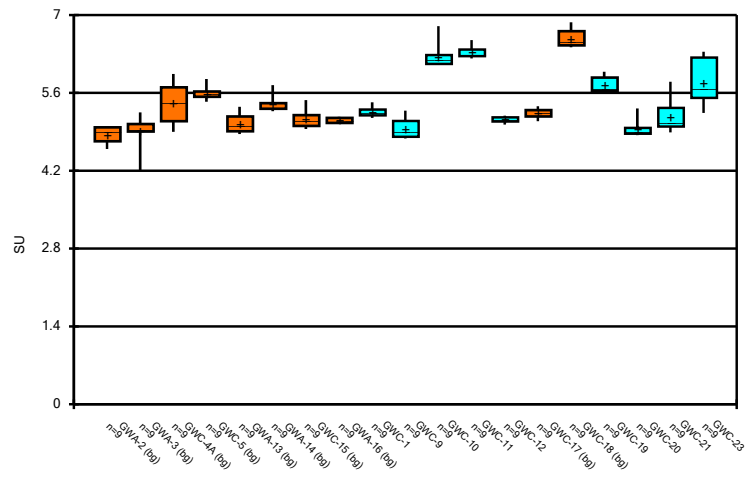
FLUORIDE



Constituent: Fluoride Analysis Run 2/28/2018 9:32 AM
Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

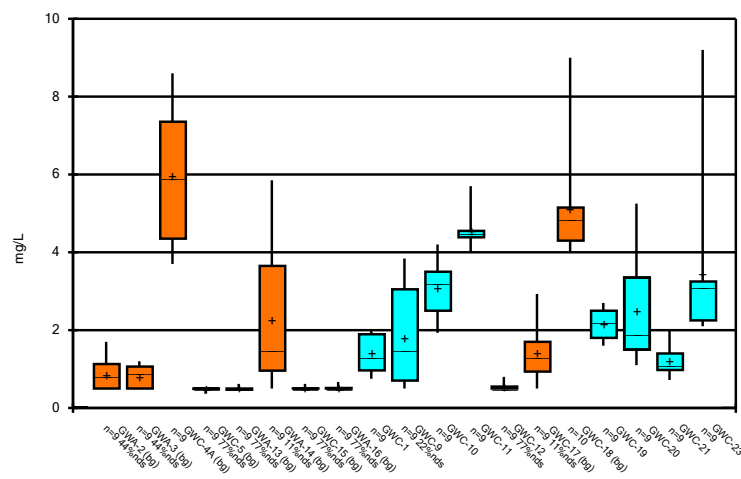
pH



Constituent: pH Analysis Run 2/28/2018 9:33 AM
Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

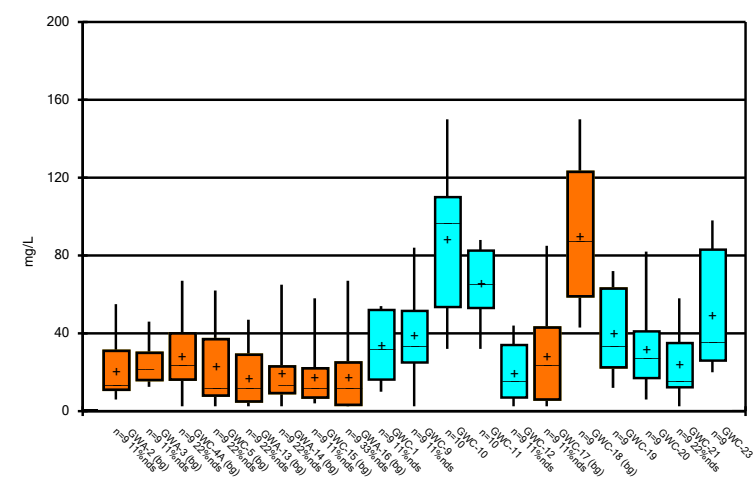
SULFATE



Constituent: Sulfate Analysis Run 2/28/2018 9:34 AM
Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

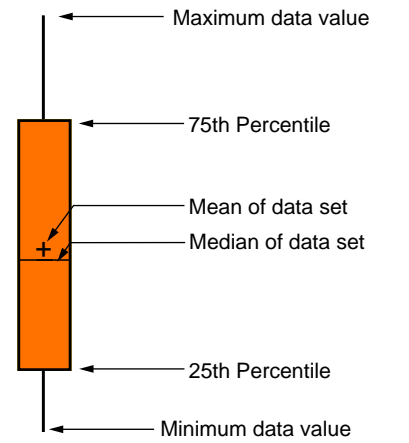
TOTAL DISSOLVED SOLIDS



Constituent: Total Dissolved Solids Analysis Run 2/28/2018 10:23 AM
Facility: Plant McIntosh Data File: CCR McIntosh Landfill4 20180125

Upgradient Well Downgradient Well

LEGEND

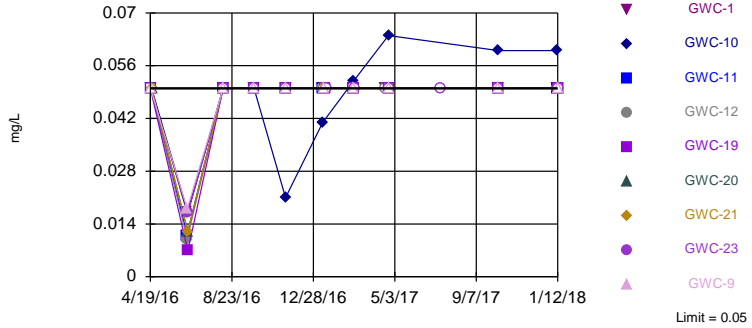


Appendix A

Landfill No. 4 Revised Prediction Limits

Exceeds Limit: GWC-10

Prediction Limit
 Interwell Non-parametric

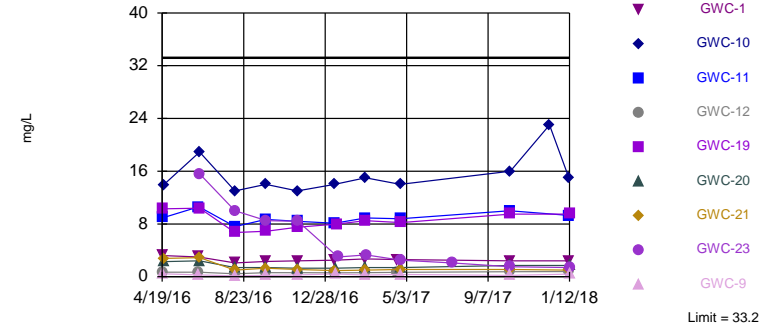


NP test selected by user. Limit is highest of 100 background values. 89% NDs. Annual per-constituent alpha = 0.003461. Individual comparison alpha = 0.0001926 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 3/29/18 11:42 AM Plant
 McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
 Interwell Non-parametric

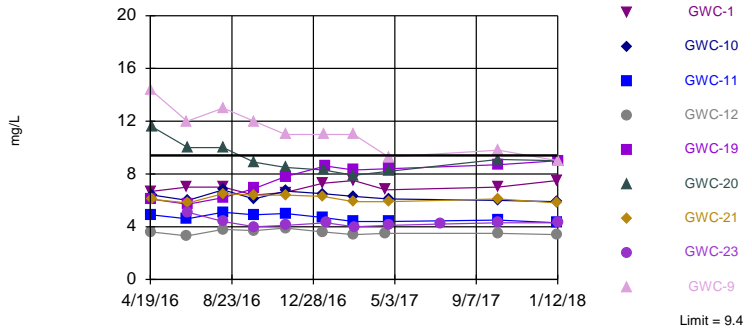


NP test selected by user. Limit is highest of 100 background values. Annual per-constituent alpha = 0.003461. Individual comparison alpha = 0.0001926 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 3/29/18 11:42 AM Plant
 McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
 Interwell Non-parametric

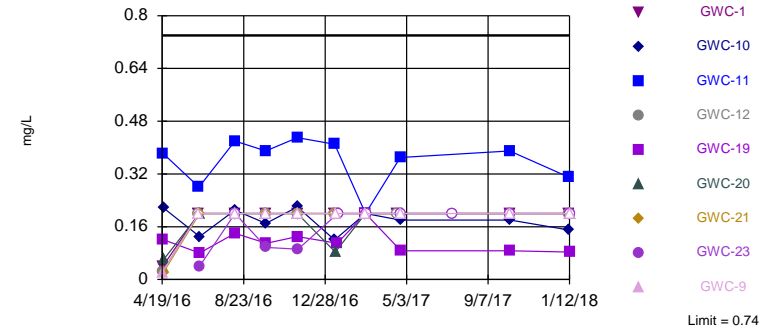


NP test selected by user. Limit is highest of 100 background values. Annual per-constituent alpha = 0.003461. Individual comparison alpha = 0.0001926 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 3/29/18 11:42 AM Plant
 McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
 Interwell Non-parametric

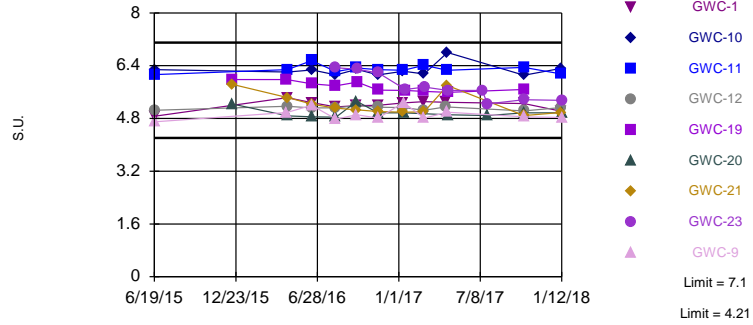


NP test selected by user. Limit is highest of 100 background values. 72% NDs. Annual per-constituent alpha = 0.003461. Individual comparison alpha = 0.0001926 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 3/29/18 11:42 AM Plant
 McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limits

Prediction Limit
Interwell Non-parametric

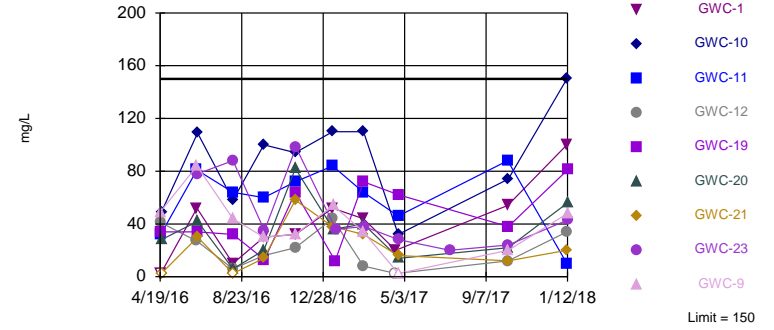


NP test selected by user. Limits are highest and lowest of 110 background values. Annual per-constituent alpha = 0.005883. Individual comparison alpha = 0.0003273 (1 of 2). Comparing 9 points to limit.

Constituent: pH Analysis Run 3/29/18 11:42 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Interwell Non-parametric



NP test selected by user. Limit is highest of 100 background values. 15% NDs. Annual per-constituent alpha = 0.003461. Individual comparison alpha = 0.0001926 (1 of 2). Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 3//29/18 11:42 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28



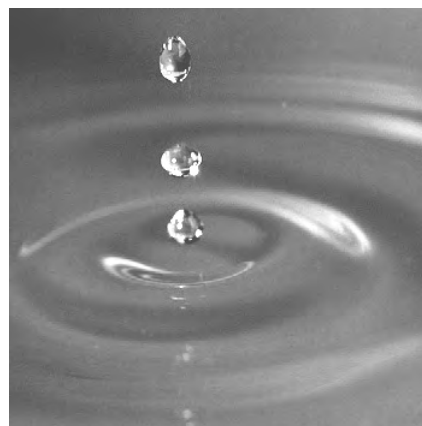
Consulting
Engineers and
Scientists

Georgia Power Company
Alternative Source Demonstration

Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit # 051-010D (LI)

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Atlanta, GA 30309

February 11, 2019
Project 1800205



Prepared by: Richard H. Frappa, P.G.
Senior Hydrogeologist

Reviewed By: Michael Cummings, P.G.
Project Hydrogeologist

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2.2	Sulfate in Upgradient Monitoring Wells	3
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2. Landfill No. 4 Potentiometric Surface Contour Map - July 2018
3. Time-Series Plot Sulfate
4. Box and Whisker Plot – Sulfate
5. GWC-10 and GWC-11 Intrawell Prediction Limits- Sulfate (1-of-2 Resampling)

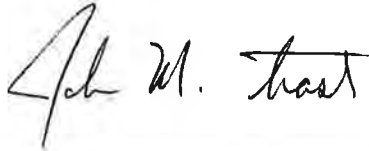
Appendices

- A. Mann Kendall Sulfate Trend Plots
- B. Power Curve and Intrawell Prediction Limits with 1-of-2 Resampling

Georgia Power Company
Alternative Source Demonstration
Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit # 051-010D (LI)
February 2019

PROFESSIONAL ENGINEER CERTIFICATION

This Alternative Source Demonstration for Georgia Power Company – Plant McIntosh Landfill No. 4 has been prepared in accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual rule (40 Code of Federal Regulations (CFR) 257 Subpart D) under the supervision of a licensed professional engineer with GEI Consultants, Inc.



John M. Trast, P.E.
License No. PE41928



1. Introduction

This document presents an alternative source demonstration (ASD) for the statistically significant increases (SSIs) of the Appendix III groundwater monitoring parameter sulfate detected in samples collected from monitoring wells GWC-10 and GWC-11 during the July 2018 semiannual detection monitoring event at Georgia Power Company's (GPC's) Plant McIntosh Coal Combustion By-Product Landfill No. 4 (Landfill No. 4). This ASD has been prepared pursuant to Title 40 Code of Federal Regulations (CFR) 257 Subpart D (the federal Coal Combustion Residuals [CCR] Rule or CCR Rule) 257.94(e)(2), which states that,

“the owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.”

The SSIs for sulfate are a result of natural variability in groundwater and are not caused by a release from Landfill No. 4. Groundwater monitoring data and statistical analysis reports discussed herein were included in the *2018 Annual Groundwater Monitoring and Corrective Action Report* (GEI, 2019).

1.1 Site Location and Background

Plant McIntosh is located in southeast Effingham County, Georgia, approximately 4 miles northeast of the city of Rincon, and 20 miles north-northwest of the city of Savannah. Landfill No. 4 is permitted for the disposal of CCR generated at the plant. Plant McIntosh and Landfill No. 4 are shown on **Figure 1**.

Landfill No. 4 is partially constructed with CCR placed in Cells 1 and 2A (**Figure 2**). Closure construction for Cell 1 began in June 2015 and final cover construction was completed in August 2016. GPC began construction of Cell 2A in June 2015 and received approval to begin receiving solid waste for disposal on July 20, 2017. Cell 2A began receiving CCR in September 2017. Cells 2B, 3, and 4 are reserved for future development (**Figure 2**).

Landfill No. 4 is currently in detection monitoring. The certified statistical methods for Landfill No. 4 specify the use of interwell prediction limits (PLs) for all Appendix III parameters except sulfate, which is analyzed using intrawell PLs. Unlike interwell analysis that compares parameter concentrations in downgradient wells to limits derived from upgradient wells, intrawell analysis compares concentrations detected in a well to a limit established using its own background data without using comparison data from surrounding upgradient wells.

Statistical analysis of data from the July 2018 detection monitoring event identified sulfate SSIs in downgradient monitoring wells GWC-10 and GWC-11.

It was also noted that sulfate concentrations exceeded background concentrations in upgradient well GWC-4A(*GWB-4A). The apparent increase over background event sampling results observed in GWC-4A(*GWB-4A) is due to the limited number of background samples (eight), which does not yet represent the true population. Exceedances in upgradient wells are an indication of naturally variable groundwater and are not indicative of an SSI. As more samples are collected during routine groundwater monitoring events (and background limits are updated), the data and statistics will account for the natural variability of sulfate upgradient of Landfill No. 4.

1.2 Hydrogeology and Geochemistry

As documented in the *2018 Annual Groundwater Monitoring and Corrective Action Report* (GEI, 2019), the general direction of groundwater flow across Landfill No. 4 is toward the northwest, north-northeast, and northeast (**Figure 2**). The groundwater flow pattern observed during the July 2018 detection monitoring event is consistent with historical observations. The calculated groundwater flow velocity at Landfill No. 4 is approximately 15 feet per year.

Monitoring wells GWC-10 and GWC-11 are situated downgradient along the eastern side of Landfill No. 4. As shown on **Figure 2**, monitoring well GWC-4A(*GWB-4A) is an upgradient monitoring well that monitors upgradient groundwater quality before it migrates under Landfill No. 4. GWC-10 and GWC-11 are in the direct flow path downgradient from GWC-4A(*GWB-4A).

2. Alternative Source Demonstration

Based on the review of site information and data analysis, the sulfate SSIs are due to the limited number of background samples, which do not currently capture the natural variability in sulfate concentrations over time. The following lines of evidence discussed below support this conclusion:

- The highest sulfate concentration observed at Landfill No. 4 was in upgradient monitoring well GWC-4A(*GWB-4A). The apparent increase over background sampling results is due to the limited number of background samples (eight), which do not currently capture the natural variability of sulfate concentrations over time.
- The sulfate concentrations at Landfill No. 4 monitoring wells are very low, ranging from less than 0.70 milligrams per liter (mg/L) to 14 mg/L and there are no other SSIs at Landfill No. 4.
- The intrawell statistical method with a 1-of-3 resample plan did not adequately account for naturally variable sulfate concentrations in groundwater. Using an intrawell statistical method and appropriate 1-of-2 resampling plan, sulfate SSIs are not observed at GWC-10 and GWC-11.

2.1 Methods

The evaluation of natural groundwater variability in determining the validity of SSIs for sulfate was assessed through the collective review of upgradient and downgradient sulfate concentration data collected during the background (2016-2017) and detection (2018) monitoring events. The following sections present a summary of the data review and refined statistical analysis.

2.2 Sulfate in Upgradient Monitoring Wells

The natural variability of sulfate concentrations in groundwater at Landfill No. 4 is graphically demonstrated in the Time-Series Plots and Box and Whiskers Plots shown on **Figure 3** and **Figure 4**, respectively. As shown on these plots, sulfate concentrations detected in upgradient monitoring wells between 2016 and July 2018 ranged from less than 0.70 mg/L (non-detect) to 14 mg/L. **Figure 4** and data provided in **Table 1** illustrate that the sulfate concentrations detected at downgradient wells GWC-10 and GWC-11 in the July 2018 event are well below the historical average sulfate concentration of 6.84 mg/L in upgradient well GWC-4A(*GWB-4A). Higher sulfate concentrations detected upgradient of Landfill No. 4 indicate that background groundwater quality is naturally elevated in sulfate when compared to

downgradient groundwater. As shown in **Appendix A**, statistically significant increasing trends in sulfate concentration were not identified at Landfill No. 4, which you would expect to see if Landfill No. 4 was impacting groundwater. As shown by the range in sulfate concentrations on **Figure 3** and **Figure 4**, the sulfate data pool indicates naturally variable sulfate concentrations in upgradient and downgradient groundwater.

2.3 Single Parameter SSI

The sulfate concentrations at Landfill No. 4 are very low, ranging from less than 0.70 mg/L to 14 mg/L. There are no other SSIs at Landfill No. 4 and a release from Landfill No. 4 would cause SSIs of multiple Appendix III parameters. CCR impacts to groundwater result in an increase in concentrations of multiple Appendix III parameters, and a release from Landfill No. 4 would cause exceedances of the upper PLs, resulting in SSIs for multiple parameters. The absence of multiple SSIs and the absence of statistically significant increasing trends in sulfate supports the conclusion that the sulfate SSIs in GWC-10 and GWC-11 are not the result of a release from Landfill No. 4.

2.4 Intrawell Well Statistical Analysis

The certified statistical methods for Landfill No. 4 specify the use of interwell PLs for all Appendix III parameters except sulfate, which is analyzed using intrawell PLs. Intrawell analysis can cause false positive SSIs if the assumptions used to select the method of analysis are not periodically re-evaluated. In the case of sulfate at Landfill No. 4, the original assumptions made for the selection of intrawell analysis were that:

1. Sulfate concentrations were naturally variable between monitoring wells at Landfill No. 4;
2. The size of the background data pool was adequate, and;
3. A 1-of-3 resample plan was appropriate to minimize site-wide false positive rates (appropriate statistical power).

The Professional Engineer-certified statistical analysis method specifies intrawell PL methods combined with the option of a 1-of-3 resample plan. As described above, that recommendation was partially based on a downgradient monitoring well network consisting of 11 wells. Monitoring wells GWC-17 and GWC-18, which are downgradient of undeveloped Cell 2B, were previously included in the downgradient statistical pool; in 2017 these wells were included in the upgradient statistical pool. This change was appropriate and constituent concentrations observed in these wells could not have originated from Landfill No. 4 since Cell 2B has not been developed and does not contain waste. Since these wells are representative of background groundwater quality, GWC-17 and GWC-18 were moved into the upgradient (or background)

statistical pool for statistical evaluation, resulting in nine upgradient wells in the monitoring network.

The US EPA Unified Guidance requires that the statistical methodology selected for a facility demonstrate adequate power to detect a release at the facility and the statistical approach be periodically re-evaluated as additional data is collected semi-annually, and the statistical program adjusted as necessary.

Based on eight background samples, seven analytical parameters, and nine downgradient wells, a 1-of-2 resample plan is an appropriate statistical method to analyze sulfate at Landfill No. 4. The power curve provided in **Appendix B** demonstrates there is sufficient statistical power using a 1-of-2 resample plan, which provides approximately 55 percent power when compliance measurements are three standard deviations higher than the background average or approximately 80 percent power at four standard deviations. The intrawell sulfate analysis using a 1-of-2 resampling plan is included in **Appendix B**. When sulfate is evaluated using the 1-of-2 resample plan, the July 2018 sulfate data for GWC-10 and GWC-11 plot below the upper PL and there are no SSIs for sulfate (**Figure 5**). The range of sulfate concentrations in upgradient well GWC-4A further supports natural variability of sulfate in groundwater unrelated to the facility. The use of a 1-of-2 resample plan reduces the false positive rate while providing sufficient power to detect changes in sulfate concentrations in downgradient wells, as recommended by the US EPA Unified Guidance. When intrawell PLs are combined with a 1-of-2 resample plan, all sulfate results are within their respective limits for the July 2018 sample event.

3. Conclusion

Based on information presented in this ASD, the SSIs for sulfate at GWC-10 and GWC-11 are a result of natural variability in groundwater and are not caused by a release from Landfill No.

4. The ASD identified the following to support this conclusion:

- The highest sulfate concentration observed at Landfill No. 4 was in upgradient monitoring well GWC-4A(*GWB-4A). This apparent increase over background concentrations is due to the limited number of background sampling events, which do not currently capture the natural variability of sulfate concentrations over time. As more samples are collected during routine groundwater monitoring, and background limits are updated, the data will reflect the natural variability and the statistics will account for the variability in both upgradient and downgradient wells. In addition to GWC-4A(*GWB-4A), the sulfate concentrations detected in several upgradient monitoring wells—were higher than those in downgradient monitoring wells GWC-10 and GWC-11 (**Table 1**).
- The sulfate concentrations are very low ranging from less than 0.70 mg/L to 14 mg/L. There are no other SSIs at Landfill No. 4. The absence of multiple SSIs supports the conclusion that the sulfate SSIs in GWC-10 and GWC-11 are not the result of a release from Landfill No. 4.
- The intrawell statistical method with a 1-of-3 resample plan did not adequately account for naturally variable sulfate concentrations in groundwater. The resample plan was originally chosen assuming 11 downgradient wells in the monitoring network. The US EPA requires that the statistical methodology selected for a facility demonstrate adequate power to detect a release at Landfill No. 4. However, based on eight background sampling events, seven analytical parameters, and nine downgradient wells in the monitoring network, a 1-of-2 resample plan is appropriate at this time, as demonstrated by the power curve provided in **Appendix A**. Using an intrawell statistical method and appropriate 1-of-2 resampling plan, sulfate SSIs are not observed at GWC-10 and GWC-11.

Landfill No. 4 will resume detection monitoring for the first 2019 semiannual monitoring event. GEI recommends a modification of the certified statistical method for sulfate from a 1-of-3 resample plan to a 1-of-2 resample plan at Landfill No. 4. The statistical approach will be periodically re-evaluated as additional data is collected, and adjustments to the program will be made as recommended by US EPA Unified Guidance.

4. References

GEI, 2019. *2018 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company, Plant McIntosh, CCB LF4*. January 31, 2019.

Georgia Power Company
Alternative Source Demonstration
Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit # 051-010D (LI)
February 2019

Table

Table 1. Summary of Groundwater Analytical Data
2018 Annual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant McIntosh Landfill No. 4
Effingham County, Georgia

Location Name Sample Name Sample Date			GWC-1		GWA-2		GWA-3		GWC-4A (*GWB-4A)		GWC-5 (*GWB-5)		GWC-9			GWC-10		GWC-11		GWC-12								
Sample Date			GWC-1	GWC-1	GWA-2	GWA-2	GWA-3	GWA-3	GWA-4R	GWA-4R	GWA-5	GWA-5	GWC-9	GWC-9	GWC-9	GWC-10	GWC-10	GWC-11	GWC-11	GWC-12	GWC-12							
Analyte	Units	CAS No.	1/11/2018	Jan-DUP	7/12/2018	1/10/2018	7/11/2018	1/10/2018	7/11/2018	1/10/2018	7/11/2018	1/10/2018	7/11/2018	1/12/2018	7/12/2018	Jul-DUP	9/13/2018	1/11/2018	7/12/2018	1/11/2018	7/12/2018	1/11/2018	Jan-DUP	7/12/2018				
Field Parameters																												
pH	SU	pH	5.02		5.04	4.78	4.75	4.93	4.87	5.05	4.53	5.59	5.49	4.83	4.80	4.84	6.32	6.70	6.15	6.63	5.13	5.09						
ORP	µS/cm	ORP	122.90		136.4	115.20	70.6	120.20	233.6	97.20	142.3	104.90	152.1	42.80	256.3	102.0	101.50	59.7	97.70	52.3	85.50	141.1						
Specific Conductivity	mV	COND	57.10		58.5	40.60	39.0	31.66	31.4	48.40	67.4	41.20	38.2	46.80	46.2	47.0	162.40	276.8	92.30	142.7	27.30	25.2						
DO	mg/L	DO	2.39		2.23	4.28	4.05	5.08	5.73	0.34	1.43	6.14	6.21	6.48	6.54	6.82	4.94	2.20	3.24	1.89	5.28	6.28						
Temperature	°Celsius	TEMP	21.12		23.41	18.88	22.62	19.28	25.19	19.72	25.53	18.74	26.13	21.05	23.65	22.90	21.06	23.05	19.84	21.51	21.45	22.52						
Turbidity	NTU	TURB	3.76		0.87	0.34	1.68	1.53	0.98	0.51	0.96	0.41	0.57	0.62	0.54	0.77	0.48	0.83	0.24	1.66	0.52	0.38						
Appendix III Parameters																												
Boron	mg/L	7440-42-8	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	0.060	0.054	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	
Calcium	mg/L	7440-70-2	2.4	2.4	1.8	0.52	0.50	0.88	0.81	0.82	1.0	3.3	3.0	0.40	0.49	0.45	--	15	27	9.3	13	0.78	0.74	0.67				
Chloride	mg/L	16887-00-6	7.5	7.5	7.0	4.6	5.0	4.2	4.3	3.3	3.2	3.2	3.5	9.0	9.4	9.5	9.1	5.9	5.1	4.3	4.3	3.4	3.4	3.7				
Fluoride	mg/L	16984-48-8	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	--	0.15 J	0.13 J	0.31	0.25	< 0.082	< 0.082	< 0.082				
pH	SU	pH	5.02		5.04	4.78	4.75	4.93	4.87	5.05	4.53	5.59	5.49	4.83	4.80	4.84	6.32	6.70	6.15	6.63	5.13	5.09						
Sulfate	mg/L	14808-79-8	1.6	1.5	1.1	< 0.70	< 0.70	1.1	< 0.70	7.6	14	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	--	2.6	5.0	3.5	5.9	< 0.70	< 0.70	< 0.70				
Total Dissolved Solids	mg/L	TDS	100 J	< 3.40 J	24 J	6 J	16 J	28 J	12 J	42 J	< 3.4 J	48 J	22 J	48 J	42 J	48 J	--	150 J	140 J	10 J	94 J	34 J	80 J	26 J				
Appendix III Parameters																												
Location Name Sample Name Sample Date			GWA-13		GWA-14		GWC-15 (*GWB-15)		GWA-16 (*GWB-16)		GWC-17		GWC-18			GWC-19		GWC-20			GWC-21		GWC-23					
Sample Date			GWA-13	GWA-13	GWA-14	GWA-14	GWA-15	GWA-15	GWA-16	GWA-16	GWC-17	GWC-17	GWC-18	GWC-18	GWC-18	GWC-19	GWC-19	GWC-20	GWC-20	GWC-20	GWC-21	GWC-21	GWC-23	GWC-23				
Analyte	Units	CAS No.	1/10/2018	7/11/2018	1/11/2018	7/11/2018	1/11/2018	7/11/2018	1/11/2018	7/11/2018	1/11/2018	7/11/2018	1/12/2018	7/11/2018	Jul-DUP	1/12/2018	7/11/2018	1/12/2018	7/11/2018	9/13/2018	1/11/2018	7/11/2018	1/12/2018	7/12/2018				
Field Parameters																												
pH	SU	pH	4.90	4.99	5.19	5.25	5.01	5.01	4.97	5.07	5.28	5.23	6.47	6.18	5.59	5.60	4.97	4.89	4.91	4.98	4.96	5.35	5.21					
ORP	µS/cm	ORP	90.10	73.0	84.60	305.6	64.40	93.6	104.50	171.3	78.80	425.6	97.90	113.5	77.00	153.0	92.2	445.5	100.7	108.1	165.6	103.9	294.9					
Specific Conductivity	mV	COND	25.10	22.0	25.40	26.8	26.70	25.7	21.80	23.1	34.90	33.7	130.40	101.4	93.00	95.1	52.20	51.2	48.9	40.10	40.3	41.8	40.5					
DO	mg/L	DO	5.91	6.79	6.75	6.40	6.47	7.12	7.37	7.07	5.17	5.41	3.21	3.49	3.37	3.35	4.68	4.62	5.71	5.39	5.58	3.8	4.14					
Temperature	°Celsius	TEMP	20.57	25.02	19.32	24.97	20.83	25.25	20.93	26.59	20.68	24.59	19.55	24.42	19.23	25.44	20.39	25.09	23.38	20.75	25.44	20.03	23.76					
Turbidity	NTU	TURB	0.73	2.77	2.89	1.59	1.15	3.01	2.53	3.15	0.52	0.36	3.35	4.37	4.21	4.72	0.30	0.45	0.74	2.15	0.36	1.44	0.72					
Appendix III Parameters																												
Boron	mg/L	7440-42-8	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	--	< 0.021	< 0.021	< 0.021	< 0.021				
Calcium	mg/L	7440-70-2	0.27	0.32	0.51	0.47	0.41	0.53	0.43	0.45	2.1	2.1	15	12	12	9.5	10	1.7	1.7	--	1.0	1.1	1.4	1.2				
Chloride	mg/L	16887-00-6	3.4	3.4	3.9	4.2	3.4	3.8	3.4	3.7	4.1	4.4	4.5	4.9	4.9	9.0	9.1	9.0	9.9	8.9	5.8	6.4	4.3	4.9				
Fluoride	mg/L	16984-48-8	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	< 0.082	0.12 J	0.13 J	0.55	0.59	0.57	0.083 J	0.091 J	< 0.082	< 0.082	--	< 0.082	< 0.082	< 0.082	< 0.082				
pH	SU	pH	4.90	4.99	5.19	5.25	5.01	5.01	4.97	5.07	5.28	5.23	6.47	6.18	5.59	5.60	4.97	4.89	4.91	4.98	4.96	5.35	5.21					
Sulfate	mg/L	14808-79-8	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	< 0.70	4.5	5.0	5.4	1.5	1.4	0.86 J	0.90 J	--	< 0.70	< 0.70	1.9	2.0				
Total Dissolved Solids	mg/L	TDS	10 J	28 J	36 J	20 J	56 J	< 3.4 J	6 J	24 J	18 J	22 J	110 J	16 J	100 J	81 J	38 J	56 J	32 J	--	20 J	52 J	43 J	40				

General Notes:

CAS No. - Chemical Abstracts Service Registry Number
Shaded - detected value
Shaded - Shaded Location Name indicates well data are in the background statistical data pool.
µS/cm - microsiemens per centimeter
mg/L - milligrams per liter
mV - millivolts
NTU - nephelometric turbidity units
SU - Standard Units
*Change requested in the November 2018 major modification request.
Temperature, specific conductance, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and turbidity were measured and recorded in the field.

Validator Qualifiers:

< - The analyte was not detected at a concentration above the specified laboratory reporting limit.
J - The result is an estimated value.

Georgia Power Company
Alternative Source Demonstration
Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit # 051-010D (LI)
February 2019

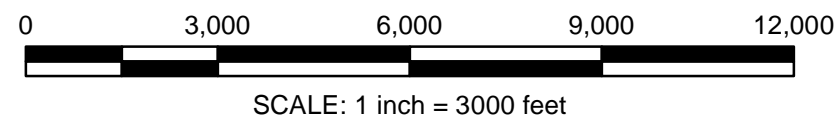
Figures



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND

- ▬ Landfill No. 4 Approximate Boundary
- ▬ Plant McIntosh Approximate Property Boundary



Alternative Source Demonstration
 Plant McIntosh Landfill No. 4
 Effingham County, Georgia

Georgia Power Company
 Atlanta, Georgia

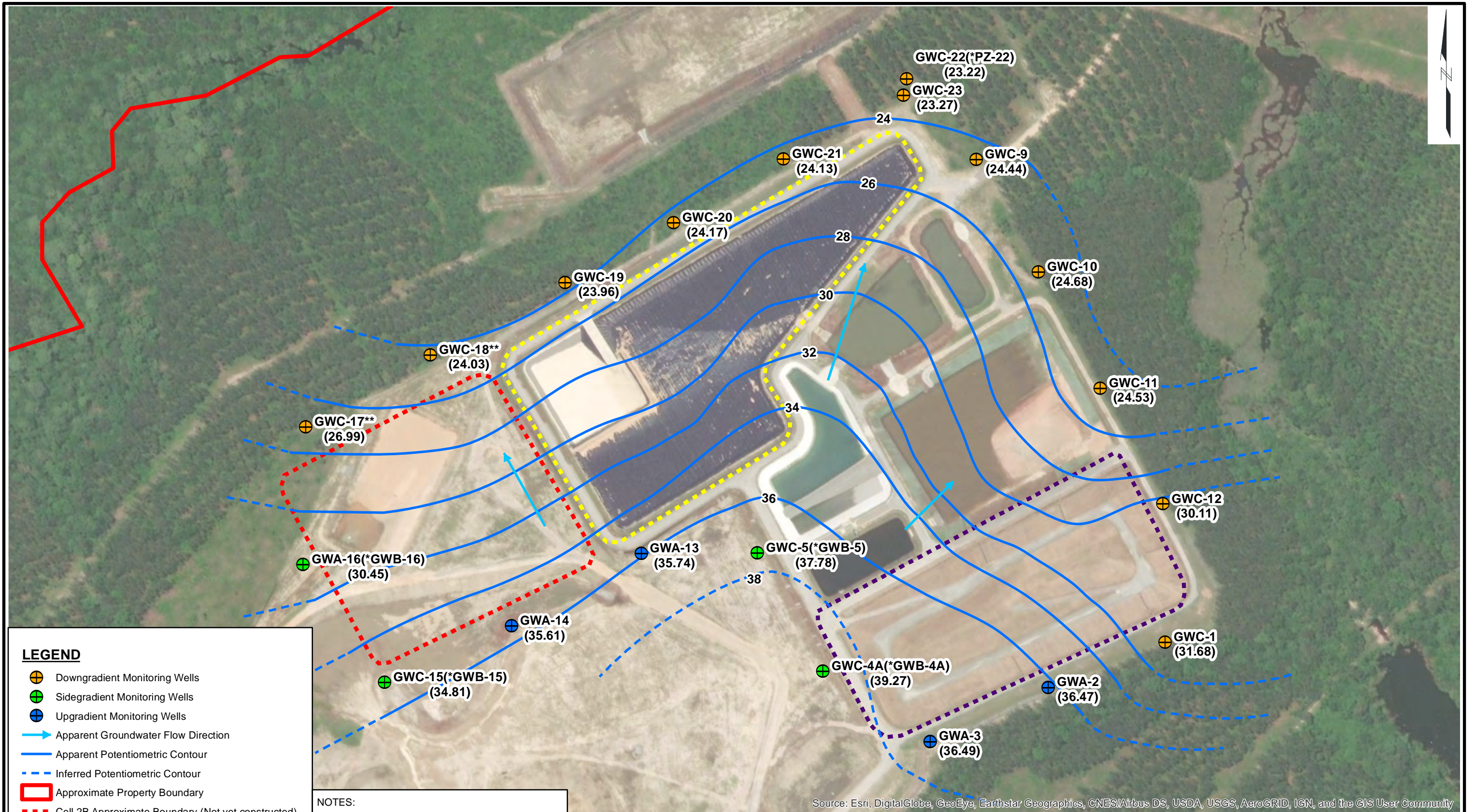


PLANT MCINTOSH
 SITE LOCATION MAP

Project No. 1800205

Prepared February 2019

Fig. 1

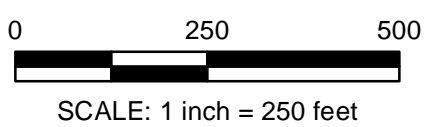


LEGEND

- Downgradient Monitoring Wells
- Sidegradient Monitoring Wells
- Upgradient Monitoring Wells
- Apparent Groundwater Flow Direction
- Apparent Potentiometric Contour
- Inferred Potentiometric Contour
- Approximate Property Boundary
- Cell 2B Approximate Boundary (Not yet constructed)
- Cell 1 Approximate Boundary
- Cell 2A Approximate Boundary

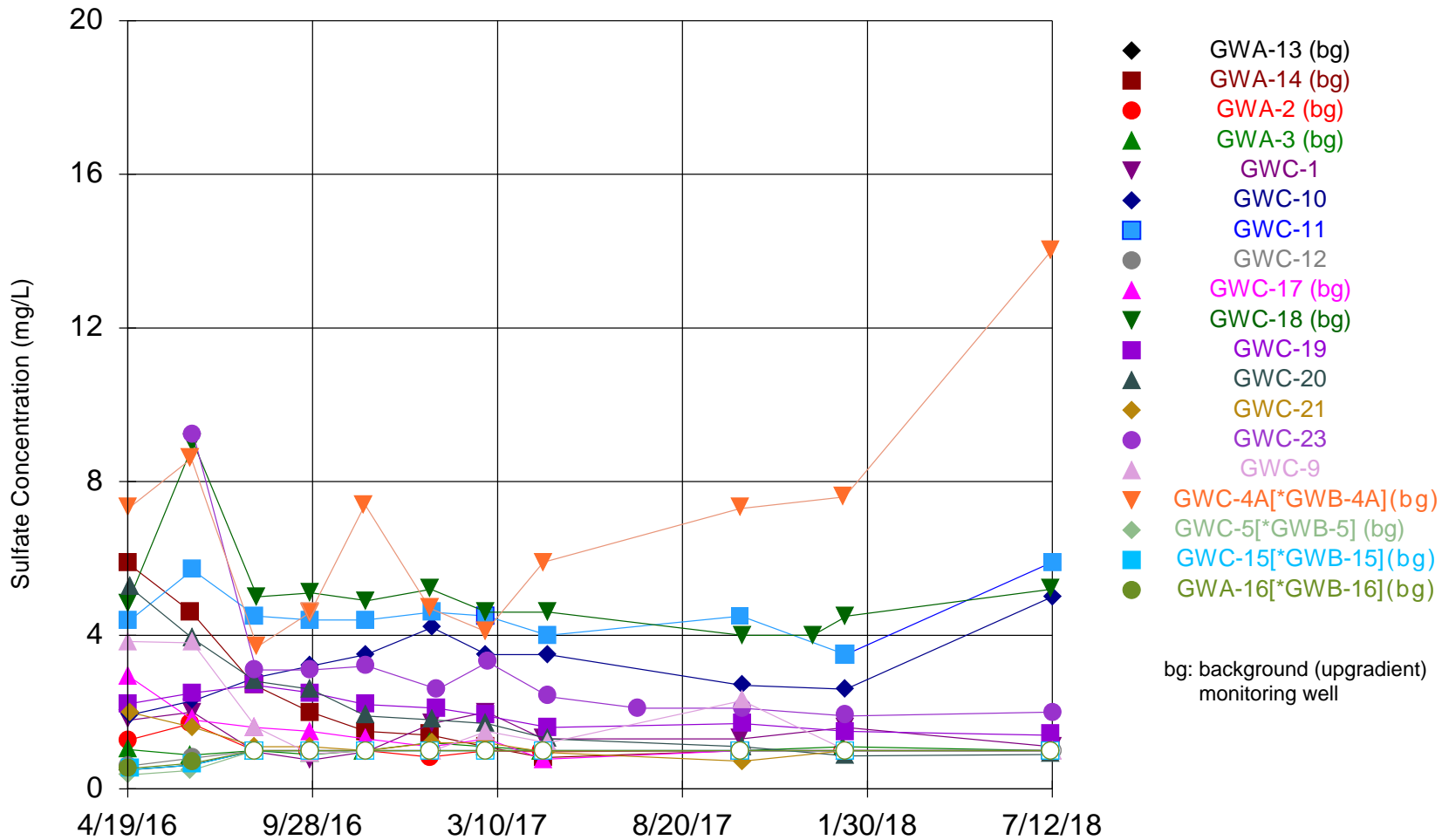
(31.68) = Groundwater elevation measured 07/09/18
 Elevations are in feet relative to North American Vertical Datum (NAVD)88

NOTES:
 * Change requested as a part of the November 2018 D&O Modification. Well designations will be updated once modification is approved.
 ** Downgradient Wells GWC-17 and GWC-18 are included in the background monitoring statistical pool as described in the April 2018 Alternative Source Demonstration.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Alternative Source Demonstration Plant McIntosh Landfill No. 4 Effingham County, Georgia Georgia Power Company Atlanta, Georgia		LANDFILL NO. 4 POTENTIOMETRIC SURFACE CONTOUR MAP - July 2018
	Project No. 1800205	Prepared February 2019



Alternative Source Demonstration

Georgia Power Company
Atlanta, Georgia

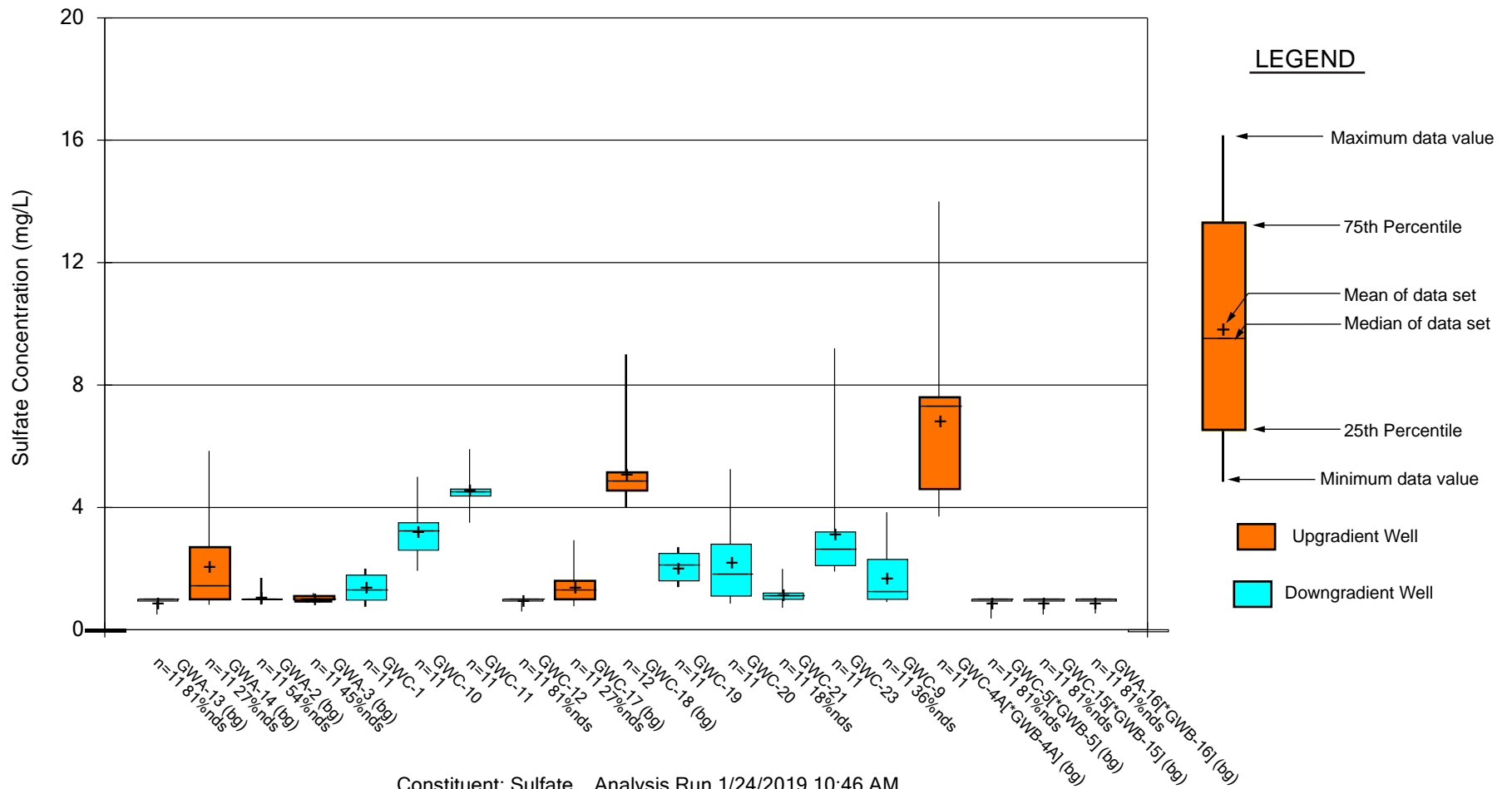


Project 1800205

TIME-SERIES PLOT-
SULFATE

February 2019

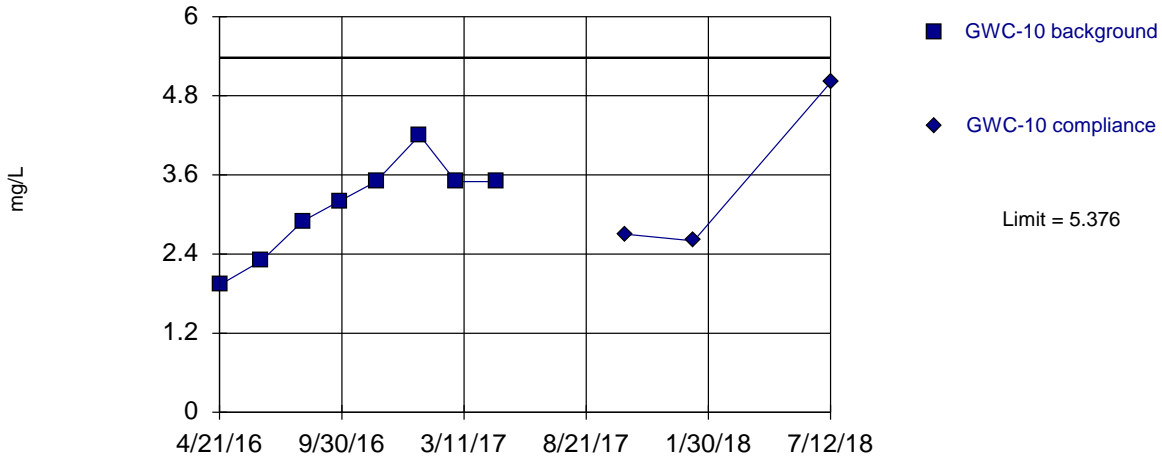
Fig. 3



Within Limit

Prediction Limit

Intrawell Parametric



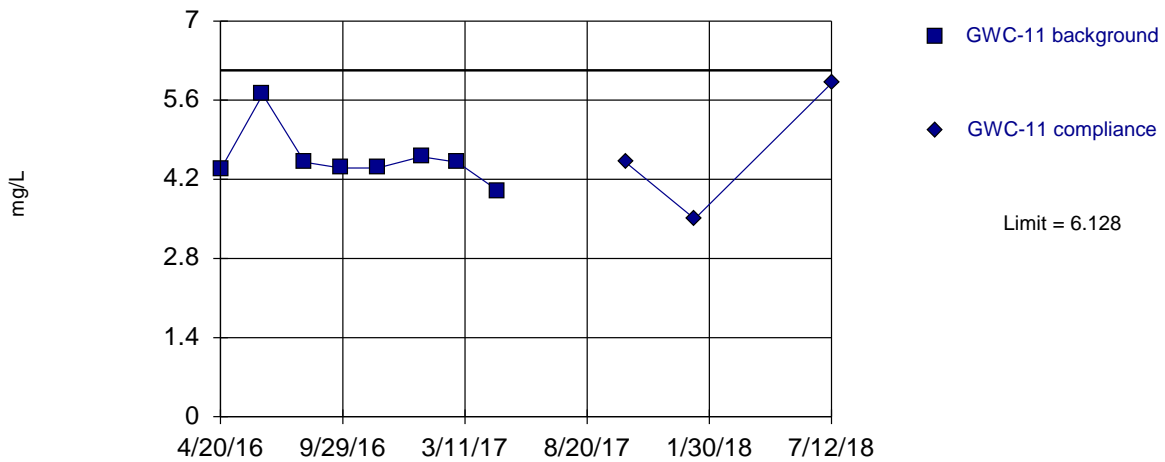
Background Data Summary: Mean=3.129, Std. Dev.=0.7312, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9393, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.133, Std. Dev.=0.1116, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7586, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Alternative Source Demonstration		GWC-10 and GWC-11 INTRAWELL PREDICTION LIMITS- SULFATE (1-of-2 RESAMPLING)
Georgia Power Company Atlanta, Georgia		
Project 1800205	February 2019	Fig. 5

Georgia Power Company
Alternative Source Demonstration
Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit # 051-010D (LI)
February 2019

Appendix A

Mann Kendall Sulfate Trend Plots

Trend Test

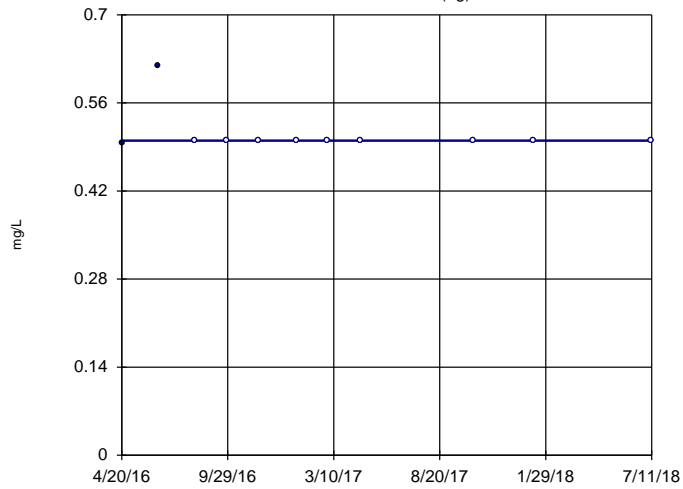
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28 Printed 1/31/2019, 9:31 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope*</u>	<u>Calculated M-K</u>	<u>Critical M-K</u>	<u>Significant*</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GWA-13 (bg)	0	1	27	No	11	81.82	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWA-14 (bg)	-2.101	-52	-27	Yes	11	27.27	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWA-2 (bg)	-0.146	-16	-27	No	11	54.55	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWA-3 (bg)	0	-6	-27	No	11	45.45	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-1	-0.1003	-3	-27	No	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-10	1.006	22	27	No	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-11	0	-1	-27	No	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-12	0	-17	-27	No	11	81.82	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-17 (bg)	-0.9631	-49	-27	Yes	11	27.27	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-18 (bg)	-0.3763	-17	-27	No	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-19	-0.6046	-44	-27	Yes	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-20	-1.789	-53	-27	Yes	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-21	-0.5318	-40	-27	Yes	11	18.18	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-23	-0.9631	-39	-27	Yes	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-9	-0.9715	-25	-27	No	11	36.36	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-4A[*GWB-4A] (bg)	2.33	15	27	No	11	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-5[*GWB-5] (bg)	0	19	27	No	11	81.82	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWC-15[*GWB-15] (bg)	0	-17	-27	No	11	81.82	n/a	n/a	0.05	NP
Sulfate (mg/L)	GWA-16[*GWB-16] (bg)	0	-17	-27	No	11	81.82	n/a	n/a	0.05	NP

Notes:

*A statistically significant increasing concentration trend is signified by a positive slope where the calculated Mann-Kendall (M-K) Statistic is greater than the critical Mann-Kendall Statistic.

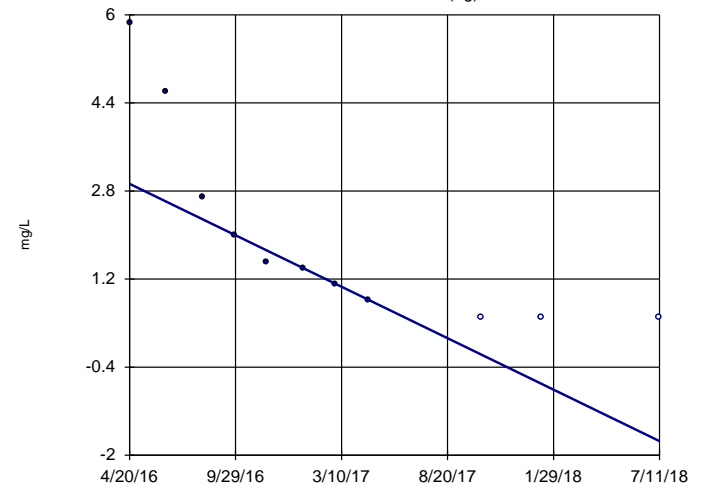
Sen's Slope Estimator GWA-13 (bg)



n = 11
Slope = 0
units per year.
Mann-Kendall
statistic = 1
critical = 27
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

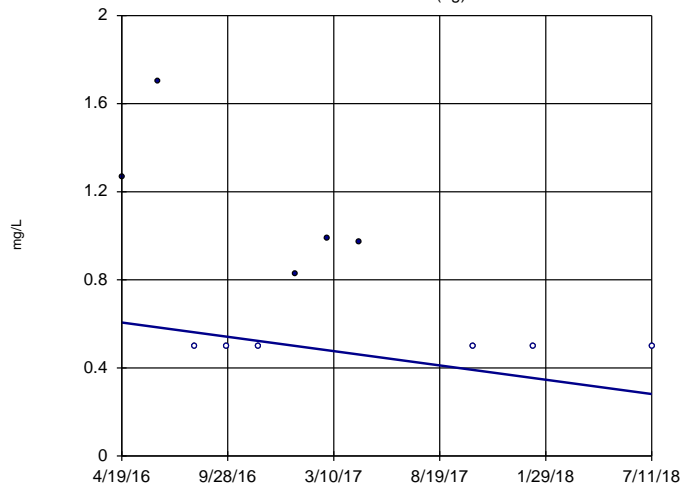
Sen's Slope Estimator GWA-14 (bg)



n = 11
Slope = -2.101
units per year.
Mann-Kendall
statistic = -52
critical = -27
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

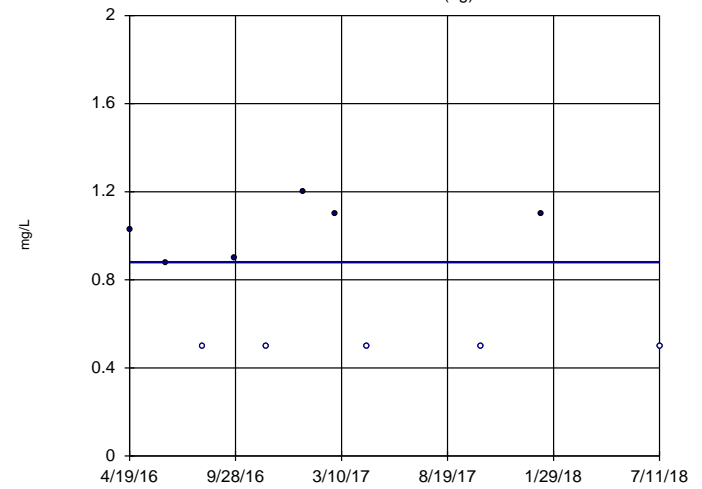
Sen's Slope Estimator GWA-2 (bg)



n = 11
Slope = -0.146
units per year.
Mann-Kendall
statistic = -16
critical = -27
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Sen's Slope Estimator GWA-3 (bg)

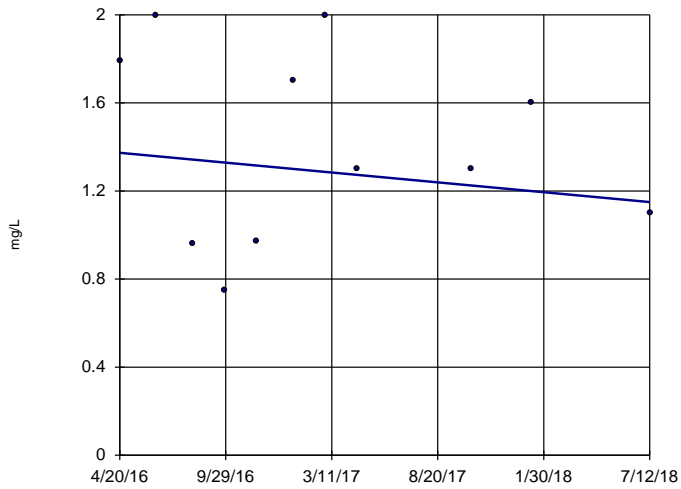


n = 11
Slope = 0
units per year.
Mann-Kendall
statistic = -6
critical = -27
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Sen's Slope Estimator

GWC-1

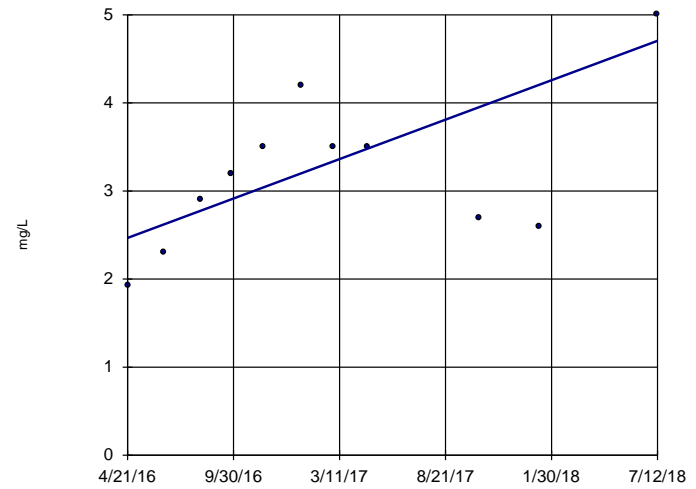


n = 11
 Slope = -0.1003 units per year.
 Mann-Kendall statistic = -3
 critical = -27
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Sen's Slope Estimator

GWC-10

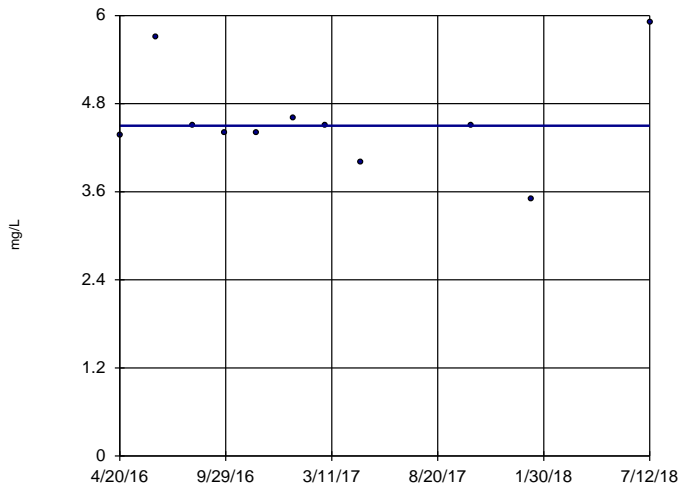


n = 11
 Slope = 1.006 units per year.
 Mann-Kendall statistic = 22
 critical = 27
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Sen's Slope Estimator

GWC-11

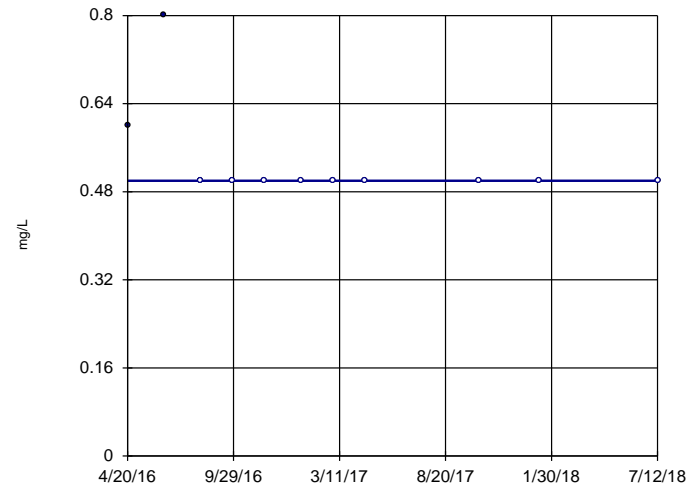


n = 11
 Slope = 0 units per year.
 Mann-Kendall statistic = -1
 critical = -27
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Sen's Slope Estimator

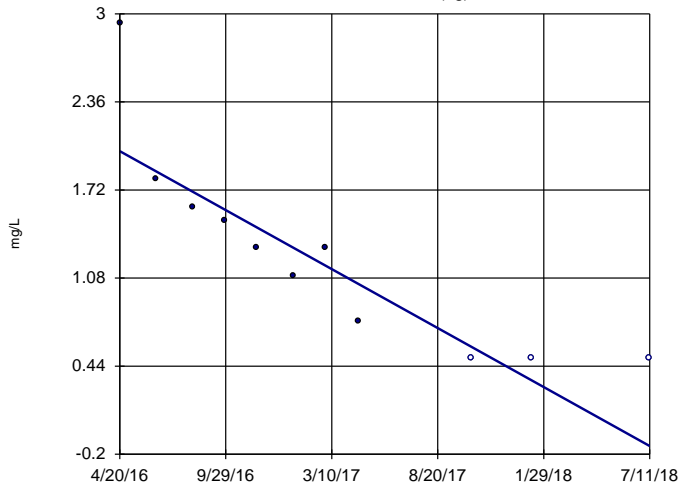
GWC-12



n = 11
 Slope = 0 units per year.
 Mann-Kendall statistic = -17
 critical = -27
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

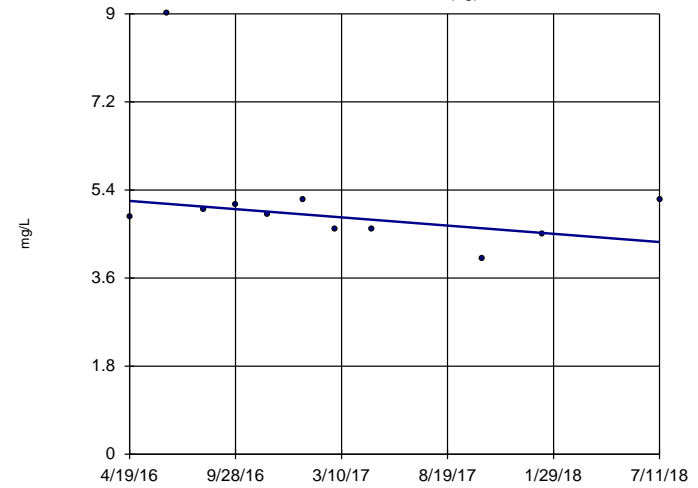
Sen's Slope Estimator GWC-17 (bg)



n = 11
Slope = -0.9631
units per year.
Mann-Kendall
statistic = -49
critical = -27
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

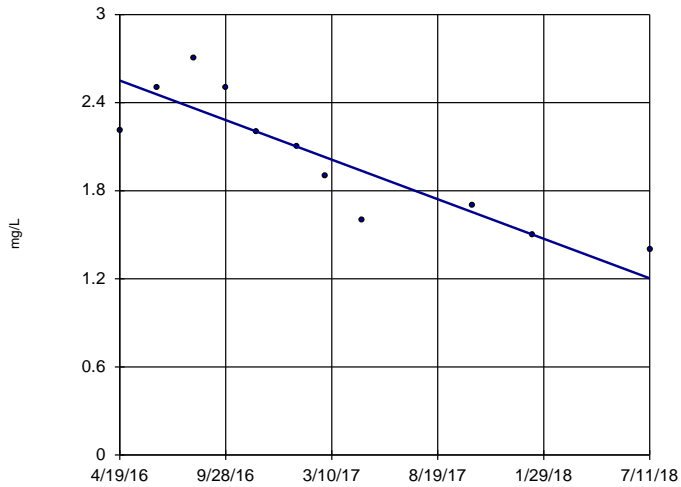
Sen's Slope Estimator GWC-18 (bg)



n = 11
Slope = -0.3763
units per year.
Mann-Kendall
statistic = -17
critical = -27
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

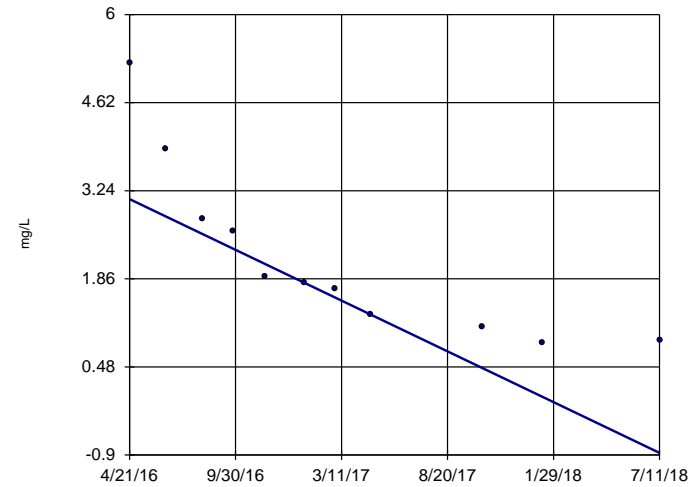
Sen's Slope Estimator GWC-19



n = 11
Slope = -0.6046
units per year.
Mann-Kendall
statistic = -44
critical = -27
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

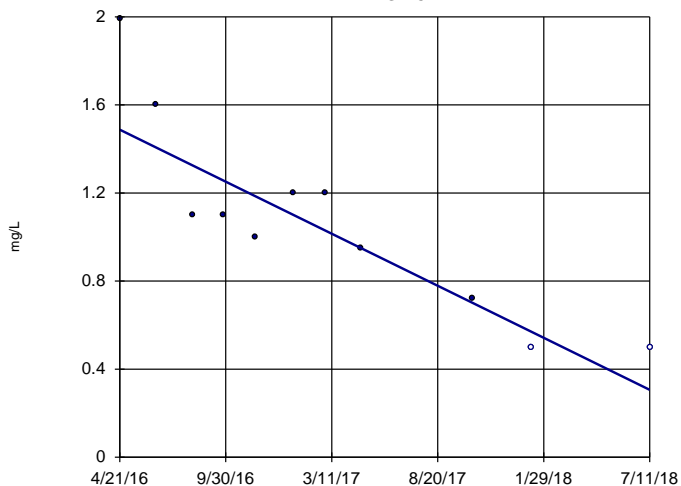
Sen's Slope Estimator GWC-20



n = 11
Slope = -1.789
units per year.
Mann-Kendall
statistic = -53
critical = -27
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

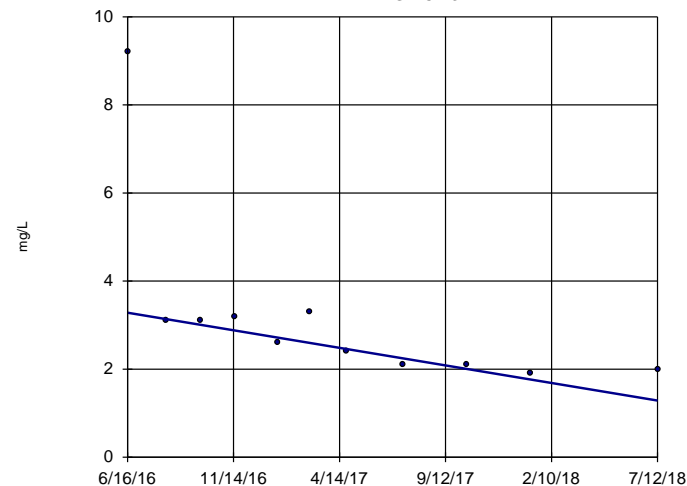
Sen's Slope Estimator
 GWC-21



n = 11
 Slope = -0.5318
 units per year.
 Mann-Kendall
 statistic = -40
 critical = -27
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

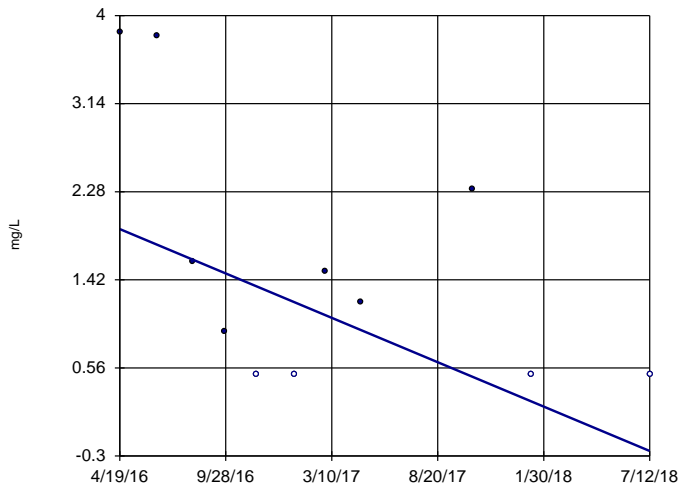
Sen's Slope Estimator
 GWC-23



n = 11
 Slope = -0.9631
 units per year.
 Mann-Kendall
 statistic = -39
 critical = -27
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

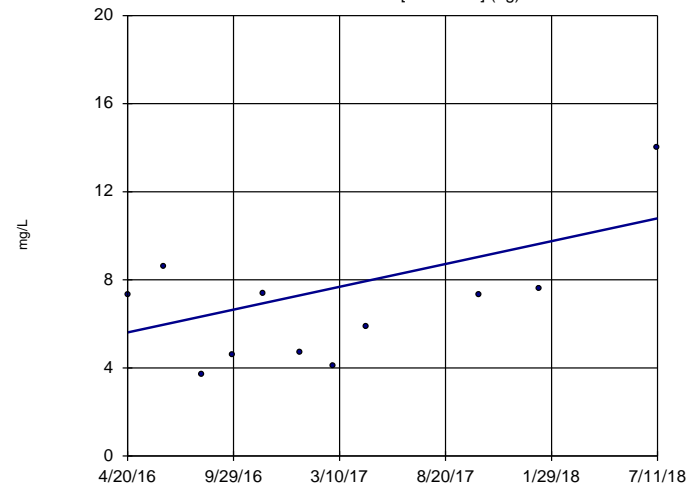
Sen's Slope Estimator
 GWC-9



n = 11
 Slope = -0.9715
 units per year.
 Mann-Kendall
 statistic = -25
 critical = -27
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

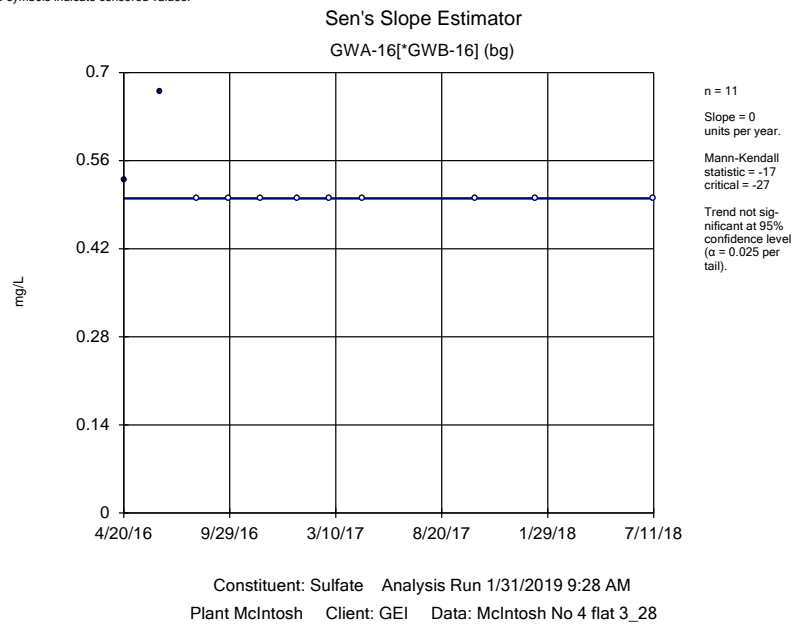
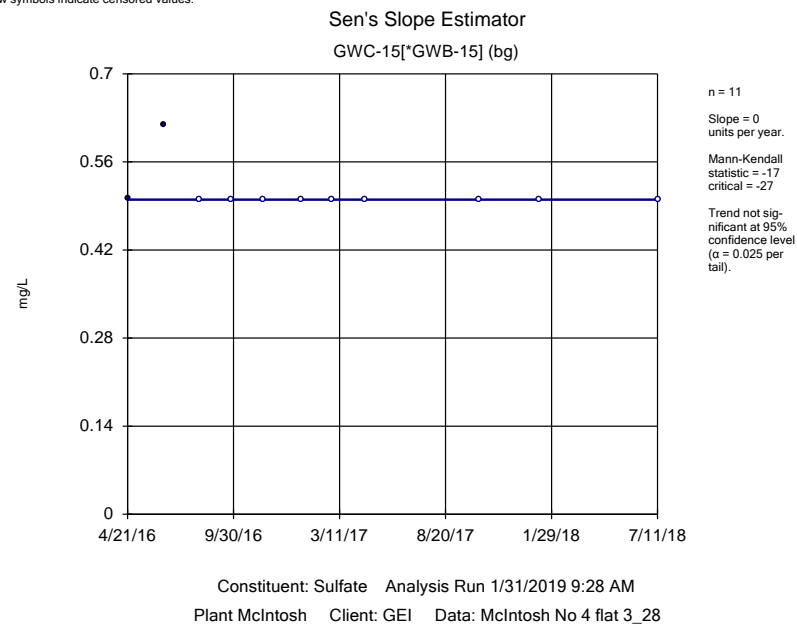
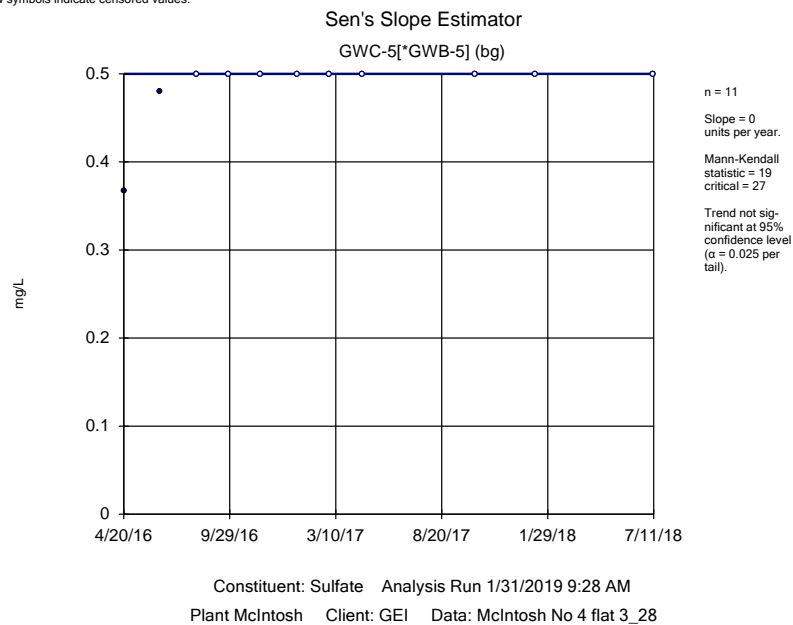
Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Sen's Slope Estimator
 GWC-4A[*GWB-4A] (bg)



n = 11
 Slope = 2.33
 units per year.
 Mann-Kendall
 statistic = 15
 critical = 27
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 1/31/2019 9:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

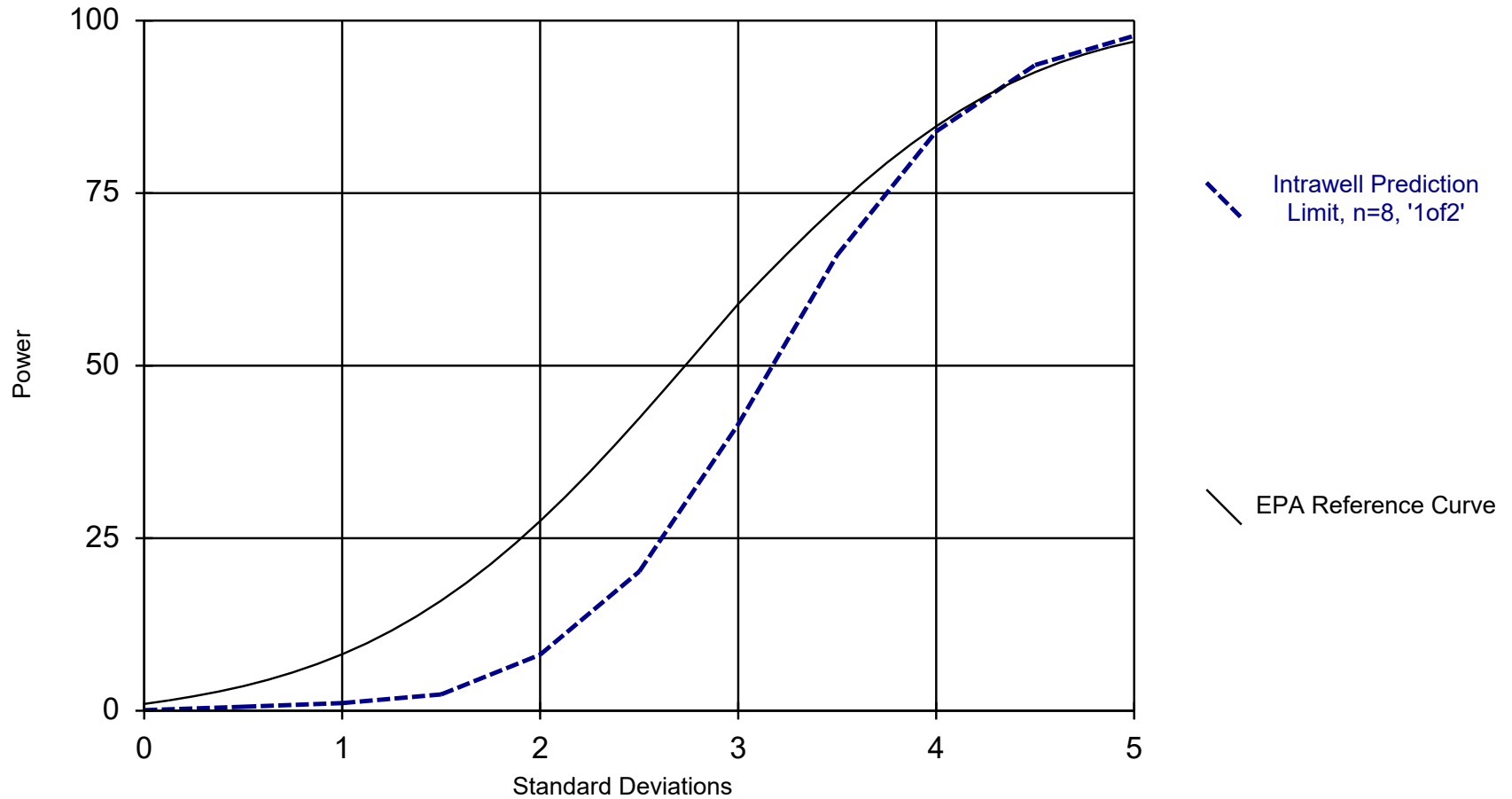


Georgia Power Company
Alternative Source Demonstration
Plant McIntosh Coal Combustion Residuals
Existing Landfill No. 4
Permit # 051-010D (LI)
February 2019

Appendix B

Power Curve and Intrawell Prediction Limits with 1-of-2 Resampling

Power Curve



Kappa = 3.074, based on 9 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/28/2019 2:00 PM

Plant McIntosh Client: Southern Company Data: McIntosh No 4_CCR

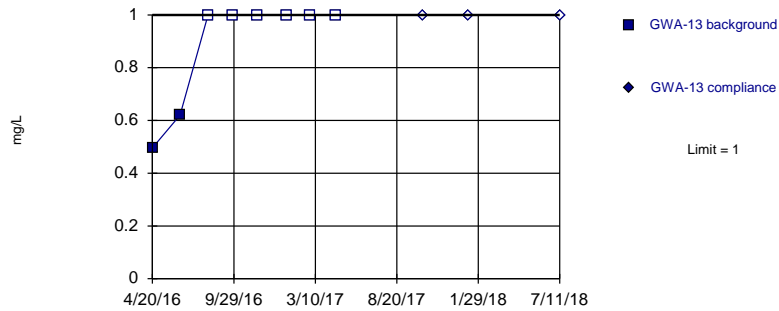
Intrawell Prediction Limit

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28 Printed 1/28/2019, 3:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	GWA-13	1	n/a	7/11/2018	1ND	No	8	n/a	n/a	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWA-14	8.057	n/a	7/11/2018	1ND	No	8	2.496	1.809	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWA-2	5.741	n/a	7/11/2018	1ND	No	8	0.6652	0.5631	37.5	sqrt(x)	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWA-3	2.294	n/a	7/11/2018	1ND	No	8	0.6388	0.5387	37.5	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-1	2.977	n/a	7/12/2018	1.1	No	8	1.434	0.502	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-10	5.376	n/a	7/12/2018	5	No	8	3.129	0.7312	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-11	6.128	n/a	7/12/2018	5.9	No	8	2.133	0.1116	0	sqrt(x)	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-12	1	n/a	7/12/2018	1ND	No	8	n/a	n/a	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWC-17	3.518	n/a	7/11/2018	1ND	No	8	1.538	0.6444	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-18	9	n/a	7/11/2018	5.2	No	8	n/a	n/a	0	n/a	0.02144	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-19	3.309	n/a	7/11/2018	1.4	No	8	2.214	0.3563	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-20	6.74	n/a	7/11/2018	0.9	No	8	2.656	1.329	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-21	2.351	n/a	7/11/2018	1ND	No	8	1.268	0.3526	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-23	9.2	n/a	7/12/2018	2	No	8	n/a	n/a	0	n/a	0.02144	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-9	11.28	n/a	7/12/2018	1ND	No	8	1.056	0.7492	25	sqrt(x)	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-4A[*GWB-4A]	11.32	n/a	7/11/2018	14	Yes	8	5.789	1.798	0	No	0.0008358	Param 1 of 2
Sulfate (mg/L)	GWC-5[*GWB-5]	1	n/a	7/11/2018	1ND	No	8	n/a	n/a	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWC-15[*GWB-15]	1	n/a	7/11/2018	1ND	No	8	n/a	n/a	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWA-16[*GWB-16]	1	n/a	7/11/2018	1ND	No	8	n/a	n/a	75	n/a	0.02144	NP (NDs) 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric

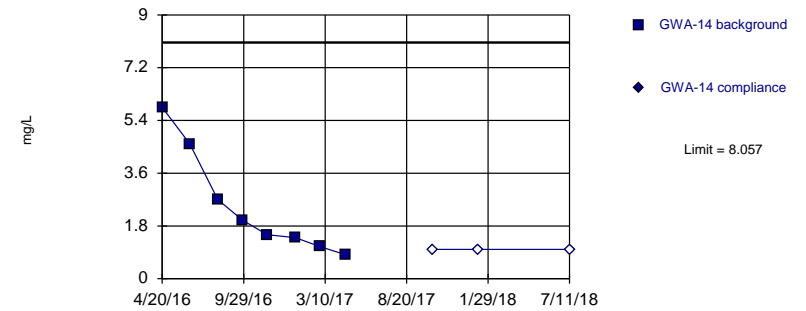


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

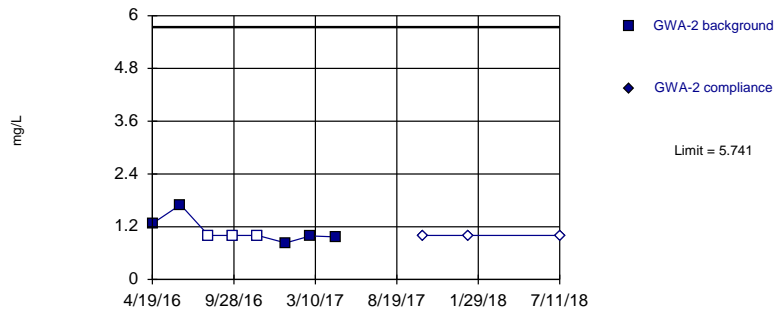


Background Data Summary: Mean=2.496, Std. Dev.=1.809, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8473, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

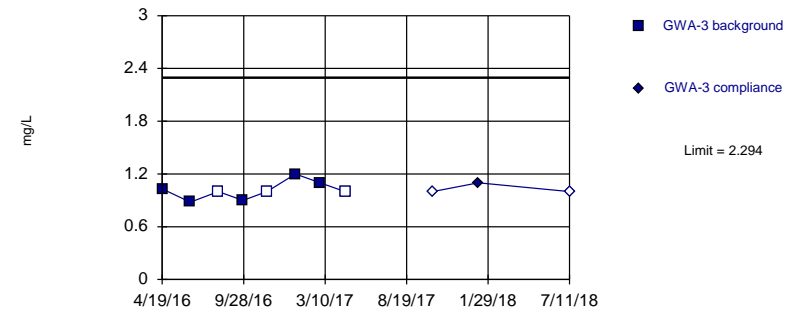


Background Data Summary (based on square root transformation) (after Aitchison's Adjustment): Mean=0.6652, Std. Dev.=0.5631, n=8, 37.5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7755, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

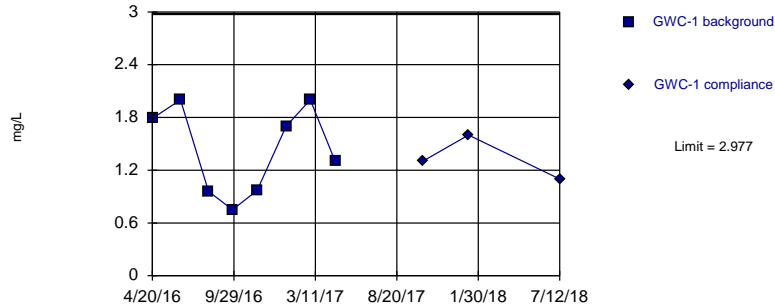


Background Data Summary (after Aitchison's Adjustment): Mean=0.6388, Std. Dev.=0.5387, n=8, 37.5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9315, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

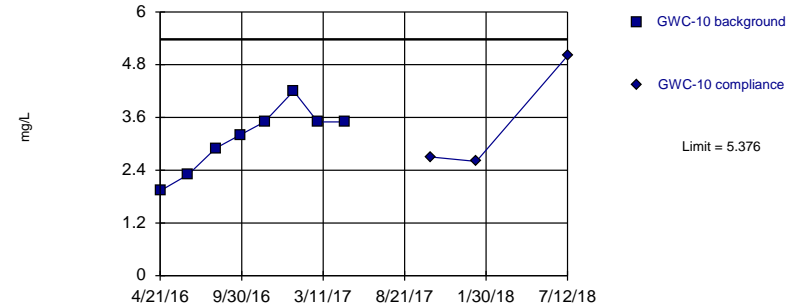


Background Data Summary: Mean=1.434, Std. Dev.=0.502, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8871, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

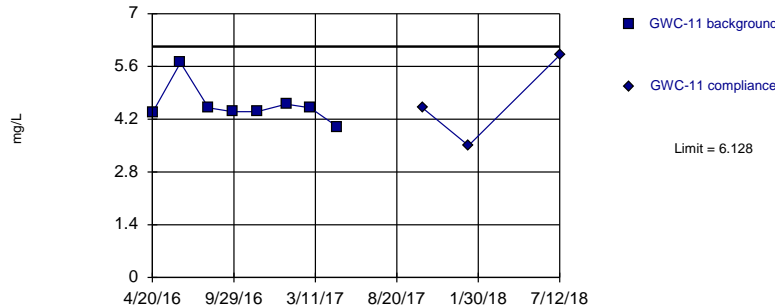


Background Data Summary: Mean=3.129, Std. Dev.=0.7312, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9393, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

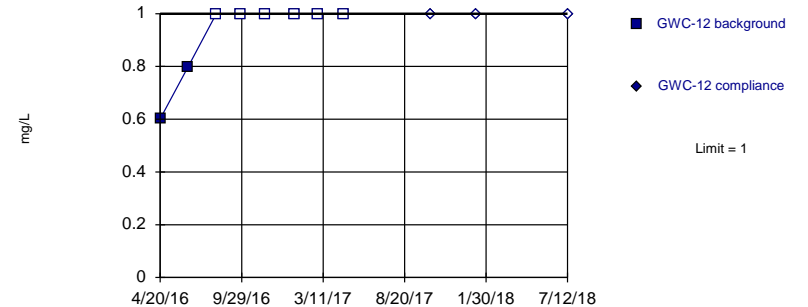


Background Data Summary (based on square root transformation): Mean=2.133, Std. Dev.=0.1116, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7586, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Non-parametric

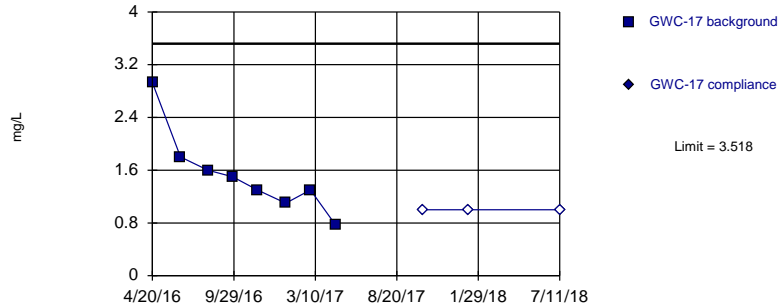


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

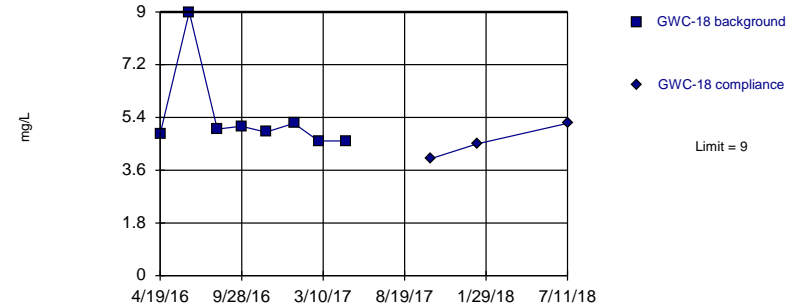


Background Data Summary: Mean=1.538, Std. Dev.=0.6444, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8722, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Non-parametric

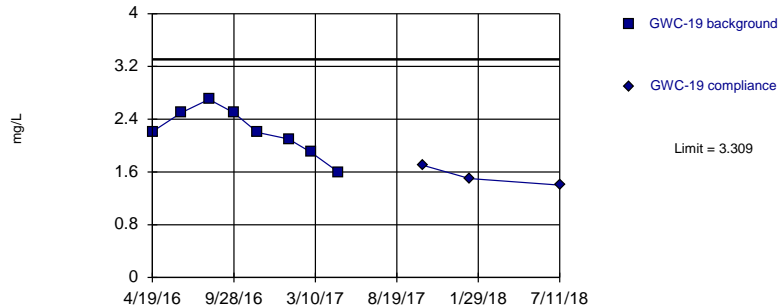


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

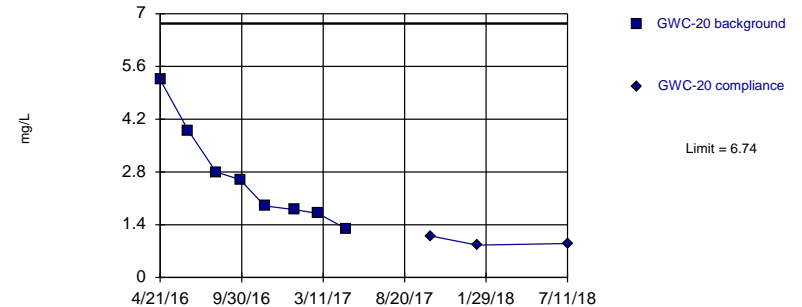


Background Data Summary: Mean=2.214, Std. Dev.=0.3563, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

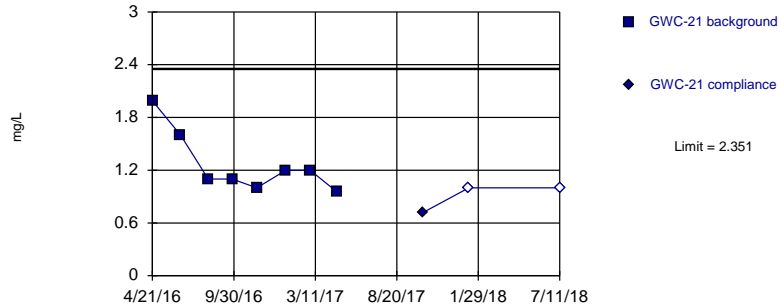


Background Data Summary: Mean=2.656, Std. Dev.=1.329, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8814, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

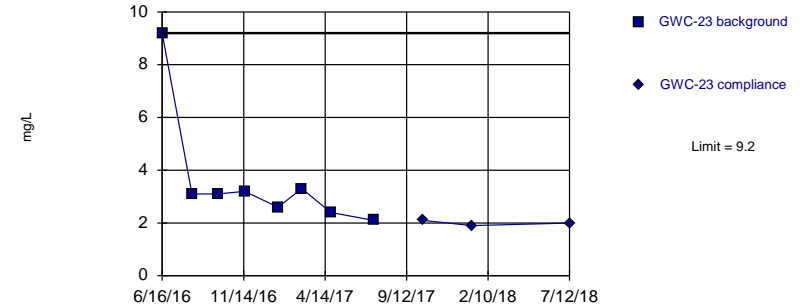


Background Data Summary: Mean=1.268, Std. Dev.=0.3526, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8153, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Non-parametric

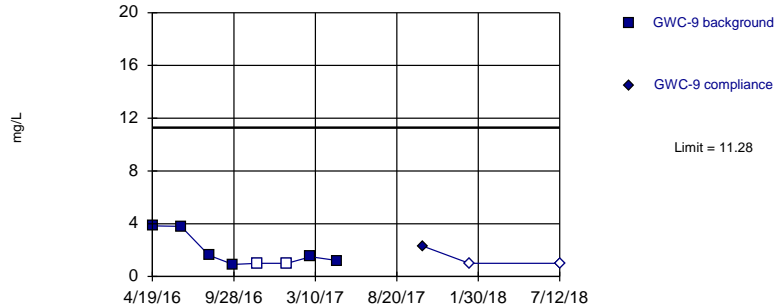


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
Intrawell Parametric

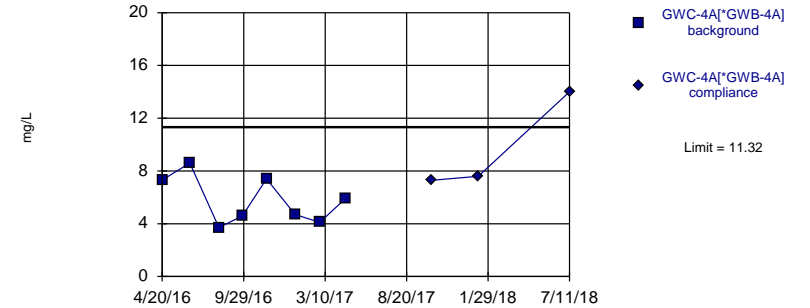


Background Data Summary (based on square root transformation) (after Aitchison's Adjustment): Mean=1.056, Std. Dev.=0.7492, n=8, 25% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7687, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Exceeds Limit

Prediction Limit
Intrawell Parametric

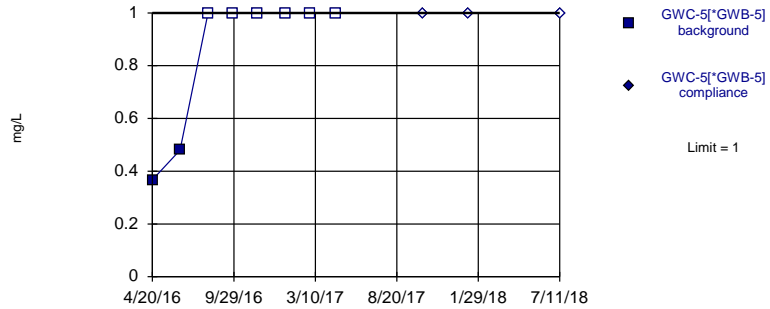


Background Data Summary: Mean=5.789, Std. Dev.=1.798, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.749. Kappa = 3.074 (c=7, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008358.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
 Intrawell Non-parametric

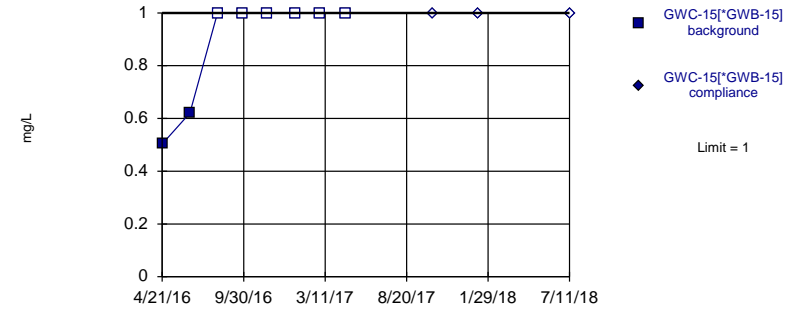


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Within Limit

Prediction Limit
 Intrawell Non-parametric

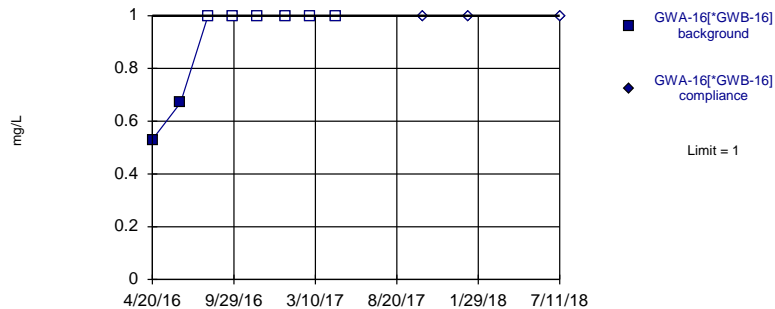


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

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. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality; data were not deseasonalized.

Constituent: Sulfate Analysis Run 1/28/2019 3:23 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28

Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Appendix B

Field Sampling, Laboratory Analytical Data, and Data Validation Reports

Water Level Measurement Data Sheet

Plant McIntosh

Georgia Power Company

Date: 1/28/2019



Gauged by: P. Adams, J. Noles, L. Coker

Provided for reference

Area	Well ID	Installed Total Depth (ft btoc)	Measured Depth to Water (ft btoc)	Measured Depth to Bottom (ft btoc)	July 2018 Depth to Water (ft btoc)	July 2018 Depth to Bottom (ft btoc)	Installed Depth to Top of Screen (ft btoc)	Notes
Landfill No. 4	GWC-1	28.50	13.64	27.39	15.38	27.69	18.00	
	GWA-2	28.50	15.55	28.00	17.17	27.99	18.00	
	GWA-3	38.50	20.71	37.59	21.44	37.51	28.00	
	GWC-4A (GWB-4A)	39.00	24.90	39.07	25.71	39.00	28.60	
	GWC-5 (GWB-5)	41.50	23.82	40.94	24.51	40.89	31.00	
	GWC-9	38.50	28.95	37.56	29.12	37.61	28.00	
	GWC-10	33.50	24.59	32.38	24.87	32.39	23.00	
	GWC-11	43.50	33.07	42.30	33.44	42.30	33.00	
	GWC-12	41.50	26.38	41.39	27.15	41.35	31.00	
	GWA-13	40.11	25.00	40.15	25.11	40.11	29.81	
	GWA-14	49.90	26.02	50.20	25.79	50.15	39.60	
	GWC-15 (GWB-15)	40.30	22.10	40.10	21.91	40.06	30.00	
	GWA-16 (GWB-16)	40.27	23.70	40.05	24.15	40.02	29.97	
	GWC-17	40.05	26.81	40.07	27.20	40.10	29.75	
	GWC-18	42.20	35.59	42.58	35.65	42.51	31.90	
	GWC-19	36.95	29.61	37.84	29.66	37.50	26.65	
	GWC-20	30.13	22.86	30.12	23.06	30.09	19.83	
	GWC-21	27.16	21.00	27.53	21.03	27.50	16.86	
GWC-22 (PZ-22)	31.65	27.85	32.71	27.85	31.60	21.35		
GWC-23	33.70	28.91	33.76	28.89	33.76	23.40		

Notes: ft = feet NM = Not Measured btoc = below top of casing bgs = below ground surface

Product Name: Low-Flow System

Date: 2019-01-30 11:35:46

Project Information:

Operator Name J. Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 27 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 27.69 ft
Screen Length 10 ft
Depth to Water 14.01 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 10%	pH +/- 0.1	SpCond μ S/cm +/- 5%	Turb NTU +/- 10%	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 10
Stabilization									
Last 5	11:13:35	600.02	15.32	5.20	65.81	1.96	14.14	2.47	94.68
Last 5	11:18:35	900.02	15.64	5.21	65.58	0.00	14.14	2.42	90.89
Last 5	11:23:35	1200.02	16.22	5.21	65.26	1.71	14.14	2.40	89.84
Last 5	11:28:35	1500.02	16.40	5.20	64.87	2.16	14.14	2.43	88.95
Last 5	11:33:35	1800.02	16.47	5.21	64.24	1.12	14.14	2.42	87.80
Variance 0			0.58	-0.00	-0.31			-0.03	-1.06
Variance 1			0.18	-0.00	-0.39			0.03	-0.88
Variance 2			0.07	0.00	-0.63			-0.01	-1.15

Notes

Sampled at 1137 on 1-30-19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 13:37:14

Project Information:

Operator Name J. Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 27 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWA-2
Well diameter 2 in
Well Total Depth 27.99 ft
Screen Length 10 ft
Depth to Water 15.53 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 10
Last 5	13:15:23	600.02	18.17	4.97	42.90	2.15	15.56	3.78	140.54
Last 5	13:20:24	900.41	18.30	4.96	42.98	1.83	15.60	3.75	139.11
Last 5	13:25:24	1200.41	18.30	4.95	43.00	1.66	15.60	3.72	138.05
Last 5	13:30:24	1500.41	18.33	4.93	42.51	1.60	15.60	3.69	137.94
Last 5	13:35:24	1800.41	18.16	4.91	42.22	1.84	15.60	3.67	136.98
Variance 0			0.01	-0.01	0.03			-0.04	-1.05
Variance 1			0.02	-0.02	-0.49			-0.03	-0.11
Variance 2			-0.16	-0.02	-0.29			-0.02	-0.96

Notes

Sampled at 1342 on 1-29-19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 13:30:24

Project Information:

Operator Name J Adcock
Company Name GEI
Project Name LF4
Site Name Plant McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWA-3
Well diameter 2 in
Well Total Depth 38.50 ft
Screen Length 10 ft
Depth to Water 20.70 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 56.52 in
Total Volume Pumped 7.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5%	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	13:08:13	1500.92	19.53	5.18	34.86	0.66	24.87	6.19	198.23
Last 5	13:13:13	1800.92	18.85	5.01	28.30	0.57	24.90	7.03	197.12
Last 5	13:18:13	2100.92	19.04	5.04	34.85	0.54	25.02	6.44	194.38
Last 5	13:23:13	2400.92	19.26	4.99	34.60	0.39	25.25	6.26	194.62
Last 5	13:28:13	2700.92	19.17	4.98	34.62	0.47	25.41	6.19	190.46
Variance 0			0.19	0.03	6.54			-0.59	-2.74
Variance 1			0.22	-0.05	-0.25			-0.18	0.24
Variance 2			-0.09	-0.01	0.02			-0.07	-4.16

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 14:28:10

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model Lamotte2020we

Pump Information:

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

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-4A
Well diameter 2 in
Well Total Depth 39.07 ft
Screen Length 10 ft
Depth to Water 24.90 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.09 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 13.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:05:29	4200.02	18.60	4.67	50.09	1.05	25.27	4.30	414.65
Last 5	14:10:29	4500.02	18.60	4.67	49.09	1.10	25.25	1.97	402.85
Last 5	14:15:29	4800.02	18.78	4.67	47.68	1.01	25.25	4.36	390.92
Last 5	14:20:29	5100.02	18.69	4.68	47.10	0.97	25.26	4.47	380.74
Last 5	14:25:29	5400.02	18.55	4.66	47.14	1.20	25.27	2.81	371.06
Variance 0			0.18	0.00	-1.42			2.40	-11.94
Variance 1			-0.09	0.01	-0.58			0.10	-10.18
Variance 2			-0.14	-0.02	0.04			-1.66	-9.67

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 13:26:28

Project Information:

Operator Name P Adams
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 41 ft
Screen Length 10 ft
Depth to Water 23.7 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:04:44	600.86	18.08	5.73	42.77	1.33	24.01	6.01	134.27
Last 5	13:09:44	900.86	17.90	5.52	39.64	1.57	24.03	6.11	131.89
Last 5	13:14:44	1200.86	17.51	5.45	40.02	1.40	24.04	6.13	125.51
Last 5	13:19:44	1500.86	17.83	5.39	40.32	1.26	24.04	6.11	123.43
Last 5	13:24:44	1800.86	17.50	5.39	40.47	1.17	24.04	5.99	117.48
Variance 0			-0.38	-0.07	0.39			0.02	-6.38
Variance 1			0.31	-0.06	0.30			-0.02	-2.08
Variance 2			-0.32	-0.00	0.15			-0.12	-5.95

Notes

Sampled at 1330

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 10:08:48

Project Information:

Operator Name J. Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model Lamotte 2020we

Pump Information:

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

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 37.61 ft
Screen Length 10 ft
Depth to Water 29.14 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10%	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 10
Last 5	09:46:51	600.03	14.40	4.91	45.97	1.10	29.16	6.76	132.65
Last 5	09:51:51	900.02	14.99	4.90	46.00	2.52	29.16	6.82	132.90
Last 5	09:56:51	1200.02	14.99	4.89	45.76	1.45	29.16	6.94	129.53
Last 5	10:01:51	1500.02	15.12	4.88	45.69	1.11	29.16	6.77	127.28
Last 5	10:06:51	1800.02	14.95	4.88	45.43	0.83	29.16	6.93	125.36
Variance 0			0.00	-0.01	-0.25			0.11	-3.36
Variance 1			0.13	-0.01	-0.06			-0.17	-2.25
Variance 2			-0.17	0.00	-0.26			0.16	-1.92

Notes

Sampled at 1010 on 1-30-19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 10:41:38

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model Lamotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 30 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 32.38 ft
Screen Length 10 ft
Depth to Water 24.59 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:19:27	600.02	13.50	5.93	261.71	0.60	24.87	4.67	354.60
Last 5	10:24:27	900.02	14.13	6.06	253.67	0.87	24.87	4.68	199.84
Last 5	10:29:27	1200.02	14.33	6.13	252.75	0.92	24.87	4.51	165.94
Last 5	10:34:27	1500.02	14.79	6.17	253.67	0.99	24.87	4.47	154.69
Last 5	10:39:27	1800.02	14.57	6.20	256.62	0.77	24.86	4.31	147.65
Variance 0			0.20	0.07	-0.92			-0.17	-33.89
Variance 1			0.46	0.04	0.92			-0.04	-11.25
Variance 2			-0.22	0.02	2.95			-0.16	-7.05

Notes

Sampled at 1045. DUP-LF4-02 taken here

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 11:41:08

Project Information:

Operator Name P Adams
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type qed bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 42 ft
Screen Length 10 ft
Depth to Water 33.2 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:16:02	900.02	16.16	6.19	133.38	2.28	33.45	2.73	12.16
Last 5	11:21:01	1200.02	16.31	6.17	134.77	1.97	33.45	2.43	8.42
Last 5	11:26:02	1500.02	16.29	6.16	131.95	1.66	33.45	2.36	4.49
Last 5	11:31:02	1800.02	16.31	6.14	125.39	1.98	33.45	2.54	8.23
Last 5	11:36:01	2100.02	15.88	6.09	116.66	1.47	33.45	2.82	16.35
Variance 0			-0.02	-0.01	-2.83			-0.08	-3.93
Variance 1			0.02	-0.02	-6.56			0.18	3.74
Variance 2			-0.42	-0.05	-8.73			0.28	8.12

Notes

Sampled at 1146

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 11:29:57

Project Information:

Operator Name J Adcock
Company Name GEI
Project Name LF4
Site Name Plant McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 41.50 ft
Screen Length 10 ft
Depth to Water 26.55 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.4 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5%	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	11:07:13	600.03	15.20	5.15	29.37	1.02	26.75	6.34	113.27
Last 5	11:12:13	900.02	15.72	5.08	28.49	0.88	26.76	6.23	102.06
Last 5	11:17:13	1200.02	15.71	5.04	28.75	0.72	26.75	6.12	92.47
Last 5	11:22:13	1500.02	15.51	5.03	28.64	0.79	26.75	6.09	85.24
Last 5	11:27:13	1800.03	15.77	5.01	29.08	0.82	26.75	6.10	83.66
Variance 0			-0.01	-0.04	0.26			-0.11	-9.59
Variance 1			-0.19	-0.02	-0.12			-0.03	-7.22
Variance 2			0.26	-0.02	0.44			0.00	-1.59

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 14:46:30

Project Information:

Operator Name P Adams
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWA-13
Well diameter 2 in
Well Total Depth 40.11 ft
Screen Length 10 ft
Depth to Water 29 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 30 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:22:14	1801.43	15.12	4.93	21.20	7.18	27.70	4.35	113.68
Last 5	14:27:14	2101.43	15.28	4.87	21.18	12.90	27.75	6.01	120.72
Last 5	14:32:14	2401.43	15.48	4.85	22.58	8.22	27.78	6.52	122.87
Last 5	14:37:14	2701.43	15.52	4.80	21.74	5.89	27.80	6.39	124.23
Last 5	14:42:14	3001.43	15.76	4.82	21.67	4.93	27.81	6.49	122.84
Variance 0			0.20	-0.02	1.40			0.51	2.16
Variance 1			0.04	-0.05	-0.84			-0.12	1.36
Variance 2			0.24	0.01	-0.07			0.10	-1.39

Notes

Sampled at 1450

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 14:56:29

Project Information:

Operator Name J Adcock
Company Name GEI
Project Name LF4
Site Name Plant McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 50 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWA-14
Well diameter 2 in
Well Total Depth 49.90 ft
Screen Length 10 ft
Depth to Water 26.00 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.3131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.28 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5%	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	14:34:25	600.03	17.57	5.37	28.79	1.97	26.65	7.01	152.75
Last 5	14:39:25	900.03	17.63	5.31	28.50	1.23	26.69	6.96	149.94
Last 5	14:44:25	1200.03	17.69	5.28	28.38	0.93	26.69	6.99	150.19
Last 5	14:49:25	1500.03	17.88	5.27	28.28	0.68	26.69	6.94	141.77
Last 5	14:54:25	1800.02	17.84	5.25	28.14	0.72	26.69	6.92	139.25
Variance 0			0.05	-0.03	-0.12			0.02	0.25
Variance 1			0.20	-0.01	-0.10			-0.05	-8.42
Variance 2			-0.05	-0.02	-0.14			-0.03	-2.52

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 14:56:07

Project Information:

Operator Name J. Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-15
Well diameter 2 in
Well Total Depth 40.06 ft
Screen Length 10 ft
Depth to Water 22.06 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 10%	pH +/- 0.1	SpCond μ S/cm +/- 5%	Turb NTU +/- 10%	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 10
Stabilization									
Last 5	14:33:11	600.06	17.09	5.28	29.85	2.37	22.21	7.56	126.90
Last 5	14:38:11	900.02	17.18	5.25	29.61	2.55	22.21	7.37	125.70
Last 5	14:43:12	1200.86	17.18	5.19	28.34	1.14	22.21	7.38	128.15
Last 5	14:48:12	1500.86	17.32	5.18	28.33	1.33	22.21	7.35	127.97
Last 5	14:53:12	1800.86	17.32	5.18	28.29	1.28	22.21	7.32	127.91
Variance 0			-0.00	-0.06	-1.26			0.02	2.45
Variance 1			0.14	-0.01	-0.01			-0.04	-0.17
Variance 2			-0.00	0.00	-0.04			-0.03	-0.06

Notes

Sampled at 1500 on 1-29-19

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 16:01:30

Project Information:

Operator Name P Adams
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 40 ft
Screen Length 10 ft
Depth to Water 23.7 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:39:48	600.02	16.31	4.85	23.92	5.07	25.01	7.56	133.24
Last 5	15:44:48	900.02	16.53	4.83	23.73	4.34	25.17	7.55	128.80
Last 5	15:49:48	1200.02	16.68	4.85	23.74	3.56	25.28	7.56	125.20
Last 5	15:54:48	1500.02	16.65	4.84	23.70	3.41	25.35	7.59	123.80
Last 5	15:59:48	1800.10	16.58	4.83	23.57	3.19	25.41	7.52	122.83
Variance 0			0.15	0.02	0.00			0.01	-3.59
Variance 1			-0.03	-0.01	-0.04			0.03	-1.40
Variance 2			-0.07	-0.01	-0.13			-0.07	-0.98

Notes

Sampled at 1610

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 16:27:14

Project Information:

Operator Name J Adcock
Company Name GEI
Project Name LF4
Site Name Plant McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-17
Well diameter 2 in
Well Total Depth 40.05 ft
Screen Length 10 ft
Depth to Water 26.64 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5%	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	16:02:22	1199.95	16.97	5.27	36.64	0.97	26.83	6.63	110.10
Last 5	16:07:22	1499.95	17.10	5.24	36.17	0.67	26.83	7.06	106.22
Last 5	16:12:22	1799.95	17.14	5.24	35.84	0.72	26.83	6.77	103.77
Last 5	16:17:22	2099.95	16.27	5.36	0.00	0.80	26.83	9.98	48.83
Last 5	16:22:22	2399.95	15.74	5.35	37.88	1.23	26.83	7.10	110.48
Variance 0			0.03	0.00	-0.33			-0.29	-2.45
Variance 1			-0.86	0.12	-35.84			3.21	-54.93
Variance 2			-0.53	-0.00	37.88			-2.88	61.64

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 10:21:37

Project Information:

Operator Name P Adams
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 445707
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type qed bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 45 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 42 ft
Screen Length 10 ft
Depth to Water 35.7 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.290854 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:59:33	2100.02	15.75	5.87	101.99	15.80	36.20	3.81	65.15
Last 5	10:04:33	2400.02	16.00	5.86	103.19	9.21	36.20	3.73	62.47
Last 5	10:09:33	2699.95	16.09	5.87	106.10	6.89	36.20	3.51	59.80
Last 5	10:14:37	3003.95	16.11	5.90	108.20	5.22	36.20	3.62	57.96
Last 5	10:19:37	3303.95	16.03	5.93	113.03	4.91	36.20	3.73	56.24
Variance 0			0.10	0.01	2.91			-0.23	-2.67
Variance 1			0.02	0.03	2.10			0.12	-1.84
Variance 2			-0.08	0.03	4.83			0.11	-1.72

Notes

Sampled at 1030

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-29 16:54:51

Project Information:

Operator Name J. Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601533
Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type Alexis
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 37.50 ft
Screen Length 10 ft
Depth to Water 29.63 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C +/- 10%	pH +/- 0.1	SpCond μ S/cm +/- 5%	Turb NTU +/- 10%	DTW ft	RDO mg/L +/- 10%	ORP mV +/- 10
Stabilization									
Last 5	16:31:47	600.36	17.50	5.49	85.07	2.12	29.74	4.27	99.26
Last 5	16:36:47	900.36	17.63	5.52	87.51	1.31	29.74	4.21	100.38
Last 5	16:41:47	1200.36	17.63	5.56	90.24	1.44	29.74	4.12	99.34
Last 5	16:46:47	1500.36	17.67	5.57	90.68	1.65	29.74	4.03	101.20
Last 5	16:51:47	1800.36	17.69	5.58	91.32	1.09	29.74	4.05	100.63
Variance 0			-0.00	0.04	2.73			-0.10	-1.03
Variance 1			0.04	0.00	0.44			-0.08	1.85
Variance 2			0.01	0.01	0.65			0.01	-0.56

Notes

Sampled at 1700 on 1-29-19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 07:30:46

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model Lamotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 25 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 30.12 ft
Screen Length 10 ft
Depth to Water 22.86 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:59:11	600.02	17.98	4.98	47.80	1.60	22.95	5.54	292.19
Last 5	16:04:11	900.02	18.26	4.96	47.03	1.47	22.94	5.74	282.33
Last 5	16:09:10	1200.02	18.33	4.95	46.89	2.09	22.95	5.51	290.14
Last 5	16:14:10	1500.02	18.54	4.94	47.09	1.88	22.97	5.88	358.49
Last 5	16:19:10	1800.02	18.52	4.94	46.52	2.10	22.95	5.80	404.56
Variance 0			0.07	-0.02	-0.14			-0.23	7.82
Variance 1			0.21	-0.01	0.20			0.38	68.35
Variance 2			-0.03	0.00	-0.57			-0.09	46.07

Notes

Sampled at 16:20

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 09:27:21

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model Lamotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 24 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-21
Well diameter 2 in
Well Total Depth 27.53 ft
Screen Length 10 ft
Depth to Water 21 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.1971222 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 4.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:04:53	1200.02	15.87	4.72	39.30	0.75	21.44	5.14	270.35
Last 5	09:09:53	1500.02	16.01	4.68	39.43	0.43	21.45	6.36	276.31
Last 5	09:14:53	1800.02	16.47	4.68	39.64	0.10	21.47	4.89	279.85
Last 5	09:19:53	2100.02	16.14	4.64	39.74	0.22	21.47	5.13	280.46
Last 5	09:24:53	2400.02	16.48	4.65	39.54	0.93	21.47	5.09	284.75
Variance 0			0.46	-0.00	0.21			-1.48	3.54
Variance 1			-0.33	-0.03	0.10			0.25	0.61
Variance 2			0.34	0.01	-0.20			-0.05	4.30

Notes

Sampled at 0930

Grab Samples

Product Name: Low-Flow System

Date: 2019-01-30 09:37:43

Project Information:

Operator Name J Adcock
Company Name GEI
Project Name LF4
Site Name Plant McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-23
Well diameter 2 in
Well Total Depth 33.70 ft
Screen Length 10 ft
Depth to Water 29.50 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 19.92 in
Total Volume Pumped 5.375 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5%	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10%
Last 5	09:15:11	1200.03	14.11	5.18	50.78	1.06	29.85	5.82	93.19
Last 5	09:20:11	1500.03	14.27	5.16	46.85	0.69	29.95	5.68	91.95
Last 5	09:25:11	1800.02	14.43	5.15	45.13	0.55	30.05	5.44	86.46
Last 5	09:30:11	2100.03	14.89	5.15	43.89	0.45	30.10	5.57	85.50
Last 5	09:35:11	2400.03	15.31	5.14	43.43	0.51	30.16	5.88	84.88
Variance 0			0.16	-0.00	-1.73			-0.24	-5.49
Variance 1			0.47	-0.00	-1.24			0.13	-0.96
Variance 2			0.42	-0.01	-0.46			0.32	-0.62

Notes

Grab Samples

Water Level Measurement Data Sheet

Plant McIntosh

Georgia Power Company

Date: 25-Mar-19



Gauged by: J. Adcock, L. Coker, J. Noles

Provided for reference

Area	Well ID	Installed Total Depth (ft btoc)	Measured Depth to Water (ft btoc)	Measured Depth to Bottom (ft btoc)	January 2019 Depth to Water (ft btoc)	January 2019 Depth to Bottom (ft btoc)	Installed Depth to Top of Screen (ft btoc)	Notes
Landfill No. 4	GWC-1	28.50	15.03	27.62	13.64	27.39	18.00	
	GWA-2	28.50	16.83	27.98	15.55	28.00	18.00	
	GWA-3	38.50	21.01	37.50	20.71	37.59	28.00	
	GWC-4A (GWB-4A)	39.00	25.51	39.02	24.90	39.07	28.60	
	GWC-5 (GWB-5)	41.50	24.30	40.87	23.82	40.94	31.00	
	GWC-9	38.50	28.78	37.50	28.95	37.56	28.00	
	GWC-10	33.50	24.51	32.34	24.59	32.38	23.00	
	GWC-11	43.50	33.06	42.23	33.07	42.30	33.00	
	GWC-12	41.50	26.86	42.32	26.38	41.39	31.00	
	GWA-13	40.11	25.05	40.13	25.00	40.15	29.81	
	GWA-14	49.90	25.59	50.09	26.02	50.20	39.60	
	GWC-15 (GWB-15)	40.30	22.00	40.04	22.10	40.10	30.00	
	GWA-16 (GWB-16)	40.27	24.00	40.01	23.70	40.05	29.97	
	GWC-17	40.05	26.85	40.10	26.81	40.07	29.75	
	GWC-18	42.20	35.49	42.51	35.59	42.58	31.90	
	GWC-19	36.95	29.52	37.77	29.61	37.84	26.65	
	GWC-20	30.13	22.75	30.11	22.86	30.12	19.83	
GWC-21	27.16	20.82	27.52	21.00	27.53	16.86		
GWC-22 (PZ-22)	31.65	27.64	31.61	27.85	32.71	21.35		
GWC-23	33.70	28.70	33.71	28.91	33.76	23.40		

Notes: ft = feet NM = Not Measured btoc = below top of casing bgs = below ground surface

Product Name: Low-Flow System

Date: 2019-03-27 14:42:05

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 25 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-1
Well diameter 2 in
Well Total Depth 28.50 ft
Screen Length 10 ft
Depth to Water 15.16 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2015856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.16 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:20:22	600.02	19.77	5.18	58.99	1.92	15.32	2.13	173.43
Last 5	14:25:22	900.02	19.64	5.18	59.04	1.53	15.33	2.10	165.88
Last 5	14:30:22	1200.02	19.64	5.17	59.03	1.23	15.33	2.10	158.93
Last 5	14:35:22	1500.02	19.53	5.17	58.41	1.07	15.34	2.12	157.12
Last 5	14:40:22	1800.02	19.50	5.15	58.14	0.96	15.34	2.15	149.68
Variance 0			-0.01	-0.01	-0.01			-0.00	-6.95
Variance 1			-0.11	-0.00	-0.63			0.02	-1.81
Variance 2			-0.02	-0.01	-0.27			0.04	-7.44

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 16:04:32

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 30 ft

Pump placement from TOC ft

Well Information:

Well ID GWA-2
Well diameter 2 in
Well Total Depth 27.98 ft
Screen Length 10 ft
Depth to Water 17.20 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	15:42:55	600.02	17.33	4.71	37.35	3.12	17.25	3.60	211.40
Last 5	15:47:55	900.02	17.35	4.70	37.90	2.81	17.25	3.62	210.19
Last 5	15:52:55	1200.02	16.76	4.70	37.62	2.57	17.25	3.55	201.89
Last 5	15:57:55	1500.02	17.02	4.69	37.53	2.17	17.25	3.52	200.37
Last 5	16:02:55	1800.02	17.47	4.69	37.54	1.84	17.25	3.47	198.67
Variance 0			-0.58	0.00	-0.28			-0.07	-8.30
Variance 1			0.26	-0.01	-0.08			-0.03	-1.53
Variance 2			0.45	-0.00	0.00			-0.05	-1.69

Notes

Sampled at 1115

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 14:48:38

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC ft

Well Information:

Well ID GWA-3
Well diameter 2 in
Well Total Depth 37.5 ft
Screen Length 10 ft
Depth to Water 21.05 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2506832 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 39.6 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:25:28	1200.02	15.65	5.08	31.23	0.76	23.35	6.16	212.41
Last 5	14:30:28	1500.02	15.91	4.95	31.21	0.50	23.65	6.11	211.82
Last 5	14:35:28	1800.02	16.14	4.88	31.25	0.81	23.90	6.05	207.13
Last 5	14:40:28	2100.02	16.36	4.82	31.01	1.04	24.15	6.06	207.37
Last 5	14:45:28	2400.02	16.73	4.80	31.06	1.25	24.35	6.00	206.63
Variance 0			0.24	-0.07	0.04			-0.06	-4.69
Variance 1			0.22	-0.06	-0.24			0.00	0.24
Variance 2			0.37	-0.02	0.04			-0.06	-0.73

Notes

Sampled at 0955

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 19:58:57

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC ft

Well Information:

Well ID GWC-4A
Well diameter 2 in
Well Total Depth 39.02 ft
Screen Length 10 ft
Depth to Water 25.62 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	19:37:03	1500.02	22.02	4.93	53.89	1.54	25.76	1.31	241.71
Last 5	19:42:03	1800.02	21.81	4.86	51.82	1.28	25.76	1.30	237.10
Last 5	19:47:03	2100.02	22.03	4.79	51.49	1.05	25.76	1.31	228.36
Last 5	19:52:03	2400.02	21.45	4.74	50.54	1.17	25.76	1.31	223.89
Last 5	19:57:03	2700.02	20.85	4.72	50.16	1.19	25.76	1.29	212.83
Variance 0			0.22	-0.07	-0.33			0.00	-8.74
Variance 1			-0.58	-0.04	-0.96			0.01	-4.47
Variance 2			-0.60	-0.03	-0.37			-0.03	-11.06

Notes

Sampled at 1505

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 14:10:32

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 408206
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 36 ft

Pump placement from TOC ft

Well Information:

Well ID GWC-5
Well diameter 2 in
Well Total Depth 40.87 ft
Screen Length 10 ft
Depth to Water 24.30 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.84 in
Total Volume Pumped 5.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:30:55	1200.02	20.83	5.58	36.20	0.52	24.60	5.45	188.50
Last 5	14:35:55	1500.02	21.25	5.54	37.80	0.59	24.61	5.38	186.10
Last 5	14:40:55	1800.02	21.45	5.48	35.30	0.60	24.61	5.34	188.10
Last 5	14:45:55	2100.02	21.54	5.47	34.50	1.62	24.61	5.35	186.80
Last 5	14:50:55	2400.02	21.50	5.45	35.00	0.45	24.62	5.37	184.10
Variance 0			-0.58	0.00	-0.28			-0.07	-8.30
Variance 1			0.26	-0.01	-0.08			-0.03	-1.53
Variance 2			0.45	-0.00	0.00			-0.05	-1.69

Notes

Sampled at 1500

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 17:56:27

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 37.50 ft
Screen Length 10 ft
Depth to Water 28.95 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	17:34:42	600.03	20.38	4.78	46.72	1.33	28.95	7.22	262.53
Last 5	17:39:42	900.02	20.64	4.78	46.66	1.43	28.95	7.49	254.30
Last 5	17:44:42	1200.03	20.29	4.78	46.61	0.98	28.95	7.24	239.79
Last 5	17:49:42	1500.02	20.35	4.78	46.42	1.01	28.95	7.60	228.91
Last 5	17:54:42	1800.02	20.65	4.75	46.27	1.22	28.95	7.65	223.03
Variance 0			-0.35	-0.01	-0.06			-0.24	-14.51
Variance 1			0.05	0.00	-0.18			0.35	-10.88
Variance 2			0.30	-0.02	-0.15			0.05	-5.88

Notes

Sampled at 1305

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 13:17:04

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 31 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-10
Well diameter 2 in
Well Total Depth 33.50 ft
Screen Length 10 ft
Depth to Water 24.69 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2283661 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:50:11	600.03	20.97	6.62	223.69	0.79	24.76	3.21	114.82
Last 5	12:55:11	900.02	20.88	6.64	226.36	1.00	24.76	3.08	87.56
Last 5	13:00:11	1200.02	20.82	6.61	226.50	0.83	24.76	3.03	78.58
Last 5	13:10:11	1800.02	20.84	6.53	220.76	0.96	24.76	2.85	78.71
Last 5	13:15:11	2100.02	20.93	6.54	217.46	0.47	24.76	2.88	74.57
Variance 0			-0.06	-0.04	0.14			-0.06	-8.98
Variance 1			0.02	-0.08	-5.74			-0.18	0.13
Variance 2			0.09	0.01	-3.30			0.04	-4.15

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 14:05:16

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-11
Well diameter 2 in
Well Total Depth 42.23 ft
Screen Length 10 ft
Depth to Water 33.06 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 5.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:15:55	600.02	20.47	6.16	120.90	1.76	33.23	2.69	101.30
Last 5	14:20:55	900.02	21.40	6.21	123.00	1.39	33.25	2.49	96.40
Last 5	14:25:55	1200.02	21.33	6.24	124.20	1.18	33.25	2.37	95.20
Last 5	14:30:55	1500.02	21.34	6.26	123.80	1.03	33.25	2.24	96.20
Last 5	14:35:55	1800.02	21.41	6.32	122.30	1.07	33.25	2.21	90.10
Variance 0			-0.58	0.00	-0.28			-0.07	-8.30
Variance 1			0.26	-0.01	-0.08			-0.03	-1.53
Variance 2			0.45	-0.00	0.00			-0.05	-1.69

Notes

Sampled at 1440

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 19:13:16

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC ft

Well Information:

Well ID GWC-12
Well diameter 2 in
Well Total Depth 42.32 ft
Screen Length 10 ft
Depth to Water 27.00 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	18:51:47	600.02	21.18	4.94	23.72	0.59	27.10	5.99	200.19
Last 5	18:56:47	900.02	21.22	4.94	24.07	0.63	27.10	6.05	196.54
Last 5	19:01:47	1200.02	21.32	4.93	24.14	0.55	27.10	6.16	194.11
Last 5	19:06:47	1500.02	21.23	4.93	24.17	0.55	27.10	5.84	192.76
Last 5	19:11:47	1800.02	21.27	4.93	24.31	0.87	27.10	5.96	191.43
Variance 0			0.11	-0.01	0.06			0.11	-2.43
Variance 1			-0.10	-0.00	0.04			-0.32	-1.34
Variance 2			0.05	0.00	0.14			0.13	-1.33

Notes

Sampled at 1430

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 14:47:10

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWA-13
Well diameter 2 in
Well Total Depth 40.11 ft
Screen Length 10 ft
Depth to Water 25.12 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.12 in
Total Volume Pumped 5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:20:45	600.02	20.75	5.20	18.93	1.81	25.12	6.86	205.50
Last 5	14:25:45	900.02	20.52	5.14	18.87	5.31	25.12	6.90	200.81
Last 5	14:35:45	1500.01	20.95	5.11	18.71	8.25	25.13	6.93	195.51
Last 5	14:40:45	1800.01	21.20	5.10	18.76	5.28	25.13	6.97	198.74
Last 5	14:45:45	2100.01	21.37	5.07	19.05	2.25	25.13	7.13	231.58
Variance 0			0.42	-0.03	-0.15			0.04	-5.29
Variance 1			0.25	-0.02	0.04			0.03	3.22
Variance 2			0.18	-0.03	0.29			0.17	32.85

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 16:09:15

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

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

Pump placement from TOC 2 ft

Well Information:

Well ID GWA-14
Well diameter 2 in
Well Total Depth 49.90 ft
Screen Length 10 ft
Depth to Water 25.94 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2997809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 in
Total Volume Pumped 4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:47:42	1800.02	19.42	5.50	25.64	2.13	26.64	7.40	160.24
Last 5	15:52:42	2100.02	19.42	5.43	24.99	1.66	26.68	7.44	163.04
Last 5	15:57:42	2400.01	19.41	5.35	24.29	1.57	26.68	7.63	164.34
Last 5	16:02:42	2700.02	19.32	5.33	23.86	1.05	26.68	7.59	166.48
Last 5	16:07:42	3000.02	19.28	5.29	23.68	0.86	26.69	7.03	167.88
Variance 0			-0.01	-0.08	-0.71			0.19	1.30
Variance 1			-0.09	-0.02	-0.42			-0.04	2.14
Variance 2			-0.05	-0.04	-0.18			-0.56	1.41

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 15:15:19

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 408206
Turbidity Make/Model LaMotte2020we

Pump Information:

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

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-15
Well diameter 2 in
Well Total Depth 40.04 ft
Screen Length 10 ft
Depth to Water 22.00 ft

Pumping Information:

Final Pumping Rate 113 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.28 in
Total Volume Pumped 3.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	15:25:55	600.02	19.14	5.12	24.50	2.45	22.30	6.84	215.70
Last 5	15:30:55	900.02	19.15	5.09	24.30	1.99	22.32	6.78	213.70
Last 5	15:35:55	1200.02	19.01	5.06	24.30	1.78	22.30	6.78	213.10
Last 5	15:40:55	1500.02	18.97	5.04	24.10	1.61	22.31	6.76	209.90
Last 5	15:45:55	1800.02	18.97	5.04	24.10	1.91	22.32	6.77	206.70
Variance 0			-0.58	0.00	-0.28			-0.07	-8.30
Variance 1			0.26	-0.01	-0.08			-0.03	-1.53
Variance 2			0.45	-0.00	0.00			-0.05	-1.69

Notes

Sampled at 1550

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 21:11:04

Project Information:

Operator Name J.Noles
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369370
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 40 ft

Pump placement from TOC ft

Well Information:

Well ID GWA-16
Well diameter 2 in
Well Total Depth 40.01 ft
Screen Length 10 ft
Depth to Water 24.10 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2685369 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.68 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	20:49:23	600.03	19.67	4.99	22.57	2.01	24.24	6.98	212.83
Last 5	20:54:23	900.02	19.54	4.99	22.46	1.89	24.24	6.93	209.11
Last 5	20:59:23	1200.02	19.55	4.98	22.45	2.27	24.24	6.95	205.32
Last 5	21:04:23	1500.02	19.57	4.97	22.34	2.21	24.24	6.89	199.98
Last 5	21:09:23	1800.02	19.50	4.95	22.48	1.61	24.24	6.86	198.46
Variance 0			0.01	-0.00	-0.01			0.02	-3.79
Variance 1			0.02	-0.01	-0.11			-0.05	-5.33
Variance 2			-0.07	-0.02	0.15			-0.03	-1.52

Notes

Sampled at 1620

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 09:40:46

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 3 ft

Well Information:

Well ID GWC-17
Well diameter 2 in
Well Total Depth 40.05 ft
Screen Length 10 ft
Depth to Water 27.18 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:18:57	1200.01	17.88	5.29	34.25	2.87	27.42	5.92	144.07
Last 5	09:23:57	1500.01	18.08	5.29	33.85	2.38	27.43	6.07	144.98
Last 5	09:28:57	1800.02	18.21	5.26	32.53	2.09	27.43	6.16	144.93
Last 5	09:33:57	2100.01	18.17	5.27	31.97	1.69	27.43	6.23	143.90
Last 5	09:38:57	2399.99	18.43	5.25	31.58	1.49	27.43	6.26	154.57
Variance 0			0.13	-0.03	-1.33			0.09	-0.04
Variance 1			-0.05	0.01	-0.56			0.07	-1.03
Variance 2			0.26	-0.02	-0.38			0.03	10.67

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 15:15:19

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 408206
Turbidity Make/Model LaMotte2020we

Pump Information:

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

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-18
Well diameter 2 in
Well Total Depth 42.51 ft
Screen Length 10 ft
Depth to Water 35.49 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.12 in
Total Volume Pumped 4.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	09:35:06	600.01	18.98	6.42	91.00	4.20	36.10	3.82	114.60
Last 5	09:40:06	900.01	19.05	6.24	91.60	3.19	36.20	3.63	106.80
Last 5	09:45:06	1200.01	18.97	6.15	92.90	2.48	36.20	3.58	104.00
Last 5	09:50:06	1500.01	19.05	6.12	93.70	3.24	36.22	3.64	100.50
Last 5	09:55:06	1800.01	19.12	6.11	94.80	2.92	36.25	3.69	98.50
Variance 0			-0.31	0.00	-0.21			-0.07	-1.23
Variance 1			0.26	-0.01	-0.06			-0.03	-1.13
Variance 2			0.45	-0.00	0.00			-0.05	-2.11

Notes

Sampled at 1000

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 10:49:00

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 35 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-19
Well diameter 2 in
Well Total Depth 36.95 ft
Screen Length 10 ft
Depth to Water 29.59 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.44 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:20:49	300.04	18.15	5.82	111.02	19.80	29.68	3.89	81.63
Last 5	10:25:49	600.02	18.45	5.64	94.25	5.17	29.69	4.67	115.69
Last 5	10:35:49	1200.02	18.48	5.60	87.26	1.70	29.71	5.13	116.96
Last 5	10:40:49	1500.02	18.70	5.58	85.96	1.33	29.71	5.14	118.54
Last 5	10:45:49	1800.03	18.62	5.59	85.67	2.75	29.71	4.91	116.94
Variance 0			0.03	-0.04	-6.99			0.46	1.26
Variance 1			0.22	-0.02	-1.31			0.01	1.58
Variance 2			-0.08	0.02	-0.29			-0.23	-1.60

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 10:40:19

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 408206
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 27 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-20
Well diameter 2 in
Well Total Depth 30.11 ft
Screen Length 10 ft
Depth to Water 22.75 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 4.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	10:50:06	600.03	17.40	5.10	48.90	2.36	22.90	5.09	190.90
Last 5	10:55:06	900.03	17.59	5.01	51.00	2.21	22.90	4.84	187.60
Last 5	11:00:06	1200.03	17.72	4.99	50.60	1.70	22.90	4.79	183.00
Last 5	11:05:06	1500.03	17.75	4.96	50.40	1.38	22.90	4.76	177.80
Last 5	11:10:06	1800.03	17.82	4.94	50.20	1.41	22.90	4.83	175.30
Variance 0			-0.31	0.00	-0.21			-0.07	-1.23
Variance 1			0.26	-0.01	-0.06			-0.03	-1.13
Variance 2			0.45	-0.00	0.00			-0.05	-2.11

Notes

Sampled at 1115, DUP-LF4-01 taken here

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 11:57:43

Project Information:

Operator Name J. Adcock
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 26 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-21
Well diameter 2 in
Well Total Depth 27.16 ft
Screen Length 10 ft
Depth to Water 20.89 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.206049 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.44 in
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:30:40	300.03	20.22	5.03	38.27	1.23	21.10	5.39	187.45
Last 5	11:35:40	600.01	19.91	5.04	38.24	1.21	21.21	5.74	185.26
Last 5	11:45:40	1200.05	19.86	5.00	37.96	1.57	21.25	5.64	217.53
Last 5	11:50:40	1500.03	19.96	4.99	37.92	0.96	21.26	5.34	179.33
Last 5	11:55:40	1800.02	20.00	4.96	38.05	1.07	21.26	5.46	183.15
Variance 0			-0.05	-0.05	-0.27			-0.09	32.28
Variance 1			0.10	-0.01	-0.04			-0.30	-38.21
Variance 2			0.04	-0.03	0.13			0.12	3.82

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 12:05:29

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name LF4
Site Name McIntosh
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 408206
Turbidity Make/Model LaMotte2020we

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 30 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-23
Well diameter 2 in
Well Total Depth 33.71 ft
Screen Length 10 ft
Depth to Water 28.70 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.04 in
Total Volume Pumped 4.0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	12:25:06	1200.03	18.09	5.35	45.80	0.51	29.25	4.82	143.20
Last 5	12:30:06	1500.03	17.94	5.34	43.90	0.50	29.29	4.43	140.10
Last 5	12:35:06	1800.03	18.09	5.31	42.90	0.72	29.30	4.56	140.60
Last 5	12:40:06	2100.03	18.18	5.31	41.80	0.58	29.34	4.36	138.60
Last 5	12:45:06	2400.03	18.26	5.30	41.90	0.61	29.37	4.31	137.90
Variance 0			-0.31	0.00	-0.21			-0.07	-1.23
Variance 1			0.26	-0.01	-0.06			-0.03	-1.13
Variance 2			0.45	-0.00	0.00			-0.05	-2.11

Notes

Sampled at 1250

Grab Samples

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-86198-2

TestAmerica Sample Delivery Group: L4 State Compliance

Client Project/Site: CCR - Plant McIntosh Ash Landfill #4

Revision: 2

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:

3/8/2019 2:52:19 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

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

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

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Job ID: 180-86198-2

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-86198-2

Revision(2) to set RL to those in SOW

Revised : to change RLs for B and Ca to routine

Comments

No additional comments.

Receipt

The samples were received on 1/30/2019 10:20 AM; the samples arrived in good condition. The temperatures of the 5 coolers at receipt time were 0.7° C, 2.4° C, 2.4° C, 10.9° C and 11.1° C.

As per Peter Adams, GEI, Boron and Calcium should be included in the state compliance list of metals; these elements are not listed on the COC.

Anions

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.

General Chemistry

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



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

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.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-86198-1	GWA-2	Water	01/29/19 13:42	01/30/19 10:20
180-86198-2	GWA-3	Water	01/29/19 13:35	01/30/19 10:20
180-86198-3	GWC-4A	Water	01/29/19 15:15	01/30/19 10:20
180-86198-4	GWC-5	Water	01/29/19 13:30	01/30/19 10:20
180-86198-5	GWA-13	Water	01/29/19 14:50	01/30/19 10:20
180-86198-6	GWA-14	Water	01/29/19 15:00	01/30/19 10:20
180-86198-7	GWA-16	Water	01/29/19 16:10	01/30/19 10:20
180-86198-8	GWC-17	Water	01/29/19 16:30	01/30/19 10:20
180-86198-9	GWC-15	Water	01/29/19 15:00	01/30/19 10:20
180-86198-10	GWC-19	Water	01/29/19 17:00	01/30/19 10:20
180-86198-11	GWC-20	Water	01/29/19 16:20	01/30/19 10:20
180-86198-12	FERB-LFY-01	Water	01/29/19 12:15	01/30/19 10:20
180-86198-13	FB-LFY-01	Water	01/29/19 12:20	01/30/19 10:20

Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	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 = 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 #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWA-2

Date Collected: 01/29/19 13:42

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-1

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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 06:03	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			269983	02/08/19 15:41	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT

Client Sample ID: GWA-3

Date Collected: 01/29/19 13:35

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-2

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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 06:19	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			269983	02/08/19 15:54	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT

Client Sample ID: GWC-4A

Date Collected: 01/29/19 15:15

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-3

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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 06:34	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			269983	02/08/19 15:57	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT

Client Sample ID: GWC-5

Date Collected: 01/29/19 13:30

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-4

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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 06:50	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Client Sample ID: GWC-5

Date Collected: 01/29/19 13:30

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:01	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWA-13

Date Collected: 01/29/19 14:50

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-5

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	1 mL	1.0 mL	269535	02/05/19 09:13	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:04	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWA-14

Date Collected: 01/29/19 15:00

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-6

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			269428	02/02/19 15:37	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:07	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWA-16

Date Collected: 01/29/19 16:10

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-7

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	1 mL	1.0 mL	269428	02/02/19 16:25	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:17	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT
		Instrument ID: NOEQUIP								

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Client Sample ID: GWC-17

Lab Sample ID: 180-86198-8

Date Collected: 01/29/19 16:30

Matrix: Water

Date Received: 01/30/19 10:20

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	1 mL	1.0 mL	269428	02/02/19 16:41	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:21	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269403	02/01/19 15:40	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-15

Lab Sample ID: 180-86198-9

Date Collected: 01/29/19 15:00

Matrix: Water

Date Received: 01/30/19 10:20

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	1 mL	1.0 mL	269428	02/02/19 16:57	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:24	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269406	02/01/19 17:19	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-19

Lab Sample ID: 180-86198-10

Date Collected: 01/29/19 17:00

Matrix: Water

Date Received: 01/30/19 10:20

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	1 mL	1.0 mL	269428	02/02/19 17:12	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:27	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269282	01/31/19 14:50	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-20

Lab Sample ID: 180-86198-11

Date Collected: 01/29/19 16:20

Matrix: Water

Date Received: 01/30/19 10:20

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	1 mL	1.0 mL	269428	02/02/19 17:28	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Client Sample ID: GWC-20

Lab Sample ID: 180-86198-11

Date Collected: 01/29/19 16:20

Matrix: Water

Date Received: 01/30/19 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:31	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269282	01/31/19 14:50	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: FERB-LFY-01

Lab Sample ID: 180-86198-12

Date Collected: 01/29/19 12:15

Matrix: Water

Date Received: 01/30/19 10:20

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	1 mL	1.0 mL	269428	02/02/19 17:44	CMR	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:34	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269406	02/01/19 17:19	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: FB-LFY-01

Lab Sample ID: 180-86198-13

Date Collected: 01/29/19 12:20

Matrix: Water

Date Received: 01/30/19 10:20

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	1 mL	1.0 mL	269428	02/02/19 18:00	CMR	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	269501	02/04/19 12:30	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269983	02/08/19 16:37	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269406	02/01/19 17:19	TAM	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

NAM = Nicole Marfisi

Batch Type: Analysis

CMR = Carl Reagle

MJH = Matthew Hartman

RSK = Robert Kurtz

TAM = Tessa Mastalski

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWA-2
Date Collected: 01/29/19 13:42
Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		1.0	0.71	mg/L			02/05/19 06:03	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 06:03	1
Sulfate	0.64	J	1.0	0.38	mg/L			02/05/19 06:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 15:41	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 15:41	1
Barium	0.034		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 15:41	1
Beryllium	0.000063	J	0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 15:41	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 15:41	1
Cobalt	0.0010	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 15:41	1
Chromium	0.0019	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 15:41	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 15:41	1
Nickel	0.00063	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 15:41	1
Lead	0.00024	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 15:41	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 15:41	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 15:41	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 15:41	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 15:41	1
Zinc	0.0064	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 15:41	1
Calcium	0.53		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 15:41	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 15:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		10	10	mg/L			02/01/19 15:40	1

Client Sample ID: GWA-3
Date Collected: 01/29/19 13:35
Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			02/05/19 06:19	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 06:19	1
Sulfate	<0.38		1.0	0.38	mg/L			02/05/19 06:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 15:54	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 15:54	1
Barium	0.017		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 15:54	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 15:54	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 15:54	1
Cobalt	0.00035	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 15:54	1
Chromium	0.0016	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 15:54	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 15:54	1
Nickel	0.00034	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 15:54	1
Lead	0.000098	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 15:54	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWA-3

Date Collected: 01/29/19 13:35

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 15:54	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 15:54	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 15:54	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 15:54	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 15:54	1
Calcium	0.85		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 15:54	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	27		10	10	mg/L			02/01/19 15:40	1

Client Sample ID: GWC-4A

Date Collected: 01/29/19 15:15

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		1.0	0.71	mg/L			02/05/19 06:34	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 06:34	1
Sulfate	8.7		1.0	0.38	mg/L			02/05/19 06:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 15:57	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 15:57	1
Barium	0.025		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 15:57	1
Beryllium	0.00011	J	0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 15:57	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 15:57	1
Cobalt	0.0033		0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 15:57	1
Chromium	0.00099	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 15:57	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 15:57	1
Nickel	0.0021	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 15:57	1
Lead	0.00026	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 15:57	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 15:57	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 15:57	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 15:57	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 15:57	1
Zinc	0.0064	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 15:57	1
Calcium	0.83		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 15:57	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26		10	10	mg/L			02/01/19 15:40	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWC-5

Date Collected: 01/29/19 13:30

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.71	mg/L			02/05/19 06:50	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 06:50	1
Sulfate	<0.38		1.0	0.38	mg/L			02/05/19 06:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:01	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:01	1
Barium	0.050		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:01	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:01	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:01	1
Cobalt	0.00064	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:01	1
Chromium	0.0014	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:01	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:01	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:01	1
Lead	0.00011	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:01	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:01	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:01	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:01	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:01	1
Zinc	0.0027	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:01	1
Calcium	3.3		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:01	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		10	10	mg/L			02/01/19 15:40	1

Client Sample ID: GWA-13

Date Collected: 01/29/19 14:50

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.71	mg/L			02/05/19 09:13	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 09:13	1
Sulfate	1.2		1.0	0.38	mg/L			02/05/19 09:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:04	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:04	1
Barium	0.019		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:04	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:04	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:04	1
Cobalt	0.00043	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:04	1
Chromium	0.0037	B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:04	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:04	1
Nickel	0.00033	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:04	1
Lead	0.00043	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:04	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWA-13

Date Collected: 01/29/19 14:50

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:04	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:04	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:04	1
Vanadium	0.0018	J	0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:04	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:04	1
Calcium	0.33		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:04	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24		10	10	mg/L			02/01/19 15:40	1

Client Sample ID: GWA-14

Date Collected: 01/29/19 15:00

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			02/02/19 15:37	1
Fluoride	<0.026		0.20	0.026	mg/L			02/02/19 15:37	1
Sulfate	0.52	J	1.0	0.38	mg/L			02/02/19 15:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:07	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:07	1
Barium	0.013		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:07	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:07	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:07	1
Cobalt	0.00029	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:07	1
Chromium	0.0014	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:07	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:07	1
Nickel	0.00040	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:07	1
Lead	0.00011	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:07	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:07	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:07	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:07	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:07	1
Zinc	0.0048	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:07	1
Calcium	0.51		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:07	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22		10	10	mg/L			02/01/19 15:40	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWA-16

Lab Sample ID: 180-86198-7

Date Collected: 01/29/19 16:10

Matrix: Water

Date Received: 01/30/19 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.71	mg/L			02/02/19 16:25	1
Fluoride	<0.026		0.20	0.026	mg/L			02/02/19 16:25	1
Sulfate	<0.38		1.0	0.38	mg/L			02/02/19 16:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:17	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:17	1
Barium	0.026		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:17	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:17	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:17	1
Cobalt	0.00044	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:17	1
Chromium	0.0024	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:17	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:17	1
Nickel	0.00040	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:17	1
Lead	0.00018	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:17	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:17	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:17	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:17	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:17	1
Zinc	0.0024	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:17	1
Calcium	0.41		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:17	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26		10	10	mg/L			02/01/19 15:40	1

Client Sample ID: GWC-17

Lab Sample ID: 180-86198-8

Date Collected: 01/29/19 16:30

Matrix: Water

Date Received: 01/30/19 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		1.0	0.71	mg/L			02/02/19 16:41	1
Fluoride	0.13	J	0.20	0.026	mg/L			02/02/19 16:41	1
Sulfate	<0.38		1.0	0.38	mg/L			02/02/19 16:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:21	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:21	1
Barium	0.020		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:21	1
Beryllium	0.00062	J	0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:21	1
Cadmium	0.00062	J	0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:21	1
Cobalt	0.00038	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:21	1
Chromium	0.0041	B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:21	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:21	1
Nickel	0.0016	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:21	1
Lead	0.00016	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:21	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWC-17

Lab Sample ID: 180-86198-8

Date Collected: 01/29/19 16:30

Matrix: Water

Date Received: 01/30/19 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:21	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:21	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:21	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:21	1
Zinc	0.0059	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:21	1
Calcium	2.2		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:21	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	37		10	10	mg/L			02/01/19 15:40	1

Client Sample ID: GWC-15

Lab Sample ID: 180-86198-9

Date Collected: 01/29/19 15:00

Matrix: Water

Date Received: 01/30/19 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.71	mg/L			02/02/19 16:57	1
Fluoride	<0.026		0.20	0.026	mg/L			02/02/19 16:57	1
Sulfate	0.43	J	1.0	0.38	mg/L			02/02/19 16:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:24	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:24	1
Barium	0.027		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:24	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:24	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:24	1
Cobalt	0.00037	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:24	1
Chromium	0.0021	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:24	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:24	1
Nickel	0.00046	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:24	1
Lead	0.00014	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:24	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:24	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:24	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:24	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:24	1
Zinc	0.0059	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:24	1
Calcium	0.91		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:24	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	23		10	10	mg/L			02/01/19 17:19	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Client Sample ID: GWC-19

Lab Sample ID: 180-86198-10

Date Collected: 01/29/19 17:00

Matrix: Water

Date Received: 01/30/19 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.2		1.0	0.71	mg/L			02/02/19 17:12	1
Fluoride	0.074	J	0.20	0.026	mg/L			02/02/19 17:12	1
Sulfate	1.4		1.0	0.38	mg/L			02/02/19 17:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:27	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:27	1
Barium	0.016		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:27	1
Beryllium	0.00023	J	0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:27	1
Cadmium	0.00020	J	0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:27	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:27	1
Chromium	0.0019	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:27	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:27	1
Nickel	0.0017	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:27	1
Lead	0.00011	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:27	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:27	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:27	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:27	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:27	1
Zinc	0.0051	J	0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:27	1
Calcium	9.2		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:27	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	62		10	10	mg/L			01/31/19 14:50	1

Client Sample ID: GWC-20

Lab Sample ID: 180-86198-11

Date Collected: 01/29/19 16:20

Matrix: Water

Date Received: 01/30/19 10:20

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			02/02/19 17:28	1
Fluoride	0.031	J	0.20	0.026	mg/L			02/02/19 17:28	1
Sulfate	1.3		1.0	0.38	mg/L			02/02/19 17:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:31	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:31	1
Barium	0.017		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:31	1
Beryllium	0.00016	J	0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:31	1
Cadmium	0.00016	J	0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:31	1
Cobalt	0.00084	J	0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:31	1
Chromium	0.0013	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:31	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:31	1
Nickel	0.00093	J	0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:31	1
Lead	0.00012	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:31	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
SDG: L4 State Compliance

Client Sample ID: GWC-20

Date Collected: 01/29/19 16:20

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:31	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:31	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:31	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:31	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:31	1
Calcium	1.8		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:31	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	27		10	10	mg/L			01/31/19 14:50	1

Client Sample ID: FERB-LFY-01

Date Collected: 01/29/19 12:15

Date Received: 01/30/19 10:20

Lab Sample ID: 180-86198-12

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			02/02/19 17:44	1
Fluoride	<0.026		0.20	0.026	mg/L			02/02/19 17:44	1
Sulfate	<0.38		1.0	0.38	mg/L			02/02/19 17:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:34	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:34	1
Barium	<0.00037		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:34	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:34	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:34	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:34	1
Chromium	<0.00063		0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:34	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:34	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:34	1
Lead	0.00011	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:34	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:34	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:34	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:34	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:34	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:34	1
Calcium	<0.12		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:34	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/01/19 17:19	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Client Sample ID: FB-LFY-01

Lab Sample ID: 180-86198-13

Date Collected: 01/29/19 12:20

Matrix: Water

Date Received: 01/30/19 10:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/02/19 18:00	1
Fluoride	<0.026		0.20	0.026	mg/L			02/02/19 18:00	1
Sulfate	<0.38		1.0	0.38	mg/L			02/02/19 18:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 16:37	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 16:37	1
Barium	<0.00037		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 16:37	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 16:37	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 16:37	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 16:37	1
Chromium	0.00068	J B	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 16:37	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 16:37	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 16:37	1
Lead	0.00011	J B	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 16:37	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 16:37	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 16:37	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 16:37	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 16:37	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 16:37	1
Calcium	<0.12		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 16:37	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/01/19 17:19	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

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

Lab Sample ID: MB 180-269428/6
Matrix: Water
Analysis Batch: 269428

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/02/19 11:07	1
Fluoride	<0.026		0.20	0.026	mg/L			02/02/19 11:07	1
Sulfate	<0.38		1.0	0.38	mg/L			02/02/19 11:07	1

Lab Sample ID: LCS 180-269428/5
Matrix: Water
Analysis Batch: 269428

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	24.1		mg/L		96	90 - 110
Fluoride	1.25	1.22		mg/L		98	90 - 110
Sulfate	25.0	23.9		mg/L		95	90 - 110

Lab Sample ID: 180-86198-6 MS
Matrix: Water
Analysis Batch: 269428

Client Sample ID: GWA-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0		25.0	29.2		mg/L		101	80 - 120
Fluoride	<0.026		1.25	1.34		mg/L		107	80 - 120
Sulfate	0.52	J	25.0	25.4		mg/L		100	80 - 120

Lab Sample ID: 180-86198-6 MSD
Matrix: Water
Analysis Batch: 269428

Client Sample ID: GWA-14
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.0		25.0	29.0		mg/L		100	80 - 120	1	20
Fluoride	<0.026		1.25	1.33		mg/L		106	80 - 120	1	20
Sulfate	0.52	J	25.0	25.7		mg/L		101	80 - 120	1	20

Lab Sample ID: MB 180-269535/6
Matrix: Water
Analysis Batch: 269535

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/05/19 05:31	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 05:31	1
Sulfate	<0.38		1.0	0.38	mg/L			02/05/19 05:31	1

Lab Sample ID: LCS 180-269535/5
Matrix: Water
Analysis Batch: 269535

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.5		mg/L		102	90 - 110
Fluoride	1.25	1.29		mg/L		104	90 - 110
Sulfate	25.0	25.3		mg/L		101	90 - 110

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-269501/1-A
Matrix: Water
Analysis Batch: 269983

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 269501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/04/19 12:30	02/08/19 15:17	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/04/19 12:30	02/08/19 15:17	1
Barium	<0.00037		0.0025	0.00037	mg/L		02/04/19 12:30	02/08/19 15:17	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/04/19 12:30	02/08/19 15:17	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/04/19 12:30	02/08/19 15:17	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/04/19 12:30	02/08/19 15:17	1
Chromium	0.000966	J	0.0025	0.00063	mg/L		02/04/19 12:30	02/08/19 15:17	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/04/19 12:30	02/08/19 15:17	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/04/19 12:30	02/08/19 15:17	1
Lead	0.000115	J	0.0010	0.000094	mg/L		02/04/19 12:30	02/08/19 15:17	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/04/19 12:30	02/08/19 15:17	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/04/19 12:30	02/08/19 15:17	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/04/19 12:30	02/08/19 15:17	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/04/19 12:30	02/08/19 15:17	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/04/19 12:30	02/08/19 15:17	1
Calcium	<0.12		0.25	0.12	mg/L		02/04/19 12:30	02/08/19 15:17	1
Boron	<0.030		0.050	0.030	mg/L		02/04/19 12:30	02/08/19 15:17	1

Lab Sample ID: LCS 180-269501/2-A
Matrix: Water
Analysis Batch: 269983

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 269501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0517		mg/L		103	80 - 120
Arsenic	0.0400	0.0381		mg/L		95	80 - 120
Barium	2.00	2.13		mg/L		107	80 - 120
Beryllium	0.0500	0.0512		mg/L		102	80 - 120
Cadmium	0.0500	0.0514		mg/L		103	80 - 120
Cobalt	0.500	0.470		mg/L		94	80 - 120
Chromium	0.200	0.214		mg/L		107	80 - 120
Copper	0.250	0.242		mg/L		97	80 - 120
Nickel	0.500	0.465		mg/L		93	80 - 120
Lead	0.0200	0.0211		mg/L		106	80 - 120
Antimony	0.500	0.525		mg/L		105	80 - 120
Selenium	0.0100	0.0113		mg/L		113	80 - 120
Thallium	0.0500	0.0522		mg/L		104	80 - 120
Vanadium	0.500	0.526		mg/L		105	80 - 120
Zinc	0.500	0.473		mg/L		95	80 - 120
Calcium	50.0	56.4		mg/L		113	80 - 120
Boron	1.00	1.05		mg/L		105	80 - 120

Lab Sample ID: 180-86198-1 MS
Matrix: Water
Analysis Batch: 269983

Client Sample ID: GWA-2
Prep Type: Total Recoverable
Prep Batch: 269501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.00012		0.0500	0.0520		mg/L		104	75 - 125
Arsenic	<0.00032		0.0400	0.0387		mg/L		97	75 - 125

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

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

Lab Sample ID: 180-86198-1 MS
Matrix: Water
Analysis Batch: 269983

Client Sample ID: GWA-2
Prep Type: Total Recoverable
Prep Batch: 269501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.034		2.00	2.18		mg/L		108	75 - 125
Beryllium	0.000063	J	0.0500	0.0519		mg/L		104	75 - 125
Cadmium	<0.00013		0.0500	0.0514		mg/L		103	75 - 125
Cobalt	0.0010	J	0.500	0.468		mg/L		93	75 - 125
Chromium	0.0019	J B	0.200	0.214		mg/L		106	75 - 125
Copper	<0.0013		0.250	0.242		mg/L		97	75 - 125
Nickel	0.00063	J	0.500	0.467		mg/L		93	75 - 125
Lead	0.00024	J B	0.0200	0.0211		mg/L		104	75 - 125
Antimony	<0.0011		0.500	0.527		mg/L		105	75 - 125
Selenium	<0.00081		0.0100	0.0104		mg/L		104	75 - 125
Thallium	<0.000063		0.0500	0.0526		mg/L		105	75 - 125
Vanadium	<0.00090		0.500	0.525		mg/L		105	75 - 125
Zinc	0.0064	J	0.500	0.479		mg/L		94	75 - 125
Calcium	0.53		50.0	57.5		mg/L		114	75 - 125
Boron	<0.030		1.00	1.08		mg/L		108	75 - 125

Lab Sample ID: 180-86198-1 MSD
Matrix: Water
Analysis Batch: 269983

Client Sample ID: GWA-2
Prep Type: Total Recoverable
Prep Batch: 269501

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	<0.00012		0.0500	0.0515		mg/L		103	75 - 125	1	20
Arsenic	<0.00032		0.0400	0.0385		mg/L		96	75 - 125	1	20
Barium	0.034		2.00	2.16		mg/L		106	75 - 125	1	20
Beryllium	0.000063	J	0.0500	0.0521		mg/L		104	75 - 125	0	20
Cadmium	<0.00013		0.0500	0.0511		mg/L		102	75 - 125	1	20
Cobalt	0.0010	J	0.500	0.472		mg/L		94	75 - 125	1	20
Chromium	0.0019	J B	0.200	0.214		mg/L		106	75 - 125	0	20
Copper	<0.0013		0.250	0.242		mg/L		97	75 - 125	0	20
Nickel	0.00063	J	0.500	0.468		mg/L		93	75 - 125	0	20
Lead	0.00024	J B	0.0200	0.0212		mg/L		105	75 - 125	0	20
Antimony	<0.0011		0.500	0.521		mg/L		104	75 - 125	1	20
Selenium	<0.00081		0.0100	0.0113		mg/L		113	75 - 125	8	20
Thallium	<0.000063		0.0500	0.0527		mg/L		105	75 - 125	0	20
Vanadium	<0.00090		0.500	0.524		mg/L		105	75 - 125	0	20
Zinc	0.0064	J	0.500	0.479		mg/L		94	75 - 125	0	20
Calcium	0.53		50.0	57.4		mg/L		114	75 - 125	0	20
Boron	<0.030		1.00	1.08		mg/L		108	75 - 125	0	20

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

Lab Sample ID: MB 180-269282/2
Matrix: Water
Analysis Batch: 269282

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			01/31/19 14:50	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

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

Lab Sample ID: LCS 180-269282/1
Matrix: Water
Analysis Batch: 269282

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	204	212		mg/L		104	80 - 120

Lab Sample ID: MB 180-269403/2
Matrix: Water
Analysis Batch: 269403

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/01/19 15:40	1

Lab Sample ID: LCS 180-269403/1
Matrix: Water
Analysis Batch: 269403

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	204	218		mg/L		107	80 - 120

Lab Sample ID: MB 180-269406/2
Matrix: Water
Analysis Batch: 269406

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/01/19 17:19	1

Lab Sample ID: LCS 180-269406/1
Matrix: Water
Analysis Batch: 269406

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	204	210		mg/L		103	80 - 120

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

HPLC/IC

Analysis Batch: 269428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-6	GWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-86198-7	GWA-16	Total/NA	Water	EPA 300.0 R2.1	
180-86198-8	GWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-86198-9	GWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-86198-10	GWC-19	Total/NA	Water	EPA 300.0 R2.1	
180-86198-11	GWC-20	Total/NA	Water	EPA 300.0 R2.1	
180-86198-12	FERB-LFY-01	Total/NA	Water	EPA 300.0 R2.1	
180-86198-13	FB-LFY-01	Total/NA	Water	EPA 300.0 R2.1	
MB 180-269428/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-269428/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-86198-6 MS	GWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-86198-6 MSD	GWA-14	Total/NA	Water	EPA 300.0 R2.1	

Analysis Batch: 269535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-1	GWA-2	Total/NA	Water	EPA 300.0 R2.1	
180-86198-2	GWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-86198-3	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	
180-86198-4	GWC-5	Total/NA	Water	EPA 300.0 R2.1	
180-86198-5	GWA-13	Total/NA	Water	EPA 300.0 R2.1	
MB 180-269535/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-269535/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 269501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-1	GWA-2	Total Recoverable	Water	3005A	
180-86198-2	GWA-3	Total Recoverable	Water	3005A	
180-86198-3	GWC-4A	Total Recoverable	Water	3005A	
180-86198-4	GWC-5	Total Recoverable	Water	3005A	
180-86198-5	GWA-13	Total Recoverable	Water	3005A	
180-86198-6	GWA-14	Total Recoverable	Water	3005A	
180-86198-7	GWA-16	Total Recoverable	Water	3005A	
180-86198-8	GWC-17	Total Recoverable	Water	3005A	
180-86198-9	GWC-15	Total Recoverable	Water	3005A	
180-86198-10	GWC-19	Total Recoverable	Water	3005A	
180-86198-11	GWC-20	Total Recoverable	Water	3005A	
180-86198-12	FERB-LFY-01	Total Recoverable	Water	3005A	
180-86198-13	FB-LFY-01	Total Recoverable	Water	3005A	
MB 180-269501/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-269501/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-86198-1 MS	GWA-2	Total Recoverable	Water	3005A	
180-86198-1 MSD	GWA-2	Total Recoverable	Water	3005A	

Analysis Batch: 269983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-1	GWA-2	Total Recoverable	Water	EPA 6020	269501
180-86198-2	GWA-3	Total Recoverable	Water	EPA 6020	269501
180-86198-3	GWC-4A	Total Recoverable	Water	EPA 6020	269501

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86198-2
 SDG: L4 State Compliance

Metals (Continued)

Analysis Batch: 269983 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-4	GWC-5	Total Recoverable	Water	EPA 6020	269501
180-86198-5	GWA-13	Total Recoverable	Water	EPA 6020	269501
180-86198-6	GWA-14	Total Recoverable	Water	EPA 6020	269501
180-86198-7	GWA-16	Total Recoverable	Water	EPA 6020	269501
180-86198-8	GWC-17	Total Recoverable	Water	EPA 6020	269501
180-86198-9	GWC-15	Total Recoverable	Water	EPA 6020	269501
180-86198-10	GWC-19	Total Recoverable	Water	EPA 6020	269501
180-86198-11	GWC-20	Total Recoverable	Water	EPA 6020	269501
180-86198-12	FERB-LFY-01	Total Recoverable	Water	EPA 6020	269501
180-86198-13	FB-LFY-01	Total Recoverable	Water	EPA 6020	269501
MB 180-269501/1-A	Method Blank	Total Recoverable	Water	EPA 6020	269501
LCS 180-269501/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	269501
180-86198-1 MS	GWA-2	Total Recoverable	Water	EPA 6020	269501
180-86198-1 MSD	GWA-2	Total Recoverable	Water	EPA 6020	269501

General Chemistry

Analysis Batch: 269282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-10	GWC-19	Total/NA	Water	SM 2540C	
180-86198-11	GWC-20	Total/NA	Water	SM 2540C	
MB 180-269282/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-269282/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 269403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-1	GWA-2	Total/NA	Water	SM 2540C	
180-86198-2	GWA-3	Total/NA	Water	SM 2540C	
180-86198-3	GWC-4A	Total/NA	Water	SM 2540C	
180-86198-4	GWC-5	Total/NA	Water	SM 2540C	
180-86198-5	GWA-13	Total/NA	Water	SM 2540C	
180-86198-6	GWA-14	Total/NA	Water	SM 2540C	
180-86198-7	GWA-16	Total/NA	Water	SM 2540C	
180-86198-8	GWC-17	Total/NA	Water	SM 2540C	
MB 180-269403/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-269403/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 269406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86198-9	GWC-15	Total/NA	Water	SM 2540C	
180-86198-12	FERB-LFY-01	Total/NA	Water	SM 2540C	
180-86198-13	FB-LFY-01	Total/NA	Water	SM 2540C	
MB 180-269406/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-269406/1	Lab Control Sample	Total/NA	Water	SM 2540C	

TestAmerica Pittsburgh

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: 404-592-0096 Email: j Abraham@southerco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:			Sampler: P. Adams, L. Coker, J. Adcock, J. Noles Lab PM: Bortot, Veronica Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com			Camer Tracking No(s): Page: 1 of 2 Job #:																																																		
Due Date Requested: TAT Requested (days): Standard PO #: SCS10347656 WO #:			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 Other:																																																		
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 6020 - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Ti, Va, Zn TDS, 300 ORGFM, 280 chloride, Fluoride, Sulfate			Total Number of Containers: 2			Special Instructions/Note: LF4 State Compliance																																																		
Sample Identification Matrix: (W=water, S=solid, O=waste/oh, BT=tissue, A=air) Sample Type (C=comp, G=grab) Preservation Code:			<table border="1"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (G=grab)</th> <th>Preservation Code</th> </tr> </thead> <tbody> <tr> <td>1/29/19</td> <td>13:42</td> <td>G</td> <td>W</td> </tr> <tr> <td></td> <td>13:35</td> <td></td> <td></td> </tr> <tr> <td></td> <td>15:15</td> <td></td> <td></td> </tr> <tr> <td></td> <td>13:30</td> <td></td> <td></td> </tr> <tr> <td></td> <td>14:50</td> <td></td> <td></td> </tr> <tr> <td></td> <td>15:00</td> <td></td> <td></td> </tr> <tr> <td></td> <td>16:10</td> <td></td> <td></td> </tr> <tr> <td></td> <td>16:30</td> <td></td> <td></td> </tr> <tr> <td></td> <td>15:00</td> <td></td> <td></td> </tr> <tr> <td></td> <td>17:00</td> <td></td> <td></td> </tr> <tr> <td></td> <td>16:20</td> <td></td> <td></td> </tr> </tbody> </table>			Sample Date	Sample Time	Sample Type (G=grab)	Preservation Code	1/29/19	13:42	G	W		13:35				15:15				13:30				14:50				15:00				16:10				16:30				15:00				17:00				16:20			Barcode: 180-86198 Chain of Custody		
Sample Date	Sample Time	Sample Type (G=grab)	Preservation Code																																																					
1/29/19	13:42	G	W																																																					
	13:35																																																							
	15:15																																																							
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	17:00																																																							
	16:20																																																							
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			Special Instructions/QC Requirements:																																																		
Deliverable Requested: I, II, III, IV, Other (specify)			Empty Kit Relinquished by: Peter A Relinquished by: Peter A Relinquished by:			Method of Shipment: FEDEX Date/Time: 1/30/19 19:00 Date/Time: Date/Time:																																																		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:			Company: TAP, Inc. Company: Company:																																																		



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 Email: jabraham@southerco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Sampler: P. Adams, L. Coker, J. Adcock, J. Noles Lab PM: Bortot, Veronica Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com		Carrier Tracking No(s): COC No:			
Due Date Requested: TAT Requested (days): Standard PO #: SCS10347656 WO #:		Analysis Requested					
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 6020 - Sp, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, TDS, 300 ORGFM, 280 chloride, Fluoride, Sulfate, Va, Zn		Total Number of Containers: 2					
Sample Identification FERB-LFY-01 FB-LFY-01		Sample Date 1/29/19 1/29/19	Sample Time 12:15 12:20	Sample Type (C=comp, G=grab) G G	Preservation Code: W W	Matrix (W=water, S=solid, O=soil, B=biomass, A=air) W W	Special Instructions/Note: LF4 State Compliance
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by: Peter X		Method of Shipment: FedEx					
Relinquished by:		Date: 1/29/19 19:00		Received by: Julie Watson Date/Time:			
Relinquished by:		Date/Time:		Received by:			
Relinquished by:		Date/Time:		Received by:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: [blank] Email: jabraham@southerco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site: [blank]		Sampler: P. Adams, L. Coker, J. Adcock, J. Niles Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com Carrier Tracking No(s): [blank]	
Due Date Requested: [blank] TAT Requested (days): Standard		COC No: [blank] Page 1 of 2 Job #: [blank]	
Analysis Requested			
Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 6020 - Sp, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Hg, Tl, Zn TDS, 300, ORGFM, 280 chloride, Fluoride, Sulfate		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: [blank]	
PO #: SCS10347656 WC #: [blank]		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) [blank]	
Sample Identification GWA-2 GWA-3 GWC-4A GWC-5 GWA-13 GWA-14 GWA-16 GWC-17 GWC-15 GWC-19 GWC-20		Total Number of Containers: 2 Special Instructions/Note: LF4 State Compliance	
Sample Date: 1/29/19 Sample Time: 13:42 Sample Type (C=Comp, G=grab): G Preservation Code: W		Barcode: [Barcode] 180-86198 Chain of Custody	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify) [blank]			
Empty Kit Relinquished by: [blank]		Method of Shipment: FEDEX	
Relinquished by: Peter A		Date/Time: 1/29/19 19:00	
Relinquished by: [blank]		Date/Time: [blank]	
Relinquished by: [blank]		Date/Time: [blank]	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks: [blank]	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements: [blank]	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State Zip: GA, 30308 Phone: Email: jabraham@southerco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Sampler: P. Adams, L. Coker, J. Adcock, J. Noles Lab PM: Bortot, Veronica Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com		Carner Tracking No(s): Job #: 2 of 2		COC No: Page: 2 of 2	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 18019955 SSO#:		Analysis Requested Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		Special Instructions/Note: LF4 State Compliance	
Sample Identification FERB-LFY-01 FB-LFY-01		Sample Date 1/29/19 1/29/19		Sample Time 12:15 12:20		Sample Type (G=grab) G G	
Preservation Code: W W		TDS, 300 ORGM, 28D chloride, Fluoride, Sulfate Va, Zn 6020 - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl		Total Number of containers 2 2		Special Instructions/Note: LF4 State Compliance	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by: Peter X		Date: 1/29/19 19:00		Method of Shipment: FedEx		Date/Time: 1-30-19	
Relinquished by:		Date/Time:		Received by: Dulcie Watson		Date/Time: 10:20	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Company:	



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: SCS10347656 E-Mail: j.abraham@southerco.com, impetty@southernco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Sampler: P. Adams, L. Coker, J. Adcock, J. Noles Lab PM: Bortot, Veronica Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com	
Due Date Requested: TAT Requested (days): Standard		Analysis Requested	
PO #: SCS10347656 WO #:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Sample Date Sample Time Sample Type (C=Comp, G=grab) Preservation Code: W Matrix (W=water, S=solid, O=wastical, BT=tissue, A=air)		Field Filled Sample (Yes or No) Perform MS/MSD (Yes or No) TDS, 300 ORP, 280 chloride, Fluoride, Sulfate	
Sample Identification GWA-2 GWA-3 GWC-4A GWC-5 GWA-13 GWA-14 GWA-16 GWC-17 GWC-15 GWC-19 GWC-20		Total Number of containers 2 Special Instructions/Note: LF4 Detection	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			
Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:			
Relinquished by: Peter A Date/Time: 1/29/19 19:00 Company: Getx		Method of Shipment: FedEx Date/Time: 1-30-19 Company:	
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:	
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			



TestAmerica Pittsburgh

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

Chain of Custody Record



Client Information Client Contact: P. Adams, L. Coker, J. Adcock, J. Noles Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com		Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com	
Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone:		Due Date Requested: TAT Requested (days): Standard PO #: SCS10347656 WO #:	
Email: jbraham@southerco.com, impetty@southerco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 6020 - Bo, Ca <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No TDS, 300, ORGM, 28D chloride, Fluoride, Sulfate	
Sample Identification FERB-LFY-01 FB-LFY-01		Sample Date 1/29/19 1/29/19	Sample Time 12:15 12:20
Sample Type (C=Comp, G=grab) G G		Preservation Code W W	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: PERC A Relinquished by: PERC A Relinquished by:		Method of Shipment: FEDEX Date/Time: 1/29/19 19:00 Date/Time: 1/29/19 19:00 Date/Time:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Received by: Debbie Winters Received by: 10:00 Received by:	
Company: PERC A Company: PERC A Company:		Company: PERC A Company: PERC A Company:	
Cooler Temperature(s) °C and Other Remarks:		Cooler Temperature(s) °C and Other Remarks:	



- 1
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- 12
- 13

ORIGIN ID: SAVA (412) 963-7058
 LAUREN COKER
 TEST AMERICA
 301 ALPHA DR
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

SHIP DATE: 29 JAN 19
 ACTWGT: 19.80 LB
 CAD: 006894819/SSFE1922
 DIMS: 14x11x11 IN
 BILL THIRD PARTY

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR

PITTSBURGH PA 15238

(666) 666-6666
 INU:
 PG:

REF:
 DEPT:

ORIGIN ID: SAVA (412) 963-
 LAUREN COKER
 TEST AMERICA
 301 ALPHA DR
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

TO VERONICA BORTO
 TEST AMERICA
 301 ALPHA DR

PITTSBURGH PA

(666) 666-6666
 INU:
 PG:

FedEx Express
 E

Uncorrected temp 24 °C
 Thermometer ID 10

MPS# 2
 0263 7852
 Mstr# 7852

CF 0 Initials JS

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

15238
 PA-US PIT



1 of 5
 TRK# 7852 1226 6772
 0201
 ## MASTER ##

WED - 30 JAN 1
 PRIORITY OVERN

XH AGCA

15
 PA-US

Uncorrected temp 24 °C
 Thermometer ID 10
 CF 0 Initials JS
 PT-WI-SR-001 effective 11/8/18



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- 12
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SHIP DATE: 29
 ACTWGT: 43.20
 CAD: 006994919/
 DIMS: 24x13x15
 BILL THIRD PARTY

ORIGIN ID: SAVA (412) 963-7058
 LAUREN COKER
 TEST AMERICA
 301 ALPHA DR
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

SHIP DATE: 29 JAN 19
 ACTWGT: 56.10 LB
 CAD: 006994919/SSFE1922
 DIMS: 24x13x15 IN
 BILL THIRD PARTY

TO VERONICA BORTOT
 TEST AMERICA
 301 ALPHA DR
 PITTSBURGH PA 15238

(555) 555-5555 REF: DEPT:
 INU: PO1

15238

DEPT: 

FedEx Express


WED - 30 JAN 10:30A
 PRIORITY OVERNIGHT



FedEx Express


6809
 772

ICA

Uncorrected temp
 Thermometer ID

CF 0 Initials B

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

WED - 30 JAN 10:30A
 PRIORITY OVERNIGHT

15238
 PA-US PIT

AGCA XH CA

7852 1226 6809

WED - 30 JAN 10:30A
 PRIORITY OVERNIGHT

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

Initials B



ORIGIN ID:SAVA (412) 963-7058
 LAUREN COKER
 TEST AMERICA
 301 ALPHA DR
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

SHIP DATE: 29JAN19
 ACTWGT: 29.30 LB
 CAD: 006994919/SSFE1922
 DIMS: 24x13x15 IN
 BILL THIRD PARTY

56512/0E3D/23AD
 61.01.003 30000 317 6196. 8 1000

TO **VERONICA BORTOT**
TEST AMERICA
301 ALPHA DR

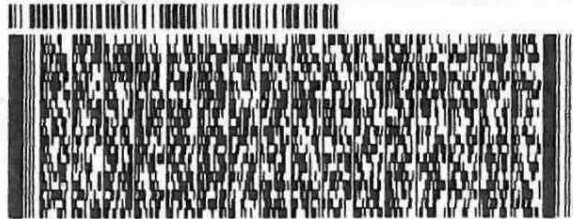
PITTSBURGH PA 15238

(666) 666-6666

REF:

YNU:

DEPT:



FedEx
Express



J19101901070101

5 of 5

MPS# 7852 1226 6810
 0263

Metr# 7852 1226 6772

0201

WED - 30 JAN 10:30A
PRIORITY OVERNIGHT

XH AGCA

15238
PA-US PIT

Uncorrected temp _____
 Thermometer ID 109 C
10
 CF ✓ Initials JB
 PT-VI-SR-001 effective 11/8/18

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- 11
- 12
- 13

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86198-2
SDG Number: L4 State Compliance

Login Number: 86198
List Number: 1
Creator: Watson, Debbie

List Source: 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	TWO COOLERS WITH RAD CONTAINERS HAD NO ICE
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pittsburgh

301 Alpha Drive

RIDC Park

Pittsburgh, PA 15238

Tel: (412)963-7058

TestAmerica Job ID: 180-86241-2

TestAmerica Sample Delivery Group: L4 State Compliance

Client Project/Site: CCR - Plant McIntosh Ash Landfill #4

Revision: 3

For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:

3/12/2019 1:33:11 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Job ID: 180-86241-2

Laboratory: TestAmerica Pittsburgh

Narrative

Job Narrative
180-86241-2

Revised to set RL to those in SOW

Comments

No additional comments.

Receipt

The samples were received on 1/31/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 2.8° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Two out of four COC's do not have a relinquished by time listed.

As per Peter Adams, GEI, Boron and Calcium should be included in the state compliance list of metals; these elements are not listed on the COC.

Anions

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.

General Chemistry

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

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

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.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-86241-1	GWC-18	Water	01/30/19 10:30	01/31/19 10:00
180-86241-2	GWC-9	Water	01/30/19 10:10	01/31/19 10:00
180-86241-3	GWC-1	Water	01/30/19 11:37	01/31/19 10:00
180-86241-4	GWC-11	Water	01/30/19 11:46	01/31/19 10:00
180-86241-5	GWC-21	Water	01/30/19 09:30	01/31/19 10:00
180-86241-6	GWC-10	Water	01/30/19 10:45	01/31/19 10:00
180-86241-7	GWC-12	Water	01/30/19 11:30	01/31/19 10:00
180-86241-8	GWC-23	Water	01/30/19 09:45	01/31/19 10:00
180-86241-9	DUP-LF4-01	Water	01/30/19 00:00	01/31/19 10:00
180-86241-10	DUP-LF4-02	Water	01/30/19 00:00	01/31/19 10:00
180-86241-11	FB-LF4-02	Water	01/30/19 17:01	01/31/19 10:00
180-86241-12	FERB-LF4-02	Water	01/30/19 17:02	01/31/19 10:00

Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
EPA 6020	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	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 = 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 #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: GWC-18
Date Collected: 01/30/19 10:30
Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-1
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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 09:28	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			269787	02/06/19 15:19	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT

Client Sample ID: GWC-9
Date Collected: 01/30/19 10:10
Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-2
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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 09:44	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			269787	02/06/19 15:23	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT

Client Sample ID: GWC-1
Date Collected: 01/30/19 11:37
Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-3
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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 10:00	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020 Instrument ID: A		1			269787	02/06/19 15:26	RSK	TAL PIT
Total/NA	Analysis	SM 2540C Instrument ID: NOEQUIP		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT

Client Sample ID: GWC-11
Date Collected: 01/30/19 11:46
Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-4
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 Instrument ID: CHICS2100B		1	1 mL	1.0 mL	269535	02/05/19 10:16	MJH	TAL PIT
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: GWC-11

Lab Sample ID: 180-86241-4

Date Collected: 01/30/19 11:46

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:30	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWC-21

Lab Sample ID: 180-86241-5

Date Collected: 01/30/19 09:30

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 10:32	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:33	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269417	02/02/19 08:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWC-10

Lab Sample ID: 180-86241-6

Date Collected: 01/30/19 10:45

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 10:47	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:36	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269417	02/02/19 08:25	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWC-12

Lab Sample ID: 180-86241-7

Date Collected: 01/30/19 11:30

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 12:06	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:40	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT
		Instrument ID: NOEQUIP								

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: GWC-23

Lab Sample ID: 180-86241-8

Date Collected: 01/30/19 09:45

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			269535	02/05/19 12:22	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:50	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-LF4-01

Lab Sample ID: 180-86241-9

Date Collected: 01/30/19 00:00

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 13:10	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:53	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269417	02/02/19 08:25	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-LF4-02

Lab Sample ID: 180-86241-10

Date Collected: 01/30/19 00:00

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 13:26	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 15:57	RSK	TAL PIT
Instrument ID: A										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269417	02/02/19 08:25	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: FB-LF4-02

Lab Sample ID: 180-86241-11

Date Collected: 01/30/19 17:01

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 11:03	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT

TestAmerica Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: FB-LF4-02

Lab Sample ID: 180-86241-11

Date Collected: 01/30/19 17:01

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 16:00	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FERB-LF4-02

Lab Sample ID: 180-86241-12

Date Collected: 01/30/19 17:02

Matrix: Water

Date Received: 01/31/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1	1 mL	1.0 mL	269535	02/05/19 11:51	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	269611	02/05/19 11:58	NAM	TAL PIT
Total Recoverable	Analysis	EPA 6020		1			269787	02/06/19 16:03	RSK	TAL PIT
		Instrument ID: A								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	269416	02/02/19 08:18	AVS	TAL PIT
		Instrument ID: NOEQUIP								

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

NAM = Nicole Marfisi

Batch Type: Analysis

AVS = Abbey Smith

MJH = Matthew Hartman

RSK = Robert Kurtz

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: GWC-18

Date Collected: 01/30/19 10:30

Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		1.0	0.71	mg/L			02/05/19 09:28	1
Fluoride	0.65		0.20	0.026	mg/L			02/05/19 09:28	1
Sulfate	5.8		1.0	0.38	mg/L			02/05/19 09:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00029	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:19	1
Arsenic	0.0011	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:19	1
Barium	0.020		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:19	1
Beryllium	0.000083	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:19	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:19	1
Cobalt	0.00040	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:19	1
Chromium	0.0049	B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:19	1
Copper	0.0021	J	0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:19	1
Nickel	0.0019	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:19	1
Lead	0.00067	J	0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:19	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:19	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:19	1
Thallium	0.00012	J	0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:19	1
Vanadium	0.0042	B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:19	1
Zinc	0.50		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:19	1
Calcium	14		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:19	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	100		10	10	mg/L			02/02/19 08:18	1

Client Sample ID: GWC-9

Date Collected: 01/30/19 10:10

Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.1		1.0	0.71	mg/L			02/05/19 09:44	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 09:44	1
Sulfate	0.58	J	1.0	0.38	mg/L			02/05/19 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00018	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:23	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:23	1
Barium	0.032		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:23	1
Beryllium	0.00016	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:23	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:23	1
Cobalt	0.00066	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:23	1
Chromium	0.0012	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:23	1
Copper	0.0020	J	0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:23	1
Nickel	0.00063	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:23	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:23	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Client Sample ID: GWC-9
Date Collected: 01/30/19 10:10
Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:23	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:23	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:23	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:23	1
Zinc	0.051		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:23	1
Calcium	0.38		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:23	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		10	10	mg/L			02/02/19 08:18	1

Client Sample ID: GWC-1
Date Collected: 01/30/19 11:37
Date Received: 01/31/19 10:00

Lab Sample ID: 180-86241-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.8		1.0	0.71	mg/L			02/05/19 10:00	1
Fluoride	0.040	J	0.20	0.026	mg/L			02/05/19 10:00	1
Sulfate	2.1		1.0	0.38	mg/L			02/05/19 10:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00021	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:26	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:26	1
Barium	0.050		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:26	1
Beryllium	0.00018	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:26	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:26	1
Cobalt	0.0016	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:26	1
Chromium	0.0021	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:26	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:26	1
Nickel	0.0013	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:26	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:26	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:26	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:26	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:26	1
Vanadium	0.0012	J B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:26	1
Zinc	0.0031	J	0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:26	1
Calcium	2.5		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:26	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	55		10	10	mg/L			02/02/19 08:18	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: GWC-11

Lab Sample ID: 180-86241-4

Date Collected: 01/30/19 11:46

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		1.0	0.71	mg/L			02/05/19 10:16	1
Fluoride	0.35		0.20	0.026	mg/L			02/05/19 10:16	1
Sulfate	4.3		1.0	0.38	mg/L			02/05/19 10:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00016	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:30	1
Arsenic	0.0015		0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:30	1
Barium	0.014		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:30	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:30	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:30	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:30	1
Chromium	0.0060	B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:30	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:30	1
Nickel	0.00033	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:30	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:30	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:30	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:30	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:30	1
Vanadium	0.0024	J B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:30	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:30	1
Calcium	11		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:30	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	89		10	10	mg/L			02/02/19 08:18	1

Client Sample ID: GWC-21

Lab Sample ID: 180-86241-5

Date Collected: 01/30/19 09:30

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.7		1.0	0.71	mg/L			02/05/19 10:32	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 10:32	1
Sulfate	0.72	J	1.0	0.38	mg/L			02/05/19 10:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00018	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:33	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:33	1
Barium	0.017		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:33	1
Beryllium	0.00016	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:33	1
Cadmium	0.00014	J	0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:33	1
Cobalt	0.00099	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:33	1
Chromium	0.0017	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:33	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:33	1
Nickel	0.00071	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:33	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:33	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Client Sample ID: GWC-21

Lab Sample ID: 180-86241-5

Date Collected: 01/30/19 09:30

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:33	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:33	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:33	1
Vanadium	0.0014	J B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:33	1
Zinc	0.0025	J	0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:33	1
Calcium	1.0		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:33	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	43		10	10	mg/L			02/02/19 08:25	1

Client Sample ID: GWC-10

Lab Sample ID: 180-86241-6

Date Collected: 01/30/19 10:45

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		1.0	0.71	mg/L			02/05/19 10:47	1
Fluoride	0.23		0.20	0.026	mg/L			02/05/19 10:47	1
Sulfate	5.0		1.0	0.38	mg/L			02/05/19 10:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00018	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:36	1
Arsenic	0.00082	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:36	1
Barium	0.023		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:36	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:36	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:36	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:36	1
Chromium	0.0071	B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:36	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:36	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:36	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:36	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:36	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:36	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:36	1
Vanadium	0.0027	B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:36	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:36	1
Calcium	26		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:36	1
Boron	0.055		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	160		10	10	mg/L			02/02/19 08:25	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Client Sample ID: GWC-12

Lab Sample ID: 180-86241-7

Date Collected: 01/30/19 11:30

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.71	mg/L			02/05/19 12:06	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 12:06	1
Sulfate	0.65	J	1.0	0.38	mg/L			02/05/19 12:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:40	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:40	1
Barium	0.011		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:40	1
Beryllium	0.00018	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:40	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:40	1
Cobalt	0.00060	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:40	1
Chromium	0.0039	B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:40	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:40	1
Nickel	0.0011	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:40	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:40	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:40	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:40	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:40	1
Vanadium	0.0016	J B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:40	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:40	1
Calcium	0.68		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:40	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22		10	10	mg/L			02/02/19 08:18	1

Client Sample ID: GWC-23

Lab Sample ID: 180-86241-8

Date Collected: 01/30/19 09:45

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		1.0	0.71	mg/L			02/05/19 12:22	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 12:22	1
Sulfate	2.4		1.0	0.38	mg/L			02/05/19 12:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00012	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:50	1
Arsenic	0.00034	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:50	1
Barium	0.034		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:50	1
Beryllium	0.00015	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:50	1
Cadmium	0.00015	J	0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:50	1
Cobalt	0.0061		0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:50	1
Chromium	0.0019	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:50	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:50	1
Nickel	0.0019	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:50	1
Lead	0.00013	J	0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:50	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

Client Sample ID: GWC-23

Lab Sample ID: 180-86241-8

Date Collected: 01/30/19 09:45

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:50	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:50	1
Thallium	0.00016	J	0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:50	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:50	1
Zinc	0.0049	J	0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:50	1
Calcium	1.1		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:50	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		10	10	mg/L			02/02/19 08:18	1

Client Sample ID: DUP-LF4-01

Lab Sample ID: 180-86241-9

Date Collected: 01/30/19 00:00

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		1.0	0.71	mg/L			02/05/19 13:10	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 13:10	1
Sulfate	0.69	J	1.0	0.38	mg/L			02/05/19 13:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00019	J B	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:53	1
Arsenic	0.00042	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:53	1
Barium	0.018		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:53	1
Beryllium	0.00018	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:53	1
Cadmium	0.00017	J	0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:53	1
Cobalt	0.0011	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:53	1
Chromium	0.0019	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:53	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:53	1
Nickel	0.00083	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:53	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:53	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:53	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:53	1
Thallium	0.000083	J	0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:53	1
Vanadium	0.0011	J B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:53	1
Zinc	0.0026	J	0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:53	1
Calcium	1.1		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:53	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	29		10	10	mg/L			02/02/19 08:25	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Client Sample ID: DUP-LF4-02

Lab Sample ID: 180-86241-10

Date Collected: 01/30/19 00:00

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.71	mg/L			02/05/19 13:26	1
Fluoride	0.21		0.20	0.026	mg/L			02/05/19 13:26	1
Sulfate	4.6		1.0	0.38	mg/L			02/05/19 13:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 15:57	1
Arsenic	0.00099	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 15:57	1
Barium	0.023		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 15:57	1
Beryllium	0.000077	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 15:57	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 15:57	1
Cobalt	0.00013	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 15:57	1
Chromium	0.0063	B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 15:57	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 15:57	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 15:57	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 15:57	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 15:57	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 15:57	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 15:57	1
Vanadium	0.0021	J B	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 15:57	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 15:57	1
Calcium	26		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 15:57	1
Boron	0.059		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	110		10	10	mg/L			02/02/19 08:25	1

Client Sample ID: FB-LF4-02

Lab Sample ID: 180-86241-11

Date Collected: 01/30/19 17:01

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/05/19 11:03	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 11:03	1
Sulfate	<0.38		1.0	0.38	mg/L			02/05/19 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 16:00	1
Arsenic	0.00038	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 16:00	1
Barium	0.0012	J	0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 16:00	1
Beryllium	0.000072	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 16:00	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 16:00	1
Cobalt	0.00012	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 16:00	1
Chromium	0.0011	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 16:00	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 16:00	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 16:00	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 16:00	1

TestAmerica Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Client Sample ID: FB-LF4-02

Lab Sample ID: 180-86241-11

Date Collected: 01/30/19 17:01

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 16:00	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 16:00	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 16:00	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 16:00	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 16:00	1
Calcium	0.14	J	0.25	0.12	mg/L		02/05/19 11:58	02/06/19 16:00	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/02/19 08:18	1

Client Sample ID: FERB-LF4-02

Lab Sample ID: 180-86241-12

Date Collected: 01/30/19 17:02

Matrix: Water

Date Received: 01/31/19 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/05/19 11:51	1
Fluoride	0.026	J	0.20	0.026	mg/L			02/05/19 11:51	1
Sulfate	<0.38		1.0	0.38	mg/L			02/05/19 11:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00012		0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 16:03	1
Arsenic	0.00060	J	0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 16:03	1
Barium	0.0014	J	0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 16:03	1
Beryllium	0.000063	J	0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 16:03	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 16:03	1
Cobalt	0.00032	J	0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 16:03	1
Chromium	0.0019	J B	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 16:03	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 16:03	1
Nickel	0.0011	J	0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 16:03	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 16:03	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 16:03	1
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 16:03	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 16:03	1
Vanadium	<0.00090		0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 16:03	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 16:03	1
Calcium	0.12	J	0.25	0.12	mg/L		02/05/19 11:58	02/06/19 16:03	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 16:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/02/19 08:18	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

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

Lab Sample ID: MB 180-269535/6
Matrix: Water
Analysis Batch: 269535

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.71		1.0	0.71	mg/L			02/05/19 05:31	1
Fluoride	<0.026		0.20	0.026	mg/L			02/05/19 05:31	1
Sulfate	<0.38		1.0	0.38	mg/L			02/05/19 05:31	1

Lab Sample ID: LCS 180-269535/5
Matrix: Water
Analysis Batch: 269535

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	25.5		mg/L		102	90 - 110
Fluoride	1.25	1.29		mg/L		104	90 - 110
Sulfate	25.0	25.3		mg/L		101	90 - 110

Lab Sample ID: 180-86241-8 MS
Matrix: Water
Analysis Batch: 269535

Client Sample ID: GWC-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7.4		25.0	31.2		mg/L		95	80 - 120
Fluoride	<0.026		1.25	1.40		mg/L		112	80 - 120
Sulfate	2.4		25.0	28.7		mg/L		105	80 - 120

Lab Sample ID: 180-86241-8 MSD
Matrix: Water
Analysis Batch: 269535

Client Sample ID: GWC-23
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		25.0	29.5		mg/L		88	80 - 120	6	20
Fluoride	<0.026		1.25	1.31		mg/L		105	80 - 120	6	20
Sulfate	2.4		25.0	26.9		mg/L		98	80 - 120	7	20

Method: EPA 6020 - Metals (ICP/MS)

Lab Sample ID: MB 180-269611/1-A
Matrix: Water
Analysis Batch: 269787

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 269611

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.000157	J	0.0013	0.00012	mg/L		02/05/19 11:58	02/06/19 14:50	1
Arsenic	<0.00032		0.0013	0.00032	mg/L		02/05/19 11:58	02/06/19 14:50	1
Barium	<0.00037		0.0025	0.00037	mg/L		02/05/19 11:58	02/06/19 14:50	1
Beryllium	<0.000057		0.0025	0.000057	mg/L		02/05/19 11:58	02/06/19 14:50	1
Cadmium	<0.00013		0.0025	0.00013	mg/L		02/05/19 11:58	02/06/19 14:50	1
Cobalt	<0.000075		0.0025	0.000075	mg/L		02/05/19 11:58	02/06/19 14:50	1
Chromium	0.00117	J	0.0025	0.00063	mg/L		02/05/19 11:58	02/06/19 14:50	1
Copper	<0.0013		0.0025	0.0013	mg/L		02/05/19 11:58	02/06/19 14:50	1
Nickel	<0.00031		0.0025	0.00031	mg/L		02/05/19 11:58	02/06/19 14:50	1
Lead	<0.000094		0.0010	0.000094	mg/L		02/05/19 11:58	02/06/19 14:50	1
Antimony	<0.0011		0.0025	0.0011	mg/L		02/05/19 11:58	02/06/19 14:50	1

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

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

Lab Sample ID: MB 180-269611/1-A
Matrix: Water
Analysis Batch: 269787

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 269611

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00081		0.0013	0.00081	mg/L		02/05/19 11:58	02/06/19 14:50	1
Thallium	<0.000063		0.00050	0.000063	mg/L		02/05/19 11:58	02/06/19 14:50	1
Vanadium	0.000971	J	0.0025	0.00090	mg/L		02/05/19 11:58	02/06/19 14:50	1
Zinc	<0.0024		0.020	0.0024	mg/L		02/05/19 11:58	02/06/19 14:50	1
Calcium	<0.12		0.25	0.12	mg/L		02/05/19 11:58	02/06/19 14:50	1
Boron	<0.030		0.050	0.030	mg/L		02/05/19 11:58	02/06/19 14:50	1

Lab Sample ID: LCS 180-269611/2-A
Matrix: Water
Analysis Batch: 269787

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 269611

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0533		mg/L		107	80 - 120
Arsenic	0.0400	0.0406		mg/L		101	80 - 120
Barium	2.00	2.17		mg/L		109	80 - 120
Beryllium	0.0500	0.0517		mg/L		103	80 - 120
Cadmium	0.0500	0.0543		mg/L		109	80 - 120
Cobalt	0.500	0.496		mg/L		99	80 - 120
Chromium	0.200	0.212		mg/L		106	80 - 120
Copper	0.250	0.254		mg/L		102	80 - 120
Nickel	0.500	0.491		mg/L		98	80 - 120
Lead	0.0200	0.0213		mg/L		107	80 - 120
Antimony	0.500	0.542		mg/L		108	80 - 120
Selenium	0.0100	0.00962		mg/L		96	80 - 120
Thallium	0.0500	0.0536		mg/L		107	80 - 120
Vanadium	0.500	0.526		mg/L		105	80 - 120
Zinc	0.500	0.498		mg/L		100	80 - 120
Calcium	50.0	53.8		mg/L		108	80 - 120
Boron	1.00	1.03		mg/L		103	80 - 120

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

Lab Sample ID: MB 180-269416/2
Matrix: Water
Analysis Batch: 269416

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/02/19 08:18	1

Lab Sample ID: LCS 180-269416/1
Matrix: Water
Analysis Batch: 269416

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	204	218		mg/L		107	80 - 120

TestAmerica Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

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

Lab Sample ID: MB 180-269417/2
Matrix: Water
Analysis Batch: 269417

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			02/02/19 08:25	1

Lab Sample ID: LCS 180-269417/1
Matrix: Water
Analysis Batch: 269417

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	204	238		mg/L		117	80 - 120

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

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
 SDG: L4 State Compliance

HPLC/IC

Analysis Batch: 269535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86241-1	GWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-86241-2	GWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-86241-3	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-86241-4	GWC-11	Total/NA	Water	EPA 300.0 R2.1	
180-86241-5	GWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-86241-6	GWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-86241-7	GWC-12	Total/NA	Water	EPA 300.0 R2.1	
180-86241-8	GWC-23	Total/NA	Water	EPA 300.0 R2.1	
180-86241-9	DUP-LF4-01	Total/NA	Water	EPA 300.0 R2.1	
180-86241-10	DUP-LF4-02	Total/NA	Water	EPA 300.0 R2.1	
180-86241-11	FB-LF4-02	Total/NA	Water	EPA 300.0 R2.1	
180-86241-12	FERB-LF4-02	Total/NA	Water	EPA 300.0 R2.1	
MB 180-269535/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-269535/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-86241-8 MS	GWC-23	Total/NA	Water	EPA 300.0 R2.1	
180-86241-8 MSD	GWC-23	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 269611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86241-1	GWC-18	Total Recoverable	Water	3005A	
180-86241-2	GWC-9	Total Recoverable	Water	3005A	
180-86241-3	GWC-1	Total Recoverable	Water	3005A	
180-86241-4	GWC-11	Total Recoverable	Water	3005A	
180-86241-5	GWC-21	Total Recoverable	Water	3005A	
180-86241-6	GWC-10	Total Recoverable	Water	3005A	
180-86241-7	GWC-12	Total Recoverable	Water	3005A	
180-86241-8	GWC-23	Total Recoverable	Water	3005A	
180-86241-9	DUP-LF4-01	Total Recoverable	Water	3005A	
180-86241-10	DUP-LF4-02	Total Recoverable	Water	3005A	
180-86241-11	FB-LF4-02	Total Recoverable	Water	3005A	
180-86241-12	FERB-LF4-02	Total Recoverable	Water	3005A	
MB 180-269611/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-269611/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 269787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86241-1	GWC-18	Total Recoverable	Water	EPA 6020	269611
180-86241-2	GWC-9	Total Recoverable	Water	EPA 6020	269611
180-86241-3	GWC-1	Total Recoverable	Water	EPA 6020	269611
180-86241-4	GWC-11	Total Recoverable	Water	EPA 6020	269611
180-86241-5	GWC-21	Total Recoverable	Water	EPA 6020	269611
180-86241-6	GWC-10	Total Recoverable	Water	EPA 6020	269611
180-86241-7	GWC-12	Total Recoverable	Water	EPA 6020	269611
180-86241-8	GWC-23	Total Recoverable	Water	EPA 6020	269611
180-86241-9	DUP-LF4-01	Total Recoverable	Water	EPA 6020	269611
180-86241-10	DUP-LF4-02	Total Recoverable	Water	EPA 6020	269611
180-86241-11	FB-LF4-02	Total Recoverable	Water	EPA 6020	269611
180-86241-12	FERB-LF4-02	Total Recoverable	Water	EPA 6020	269611

TestAmerica Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

TestAmerica Job ID: 180-86241-2
SDG: L4 State Compliance

Metals (Continued)

Analysis Batch: 269787 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-269611/1-A	Method Blank	Total Recoverable	Water	EPA 6020	269611
LCS 180-269611/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020	269611

General Chemistry


Analysis Batch: 269416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86241-1	GWC-18	Total/NA	Water	SM 2540C	
180-86241-2	GWC-9	Total/NA	Water	SM 2540C	
180-86241-3	GWC-1	Total/NA	Water	SM 2540C	
180-86241-4	GWC-11	Total/NA	Water	SM 2540C	
180-86241-7	GWC-12	Total/NA	Water	SM 2540C	
180-86241-8	GWC-23	Total/NA	Water	SM 2540C	
180-86241-11	FB-LF4-02	Total/NA	Water	SM 2540C	
180-86241-12	FERB-LF4-02	Total/NA	Water	SM 2540C	
MB 180-269416/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-269416/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 269417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-86241-5	GWC-21	Total/NA	Water	SM 2540C	
180-86241-6	GWC-10	Total/NA	Water	SM 2540C	
180-86241-9	DUP-LF4-01	Total/NA	Water	SM 2540C	
180-86241-10	DUP-LF4-02	Total/NA	Water	SM 2540C	
MB 180-269417/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-269417/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information		Sampler: P. Adams, L. Coker, J. Adcock, J. Noles		Lab PM: Bortot, Veronica		Carrier Tracking No(s):					
Client Contact: Joju Abraham		Phone: 404-592-0096		E-Mail: veronica.bortot@testamericainc.com		COC No:					
Company: Southern Company		Address: 241 Ralph McGill Blvd SE		City: Atlanta		State: GA, Zip: 30308					
Phone:		PO #: SCS10347656		WO #:		Project #: 18019955					
Email: Jabraham@southerco.com		Site: CCR - Plant McIntosh Ash Landfill #4		Due Date Requested:		TAT Requested (days): Standard					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code: (W=water, S=solid, O=wast/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 - Sp, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Va, Zn	IDS, 300, ORGFM, 28D chloride, Fluoride, Sulfate	Analysis Requested	Carmer Tracking No(s):
GWC-18	1/30/19	10:30	G	W	N	X	X				
GWC-9		10:10									
GWC-1		11:37									
GWC-11		11:46									
GWC-21		09:30									
GWC-10		10:45									
GWC-12		11:30									
GWC-23		09:45									
Total Number of containers: 2										Special Instructions/Note: LF4 State Compliance	
 180-86241 Chain of Custody											
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological											
Deliverable Requested: I, II, III, IV, Other (specify)											
Empty Kit Relinquished by:											
Relinquished by: Peter A											
Relinquished by:											
Relinquished by:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Custody Seal No.:											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Special Instructions/QC Requirements:											
Method of Shipment: FedEx											
Received by: [Signature] Date/Time: 1/30/19 19:00											
Received by: [Signature] Date/Time: 10:00											
Received by: [Signature] Date/Time:											
Cooler Temperature(s) °C and Other Remarks:											



Chain of Custody Record

Client Information Client Contact: Joju Abraham Company: Southern Company Address: 241 Ralph McGill Blvd SE City: Atlanta State, Zip: GA, 30308 Phone: Email: jabraham@southerco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Sampler: P. Adams, L. Coker, J. Adcock, J. Noles Lab PM: Bortot, Veronica Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com		Carrier Tracking No(s): Page 2 of 2 Job #	
Due Date Requested: TAT Requested (days): Standard PO #: SCS10347656 WO #: Project #: 18019955 SSOW#:		Analysis Requested			
Sample Identification DUP-LFY-01 DUP-LFY-02 FB-LFY-02 FERB-LFY-02		Sample Date 1/30/19 ↓ ↓		Sample Time 17:01 ↓ ↓	
Sample Type (C=Comp, G=grab) G ↓ ↓		Preservation Code W ↓ ↓		Field Filtered Sample (Yes or No) N ↓ ↓	
Perform MSMSD (Yes or No) N ↓ ↓		6020 - Pb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, Va, Zn N ↓ ↓		105, 300, ORGM, 280 chloride, fluoride, sulfate N ↓ ↓	
Total Number of containers 2 ↓ ↓		Special Instructions/Note: LF4 State Compliance			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements:					
Empty Kit Relinquished by: Peter A		Date: 1/30/19 19:00		Method of Shipment: Fed Ex	
Relinquished by:		Date/Time:		Received by: Pauline Weiborn Date/Time: 1-31-19 10:00	
Relinquished by:		Date/Time:		Received by:	
Relinquished by:		Date/Time:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	



Chain of Custody Record

Client Information		Sampler: P. Adams, L. Coker, J. Adcock, J. Nobiles		Lab PM: Bortot, Veronica		Carmer Tracking No(s):	
Client Contact: Joju Abraham		Phone: 404-592-0096		E-Mail: veronica.bortot@testamericainc.com		COC No:	
Company: Southern Company		Address: 241 Ralph McGill Blvd SE		City: Atlanta		State: GA, Zip: 30308	
Phone:		PO #: SCS10347656		WO #:		Due Date Requested:	
Email: jabraham@southerco.com, Impetty@southernco.com		Project #:		SSOW#:		TAT Requested (days):	
CCR - Plant McIntosh Ash Landfill #4		Site:		Standard		Analysis Requested	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
GWC-18		1/30/19		10:30		G	
GWC-9		10:10		11:37		G	
GWC-1		11:46		09:30		G	
GWC-11		10:45		11:30		G	
GWC-21		9:45				G	
GWC-10						G	
GWC-12						G	
GWC-23						G	
Preservation Codes:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6020 - Bo, Ca	
A - HCL		X		X		N	
B - NaOH		N		M		X	
C - Zn Acetate		N		N		X	
D - Nitric Acid		N		N		X	
E - NaHSO4		N		N		X	
F - MeOH		N		N		X	
G - Amchlor		N		N		X	
H - Ascorbic Acid		N		N		X	
I - Ice		N		N		X	
J - DI Water		N		N		X	
K - EDTA		N		N		X	
L - EDA		N		N		X	
M - Hexane		N		N		X	
N - None		N		N		X	
O - AsNaO2		N		N		X	
P - Na2O4S		N		N		X	
Q - Na2SO3		N		N		X	
R - Na2S2O3		N		N		X	
S - H2SO4		N		N		X	
T - TSP Dodecahydrate		N		N		X	
U - Acetone		N		N		X	
V - MCAA		N		N		X	
W - pH 4-5		N		N		X	
Z - other (specify)		N		N		X	
Other:		N		N		X	
Special Instructions/Note:		Total Number of containers		LF4 Detection			
		2		LF4 Detection			
Possible Hazard Identification		Empty Kit Relinquished by:		Relinquished by:		Relinquished by:	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Peter A		Date: 1/30/19		Company: QES	
Deliverable Requested: I, II, III, IV, Other (specify)		Relinquished by:		Date/Time:		Company:	
		Relinquished by:		Date/Time:		Company:	
		Relinquished by:		Date/Time:		Company:	
Custody Seals Intact:		Custody Seal No.:		Method of Shipment:		Received by:	
Δ Yes Δ No				FeDEX		Date/Time: 1-31-19	
						Company: APD	
						Date/Time: 1000	
						Date/Time:	
						Date/Time:	
						Cooler Temperature(s) °C and Other Remarks:	

Chain of Custody Record

Client Information		Lab PM: Bortot, Veronica		Carrier Tracking No(s):	
Client Contact: P. Adams, L. Coker, J. Adcock, J. Noles		E-Mail: veronica.bortot@testamericainc.com		COC No:	
Company: Southern Company		Phone: 404-592-0096		Page: 2 of 2	
Address: 241 Ralph McGill Blvd SE		City: Atlanta		Job #:	
State, Zip: GA, 30308		PO #: SCS10347656		Analysis Requested	
Phone:		WO #:		Preservation Codes:	
Email: jbraham@southerco.com, impetty@southernco.com		Project #: 18019955		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:	
Site: CCR - Plant McIntosh Ash Landfill #4		SSOW#:		Total Number of containers	

Sample Identification	Sample Date	Sample Time	Sample Type (G=comp, G=grab)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020 - Bo. Ca	TDS, 300 ORGM, 280 chloride, Fluoride, Sulfate	Special Instructions/Note:
DUP-LFY-01	1/30/19		G	W	N	X	X		LF4 Detection
DUP-LFY-02		17:01	↓	↓	↓	↓	↓		
FB-LFY-02		17:02	↓	↓	↓	↓	↓		
PERB-LFY-02									

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by: **Peter A** Date: 1/30/19
 Relinquished by: **Peter A** Date: 1/30/19
 Relinquished by: _____ Date: _____

Method of Shipment: **FEDEX**
 Received by: **Debra Wilson** Date/Time: 1-31-19 10:00
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-86241-2
SDG Number: L4 State Compliance

Login Number: 86241
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

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

Site: Georgia Power Plant, Landfill 4 State Compliance
Laboratory: Test America, Pittsburgh, PA
Report No.: 180-86241-2
Reviewer: Lorie MacKinnon/GEI Consultants
Date: May 13, 2019

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
GWC-18	180-86241-01	Metals, Anions, TDS
GWC-9	180-86241-02	Metals, Anions, TDS
GWC-1	180-86241-03	Metals, Anions, TDS
GWC-11	180-86241-04	Metals, Anions, TDS
GWC-21	180-86241-05	Metals, Anions, TDS
GWC-10	180-86241-06	Metals, Anions, TDS
GWC-12	180-86241-07	Metals, Anions, TDS
GWC-23	180-86241-08	Metals, Anions, TDS
DUP-LF4-01	180-86241-09	Metals, Anions, TDS
DUP-LF4-02	180-86241-10	Metals, Anions, TDS
FB-LF4-02	180-86241-11	Metals, Anions, TDS
FERB-LF4-02	180-86241-12	Metals, Anions, TDS

QC Samples: Field/Equipment blanks: FB-LF4-02, FERB-LF4-02
 Field Duplicate pairs: GWC-21/DUP-LF4-01 and GWC-10/DUP-LF4-02

The above-listed aqueous samples, equipment blank, and field blank sample were collected on January 30, 2019 and were analyzed for total recoverable metals by SW-846 method 6020, total dissolved solids (TDS) by Standard Methods SM 2540C, and anions (chloride, fluoride, and sulfate) by EPA method 300. The data were reviewed based on the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Methods Data Review, January 2017 (USEPA-540-R-2017-001), as well as by the methods referenced and professional and technical judgment.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Method and Field Blanks
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
- Quantitation Limits

All results are usable as reported or usable with minor qualification due to sample matrix or

laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The level 2 (reduced deliverable) data package was complete as received by the laboratory and included sample results, method blank, MS/MSD, laboratory duplicate, and LCS results. A revision of this report was received for review which included the correction of reporting limits.

Holding Times and Sample Preservation

All criteria were met.

Blanks

Laboratory Blank Results

Low level laboratory contamination was detected in the method blanks. Laboratory blank contamination was evaluated prior to possible field blank contamination. The following table summarizes the contamination and validation actions taken.

Analyte	Blank ID/ Associated Samples	Concentration (mg/L)	10x Action Level (mg/L)	Validation Actions
Silver	Method blank MB180- 269611: All samples	0.000157	0.00157	Qualify results for silver in samples GWC-18, GWC-9, GWC-1, GWC-11, GWC-21, GWC-10, GWC-23, and DUP-LF4-01 as nondetect (U) at the RL.
Chromium		0.00117	0.00117	Qualify results for chromium in samples GWC-9, GWC-1, GWC-21, GWC-23, DUP-LF4-01, FB-LF4-02, and FERB-LF4-02 as nondetect (U) at the RL. Estimate (J) the positive results for chromium in samples GWC-18, GWC-11, GWC-10, GWC-12, and DUP-LF4-02; High bias.
Vanadium		0.000971	0.00971	Qualify results for vanadium in samples GWC-1, GWC-21, GWC-12, GWC-11, DUP-LF4-02, and DUP-LF4-01 as nondetect (U) at the reported values. Estimate (J) the positive results for vanadium in samples GWC-18 and GWC-10; High bias.

Blank Actions:

If the sample result is < reporting limit (RL); report the result as nondetect (U) at the RL.

If the sample result is ≥ RL and <2x blank contamination detected; report the result as nondetect (U) at the reported value.

If the sample result is ≥ RL and < 10x Action Level; report the sample result as estimated (J); biased high.

If the sample result is nondetect or > 10x Action Level; validation action is not required.

Field Blank Results

Low level laboratory contamination was detected in the field blanks after evaluation of method blank contamination. The following table summarizes the highest level of contamination and validation actions taken.

Analyte	Blank ID/ Associated Samples	Maximum Contaminant Level (mg/L)	10x Action Level (mg/L)	Validation Actions
Beryllium	FB-LF4-02: All samples	0.000072	0.00072	Qualify results for beryllium in samples GWC-18, GWC-9, GWC-1, GWC-21, GWC-12, GWC-23, DUP-LF4-01, and DUP-LF4-02 as nondetect (U) at the RL.
Calcium		0.14	1.4	Estimate (J) the positive results for calcium in samples GWC-9, GWC-21, GWC-12, GWC-23, and DUP-LF4-01; High bias.
Arsenic	FERB-LF4-02: All samples	0.00060	0.0060	Qualify results for arsenic in samples GWC-18, GWC-10, GWC-23, DUP-LF4-01, and DUP-LF4-02 as nondetect (U) at the RL. Estimate (J) the positive result for arsenic in sample GWC-11; High bias.
Barium		0.0014	0.014	Estimate (J) the positive results for barium in samples GWC-11 and GWC-12; High bias.
Cobalt		0.00032	0.0032	Qualify results for cobalt in samples GWC-18, GWC-9, GWC-1, GWC-21, GWC-12, DUP-LF4-01, and DUP-LF4-02 as nondetect (U) at the RL.
Nickel		0.0011	0.011	Qualify results for nickel in samples GWC-18, GWC-9, GWC-1, GWC-11, GWC-21, GWC-12, GWC-23, and DUP-LF4-01 as nondetect (U) at the RL.
Fluoride		0.026	0.26	Qualify result for fluoride in sample GWC-1 as nondetect (U) at the RL. Estimate (J) the positive results for fluoride in samples GWC-10 and DUP-LF4-02; High bias.

Blank Actions:

If the sample result is < reporting limit (RL); report the result as nondetect (U) at the RL.

If the sample result is \geq RL and <2x blank contamination detected; report the result as nondetect (U) at the reported value.

If the sample result is \geq RL and < 10x Action Level; report the sample result as estimated (J); biased high.

If the sample result is nondetect or > 10x Action Level; validation action is not required.

MS/MSD Results

MS/MSD analyses were performed on sample GWC-23 for anions. All criteria were met.

Laboratory Duplicate Results

MSD analyses were performed for anions in lieu of laboratory duplicate analyses.

LCS Results

All criteria were met.

Field Duplicate Results

Samples GWC-21 and DUP-LF4-01 were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the detected analytes in the field duplicate pair, which were within the acceptance criteria except for total dissolved solids. Professional judgment was taken to qualify results for total dissolved solids in field samples associated with this sample delivery group as both sets of field duplicate pair RPD criteria were not met. The results for TDS were qualified as estimated (J) in samples GWC-18, GWC-9, GWC-1, GWC-11, GWC-21, GWC-10, GWC-12, GWC-23, DUP-LF4-01, and DUP-LF4-02.

Analyte	GWC-21 (mg/L)	DUP-LF4-01 (mg/L)	RPD (%)
Chloride	6.7	6.6	1.5
Sulfate	0.72 J	0.69 J	4.3
Barium	0.017	0.018	5.7
Cadmium	0.00014 J	0.00017 J	19.4
Calcium	1.0	1.1	9.5
Zinc	0.0025 J	0.0026 J	NC, Within the RL
Thallium	0.00050 U	0.000083 J	NC, Within the RL
Total Dissolved Solids	43	29	38.9
NC – Not calculable Criteria: When both results are $\geq 5x$ the RL, RPDs must be $< 30\%$. When results are $< 5x$ the RL, professional judgement was taken to estimate results if the absolute difference between the original and field duplicate $> RL$.			

Samples GWC-10 and DUP-LF4-02 were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the detected analytes in the field duplicate pair, except for total dissolved solids.

Analyte	GWC-10 (mg/L)	DUP-LF4-02 (mg/L)	RPD (%)
Chloride	5.6	5.3	5.5
Fluoride	0.23	0.21	9.1
Sulfate	5.0	4.6	8.3
Barium	0.023	0.023	0
Chromium	0.0071	0.0063	11.9
Vanadium	0.0027	0.0025 U	NC, Within the RL
Boron	0.055	0.059	7.0
Calcium	26	26	0
Total Dissolved Solids	160	110	37.0
NC – Not calculable Criteria: When both results are $\geq 5x$ the RL, RPDs must be $< 30\%$. When results are $< 5x$ the RL, professional judgement was taken to estimate results if the absolute difference between the original and field duplicate $> RL$.			

Site: Georgia Power Plant, Landfill 4 State Compliance
Report No.: 180-86241-2
Date: May 13, 2019

Quantitation Limits

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL). These results were qualified as estimated (J) by the laboratory.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- NJ - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Georgia Power Plant, Landfill 4 State Compliance
Laboratory: Test America, Pittsburgh, PA
Report No.: 180-86198-2
Reviewer: Lorie MacKinnon/GEI Consultants
Date: March 14, 2019

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
GWA-2	180-86198-01	Metals, Anions, TDS
GWA-3	180-86198-02	Metals, Anions, TDS
GWC-4A	180-86198-03	Metals, Anions, TDS
GWC-5	180-86198-04	Metals, Anions, TDS
GWA-13	180-86198-05	Metals, Anions, TDS
GWA-14	180-86198-06	Metals, Anions, TDS
GWA-16	180-86198-07	Metals, Anions, TDS
GWC-17	180-86198-08	Metals, Anions, TDS
GWC-15	180-86198-09	Metals, Anions, TDS
GWC-19	180-86198-10	Metals, Anions, TDS
GWC-20	180-86198-11	Metals, Anions, TDS
FERB-LFY-01	180-86198-12	Metals, Anions, TDS
FB-LFY-01	180-86198-13	Metals, Anions, TDS

QC Samples: Field/Equipment blanks: FERB-LFY-01, FB-LFY-01

The above-listed aqueous samples, equipment blank, and field blank sample were collected on January 29, 2019 and were analyzed for total recoverable metals (boron and calcium) by SW-846 method 6020, total dissolved solids (TDS) by Standard Methods SM 2540C, and anions (chloride, fluoride, and sulfate) by EPA method 300. The data were reviewed based on the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Methods Data Review, January 2017 (USEPA-540-R-2017-001), as well as by the methods referenced and professional and technical judgment.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Laboratory and Field Blanks
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Quantitation Limits

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The level 2 (reduced deliverable) data package was complete as received by the laboratory and included sample results, method blank, MS/MSD, laboratory duplicate, and LCS results. A revision of this report was received for review which included the correction of reporting limits.

Holding Times and Sample Preservation

All criteria were met.

Blanks

Laboratory Blank Results

Low level laboratory contamination was detected in select laboratory method blank samples. The following table summarizes the contamination and validation actions taken.

Analyte	Blank ID/ Associated Samples	Contamina nt Level (mg/L)	10x Action Level (mg/L)	Validation Actions
Chromium	Method MB180- 269501: All samples	0.000966	0.00966	Qualify results for chromium in samples GWA-2, GWA-3, GWC-4A, GWC-5, GWA-14, GWA-16, GWC-15, GWC-19, GWC-20, and FB-LFY-01 as nondetect (U) at the RL. Estimate (J) the positive results for chromium in samples GWA-13 and GWC-17; High bias.
Lead		0.000115	0.00115	Qualify results for lead in samples GWA-2, GWA-3, GWC-4A, GWC-5, GWA-13, GWA-14, GWA-16, GWC-17, GWC-15, GWC-19, GWC-20, FERB-LFY-01, and FB-LFY-01 as nondetect (U) at the RL.

Blank Actions:

- If the sample result is < reporting limit (RL); report the result as nondetect (U) at the RL.
- If the sample result is \geq RL and <2x blank contamination detected; professional judgment was taken to report the result as nondetect (U) at the reported value.
- If the sample result is \geq 2x blank and < 10x Action Level; report the sample result as estimated (J); biased high.
- If the sample result is nondetect or > 10x Action Level; validation action is not required.

Field Blank Results

Contamination was not detected in the associated field blank samples after application of laboratory blank contamination qualifications.

MS/MSD Results

MS/MSD analyses were performed on sample GWA-14 for anions and sample GWA-2 for metals. All criteria were met.

Site: Georgia Power Plant, Landfill 4 State Compliance
Report No.: 180-86198-2
Date: May 14, 2019

Laboratory Duplicate Results

MSD analyses were performed for anions and metals in lieu of laboratory duplicate analyses.

LCS Results

All criteria were met.

Quantitation Limits

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL). These results were qualified as estimated (J) by the laboratory.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- NJ - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- NJ - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

ANALYTICAL REPORT

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

Laboratory Job ID: 180-88160-2

Laboratory Sample Delivery Group: L4 State Compliance
Client Project/Site: CCR - Plant McIntosh Ash Landfill #4

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
4/11/2019 5:54:40 PM

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

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

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

PA Lab ID: 02-00416

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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

Job ID: 180-88160-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-88160-2**

Comments

No additional comments.

Receipt

The samples were received on 3/27/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.0° C, 2.2° C

Anions

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.

General Chemistry

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



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

Qualifiers

HPLC/IC

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

Metals

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

Glossary

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19 *
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-88160-1	GWA-13	Water	03/26/19 14:50	03/27/19 09:00
180-88160-2	GWC-5	Water	03/26/19 15:00	03/27/19 09:00
180-88160-3	GWC-4A	Water	03/26/19 15:05	03/27/19 09:00
180-88160-4	GWC-15	Water	03/26/19 15:50	03/27/19 09:00
180-88160-5	GWA-14	Water	03/26/19 16:10	03/27/19 09:00
180-88160-6	GWA-16	Water	03/26/19 16:20	03/27/19 09:00



Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

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

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 PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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 #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

Client Sample ID: GWA-13

Date Collected: 03/26/19 14:50

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-1

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			274661	04/03/19 08:05	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			435657	04/02/19 17:52	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274449	03/30/19 13:52	AVS	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-5

Date Collected: 03/26/19 15:00

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-2

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			274661	04/03/19 08:20	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			435657	04/02/19 18:11	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274274	03/28/19 16:12	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-4A

Date Collected: 03/26/19 15:05

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-3

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			274661	04/03/19 10:54	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			435657	04/02/19 18:14	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274274	03/28/19 16:12	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-15

Date Collected: 03/26/19 15:50

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-4

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			274661	04/03/19 11:56	MJH	TAL PIT
Instrument ID: CHIC2100A										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

Client Sample ID: GWC-15

Date Collected: 03/26/19 15:50

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-4

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	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			435657	04/02/19 18:18	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274274	03/28/19 16:12	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWA-14

Date Collected: 03/26/19 16:10

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-5

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			274661	04/03/19 13:10	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			435657	04/02/19 18:41	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274274	03/28/19 16:12	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWA-16

Date Collected: 03/26/19 16:20

Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-6

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			274661	04/03/19 13:27	MJH	TAL PIT
Instrument ID: CHIC2100A										
Total Recoverable	Prep	3005A			50 mL	50 mL	435550	04/02/19 11:40	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			435657	04/02/19 18:45	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274274	03/28/19 16:12	TAM	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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

Analyst References:

Lab: TAL PEN

Batch Type: Prep

DRE = Daniel Etscheid

Batch Type: Analysis

DRE = Daniel Etscheid

Lab: TAL PIT

Batch Type: Analysis

AVS = Abbey Smith

MJH = Matthew Hartman

TAM = Tessa Mastalski

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

Client Sample ID: GWA-13

Lab Sample ID: 180-88160-1

Date Collected: 03/26/19 14:50

Matrix: Water

Date Received: 03/27/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.71	mg/L			04/03/19 08:05	1
Fluoride	<0.026		0.10	0.026	mg/L			04/03/19 08:05	1
Sulfate	0.63	J	1.0	0.38	mg/L			04/03/19 08:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 17:52	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 17:52	5
Barium	0.016		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 17:52	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 17:52	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 17:52	5
Calcium	0.30		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 17:52	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 17:52	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 17:52	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 17:52	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 17:52	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 17:52	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 17:52	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 17:52	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 17:52	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 17:52	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 17:52	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 17:52	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			03/30/19 13:52	1

Client Sample ID: GWC-5

Lab Sample ID: 180-88160-2

Date Collected: 03/26/19 15:00

Matrix: Water

Date Received: 03/27/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.71	mg/L			04/03/19 08:20	1
Fluoride	0.028	J	0.10	0.026	mg/L			04/03/19 08:20	1
Sulfate	0.68	J	1.0	0.38	mg/L			04/03/19 08:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 18:11	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 18:11	5
Barium	0.046		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 18:11	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 18:11	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:11	5
Calcium	2.8		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 18:11	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:11	5
Cobalt	0.00064	J	0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 18:11	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 18:11	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 18:11	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 18:11	5

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

Client Sample ID: GWC-5
Date Collected: 03/26/19 15:00
Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 18:11	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 18:11	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 18:11	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 18:11	5
Vanadium	0.0015	J	0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 18:11	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 18:11	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	21		10	10	mg/L			03/28/19 16:12	1

Client Sample ID: GWC-4A
Date Collected: 03/26/19 15:05
Date Received: 03/27/19 09:00

Lab Sample ID: 180-88160-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		1.0	0.71	mg/L			04/03/19 10:54	1
Fluoride	<0.026		0.10	0.026	mg/L			04/03/19 10:54	1
Sulfate	11		1.0	0.38	mg/L			04/03/19 10:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 18:14	5
Arsenic	0.00050	J	0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 18:14	5
Barium	0.023		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 18:14	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 18:14	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:14	5
Calcium	0.53		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 18:14	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:14	5
Cobalt	0.0037		0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 18:14	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 18:14	5
Copper	0.0021	J	0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 18:14	5
Nickel	0.0021	J	0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 18:14	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 18:14	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 18:14	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 18:14	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 18:14	5
Vanadium	0.0027		0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 18:14	5
Zinc	0.010	J	0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 18:14	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	39		10	10	mg/L			03/28/19 16:12	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

Client Sample ID: GWC-15

Lab Sample ID: 180-88160-4

Date Collected: 03/26/19 15:50

Matrix: Water

Date Received: 03/27/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		1.0	0.71	mg/L			04/03/19 11:56	1
Fluoride	<0.026		0.10	0.026	mg/L			04/03/19 11:56	1
Sulfate	0.79	J	1.0	0.38	mg/L			04/03/19 11:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 18:18	5
Arsenic	0.00075	J	0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 18:18	5
Barium	0.028		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 18:18	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 18:18	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:18	5
Calcium	0.58		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 18:18	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:18	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 18:18	5
Chromium	0.0016	J	0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 18:18	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 18:18	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 18:18	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 18:18	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 18:18	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 18:18	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 18:18	5
Vanadium	0.0041		0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 18:18	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 18:18	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	17		10	10	mg/L			03/28/19 16:12	1

Client Sample ID: GWA-14

Lab Sample ID: 180-88160-5

Date Collected: 03/26/19 16:10

Matrix: Water

Date Received: 03/27/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.71	mg/L			04/03/19 13:10	1
Fluoride	<0.026		0.10	0.026	mg/L			04/03/19 13:10	1
Sulfate	0.92	J	1.0	0.38	mg/L			04/03/19 13:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 18:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 18:41	5
Barium	0.012		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 18:41	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 18:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:41	5
Calcium	0.42		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 18:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:41	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 18:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 18:41	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 18:41	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 18:41	5

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Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

Client Sample ID: GWA-14

Lab Sample ID: 180-88160-5

Date Collected: 03/26/19 16:10

Matrix: Water

Date Received: 03/27/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 18:41	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 18:41	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 18:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 18:41	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 18:41	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 18:41	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	17		10	10	mg/L			03/28/19 16:12	1

Client Sample ID: GWA-16

Lab Sample ID: 180-88160-6

Date Collected: 03/26/19 16:20

Matrix: Water

Date Received: 03/27/19 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		1.0	0.71	mg/L			04/03/19 13:27	1
Fluoride	<0.026		0.10	0.026	mg/L			04/03/19 13:27	1
Sulfate	0.90	J	1.0	0.38	mg/L			04/03/19 13:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 18:45	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 18:45	5
Barium	0.023		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 18:45	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 18:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:45	5
Calcium	0.37		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 18:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 18:45	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 18:45	5
Chromium	0.0015	J	0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 18:45	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 18:45	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 18:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 18:45	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 18:45	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 18:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 18:45	5
Vanadium	0.0019	J	0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 18:45	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 18:45	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	27		10	10	mg/L			03/28/19 16:12	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

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

Lab Sample ID: MB 180-274661/6
Matrix: Water
Analysis Batch: 274661

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			04/03/19 06:33	1
Fluoride	<0.026		0.10	0.026	mg/L			04/03/19 06:33	1
Sulfate	<0.38		1.0	0.38	mg/L			04/03/19 06:33	1

Lab Sample ID: LCS 180-274661/5
Matrix: Water
Analysis Batch: 274661

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	27.1		mg/L		108	90 - 110
Fluoride	1.25	1.28		mg/L		103	90 - 110
Sulfate	25.0	26.5		mg/L		106	90 - 110

Lab Sample ID: 180-88160-2 MS
Matrix: Water
Analysis Batch: 274661

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.6		25.0	30.0		mg/L		105	80 - 120
Fluoride	0.028	J	1.25	1.26		mg/L		98	80 - 120
Sulfate	0.68	J	25.0	25.6		mg/L		100	80 - 120

Lab Sample ID: 180-88160-2 MSD
Matrix: Water
Analysis Batch: 274661

Client Sample ID: GWC-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	3.6		25.0	30.0		mg/L		106	80 - 120	0	20
Fluoride	0.028	J	1.25	1.28		mg/L		100	80 - 120	2	20
Sulfate	0.68	J	25.0	26.0		mg/L		101	80 - 120	2	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-435550/1-A ^5
Matrix: Water
Analysis Batch: 435657

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 435550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/02/19 11:40	04/02/19 17:40	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/02/19 11:40	04/02/19 17:40	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/02/19 11:40	04/02/19 17:40	5
Boron	<0.021		0.050	0.021	mg/L		04/02/19 11:40	04/02/19 17:40	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 17:40	5
Calcium	<0.13		0.25	0.13	mg/L		04/02/19 11:40	04/02/19 17:40	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/02/19 11:40	04/02/19 17:40	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/02/19 11:40	04/02/19 17:40	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/02/19 11:40	04/02/19 17:40	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/02/19 11:40	04/02/19 17:40	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/02/19 11:40	04/02/19 17:40	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/02/19 11:40	04/02/19 17:40	5

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QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

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

Lab Sample ID: MB 400-435550/1-A ^5
Matrix: Water
Analysis Batch: 435657

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 435550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/02/19 11:40	04/02/19 17:40	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/02/19 11:40	04/02/19 17:40	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/02/19 11:40	04/02/19 17:40	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/02/19 11:40	04/02/19 17:40	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/02/19 11:40	04/02/19 17:40	5

Lab Sample ID: LCS 400-435550/2-A
Matrix: Water
Analysis Batch: 435657

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 435550

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0501		mg/L		100	80 - 120
Arsenic	0.0500	0.0539		mg/L		108	80 - 120
Barium	0.0500	0.0534		mg/L		107	80 - 120
Boron	0.100	0.0997		mg/L		100	80 - 120
Beryllium	0.0500	0.0507		mg/L		101	80 - 120
Calcium	5.00	5.15		mg/L		103	80 - 120
Cadmium	0.0500	0.0551		mg/L		110	80 - 120
Cobalt	0.0500	0.0539		mg/L		108	80 - 120
Chromium	0.0500	0.0530		mg/L		106	80 - 120
Copper	0.0500	0.0545		mg/L		109	80 - 120
Nickel	0.0500	0.0535		mg/L		107	80 - 120
Lead	0.0500	0.0484		mg/L		97	80 - 120
Antimony	0.0500	0.0507		mg/L		101	80 - 120
Selenium	0.0500	0.0503		mg/L		101	80 - 120
Thallium	0.0100	0.00957		mg/L		96	80 - 120
Vanadium	0.0500	0.0521		mg/L		104	80 - 120
Zinc	0.0500	0.0529		mg/L		106	80 - 120

Lab Sample ID: 180-88160-1 MS
Matrix: Water
Analysis Batch: 435657

Client Sample ID: GWA-13
Prep Type: Total Recoverable
Prep Batch: 435550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.00011		0.0500	0.0486		mg/L		97	75 - 125
Arsenic	<0.00046		0.0500	0.0528		mg/L		106	75 - 125
Barium	0.016		0.0500	0.0663		mg/L		101	75 - 125
Boron	<0.021		0.100	0.116		mg/L		116	75 - 125
Beryllium	<0.00034		0.0500	0.0510		mg/L		102	75 - 125
Calcium	0.30		5.00	5.22		mg/L		99	75 - 125
Cadmium	<0.00034		0.0500	0.0537		mg/L		107	75 - 125
Cobalt	<0.00040		0.0500	0.0519		mg/L		104	75 - 125
Chromium	0.0014	J	0.0500	0.0507		mg/L		99	75 - 125
Copper	<0.0021		0.0500	0.0529		mg/L		106	75 - 125
Nickel	<0.0018		0.0500	0.0509		mg/L		102	75 - 125
Lead	<0.00035		0.0500	0.0488		mg/L		98	75 - 125
Antimony	<0.0010		0.0500	0.0488		mg/L		98	75 - 125
Selenium	<0.00071		0.0500	0.0522		mg/L		104	75 - 125
Thallium	<0.000085		0.0100	0.00961		mg/L		96	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

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

Lab Sample ID: 180-88160-1 MS
Matrix: Water
Analysis Batch: 435657

Client Sample ID: GWA-13
Prep Type: Total Recoverable
Prep Batch: 435550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	<0.0014		0.0500	0.0504		mg/L		101	75 - 125
Zinc	<0.0065		0.0500	0.0521		mg/L		104	75 - 125

Lab Sample ID: 180-88160-1 MSD
Matrix: Water
Analysis Batch: 435657

Client Sample ID: GWA-13
Prep Type: Total Recoverable
Prep Batch: 435550

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	<0.00011		0.0500	0.0490		mg/L		98	75 - 125	1	20
Arsenic	<0.00046		0.0500	0.0529		mg/L		106	75 - 125	0	20
Barium	0.016		0.0500	0.0667		mg/L		102	75 - 125	1	20
Boron	<0.021		0.100	0.118		mg/L		118	75 - 125	2	20
Beryllium	<0.00034		0.0500	0.0522		mg/L		104	75 - 125	2	20
Calcium	0.30		5.00	5.22		mg/L		98	75 - 125	0	20
Cadmium	<0.00034		0.0500	0.0528		mg/L		106	75 - 125	2	20
Cobalt	<0.00040		0.0500	0.0526		mg/L		105	75 - 125	1	20
Chromium	0.0014	J	0.0500	0.0524		mg/L		102	75 - 125	3	20
Copper	<0.0021		0.0500	0.0522		mg/L		104	75 - 125	1	20
Nickel	<0.0018		0.0500	0.0507		mg/L		101	75 - 125	0	20
Lead	<0.00035		0.0500	0.0496		mg/L		99	75 - 125	2	20
Antimony	<0.0010		0.0500	0.0483		mg/L		97	75 - 125	1	20
Selenium	<0.00071		0.0500	0.0532		mg/L		106	75 - 125	2	20
Thallium	<0.000085		0.0100	0.00978		mg/L		98	75 - 125	2	20
Vanadium	<0.0014		0.0500	0.0510		mg/L		102	75 - 125	1	20
Zinc	<0.0065		0.0500	0.0517		mg/L		103	75 - 125	1	20

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

Lab Sample ID: MB 180-274274/2
Matrix: Water
Analysis Batch: 274274

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			03/28/19 16:12	1

Lab Sample ID: LCS 180-274274/1
Matrix: Water
Analysis Batch: 274274

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	304	304		mg/L		100	80 - 120

Lab Sample ID: MB 180-274449/2
Matrix: Water
Analysis Batch: 274449

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			03/30/19 13:52	1

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

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

Lab Sample ID: LCS 180-274449/1
Matrix: Water
Analysis Batch: 274449

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	304	260		mg/L		86	80 - 120

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QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
 SDG: L4 State Compliance

HPLC/IC

Analysis Batch: 274661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88160-1	GWA-13	Total/NA	Water	EPA 300.0 R2.1	
180-88160-2	GWC-5	Total/NA	Water	EPA 300.0 R2.1	
180-88160-3	GWC-4A	Total/NA	Water	EPA 300.0 R2.1	
180-88160-4	GWC-15	Total/NA	Water	EPA 300.0 R2.1	
180-88160-5	GWA-14	Total/NA	Water	EPA 300.0 R2.1	
180-88160-6	GWA-16	Total/NA	Water	EPA 300.0 R2.1	
MB 180-274661/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-274661/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-88160-2 MS	GWC-5	Total/NA	Water	EPA 300.0 R2.1	
180-88160-2 MSD	GWC-5	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 435550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88160-1	GWA-13	Total Recoverable	Water	3005A	
180-88160-2	GWC-5	Total Recoverable	Water	3005A	
180-88160-3	GWC-4A	Total Recoverable	Water	3005A	
180-88160-4	GWC-15	Total Recoverable	Water	3005A	
180-88160-5	GWA-14	Total Recoverable	Water	3005A	
180-88160-6	GWA-16	Total Recoverable	Water	3005A	
MB 400-435550/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-435550/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-88160-1 MS	GWA-13	Total Recoverable	Water	3005A	
180-88160-1 MSD	GWA-13	Total Recoverable	Water	3005A	

Analysis Batch: 435657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88160-1	GWA-13	Total Recoverable	Water	6020	435550
180-88160-2	GWC-5	Total Recoverable	Water	6020	435550
180-88160-3	GWC-4A	Total Recoverable	Water	6020	435550
180-88160-4	GWC-15	Total Recoverable	Water	6020	435550
180-88160-5	GWA-14	Total Recoverable	Water	6020	435550
180-88160-6	GWA-16	Total Recoverable	Water	6020	435550
MB 400-435550/1-A ^5	Method Blank	Total Recoverable	Water	6020	435550
LCS 400-435550/2-A	Lab Control Sample	Total Recoverable	Water	6020	435550
180-88160-1 MS	GWA-13	Total Recoverable	Water	6020	435550
180-88160-1 MSD	GWA-13	Total Recoverable	Water	6020	435550

General Chemistry

Analysis Batch: 274274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88160-2	GWC-5	Total/NA	Water	SM 2540C	
180-88160-3	GWC-4A	Total/NA	Water	SM 2540C	
180-88160-4	GWC-15	Total/NA	Water	SM 2540C	
180-88160-5	GWA-14	Total/NA	Water	SM 2540C	
180-88160-6	GWA-16	Total/NA	Water	SM 2540C	
MB 180-274274/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274274/1	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88160-2
SDG: L4 State Compliance

General Chemistry

Analysis Batch: 274449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88160-1	GWA-13	Total/NA	Water	SM 2540C	
MB 180-274449/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274449/1	Lab Control Sample	Total/NA	Water	SM 2540C	

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Chain of Custody Record

Client Information Client Contact: Ms. Lauren Petty Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 205-992-5417 (Tel) Email: lmpetty@southernco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com Phone: 404-592-0094 Carrier Tracking No(s):	
Due Date Requested: TAT Requested (days): Standard PO #: SCS10347656 WO #: Project #: 18019955 SSO#:		Analysis Requested Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 5020 - Sb, As, B, Ba, Be, Ca, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn 2540C-TDS, 300_ORGFM_28D chloride, Fluoride, Sulfate	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=wastewat, BT=TISSUE, A=AL)		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (Specify)		Special Instructions/Note: LF4 State Compliance 180-88160 Chain of Custody	
Empty Kit Relinquished by:		Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Relinquished by: <i>James...</i>		Date/Time: 3/26/19 1900 Company: GEI	
Relinquished by:		Date/Time: 3/27-19 Company: <i>HPH</i>	
Relinquished by:		Date/Time: 3/27-19 Company:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	



Chain of Custody Record

Client Information Client Contact: Ms. Lauren Petty Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 205-992-5417 (Tel) Email: Impetty@southernco.com Project #: 18019955 CCR - Plant McIntosh Ash Landfill #4 Site:		Sampler: P. Adams, L. Coker, J. Adcock, J. Noles Lab PM: Bortot, Veronica Phone: 404-592-0096 E-Mail: veronica.bortot@testamericainc.com		Carrier Tracking No(s): COC No: Page of Job #	
Due Date Requested: TAT Requested (days): Standard PO #: SC510347656 SOW #:		Analysis Requested			
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
Sample Identification		Sample Date		Sample Time	
Sample Type (C=Comp, G=grab)		Preservation Code:		Matrix (W=water, S=solid, O=wastebulk, BT=Tissue, A=Air)	
GWA-13 GWC-5 GWC-4A GWC-1S GWA-14 GWA-16		3/26/19 3/26/19 3/26/19 3/26/19 3/26/19 3/26/19		1450 1500 1505 1550 1610 1620	
G G G G G G		W W W W W W		X X X X X X	
Special Instructions/Note: LF4 Detection		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 - EDTA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Method of Shipment:			
Relinquished by: <i>Jammullen</i>		Date/Time: 3/26/19 1900		Company: GEI	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:			



Part # 15622-435 ARDB EXP 10/19
 SHIP DATE: 26MAR19
 ACTWGT: 43.80 LB
 CAD: 008994919/SFE2002
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

ORIGIN ID: SAVA (819) 724-7237
 JAKE ADCOCK

RIDC PARK
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

**0. VERONICA BORTOT
 TEST AMERICA - PITTSBURGH
 301 ALPHA DR**

PITTSBURGH-PA 15238

(412) 968-7068
 INT
 PO1



1 of 3
 TRK# 7862 7008 2007
 0201
 ## MASTER ##

XH AGCA

WED - 27 MAR 10:30A
 PRIORITY OVERNIGHT

15238
 PA-US PIT

Uncorrected temp 15.7 °C
 Thermometer ID M120
 CF: 0 Initials JS

PT-WI-SR-001 effective 11/9/18

Part # 15622-435 ARDB EXP 10/19
 SHIP DATE: 26MAR19
 ACTWGT: 55.00 LB
 CAD: 008994919/SFE2002
 DIMS: 24x13x14 IN
 BILL THIRD PARTY

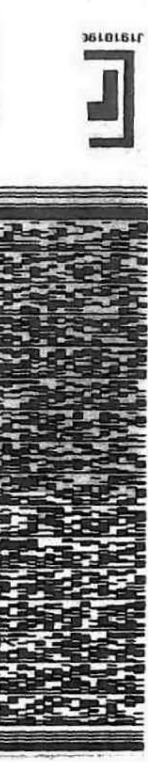
ORIGIN ID: SAVA (819) 724-7237
 JAKE ADCOCK

RIDC PARK
 301 ALPHA DR
 PITTSBURGH, PA 15238
 UNITED STATES US

**0. VERONICA BORTOT
 TEST AMERICA - PITTSBURGH
 301 ALPHA DR**

PITTSBURGH PA 15238

(412) 968-7068
 INT
 PO1



3 of 3
 MPS# 7862 7008 2029
 0263
 Metr# 7862 7008 2007

XH AGCA

WED - 27 MAR 10:30A
 PRIORITY OVERNIGHT

15238
 PA-US PIT

Uncorrected temp 22 °C
 Thermometer ID 10
 CF: 0 Initials JS

PT-WI-SR-001 effective 11/9/18

RT97



ORIGIN ID:SAVA (919) 724-7237
JAKE ADCOCK

RIDC PARK
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

SHIP DATE: 26MAR19
ACTWGT: 51.40 LB
CAD: 006994919/SSFE2002
DIMS: 24x13x14 IN

BILL THIRD PARTY

Part 1 14699... 9908 Exp 10:19
0852/089/11595

VERONICA BORTOT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 969-7068

REF:

INU:

PO1

DEPT:



FedEx
Express



2 of 3

MPS# 7862 7008 2018
0269

Metr# 7862 7008 2007

0201

WED - 27 MAR 10:30A
PRIORITY OVERNIGHT

XH AGCA

15238

PA-US PIT

Uncorrected temp	2.0	°C
Thermometer ID	10	
CF	0	Initials
		TS

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

Chain of Custody Record



Client Information (Sub Contract Lab)

Client Contact: Shipping/Receiving
 Company: TestAmerica Laboratories, Inc.
 Address: 3355 McLemore Drive, Pensacola, FL, 32514
 Phone: 850-474-1001(Tel) 850-478-2671(Fax)
 Email: [Redacted]

Project Name: CCR - Plant McIntosh Ash Landfill #4
 Site: [Redacted]

Lab PM: Bortot, Veronica
 E-Mail: veronica.bortot@testamericainc.com
 State of Origin: Georgia

Sampler: [Redacted]
 Phone: [Redacted]

Accreditations Required (See note): [Redacted]

COC No: 180-358450.1
 Page: Page 1 of 1
 Job #: 180-88160-1

Analysis Requested

Due Date Requested: 4/8/2019
 TAT Requested (days): [Redacted]

PO #: [Redacted]
 WO #: [Redacted]

Project #: 18019955
 SSO#: [Redacted]

6020/3005A (MOD) Edison Single Metals

Perform MS/MSD (Yes or No) [X]
 Field Filtered Sample (Yes or No) [X]
 Total Number of Containers [X]

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=ore/sediment, BT=TISSUE, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
GWA-13 (180-88160-1)	3/26/19	14:50 Eastern		Water		[X]	[X]	1	B and Ca logged twice; once in job 1 and then job 2; upload results into both
GWC-5 (180-88160-2)	3/26/19	15:00 Eastern		Water		[X]	[X]	1	
GWC-4A (180-88160-3)	3/26/19	15:05 Eastern		Water		[X]	[X]	1	
GWC-15 (180-88160-4)	3/26/19	15:50 Eastern		Water		[X]	[X]	1	
GWA-14 (180-88160-5)	3/26/19	16:10 Eastern		Water		[X]	[X]	1	
GWA-16 (180-88160-6)	3/26/19	16:20 Eastern		Water		[X]	[X]	1	

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

Possible Hazard Identification

Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify) [Redacted]
 Primary Deliverable Rank: 2

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

Special Instructions/QC Requirements: [Redacted]

Empty Kit Relinquished by: [Redacted] Date: [Redacted]

Relinquished by: [Redacted] Date/Time: 3/26/19 17:00 Company: [Redacted]

Relinquished by: [Redacted] Date/Time: [Redacted] Company: [Redacted]

Relinquished by: [Redacted] Date/Time: [Redacted] Company: [Redacted]

Custody Seals Intact: Yes No Δ No Δ
 Cooler Temperature(s) °C and Other Remarks: 3.28-19 8.58
 4.58 187





Client Information (Sub Contract Lab) Client Contact: _____ Shipping/Receiving Company: TestAmerica Laboratories, Inc. Address: 3355 McLemore Drive, City: Pensacola State, Zip: FL, 32514 Phone: 850-474-1001(Tel) 850-478-2671(Fax) Email: _____		Lab PM: Bortot, Veronica E-Mail: veronica.bortot@testamericainc.com Carrier Tracking No(s): _____ State of Origin: Georgia Accreditations Required (See note): _____	
Due Date Requested: 4/9/2019 TAT Requested (days): _____ PO #: _____ WO #: _____ Project #: 18019955 SSOW#: _____		COC No: 180-358450.1 Page: Page 1 of 1 Job #: 180-88160-2	
Analysis Requested 6020/3005A SbaSBaBbeCdCocCocubPbNiSeAgITvZnBCa			
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: _____ M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - HZSO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)			
Sample Identification - Client ID (Lab ID)			
Sample Date 3/26/19 3/26/19 3/26/19 3/26/19 3/26/19 3/26/19	Sample Time 14:50 Eastern 15:00 Eastern 15:05 Eastern 15:50 Eastern 16:10 Eastern 16:20 Eastern	Sample Type (C=Comp, G=grab) _____ _____ _____ _____ _____ _____	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, AW=Air) Water Water Water Water Water Water
Field Filtered Sample (Yes or No)		Total Number of Containers	
X X X X X X		1 1 1 1 1 1	
Special Instructions/Note: B and Ca logged twice; once in job 1 and then job 2; upload results into both			
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.			
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: 3/28/19 12w Company: TAP Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements: _____ Method of Shipment: _____ Received by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: 3-29-19 8:58 Company: _____ Cooler Temperature(s) °C and Other Remarks: 4.5°C 1A			



Test America

Temperature Control

THE LEADER IN ENVIRONMENTAL TESTING



IF THIS SHIPMENT IS DELAYED IN TRANSIT,
STORE REFRIGERATED (2° TO 8° C / 36° TO 47° F)

TAL-009

THE LEADER IN ENVIRONMENTAL TESTING

6/10/01 dxc

ORIGIN ID: AGCA (412) 963-7058
SAMPLE RECEIVING
TEST AMERICA LABORATORIES INC
301 ALPHA DR

SHIP DATE: 28MAR19
ACTWGT: 34.00 LB MAN
CAD: 741733/CAFE3211

PITTSBURGH, PA 152381330
UNITED STATES US

BILL RECIPIENT

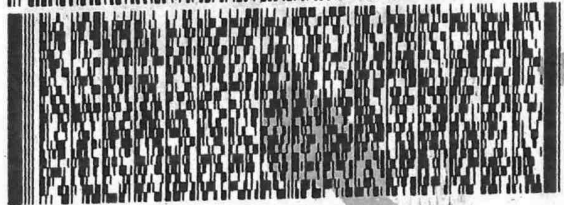
TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
3355 MCLEMORE DRIVE

551C1/4832/104C

PENSACOLA FL 32514

(850) 474-1001
PO: YES

REF: 6180-50699



FedEx
Express



J18111806060104

TRK# 4818 7131 3681
0201

FRI - 29 MAR 10:30A
PRIORITY OVERNIGHT

XH PNSA

4.50 C
2/27

32514
FL US BFM



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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88160-2
SDG Number: L4 State Compliance

Login Number: 88160

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	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88160-2
SDG Number: L4 State Compliance

Login Number: 88160
List Number: 2
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola
List Creation: 03/29/19 05:30 PM

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.	N/A	
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	4.5°C IR-7
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

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

Laboratory Job ID: 180-88225-2

Laboratory Sample Delivery Group: State Compliance

Client Project/Site: CCR - Plant McIntosh Ash Landfill #4

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
4/11/2019 5:16:56 PM

Veronica Bortot, Senior Project Manager
(412)963-2435

veronica.bortot@testamericainc.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 #4

Job ID: 180-88225-2
SDG: State Compliance

Job ID: 180-88225-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-88225-2**

Comments

No additional comments.

Receipt

The samples were received on 3/28/2019 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.9° C and 3.4° C.

Receipt Exception

GWC-20 (180-88225-6) The following sample has no collection time listed on the containers.

Anions

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.

General Chemistry

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



Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Qualifiers

HPLC/IC

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

Metals

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

Glossary

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19 *
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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



Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-88225-1	GWC-17	Water	03/27/19 09:40	03/28/19 08:45
180-88225-2	GWA-3	Water	03/27/19 09:55	03/28/19 08:45
180-88225-3	GWC-18	Water	03/27/19 10:00	03/28/19 08:45
180-88225-4	GWC-19	Water	03/27/19 10:50	03/28/19 08:45
180-88225-5	GWA-2	Water	03/27/19 11:15	03/28/19 08:45
180-88225-6	GWC-20	Water	03/27/19 11:15	03/28/19 08:45
180-88225-7	GWC-21	Water	03/27/19 12:00	03/28/19 08:45
180-88225-8	GWC-23	Water	03/27/19 12:50	03/28/19 08:45
180-88225-9	GWC-9	Water	03/27/19 13:05	03/28/19 08:45
180-88225-10	GWC-10	Water	03/27/19 13:20	03/28/19 08:45
180-88225-11	GWC-12	Water	03/27/19 14:30	03/28/19 08:45



Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

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

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 PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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 #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWC-17

Date Collected: 03/27/19 09:40

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-1

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			275048	04/08/19 15:40	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:02	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWA-3

Date Collected: 03/27/19 09:55

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-2

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			275048	04/08/19 16:27	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:06	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-18

Date Collected: 03/27/19 10:00

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-3

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			275048	04/08/19 16:43	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:10	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-19

Date Collected: 03/27/19 10:50

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-4

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			275048	04/08/19 16:59	MJH	TAL PIT
Instrument ID: CHICS2100B										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWC-19

Date Collected: 03/27/19 10:50

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-4

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	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:34	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWA-2

Date Collected: 03/27/19 11:15

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-5

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			275048	04/08/19 17:15	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:38	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWC-20

Date Collected: 03/27/19 11:15

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-6

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			275048	04/08/19 18:02	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:41	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: GWC-21

Date Collected: 03/27/19 12:00

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-7

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			275048	04/08/19 18:18	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:45	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Client Sample ID: GWC-23

Date Collected: 03/27/19 12:50

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-8

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			275048	04/08/19 18:34	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:49	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-9

Date Collected: 03/27/19 13:05

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-9

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			275048	04/08/19 18:50	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:53	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274517	04/01/19 15:53	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-10

Date Collected: 03/27/19 13:20

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275048	04/08/19 19:05	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 22:57	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-12

Date Collected: 03/27/19 14:30

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 300.0 R2.1		1			275048	04/08/19 19:21	MJH	TAL PIT
Instrument ID: CHICS2100B										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWC-12

Lab Sample ID: 180-88225-11

Date Collected: 03/27/19 14:30

Matrix: Water

Date Received: 03/28/19 08:45

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	436360	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 23:01	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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

Analyst References:

Lab: TAL PEN

Batch Type: Prep

DRE = Daniel Etscheid

Batch Type: Analysis

DRE = Daniel Etscheid

Lab: TAL PIT

Batch Type: Analysis

MJH = Matthew Hartman

TAM = Tessa Mastalski

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWC-17

Lab Sample ID: 180-88225-1

Date Collected: 03/27/19 09:40

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		1.0	0.71	mg/L			04/08/19 15:40	1
Fluoride	0.10	J	0.20	0.026	mg/L			04/08/19 15:40	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 15:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:02	5
Arsenic	0.00097	J	0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:02	5
Barium	0.017		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:02	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:02	5
Beryllium	0.00062	J	0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:02	5
Calcium	2.0		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:02	5
Cadmium	0.00041	J	0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:02	5
Chromium	0.0028		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:02	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:02	5
Nickel	0.0018	J	0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:02	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:02	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:02	5
Vanadium	0.0040		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:02	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:02	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		10	10	mg/L			04/01/19 15:53	1

Client Sample ID: GWA-3

Lab Sample ID: 180-88225-2

Date Collected: 03/27/19 09:55

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		1.0	0.71	mg/L			04/08/19 16:27	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 16:27	1
Sulfate	0.70	J	1.0	0.38	mg/L			04/08/19 16:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:06	5
Arsenic	0.0011	J	0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:06	5
Barium	0.014		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:06	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:06	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:06	5
Calcium	0.73		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:06	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:06	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:06	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:06	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:06	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:06	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Client Sample ID: GWA-3

Lab Sample ID: 180-88225-2

Date Collected: 03/27/19 09:55

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:06	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:06	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:06	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:06	5
Vanadium	0.0047		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:06	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:06	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	35		10	10	mg/L			04/01/19 15:53	1

Client Sample ID: GWC-18

Lab Sample ID: 180-88225-3

Date Collected: 03/27/19 10:00

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		1.0	0.71	mg/L			04/08/19 16:43	1
Fluoride	0.49		0.20	0.026	mg/L			04/08/19 16:43	1
Sulfate	4.8		1.0	0.38	mg/L			04/08/19 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:10	5
Arsenic	0.0019		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:10	5
Barium	0.014		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:10	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:10	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:10	5
Calcium	11		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:10	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:10	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:10	5
Chromium	0.0025		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:10	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:10	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:10	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:10	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:10	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:10	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:10	5
Vanadium	0.0074		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:10	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:10	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	79		10	10	mg/L			04/01/19 15:53	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Client Sample ID: GWC-19

Lab Sample ID: 180-88225-4

Date Collected: 03/27/19 10:50

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.5		1.0	0.71	mg/L			04/08/19 16:59	1
Fluoride	0.072	J	0.20	0.026	mg/L			04/08/19 16:59	1
Sulfate	1.6		1.0	0.38	mg/L			04/08/19 16:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:34	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:34	5
Barium	0.013		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:34	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:34	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:34	5
Calcium	9.2		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:34	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:34	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:34	5
Chromium	0.0014	J	0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:34	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:34	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:34	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:34	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:34	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:34	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:34	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:34	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:34	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	61		10	10	mg/L			04/01/19 15:53	1

Client Sample ID: GWA-2

Lab Sample ID: 180-88225-5

Date Collected: 03/27/19 11:15

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		1.0	0.71	mg/L			04/08/19 17:15	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 17:15	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 17:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:38	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:38	5
Barium	0.030		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:38	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:38	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:38	5
Calcium	0.37		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:38	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:38	5
Cobalt	0.0011	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:38	5
Chromium	0.0016	J	0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:38	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:38	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:38	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWA-2
 Date Collected: 03/27/19 11:15
 Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-5
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:38	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:38	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:38	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:38	5
Vanadium	0.0019	J	0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:38	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:38	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	36		10	10	mg/L			04/01/19 15:53	1

Client Sample ID: GWC-20
 Date Collected: 03/27/19 11:15
 Date Received: 03/28/19 08:45

Lab Sample ID: 180-88225-6
 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			04/08/19 18:02	1
Fluoride	0.034	J	0.20	0.026	mg/L			04/08/19 18:02	1
Sulfate	1.7		1.0	0.38	mg/L			04/08/19 18:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:41	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:41	5
Barium	0.018		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:41	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:41	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:41	5
Calcium	1.5		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:41	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:41	5
Cobalt	0.0012	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:41	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:41	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:41	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:41	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:41	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:41	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:41	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:41	5
Vanadium	0.0031		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:41	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:41	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	57		10	10	mg/L			04/01/19 15:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Client Sample ID: GWC-21

Lab Sample ID: 180-88225-7

Date Collected: 03/27/19 12:00

Matrix: Water

Date Received: 03/28/19 08:45

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	0.71	mg/L			04/08/19 18:18	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 18:18	1
Sulfate	0.92	J	1.0	0.38	mg/L			04/08/19 18:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:45	5
Arsenic	0.00074	J	0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:45	5
Barium	0.016		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:45	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:45	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:45	5
Calcium	1.1		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:45	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:45	5
Cobalt	0.0010	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:45	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:45	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:45	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:45	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:45	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:45	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:45	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:45	5
Vanadium	0.0049		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:45	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:45	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	33		10	10	mg/L			04/01/19 15:53	1

Client Sample ID: GWC-23

Lab Sample ID: 180-88225-8

Date Collected: 03/27/19 12:50

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		1.0	0.71	mg/L			04/08/19 18:34	1
Fluoride	0.027	J	0.20	0.026	mg/L			04/08/19 18:34	1
Sulfate	2.8		1.0	0.38	mg/L			04/08/19 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:49	5
Arsenic	0.00079	J	0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:49	5
Barium	0.027		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:49	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:49	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:49	5
Calcium	1.4		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:49	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:49	5
Cobalt	0.0060		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:49	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:49	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:49	5
Nickel	0.0018	J	0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:49	5

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWC-23

Lab Sample ID: 180-88225-8

Date Collected: 03/27/19 12:50

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:49	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:49	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:49	5
Thallium	0.00011	J	0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:49	5
Vanadium	0.0055		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:49	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		10	10	mg/L			04/01/19 15:53	1

Client Sample ID: GWC-9

Lab Sample ID: 180-88225-9

Date Collected: 03/27/19 13:05

Matrix: Water

Date Received: 03/28/19 08:45

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			04/08/19 18:50	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 18:50	1
Sulfate	1.2		1.0	0.38	mg/L			04/08/19 18:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:53	5
Arsenic	0.00073	J	0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:53	5
Barium	0.023		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:53	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:53	5
Calcium	0.28		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:53	5
Cobalt	0.00051	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:53	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:53	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:53	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:53	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:53	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:53	5
Vanadium	0.0060		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34		10	10	mg/L			04/01/19 15:53	1

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

Client Sample ID: GWC-10

Lab Sample ID: 180-88225-10

Date Collected: 03/27/19 13:20

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.71	mg/L			04/08/19 19:05	1
Fluoride	0.12	J	0.20	0.026	mg/L			04/08/19 19:05	1
Sulfate	4.3		1.0	0.38	mg/L			04/08/19 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 22:57	5
Arsenic	0.0013		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 22:57	5
Barium	0.019		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 22:57	5
Boron	0.050		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 22:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:57	5
Calcium	22		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 22:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 22:57	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 22:57	5
Chromium	0.0035		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 22:57	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 22:57	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 22:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 22:57	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 22:57	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 22:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 22:57	5
Vanadium	0.0065		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 22:57	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 22:57	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	130		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: GWC-12

Lab Sample ID: 180-88225-11

Date Collected: 03/27/19 14:30

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		1.0	0.71	mg/L			04/08/19 19:21	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 19:21	1
Sulfate	0.67	J	1.0	0.38	mg/L			04/08/19 19:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 23:01	5
Arsenic	0.0011	J	0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 23:01	5
Barium	0.0099		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 23:01	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 23:01	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 23:01	5
Calcium	0.62		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 23:01	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 23:01	5
Cobalt	0.00051	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 23:01	5
Chromium	0.0019	J	0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 23:01	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 23:01	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 23:01	5

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Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

Client Sample ID: GWC-12

Lab Sample ID: 180-88225-11

Date Collected: 03/27/19 14:30

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 23:01	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 23:01	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 23:01	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 23:01	5
Vanadium	0.0078		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 23:01	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 23:01	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	24		10	10	mg/L			04/02/19 14:42	1

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

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

Lab Sample ID: MB 180-275048/42
Matrix: Water
Analysis Batch: 275048

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			04/08/19 15:08	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 15:08	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 15:08	1

Lab Sample ID: LCS 180-275048/43
Matrix: Water
Analysis Batch: 275048

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.9		mg/L		100	90 - 110
Fluoride	2.50	2.39		mg/L		96	90 - 110
Sulfate	50.0	49.5		mg/L		99	90 - 110

Lab Sample ID: 180-88225-1 MS
Matrix: Water
Analysis Batch: 275048

Client Sample ID: GWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.1		25.0	29.2		mg/L		100	80 - 120
Fluoride	0.10	J	1.25	1.34		mg/L		99	80 - 120
Sulfate	<0.38		25.0	25.2		mg/L		101	80 - 120

Lab Sample ID: 180-88225-1 MSD
Matrix: Water
Analysis Batch: 275048

Client Sample ID: GWC-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.1		25.0	29.2		mg/L		100	80 - 120	0	20
Fluoride	0.10	J	1.25	1.34		mg/L		99	80 - 120	0	20
Sulfate	<0.38		25.0	25.2		mg/L		101	80 - 120	0	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-436360/1-A ^5
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 21:02	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 21:02	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 21:02	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 21:02	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 21:02	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 21:02	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 21:02	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 21:02	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 21:02	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 21:02	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 21:02	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 21:02	5

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QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

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

Lab Sample ID: MB 400-436360/1-A ^5
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 21:02	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 21:02	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 21:02	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 21:02	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 21:02	5

Lab Sample ID: LCS 400-436360/2-A
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 436360

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0488		mg/L		98	80 - 120
Arsenic	0.0500	0.0489		mg/L		98	80 - 120
Barium	0.0500	0.0468		mg/L		94	80 - 120
Boron	0.100	0.104		mg/L		104	80 - 120
Beryllium	0.0500	0.0493		mg/L		99	80 - 120
Calcium	5.00	4.93		mg/L		99	80 - 120
Cadmium	0.0500	0.0478		mg/L		96	80 - 120
Cobalt	0.0500	0.0508		mg/L		102	80 - 120
Chromium	0.0500	0.0491		mg/L		98	80 - 120
Copper	0.0500	0.0503		mg/L		101	80 - 120
Nickel	0.0500	0.0503		mg/L		101	80 - 120
Lead	0.0500	0.0496		mg/L		99	80 - 120
Antimony	0.0500	0.0484		mg/L		97	80 - 120
Selenium	0.0500	0.0478		mg/L		96	80 - 120
Thallium	0.0100	0.00966		mg/L		97	80 - 120
Vanadium	0.0500	0.0478		mg/L		96	80 - 120
Zinc	0.0500	0.0486		mg/L		97	80 - 120

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

Lab Sample ID: MB 180-274517/2
Matrix: Water
Analysis Batch: 274517

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			04/01/19 15:53	1

Lab Sample ID: LCS 180-274517/1
Matrix: Water
Analysis Batch: 274517

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	304	324		mg/L		107	80 - 120

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

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

Lab Sample ID: MB 180-274641/2
Matrix: Water
Analysis Batch: 274641

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	-		04/02/19 14:42	1

Lab Sample ID: LCS 180-274641/1
Matrix: Water
Analysis Batch: 274641

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	304	338		mg/L	-	111	80 - 120



QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
 SDG: State Compliance

HPLC/IC

Analysis Batch: 275048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88225-1	GWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-88225-2	GWA-3	Total/NA	Water	EPA 300.0 R2.1	
180-88225-3	GWC-18	Total/NA	Water	EPA 300.0 R2.1	
180-88225-4	GWC-19	Total/NA	Water	EPA 300.0 R2.1	
180-88225-5	GWA-2	Total/NA	Water	EPA 300.0 R2.1	
180-88225-6	GWC-20	Total/NA	Water	EPA 300.0 R2.1	
180-88225-7	GWC-21	Total/NA	Water	EPA 300.0 R2.1	
180-88225-8	GWC-23	Total/NA	Water	EPA 300.0 R2.1	
180-88225-9	GWC-9	Total/NA	Water	EPA 300.0 R2.1	
180-88225-10	GWC-10	Total/NA	Water	EPA 300.0 R2.1	
180-88225-11	GWC-12	Total/NA	Water	EPA 300.0 R2.1	
MB 180-275048/42	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-275048/43	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-88225-1 MS	GWC-17	Total/NA	Water	EPA 300.0 R2.1	
180-88225-1 MSD	GWC-17	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 436360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88225-1	GWC-17	Total Recoverable	Water	3005A	
180-88225-2	GWA-3	Total Recoverable	Water	3005A	
180-88225-3	GWC-18	Total Recoverable	Water	3005A	
180-88225-4	GWC-19	Total Recoverable	Water	3005A	
180-88225-5	GWA-2	Total Recoverable	Water	3005A	
180-88225-6	GWC-20	Total Recoverable	Water	3005A	
180-88225-7	GWC-21	Total Recoverable	Water	3005A	
180-88225-8	GWC-23	Total Recoverable	Water	3005A	
180-88225-9	GWC-9	Total Recoverable	Water	3005A	
180-88225-10	GWC-10	Total Recoverable	Water	3005A	
180-88225-11	GWC-12	Total Recoverable	Water	3005A	
MB 400-436360/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-436360/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 436562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88225-1	GWC-17	Total Recoverable	Water	6020	436360
180-88225-2	GWA-3	Total Recoverable	Water	6020	436360
180-88225-3	GWC-18	Total Recoverable	Water	6020	436360
180-88225-4	GWC-19	Total Recoverable	Water	6020	436360
180-88225-5	GWA-2	Total Recoverable	Water	6020	436360
180-88225-6	GWC-20	Total Recoverable	Water	6020	436360
180-88225-7	GWC-21	Total Recoverable	Water	6020	436360
180-88225-8	GWC-23	Total Recoverable	Water	6020	436360
180-88225-9	GWC-9	Total Recoverable	Water	6020	436360
180-88225-10	GWC-10	Total Recoverable	Water	6020	436360
180-88225-11	GWC-12	Total Recoverable	Water	6020	436360
MB 400-436360/1-A ^5	Method Blank	Total Recoverable	Water	6020	436360
LCS 400-436360/2-A	Lab Control Sample	Total Recoverable	Water	6020	436360

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88225-2
SDG: State Compliance

General Chemistry

Analysis Batch: 274517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88225-1	GWC-17	Total/NA	Water	SM 2540C	
180-88225-2	GWA-3	Total/NA	Water	SM 2540C	
180-88225-3	GWC-18	Total/NA	Water	SM 2540C	
180-88225-4	GWC-19	Total/NA	Water	SM 2540C	
180-88225-5	GWA-2	Total/NA	Water	SM 2540C	
180-88225-6	GWC-20	Total/NA	Water	SM 2540C	
180-88225-7	GWC-21	Total/NA	Water	SM 2540C	
180-88225-8	GWC-23	Total/NA	Water	SM 2540C	
180-88225-9	GWC-9	Total/NA	Water	SM 2540C	
MB 180-274517/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274517/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 274641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88225-10	GWC-10	Total/NA	Water	SM 2540C	
180-88225-11	GWC-12	Total/NA	Water	SM 2540C	
MB 180-274641/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274641/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information Client Contact: Ms. Lauren Peity Company: Southern Company Address: PO BOX 2641 GSCB City: Birmingham State, Zip: AL, 35291 Phone: 205-992-5417(Tel) Email: lmpetty@southernco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site:		Lab PM: Bortol, Veronica E-mail: veronica.bortol@testamericainc.com Phone: 404-592-0094		Sampler: L. Coker, J. Adcock, J. Noles Carrier Tracking No(s):		COC No: Page 1 of 2 Job #			
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 18019955 SOW#:		Analysis Requested							
Field Filtered Sample (Yes or No)		Pattern MS/MSD (Yes or No)		600 - Sb, As, Ba, Be, Bi, Br, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn, Sn		2440 - TDS, 300 - ORGM, 280 - chloride, fluoride, sulfate			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)			
Matrix (Water, Soil, Dioxin, Asbestos, Acid)		Preservation Code:		Matrix		Total Number of Containers			
GWC-17 GWA-3 GWC-18 GWC-19 GWA-2 GWC-20 GWC-21 GWC-23 GWC-9 GWC-10 GWC-12		3/27/19 0940 3/27/19 0955 3/27/19 1000 3/27/19 1050 3/27/19 1115 3/27/19 1115 3/27/19 1200 3/27/19 1250 3/27/19 1305 3/27/19 1320 3/27/19 1430		G G G G G G G G G G G		W W W W W W W W W W W		X X X X X X X X X X X X	
Special Instructions/Note: LF4 State Compliance Send results to J.Coker@geiconsultants.com		Special Instructions/QC Requirements: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: 3/27/19 1800 Company: GEI Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____							
Custody Seals Intact: _____ A Yes Δ No		Cooler Temperature(s) °C and Other Remarks:							



ORIGIN ID: SAVA (770) 912-0703
LAUREN COCKER
RIDC PARK 301 ALPHA DR
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

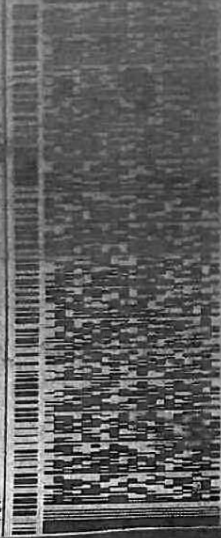
SHIP DATE: 27MARB10
ACT WT: 49.50 LB
CAD: 008094920788F22002
DIMS: 23x14x12 IN
BILL THIRD PARTY

TO VERONICA BOROT

RIDC PARK 301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058
INV1
PO1



FedEx
Express



THU - 28 MAR 10:30A
PRIORITY OVERNIGHT
DSR
15238
PA-US PIT

TRK1 7862 9550 8690
2601

XH AGCA

1.9 °C
10
B3

Uncorrected temp
Thermometer ID

CF 0 Initials

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



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

ORIGIN ID: SAVA (770) 912-0703
LAUREN COKER
RIDC PARK
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

0 VERONICA BORTOT

RIDC PARK 301 ALPHA RT 97

PITTSBURGH PA 15238 FZ

(412) 687-7068
REF: 1010
P.O.

SHIP DATE: 27MAR19
ACT WT: 45.90 LB
CAD: 06894920/SF2002
DIMS: 23x12x13 IN
BILL THIRD

A
1
10:30
1010
03:28

DEPT:



TRK# 0201

7862 9559 1010

XH AGCA

THU - 28 MAR 10:30A

PRIORITY OVERNIGHT

DSR

15238

PA-US PIT



Uncorrected temp
Thermometer ID

3.4 °C

10

CF 0 Initials JB

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

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

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88225-2
SDG Number: State Compliance

Login Number: 88225
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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



ANALYTICAL REPORT

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

Laboratory Job ID: 180-88227-2

Laboratory Sample Delivery Group: LF \$State Compliance
Client Project/Site: CCR - Plant McIntosh Ash Landfill #4

For:

Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
4/11/2019 5:08:06 PM

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

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

Job ID: 180-88227-2

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative 180-88227-2

Comments

No additional comments.

Receipt

The samples were received on 3/28/2019 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.9° C and 3.4° C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): DUP-LF4-02 (180-88227-4). The container labels list a sample collection time of 08:00, while the COC lists no time. The time on the labels was used.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): GWC-11 (180-88227-2). The container labels list a sample collection time of 14:40, while the COC lists 14:00. The time on the COC was used.

Anions

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

Metals

Method(s) 6020: The post digestion spike % recovery associated with batch 400-436562 was outside of control limits. The following sample is impacted: (180-88227-B-1-A PDS ^5).

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-436364 and analytical batch 400-436562 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

General Chemistry

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

Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19 *
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19 *
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19 *
Texas	NELAP	6	T104704528-15-2	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Laboratory: Eurofins TestAmerica, Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-19
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-20
Rhode Island	State Program	1	LAO00307	12-30-19
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	07-31-19

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-88227-1	GWC-1	Water	03/27/19 14:40	03/28/19 08:45
180-88227-2	GWC-11	Water	03/27/19 14:00	03/28/19 08:45
180-88227-3	DUP-LF4-01	Water	03/27/19 00:00	03/28/19 08:45
180-88227-4	DUP-LF4-02	Water	03/27/19 00:00	03/28/19 08:45
180-88227-5	FB-LF4-01	Water	03/27/19 15:15	03/28/19 08:45
180-88227-6	FB-LF4-02	Water	03/27/19 15:20	03/28/19 08:45
180-88227-7	FERB-LF4-01	Water	03/27/19 15:25	03/28/19 08:45
180-88227-8	FERB-LF4-02	Water	03/27/19 15:30	03/28/19 08:45



Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

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

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 PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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 #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Client Sample ID: GWC-1

Date Collected: 03/27/19 14:40

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88227-1

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			275048	04/08/19 05:55	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 16:33	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: GWC-11

Date Collected: 03/27/19 14:00

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88227-2

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			275048	04/08/19 06:42	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 16:53	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-LF4-01

Date Collected: 03/27/19 00:00

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88227-3

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			275048	04/08/19 06:58	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 16:57	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
Instrument ID: NOEQUIP										

Client Sample ID: DUP-LF4-02

Date Collected: 03/27/19 00:00

Date Received: 03/28/19 08:45

Lab Sample ID: 180-88227-4

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			275048	04/08/19 07:14	MJH	TAL PIT
Instrument ID: CHICS2100B										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Client Sample ID: DUP-LF4-02

Lab Sample ID: 180-88227-4

Date Collected: 03/27/19 00:00

Matrix: Water

Date Received: 03/28/19 08:45

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	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 17:21	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FB-LF4-01

Lab Sample ID: 180-88227-5

Date Collected: 03/27/19 15:15

Matrix: Water

Date Received: 03/28/19 08:45

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			275048	04/08/19 08:33	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 17:25	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FB-LF4-02

Lab Sample ID: 180-88227-6

Date Collected: 03/27/19 15:20

Matrix: Water

Date Received: 03/28/19 08:45

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			275048	04/08/19 08:49	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 17:29	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Client Sample ID: FERB-LF4-01

Lab Sample ID: 180-88227-7

Date Collected: 03/27/19 15:25

Matrix: Water

Date Received: 03/28/19 08:45

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			275048	04/08/19 09:05	MJH	TAL PIT
		Instrument ID: CHICS2100B								
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 17:33	DRE	TAL PEN
		Instrument ID: ICPMS7700								
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
		Instrument ID: NOEQUIP								

Lab Chronicle

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Client Sample ID: FERB-LF4-02

Lab Sample ID: 180-88227-8

Date Collected: 03/27/19 15:30

Matrix: Water

Date Received: 03/28/19 08:45

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			275048	04/08/19 09:20	MJH	TAL PIT
Instrument ID: CHICS2100B										
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	436364	04/09/19 11:00	DRE	TAL PEN
Total Recoverable	Analysis	6020		5			436562	04/09/19 17:37	DRE	TAL PEN
Instrument ID: ICPMS7700										
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	274641	04/02/19 14:42	TAM	TAL PIT
Instrument ID: NOEQUIP										

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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

Analyst References:

Lab: TAL PEN

Batch Type: Prep

DRE = Daniel Etscheid

Batch Type: Analysis

DRE = Daniel Etscheid

Lab: TAL PIT

Batch Type: Analysis

MJH = Matthew Hartman

TAM = Tessa Mastalski

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Client Sample ID: GWC-1
 Date Collected: 03/27/19 14:40
 Date Received: 03/28/19 08:45

Lab Sample ID: 180-88227-1
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.8		1.0	0.71	mg/L			04/08/19 05:55	1
Fluoride	0.029	J	0.20	0.026	mg/L			04/08/19 05:55	1
Sulfate	1.6		1.0	0.38	mg/L			04/08/19 05:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 16:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 16:33	5
Barium	0.045	F1	0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 16:33	5
Boron	<0.021	F1	0.050	0.021	mg/L		04/09/19 11:00	04/09/19 16:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:33	5
Calcium	2.4	F1	0.25	0.13	mg/L		04/09/19 11:00	04/09/19 16:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:33	5
Cobalt	0.0017	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 16:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 16:33	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 16:33	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 16:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 16:33	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 16:33	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 16:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 16:33	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 16:33	5
Zinc	<0.0065	F1	0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 16:33	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	26		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: GWC-11
 Date Collected: 03/27/19 14:00
 Date Received: 03/28/19 08:45

Lab Sample ID: 180-88227-2
 Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		1.0	0.71	mg/L			04/08/19 06:42	1
Fluoride	0.24		0.20	0.026	mg/L			04/08/19 06:42	1
Sulfate	5.4		1.0	0.38	mg/L			04/08/19 06:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 16:53	5
Arsenic	0.0013		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 16:53	5
Barium	0.013		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 16:53	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 16:53	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:53	5
Calcium	13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 16:53	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:53	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 16:53	5
Chromium	0.0031		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 16:53	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 16:53	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 16:53	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

Client Sample ID: GWC-11

Lab Sample ID: 180-88227-2

Date Collected: 03/27/19 14:00

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 16:53	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 16:53	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 16:53	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 16:53	5
Vanadium	0.0016	J	0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 16:53	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 16:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	79		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: DUP-LF4-01

Lab Sample ID: 180-88227-3

Date Collected: 03/27/19 00:00

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.0		1.0	0.71	mg/L			04/08/19 06:58	1
Fluoride	0.036	J	0.20	0.026	mg/L			04/08/19 06:58	1
Sulfate	2.1		1.0	0.38	mg/L			04/08/19 06:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 16:57	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 16:57	5
Barium	0.020		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 16:57	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 16:57	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:57	5
Calcium	1.6		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 16:57	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:57	5
Cobalt	0.0014	J	0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 16:57	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 16:57	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 16:57	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 16:57	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 16:57	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 16:57	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 16:57	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 16:57	5
Vanadium	0.0020	J	0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 16:57	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 16:57	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	18		10	10	mg/L			04/02/19 14:42	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

Client Sample ID: DUP-LF4-02

Lab Sample ID: 180-88227-4

Date Collected: 03/27/19 00:00

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		1.0	0.71	mg/L			04/08/19 07:14	1
Fluoride	0.12	J	0.20	0.026	mg/L			04/08/19 07:14	1
Sulfate	4.5		1.0	0.38	mg/L			04/08/19 07:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 17:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 17:21	5
Barium	0.017		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 17:21	5
Boron	0.053		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 17:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:21	5
Calcium	20		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 17:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 17:21	5
Chromium	0.0030		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 17:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 17:21	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 17:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 17:21	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 17:21	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 17:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 17:21	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 17:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 17:21	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	120		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: FB-LF4-01

Lab Sample ID: 180-88227-5

Date Collected: 03/27/19 15:15

Matrix: Water

Date Received: 03/28/19 08:45

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			04/08/19 08:33	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 08:33	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 08:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 17:25	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 17:25	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 17:25	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 17:25	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:25	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 17:25	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:25	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 17:25	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 17:25	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 17:25	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 17:25	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

Client Sample ID: FB-LF4-01

Lab Sample ID: 180-88227-5

Date Collected: 03/27/19 15:15

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 17:25	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 17:25	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 17:25	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 17:25	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 17:25	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 17:25	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: FB-LF4-02

Lab Sample ID: 180-88227-6

Date Collected: 03/27/19 15:20

Matrix: Water

Date Received: 03/28/19 08:45

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			04/08/19 08:49	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 08:49	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 08:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 17:29	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 17:29	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 17:29	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 17:29	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:29	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 17:29	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:29	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 17:29	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 17:29	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 17:29	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 17:29	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 17:29	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 17:29	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 17:29	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 17:29	5
Vanadium	0.0014	J	0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 17:29	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 17:29	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 14:42	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Client Sample ID: FERB-LF4-01

Lab Sample ID: 180-88227-7

Date Collected: 03/27/19 15:25

Matrix: Water

Date Received: 03/28/19 08:45

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			04/08/19 09:05	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 09:05	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 09:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 17:33	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 17:33	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 17:33	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 17:33	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:33	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 17:33	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:33	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 17:33	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 17:33	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 17:33	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 17:33	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 17:33	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 17:33	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 17:33	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 17:33	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 17:33	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 17:33	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 14:42	1

Client Sample ID: FERB-LF4-02

Lab Sample ID: 180-88227-8

Date Collected: 03/27/19 15:30

Matrix: Water

Date Received: 03/28/19 08:45

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			04/08/19 09:20	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 09:20	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 17:37	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 17:37	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 17:37	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 17:37	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:37	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 17:37	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 17:37	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 17:37	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 17:37	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 17:37	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 17:37	5

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

Client Sample ID: FERB-LF4-02

Lab Sample ID: 180-88227-8

Date Collected: 03/27/19 15:30

Matrix: Water

Date Received: 03/28/19 08:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 17:37	5
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 17:37	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 17:37	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 17:37	5
Vanadium	0.0014	J	0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 17:37	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 17:37	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 14:42	1

QC Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

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

Lab Sample ID: MB 180-275048/5
Matrix: Water
Analysis Batch: 275048

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			04/08/19 05:23	1
Fluoride	<0.026		0.20	0.026	mg/L			04/08/19 05:23	1
Sulfate	<0.38		1.0	0.38	mg/L			04/08/19 05:23	1

Lab Sample ID: LCS 180-275048/6
Matrix: Water
Analysis Batch: 275048

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.0		mg/L		102	90 - 110
Fluoride	2.50	2.45		mg/L		98	90 - 110
Sulfate	50.0	50.6		mg/L		101	90 - 110

Lab Sample ID: 180-88227-1 MS
Matrix: Water
Analysis Batch: 275048

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	6.8		25.0	32.9		mg/L		104	80 - 120
Fluoride	0.029	J	1.25	1.28		mg/L		100	80 - 120
Sulfate	1.6		25.0	27.4		mg/L		103	80 - 120

Lab Sample ID: 180-88227-1 MSD
Matrix: Water
Analysis Batch: 275048

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	6.8		25.0	32.3		mg/L		102	80 - 120	2	20
Fluoride	0.029	J	1.25	1.24		mg/L		97	80 - 120	3	20
Sulfate	1.6		25.0	26.8		mg/L		101	80 - 120	2	20

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-436364/1-A ^5
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436364

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00011		0.0013	0.00011	mg/L		04/09/19 11:00	04/09/19 16:21	5
Arsenic	<0.00046		0.0013	0.00046	mg/L		04/09/19 11:00	04/09/19 16:21	5
Barium	<0.00049		0.0025	0.00049	mg/L		04/09/19 11:00	04/09/19 16:21	5
Boron	<0.021		0.050	0.021	mg/L		04/09/19 11:00	04/09/19 16:21	5
Beryllium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:21	5
Calcium	<0.13		0.25	0.13	mg/L		04/09/19 11:00	04/09/19 16:21	5
Cadmium	<0.00034		0.0025	0.00034	mg/L		04/09/19 11:00	04/09/19 16:21	5
Cobalt	<0.00040		0.0025	0.00040	mg/L		04/09/19 11:00	04/09/19 16:21	5
Chromium	<0.0011		0.0025	0.0011	mg/L		04/09/19 11:00	04/09/19 16:21	5
Copper	<0.0021		0.0025	0.0021	mg/L		04/09/19 11:00	04/09/19 16:21	5
Nickel	<0.0018		0.0025	0.0018	mg/L		04/09/19 11:00	04/09/19 16:21	5
Lead	<0.00035		0.0013	0.00035	mg/L		04/09/19 11:00	04/09/19 16:21	5

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

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

Lab Sample ID: MB 400-436364/1-A ^5
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 436364

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0010		0.0025	0.0010	mg/L		04/09/19 11:00	04/09/19 16:21	5
Selenium	<0.00071		0.0013	0.00071	mg/L		04/09/19 11:00	04/09/19 16:21	5
Thallium	<0.000085		0.00050	0.000085	mg/L		04/09/19 11:00	04/09/19 16:21	5
Vanadium	<0.0014		0.0025	0.0014	mg/L		04/09/19 11:00	04/09/19 16:21	5
Zinc	<0.0065		0.020	0.0065	mg/L		04/09/19 11:00	04/09/19 16:21	5

Lab Sample ID: LCS 400-436364/2-A
Matrix: Water
Analysis Batch: 436562

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 436364

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0499		mg/L		100	80 - 120
Arsenic	0.0500	0.0497		mg/L		99	80 - 120
Barium	0.0500	0.0483		mg/L		97	80 - 120
Boron	0.100	0.104		mg/L		104	80 - 120
Beryllium	0.0500	0.0494		mg/L		99	80 - 120
Calcium	5.00	5.03		mg/L		101	80 - 120
Cadmium	0.0500	0.0495		mg/L		99	80 - 120
Cobalt	0.0500	0.0517		mg/L		103	80 - 120
Chromium	0.0500	0.0503		mg/L		101	80 - 120
Copper	0.0500	0.0507		mg/L		101	80 - 120
Nickel	0.0500	0.0503		mg/L		101	80 - 120
Lead	0.0500	0.0491		mg/L		98	80 - 120
Antimony	0.0500	0.0496		mg/L		99	80 - 120
Selenium	0.0500	0.0485		mg/L		97	80 - 120
Thallium	0.0100	0.00987		mg/L		99	80 - 120
Vanadium	0.0500	0.0499		mg/L		100	80 - 120
Zinc	0.0500	0.0501		mg/L		100	80 - 120

Lab Sample ID: 180-88227-1 MS
Matrix: Water
Analysis Batch: 436562

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 436364

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.00011		0.0500	0.0510		mg/L		102	75 - 125
Arsenic	<0.00046		0.0500	0.0504		mg/L		101	75 - 125
Barium	0.045	F1	0.0500	0.0941		mg/L		98	75 - 125
Boron	<0.021	F1	0.100	0.123		mg/L		123	75 - 125
Beryllium	<0.00034		0.0500	0.0491		mg/L		98	75 - 125
Calcium	2.4	F1	5.00	7.48		mg/L		102	75 - 125
Cadmium	<0.00034		0.0500	0.0497		mg/L		99	75 - 125
Cobalt	0.0017	J	0.0500	0.0538		mg/L		104	75 - 125
Chromium	<0.0011		0.0500	0.0510		mg/L		102	75 - 125
Copper	<0.0021		0.0500	0.0517		mg/L		103	75 - 125
Nickel	<0.0018		0.0500	0.0525		mg/L		105	75 - 125
Lead	<0.00035		0.0500	0.0494		mg/L		99	75 - 125
Antimony	<0.0010		0.0500	0.0515		mg/L		103	75 - 125
Selenium	<0.00071		0.0500	0.0516		mg/L		103	75 - 125
Thallium	<0.000085		0.0100	0.0101		mg/L		101	75 - 125

Eurofins TestAmerica, Pittsburgh

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

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

Lab Sample ID: 180-88227-1 MS
Matrix: Water
Analysis Batch: 436562

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 436364

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Vanadium	<0.0014		0.0500	0.0499		mg/L		100		75 - 125
Zinc	<0.0065	F1	0.0500	0.0528		mg/L		106		75 - 125

Lab Sample ID: 180-88227-1 MSD
Matrix: Water
Analysis Batch: 436562

Client Sample ID: GWC-1
Prep Type: Total Recoverable
Prep Batch: 436364

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	RPD
	Result	Qualifier		Result	Qualifier						Limit	
Silver	<0.00011		0.0500	0.0599		mg/L		120		75 - 125	16	20
Arsenic	<0.00046		0.0500	0.0583		mg/L		117		75 - 125	15	20
Barium	0.045	F1	0.0500	0.111	F1	mg/L		132		75 - 125	17	20
Boron	<0.021	F1	0.100	0.128	F1	mg/L		128		75 - 125	4	20
Beryllium	<0.00034		0.0500	0.0530		mg/L		106		75 - 125	8	20
Calcium	2.4	F1	5.00	8.82	F1	mg/L		129		75 - 125	16	20
Cadmium	<0.00034		0.0500	0.0603		mg/L		121		75 - 125	19	20
Cobalt	0.0017	J	0.0500	0.0631		mg/L		123		75 - 125	16	20
Chromium	<0.0011		0.0500	0.0599		mg/L		120		75 - 125	16	20
Copper	<0.0021		0.0500	0.0606		mg/L		121		75 - 125	16	20
Nickel	<0.0018		0.0500	0.0611		mg/L		122		75 - 125	15	20
Lead	<0.00035		0.0500	0.0529		mg/L		106		75 - 125	7	20
Antimony	<0.0010		0.0500	0.0584		mg/L		117		75 - 125	13	20
Selenium	<0.00071		0.0500	0.0517		mg/L		103		75 - 125	0	20
Thallium	<0.000085		0.0100	0.0105		mg/L		105		75 - 125	4	20
Vanadium	<0.0014		0.0500	0.0590		mg/L		118		75 - 125	17	20
Zinc	<0.0065	F1	0.0500	0.0633	F1	mg/L		127		75 - 125	18	20

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

Lab Sample ID: MB 180-274641/2
Matrix: Water
Analysis Batch: 274641

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Total Dissolved Solids	<10		10	10	mg/L			04/02/19 14:42	1

Lab Sample ID: LCS 180-274641/1
Matrix: Water
Analysis Batch: 274641

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Total Dissolved Solids	304	338		mg/L		111		80 - 120

QC Association Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
 SDG: LF \$State Compliance

HPLC/IC

Analysis Batch: 275048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88227-1	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-88227-2	GWC-11	Total/NA	Water	EPA 300.0 R2.1	
180-88227-3	DUP-LF4-01	Total/NA	Water	EPA 300.0 R2.1	
180-88227-4	DUP-LF4-02	Total/NA	Water	EPA 300.0 R2.1	
180-88227-5	FB-LF4-01	Total/NA	Water	EPA 300.0 R2.1	
180-88227-6	FB-LF4-02	Total/NA	Water	EPA 300.0 R2.1	
180-88227-7	FERB-LF4-01	Total/NA	Water	EPA 300.0 R2.1	
180-88227-8	FERB-LF4-02	Total/NA	Water	EPA 300.0 R2.1	
MB 180-275048/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-275048/6	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
180-88227-1 MS	GWC-1	Total/NA	Water	EPA 300.0 R2.1	
180-88227-1 MSD	GWC-1	Total/NA	Water	EPA 300.0 R2.1	

Metals

Prep Batch: 436364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88227-1	GWC-1	Total Recoverable	Water	3005A	
180-88227-2	GWC-11	Total Recoverable	Water	3005A	
180-88227-3	DUP-LF4-01	Total Recoverable	Water	3005A	
180-88227-4	DUP-LF4-02	Total Recoverable	Water	3005A	
180-88227-5	FB-LF4-01	Total Recoverable	Water	3005A	
180-88227-6	FB-LF4-02	Total Recoverable	Water	3005A	
180-88227-7	FERB-LF4-01	Total Recoverable	Water	3005A	
180-88227-8	FERB-LF4-02	Total Recoverable	Water	3005A	
MB 400-436364/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-436364/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
180-88227-1 MS	GWC-1	Total Recoverable	Water	3005A	
180-88227-1 MSD	GWC-1	Total Recoverable	Water	3005A	

Analysis Batch: 436562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88227-1	GWC-1	Total Recoverable	Water	6020	436364
180-88227-2	GWC-11	Total Recoverable	Water	6020	436364
180-88227-3	DUP-LF4-01	Total Recoverable	Water	6020	436364
180-88227-4	DUP-LF4-02	Total Recoverable	Water	6020	436364
180-88227-5	FB-LF4-01	Total Recoverable	Water	6020	436364
180-88227-6	FB-LF4-02	Total Recoverable	Water	6020	436364
180-88227-7	FERB-LF4-01	Total Recoverable	Water	6020	436364
180-88227-8	FERB-LF4-02	Total Recoverable	Water	6020	436364
MB 400-436364/1-A ^5	Method Blank	Total Recoverable	Water	6020	436364
LCS 400-436364/2-A	Lab Control Sample	Total Recoverable	Water	6020	436364
180-88227-1 MS	GWC-1	Total Recoverable	Water	6020	436364
180-88227-1 MSD	GWC-1	Total Recoverable	Water	6020	436364

General Chemistry

Analysis Batch: 274641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88227-1	GWC-1	Total/NA	Water	SM 2540C	
180-88227-2	GWC-11	Total/NA	Water	SM 2540C	
180-88227-3	DUP-LF4-01	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh

QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-88227-2
SDG: LF \$State Compliance

General Chemistry (Continued)

Analysis Batch: 274641 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-88227-4	DUP-LF4-02	Total/NA	Water	SM 2540C	
180-88227-5	FB-LF4-01	Total/NA	Water	SM 2540C	
180-88227-6	FB-LF4-02	Total/NA	Water	SM 2540C	
180-88227-7	FERB-LF4-01	Total/NA	Water	SM 2540C	
180-88227-8	FERB-LF4-02	Total/NA	Water	SM 2540C	
MB 180-274641/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-274641/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Chain of Custody Record

Client Information
 Company: Southern Company
 Address: PO BOX 2641 GSC8
 City: Birmingham
 State: AL Zip: 35291
 Phone: 205-992-5417 (Tel)
 Email: impety@southernco.com
 Project Name: CCR - Plant McIntosh Ash Landfill #4
 Site: _____

Sampler: L. Coker, J. Adcock, J. Noles
 Lab PM: Borfot, Veronica
 Phone: 404-592-0094
 E-Mail: veronica.borfot@testamerica.com

Due Date Requested: _____
TAT Requested (days): _____

Standard: _____

PO #: SCS10347856
WO #: _____

Analysis Requested: _____

Special Instructions/Note: _____

Preservation Codes:
 A - HCL
 B - MeOH
 C - Zn Acetate
 M - Hexane
 N - None
 O - ASh/C2
 P - Unknown

Barcode: _____
 180-89227 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Residue, Swab, Composite, St-Tissue, AAS)	Field Filtered Sample (Yes or No)			Form MS/MSD (Yes or No)		Special Instructions/Note
					D	I	N	D	I	
GWC-1	3/27/19	1440	G	W						LF4 State Compliance
GWC-11	3/27/19	1400	G	W						Send results to: 2101706@geiconsultants.com
DUP-LF4-01	3/27/19	-	G	W						
DUP-LF4-02	3/27/19	-	G	W						
FB-LF4-01	3/27/19	1515	G	W						
FB-LF4-02	3/27/19	1500	G	W						
FERB-LF4-01	3/27/19	1505	G	W						
FERB-LF4-02	3/27/19	1530	G	W						

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

Empty Kit Relinquished by: _____
 Non-Hazard
 Flammable
 Skin Irritant
 Poison B
 Unknown
 Radiological
 Deliverable Requested: I, II, III, IV, Other (specify) _____

Relinquished by: _____
 Date/Time: 3/27/19 1800
 Company: GCI

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

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

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

Custody Seals Intact: _____
 Custody Seal No.: _____

Ver 08/04/2016



ORIGIN ID: SAVA (770) 912-0703
LAUREN COCKER
RIDC PARK 301 ALPHA DR
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

SHIP DATE: 27 APR 13
FCING: 13 APR 13
CAD: 00809400
DIMS: 23x11x11
BILL THIRD PARTY

10 VERONICA BOROT

RIDC PARK 301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7066
RVT
P32



JPKY 7862 9550 8600
3201

XH AGC

Uncorrected temp
Thermometer ID

CF 0 Initials

PT: VLSR-001 effective 11/8/18



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

RIDC PARK
301 ALPHA DR
PITTSBURGH, PA 15238
UNITED STATES US

TO VERONICA BORTOT

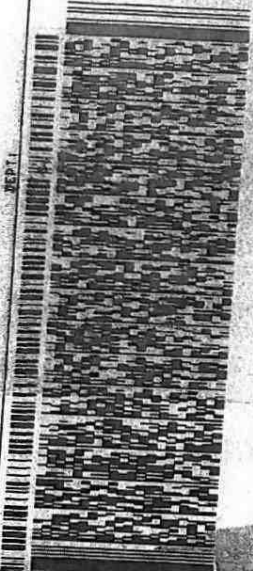
RIDC PARK 301 ALPHA **97**

PITTSBURGH PA 15238 FZ

(412) 837-7058
REF: 281

SHIP DATE: 27 MAR 19
ACT WGT: 45.90 LB
CAD: 06894920/SSFE2002
DIM: 23x12x13 IN
BILL THIRD

A
1 10:30 1010 03:28



THU - 28 MAR 10:30A
PRIORITY OVERNIGHT
DSR 15238
PA-US PIT

TRK# 7862 9559 1010
0201

XH AGCA

Uncorrected temp 3.4 °C
Thermometer ID 10
CF 0 Initials JS

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

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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-88227-2
SDG Number: LF \$State Compliance

Login Number: 88227

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	



Site: Georgia Power Plant, Landfill 4 State Compliance
Laboratory: Test America, Pittsburgh, PA
Report No.: 180-88160-2
Reviewer: Lorie MacKinnon/GEI Consultants
Date: May 30, 2019

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
GWA-13	180-88160-01	Metals, Anions, TDS
GWC-5	180-88160-02	Metals, Anions, TDS
GWC-4A	180-88160-03	Metals, Anions, TDS
GWC-15	180-88160-04	Metals, Anions, TDS
GWA-14	180-88160-05	Metals, Anions, TDS
GWA-16	180-88160-06	Metals, Anions, TDS

QC Samples:

Field/Equipment blanks: FB-LF4-01, FB-LF4-02, FERB-LF4-01, FERB-LF4-02 (reported in 180-88227)

The above-listed aqueous samples were collected on March 26, 2019 and were analyzed for total recoverable metals by SW-846 method 6020, total dissolved solids (TDS) by Standard Methods SM 2540C, and anions (chloride, fluoride, and sulfate) by EPA method 300. The data were reviewed based on the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Methods Data Review, January 2017 (USEPA-540-R-2017-001), as well as by the methods referenced and professional and technical judgment.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation
- Method and Field Blanks
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Quantitation Limits

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The level 2 (reduced deliverable) data package was complete as received by the laboratory and included sample results, method blank, MS/MSD, laboratory duplicate, and LCS results.

Holding Times and Sample Preservation

All criteria were met.

Blanks

Laboratory Blank Results

Contamination was not detected in the associated method blanks.

Field Blank Results

Low level contamination was detected in the field blanks. The following table summarizes the highest level of contamination and validation actions taken. The field blank samples were used in the evaluation of all Landfill 4 samples.

Analyte	Blank ID/ Associated Samples	Maximum Contaminant Level (mg/L)	2x Action Level (mg/L)	10x Action Level (mg/L)	Validation Actions
Vanadium	FB-LF4-02/ FERB-LF4-02: All Landfill 4 samples	0.0014	0.0028	0.014	Qualify results for vanadium in samples GWC-5, GWC-4A, and GWA-16 as nondetect (U) at the RL or reported values. Estimate (J) the positive result for vanadium in sample GWC-15; High bias.

Blank Actions:

If the sample result is < reporting limit (RL); report the result as nondetect (U) at the RL.

If the sample result is \geq RL and <2x contamination detected; report the result as nondetect (U) at the reported value.

If the sample result is \geq RL and <10x Action Level; report the sample result as estimated (J); biased high.

If the sample result is nondetect or > 10x Action Level; validation action is not required.

MS/MSD Results

MS/MSD analyses were performed on samples GWC-5 for anions and sample GWA-13 for metals. All recovery and precision criteria were met in these analyses.

Laboratory Duplicate Results

MSD analyses were performed for anions and metals in lieu of laboratory duplicate analyses.

Site: Georgia Power Plant, Landfill 4 State Compliance
Report No.: 180-88160-2
Date: May 30, 2019

LCS Results

All criteria were met.

Quantitation Limits

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL). These results were qualified as estimated (J) by the laboratory.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- NJ - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Site: Georgia Power Plant, Landfill 4 State Compliance
Laboratory: Test America, Pittsburgh, PA
Report Nos.: 180-88225-2 and 180-88227-2
Reviewer: Lorie MacKinnon/GEI Consultants
Date: May 30, 2019

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
GWC-17	180-88225-01	Metals, Anions, TDS
GWA-3	180-88225-02	Metals, Anions, TDS
GWC-18	180-88225-03	Metals, Anions, TDS
GWC-19	180-88225-04	Metals, Anions, TDS
GWA-2	180-88225-05	Metals, Anions, TDS
GWC-20	180-88225-06	Metals, Anions, TDS
GWC-21	180-88225-07	Metals, Anions, TDS
GWC-23	180-88225-08	Metals, Anions, TDS
GWC-9	180-88225-09	Metals, Anions, TDS
GWC-10	180-88225-10	Metals, Anions, TDS
GWC-12	180-88225-11	Metals, Anions, TDS
GWC-1	180-88227-01	Metals, Anions, TDS
GWC-11	180-88227-02	Metals, Anions, TDS
DUP-LF4-01	180-88227-03	Metals, Anions, TDS
DUP-LF4-02	180-88227-04	Metals, Anions, TDS
FB-LF4-01	180-88227-05	Metals, Anions, TDS
FB-LF4-02	180-88227-06	Metals, Anions, TDS
FERB-LF4-01	180-88227-07	Metals, Anions, TDS
FERB-LF4-02	180-88227-08	Metals, Anions, TDS

QC Samples:

Field/Equipment blanks: FB-LF4-01, FB-LF4-02, FERB-LF4-01, FERB-LF4-02
 Field Duplicate pairs: GWC-20/DUP-LF4-01 and GWC-10/DUP-LF4-02

The above-listed aqueous samples, equipment blanks, and field blank samples were collected on March 27, 2019 and were analyzed for total recoverable metals by SW-846 method 6020, total dissolved solids (TDS) by Standard Methods SM 2540C, and anions (chloride, fluoride, and sulfate) by EPA method 300. The data were reviewed based on the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Inorganic Methods Data Review, January 2017 (USEPA-540-R-2017-001), as well as by the methods referenced and professional and technical judgment.

The data were evaluated based on the following parameters:

- Data Completeness
- Holding Times and Sample Preservation

Site: Georgia Power Plant, Landfill 4 State Compliance
Report Nos.: 180-88225-2 and 180-88227-2
Date: May 30, 2019

- Method and Field Blanks
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
- Quantitation Limits

All results are usable as reported or usable with minor qualification due to sample matrix or laboratory quality control outliers.

The validation findings were based on the following information.

Data Completeness

The level 2 (reduced deliverable) data package was complete as received by the laboratory and included sample results, method blank, MS/MSD, laboratory duplicate, and LCS results.

Holding Times and Sample Preservation

All criteria were met.

Blanks

Laboratory Blank Results

Contamination was not detected in the associated method blanks.

Field Blank Results

Low level contamination was detected in the field blanks. The following table summarizes the highest level of contamination and validation actions taken. The field blank samples were used in the evaluation of all Landfill 4 samples.

Analyte	Blank ID/ Associated Samples	Maximum Contaminant Level (mg/L)	2x Action Level (mg/L)	10x Action Level (mg/L)	Validation Actions
Vanadium	FB-LF4-02/ FERB-LF4-02: All Landfill 4 samples	0.0014	0.0028	0.014	Qualify results for vanadium in samples GWC-11, DUP-LF4-01, and GWA-2 as nondetect (U) at the RL. Estimate (J) the positive results for vanadium in samples GWC-17, GWA-3, GWC-18, GWC-20, GWC-21, GWC-23, GWC-9, GWC-10, and GWC-12; High bias.

Blank Actions:

If the sample result is < reporting limit (RL); report the result as nondetect (U) at the RL.
 If the sample result is \geq RL and <2x contamination detected; report the result as nondetect (U) at the reported value.
 If the sample result is \geq RL and <10x Action Level; report the sample result as estimated (J); biased high.
 If the sample result is nondetect or > 10x Action Level; validation action is not required.

MS/MSD Results

MS/MSD analyses were performed on samples GWC-1 and GW-17 for anions. All recovery and precision criteria were met in these analyses.

MS/MSD analyses were performed on sample GWC-1 for metals. All precision criteria were met. The following table summarizes the recoveries outside of control limits and resulting actions.

Analyte	MS/MSD Recovery (%)	Control limits (%)	Validation Actions
Barium	MSD 132	75-125	Estimate (J) the positive results for barium in samples GWC-17, GWA-3, GWC-18, GWC-19, GWA-2, GWC-20, GWC-21, GWC-23, GWC-9, GWC-10, GWC-12, GWC-1, GWC-11, DUP-LF4-01, and DUP-LF4-02; High bias.
Boron	MSD 128		Estimate (J) the positive results for boron in samples GWC-10 and DUP-LF4-02; High bias.
Calcium	MSD 129		Estimate (J) the positive results for calcium in samples GWC-17, GWA-3, GWC-18, GWC-19, GWA-2, GWC-20, GWC-21, GWC-23, GWC-9, GWC-10, GWC-12, GWC-1, GWC-11, DUP-LF4-01 and DUP-LF4-02; High bias.
Zinc	MSD 127		Validation actions were not required as zinc was nondetect in the associated samples and therefore not affected by the potential high bias.
Associated field samples: GWC-17, GWA-3, GWC-18, GWC-19, GWA-2, GWC-20, GWC-21, GWC-23, GWC-9, GWC-10, GWC-12, GWC-1, GWC-11, DUP-LF4-01, DUP-LF4-02			

Laboratory Duplicate Results

MSD analyses were performed for anions in lieu of laboratory duplicate analyses.

LCS Results

All criteria were met.

Field Duplicate Results

Samples GWC-20 and DUP-LF4-01 were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the detected analytes in the field duplicate pair, which were within the acceptance criteria except for total dissolved solids. The positive results for total dissolved solids in samples GWC-20 and DUP-LF4-01 were qualified as estimated (J). The direction of the bias cannot be determined from this nonconformance.

Analyte	GWC-20 (mg/L)	DUP-LF4-01 (mg/L)	RPD (%)
Chloride	8.9	9.0	1.1
Fluoride	0.034 J	0.036 J	5.7
Sulfate	1.7	2.1	21.1
Barium	0.018	0.020	10.5
Calcium	1.5	1.6	6.5
Cobalt	0.0012 J	0.0014 J	15.4
Vanadium	0.0031	0.0025 U	NC, Within the RL
Total Dissolved Solids	57	18	104
NC – Not calculable Criteria: When both results are $\geq 5x$ the RL, RPDs must be $< 30\%$. When results are $< 5x$ the RL, professional judgement was taken to estimate results if the absolute difference between the original and field duplicate $> RL$.			

Samples GWC-10 and DUP-LF4-02 were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the detected analytes in the field duplicate pair, which were within the acceptance criteria except for vanadium. The positive and nondetect results for vanadium in samples GWC-10 and DUP-LF4-02 were qualified as estimated (J/UJ). The direction of the bias cannot be determined from this nonconformance.

Analyte	GWC-10 (mg/L)	DUP-LF4-02 (mg/L)	RPD (%)
Chloride	5.3	5.3	0
Fluoride	0.12 J	0.12 J	0
Sulfate	4.3	4.5	4.5
Arsenic	0.0013	0.0013 U	NC, Within the RL
Barium	0.019	0.017	11.1
Boron	0.050	0.053	5.8
Calcium	22	20	9.5
Chromium	0.0035	0.0030	15.4

Site: Georgia Power Plant, Landfill 4 State Compliance
Report Nos.: 180-88225-2 and 180-88227-2
Date: May 30, 2019

Analyte	GWC-10 (mg/L)	DUP-LF4-02 (mg/L)	RPD (%)
Vanadium	0.0065	0.0025 U	NC, Not within the RL
Total Dissolved Solids	130	120	8.0
NC – Not calculable Criteria: When both results are $\geq 5x$ the RL, RPDs must be $< 30\%$. When results are $< 5x$ the RL, professional judgement was taken to estimate results if the absolute difference between the original and field duplicate $> RL$.			

Quantitation Limits

Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL). These results were qualified as estimated (J) by the laboratory.

DATA VALIDATION QUALIFIERS

- U - The analyte was analyzed for, but due to blank contamination was flagged as nondetect (U). The result is usable as a nondetect.
- J - Data are flagged (J) when a QC analysis fails outside the primary acceptance limits. The qualified “J” data are not excluded from further review or consideration. However, only one flag (J) is applied to a sample result, even though several associated QC analyses may fail. The ‘J’ data may be biased high or low or the direction of the bias may be indeterminable.
- UJ - The analyte was not detected above the reported sample quantitation limit. Data are flagged (UJ) when a QC analysis fails outside the primary acceptance limits. The qualified “UJ” data are not excluded from further review or consideration. However, only one flag is applied to a sample result, even though several associated QC analyses may fail. The ‘UJ’ data may be biased low.
- NJ - The analysis indicates the presence of a compound that has been “tentatively identified” (N) and the associated numerical value represents its approximate (J) concentration.
- R - Data rejected (R) on the basis of an unacceptable QC analysis should be excluded from further review or consideration. Data are rejected when associated QC analysis results exceed the expanded control limits of the QC criteria. The rejected data are known to contain significant errors based on documented information. The data user must not use the rejected data to make environmental decisions. The presence or absence of the analyte cannot be verified.

Product Name: Low-Flow System

Date: 2019-06-17 13:21:48

Project Information:

Operator Name L. Coker
Company Name GEI
Project Name Plant McIntosh
Site Name Default Site
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 420625
Turbidity Make/Model LaMotte2020

Pump Information:

Pump Model/Type Alexis Peristaltic
Tubing Type LDPE
Tubing Diameter .170 in
Tubing Length 35 ft

Pump placement from TOC 2 ft

Well Information:

Well ID GWC-9
Well diameter 2 in
Well Total Depth 37.56 ft
Screen Length 10 ft
Depth to Water 29.15 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10%		+/- 10%	+/- 10%
Last 5	12:58:38	900.01	23.80	5.59	55.43	0.97	29.17	6.39	278.90
Last 5	13:03:38	1200.01	24.51	5.40	50.60	0.95	29.17	6.33	282.58
Last 5	13:08:38	1500.01	23.96	5.28	48.65	1.12	29.17	6.31	284.47
Last 5	13:13:38	1800.01	23.72	5.26	48.38	0.95	29.17	6.46	285.72
Last 5	13:18:38	2100.01	23.31	5.24	46.61	0.95	29.17	6.32	287.36
Variance 0			-0.55	-0.12	-1.95			-0.02	1.88
Variance 1			-0.24	-0.03	-0.27			0.15	1.25
Variance 2			-0.41	-0.02	-1.77			-0.14	1.64

Notes

Sampled at 13:20

Grab Samples

ANALYTICAL REPORT

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

Laboratory Job ID: 180-91469-1
Laboratory Sample Delivery Group: 1
Client Project/Site: CCR - Plant McIntosh Ash Landfill #4

For:
Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Ms. Lauren Petty



Authorized for release by:
6/20/2019 4:27:30 PM

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

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

PA Lab ID: 02-00416



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Case Narrative

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
SDG: 1

Job ID: 180-91469-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-91469-1

Comments

No additional comments.

Receipt

The sample was received on 6/19/2019 9:45 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received as it was not relinquished.

Anions

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

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Definitions/Glossary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
SDG: 1

Glossary

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

Accreditation/Certification Summary

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
 SDG: 1

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State		2891	04-30-20
California	State Program	9	2891	04-30-20
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Florida	NELAP		E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Illinois	NELAP		004375	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Kentucky (DW)	Kentucky UST	4	162013	04-30-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State		PA00164	07-31-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-20
New Jersey	NELAP	2	PA005	06-30-19
New Jersey	NELAP		PA005	06-30-19 *
New York	NELAP	2	11182	03-31-20
New York	NELAP		11182	04-01-20
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	02-06-20
Oregon	NELAP		PA-2151	02-06-20
Pennsylvania	NELAP	3	02-00416	04-30-20
Pennsylvania	NELAP		02-00416	04-30-20
South Carolina	State Program	4	89014	04-30-20
Texas	NELAP	6	T104704528-15-2	03-31-20
Texas	NELAP		T104704528	03-31-20
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
US Fish & Wildlife	US Federal Programs		058448	07-31-20
USDA	Federal		P330-16-00211	06-26-19
USDA	US Federal Programs		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19 *
Virginia	NELAP	3	460189	09-14-19
Virginia	NELAP		10043	09-14-19
West Virginia DEP	State		142	01-31-20
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State		998027800	08-31-19
Wisconsin	State Program	5	998027800	08-31-19

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

Sample Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
SDG: 1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-91469-1	GWC-9	Water	06/17/19 13:20	06/19/19 09:45	

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Method Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
SDG: 1

Method	Method Description	Protocol	Laboratory
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT

Protocol References:

EPA = US Environmental Protection Agency

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 #4

Job ID: 180-91469-1
SDG: 1

Client Sample ID: GWC-9

Lab Sample ID: 180-91469-1

Date Collected: 06/17/19 13:20

Matrix: Water

Date Received: 06/19/19 09:45

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			282301	06/20/19 06:33	MJH	TAL PIT

Instrument ID: CHIC2100A

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: Analysis

MJH = Matthew Hartman

Client Sample Results

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
SDG: 1

Client Sample ID: GWC-9
Date Collected: 06/17/19 13:20
Date Received: 06/19/19 09:45

Lab Sample ID: 180-91469-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.4		1.0	0.71	mg/L			06/20/19 06:33	1

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

QC Sample Results

Client: Southern Company
 Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
 SDG: 1

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

Lab Sample ID: MB 180-282301/6
Matrix: Water
Analysis Batch: 282301

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			06/20/19 05:16	1

Lab Sample ID: LCS 180-282301/5
Matrix: Water
Analysis Batch: 282301

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	25.0	26.0		mg/L		104	90 - 110



QC Association Summary

Client: Southern Company
Project/Site: CCR - Plant McIntosh Ash Landfill #4

Job ID: 180-91469-1
SDG: 1

HPLC/IC

Analysis Batch: 282301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-91469-1	GWC-9	Total/NA	Water	EPA 300.0 R2.1	
MB 180-282301/6	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 180-282301/5	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	

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

Chain of Custody Record

Client Information Client Contact: Ms. Lauren Peity Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 205-992-5417 (Tel) Email: Impetty@southernco.com Project Name: CCR - Plant McIntosh Ash Landfill #4 Site: Plant McIntosh Ash Landfill #4		Sampler: L. Coker Lab PMI: Bortol, Veronica Phone: 404-592-0096 E-Mail: veronica.bortol@testamericainc.com		Carrier Tracking No(s): Page 1 of 1 Job #		COC No: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: SSOW#: City: Rush		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: 1		Analysis Requested Special Instructions/Note: LF4 Detection Analyze for only Chloride, rush turnaround time		Special Instructions/Note: Analyze for only Chloride, rush turnaround time	
Sample Identification GWC-9 Sample Date: 6/17/19 1320 Sample Time: G Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air) Preservation Code: W		Sample Date: 6/17/19 1320 Sample Time: G Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air) Preservation Code: W		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> NM Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X Total Number of Containers: 1		Special Instructions/Note: LF4 Detection Analyze for only Chloride, rush turnaround time	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Empty Kit Relinquished by: Relinquished by: Relinquished by: Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Date: Date/Time: Date/Time: Date/Time: Custody Seal No.:		Date: Date/Time: Date/Time: Date/Time: Custody Seal No.:		Date: Date/Time: Date/Time: Date/Time: Custody Seal No.:	
Relinquished by: _____ Company: _____ Relinquished by: _____ Company: _____ Relinquished by: _____ Company: _____		Received by: _____ Company: _____ Received by: _____ Company: _____ Received by: _____ Company: _____		Received by: _____ Company: _____ Received by: _____ Company: _____ Received by: _____ Company: _____		Received by: _____ Company: _____ Received by: _____ Company: _____ Received by: _____ Company: _____	
Cooler (Temperature(s) °C and Other Remarks):		Cooler (Temperature(s) °C and Other Remarks):		Cooler (Temperature(s) °C and Other Remarks):		Cooler (Temperature(s) °C and Other Remarks):	



UPS CampusShip: View/Print Label

- 1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

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Your driver will pickup your shipment(s) as usual.

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Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(®) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the F area of CampusShip and select UPS Locations.

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access Point™
 THE UPS STORE
 925B PEACHTREE ST NE
 ATLANTA ,GA 30309

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 THE UPS STORE
 1579 MONROE DR NE
 ATLANTA ,GA 30324

UPS Access Point™
 CVS STORE # 2943
 842 PEACHTREE ST NE
 ATLANTA ,GA 30308



FOLD HERE

<p>10 LBS 1 OF 1</p> <p>DWT: 24,14,13</p> <p>SHIP TO: JAMIE LAUBENTHAL GEI CONSULTANTS 1375 PEACHTREE ST. NE ATLANTA GA 30309</p> <p>VERONICA BORTOT 412-963-7058 TESTAMERICA PITTSBURGH RIDC PARK 301 ALPHA DRIVE PITTSBURGH PA 15238-2907</p>	<p>PA 152 9-22</p>	<p>UPS NEXT DAY AIR 1</p> <p>TRACKIN Uncorrected temp 34.0 °C Thermometer ID 10</p> <p>CF -03 Initials B PT-WI-SR-001 effective 11/8/18</p>	<p>BILLING: P/P</p> <p>Overhead, Proposal, Project/Phase/Task: 1901973.1.2 Organizations: 4400</p> <p style="font-size: 0.8em;">CS 21.1.23. WNTNVS0 12.0A 04/2019</p>
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Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-91469-1

SDG Number: 1

Login Number: 91469

List Number: 1

Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh

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



Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Appendix C1

Sanitas™ Outputs for Appendix III Parameters – January 2019

Prediction Limit - Significant Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/17/2019, 10:15 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	GWC-10	0.05	n/a	1/30/2019	0.057	Yes	120	90.83	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-10	150	n/a	1/30/2019	160	Yes	120	14.17	n/a	0.000...	NP Inter 1 of 2

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/17/2019, 10:15 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-1	0.05	n/a	1/30/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-10	0.05	n/a	1/30/2019	0.057	Yes	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-11	0.05	n/a	1/30/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-12	0.05	n/a	1/30/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-19	0.05	n/a	1/29/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-20	0.05	n/a	1/29/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-21	0.05	n/a	1/30/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-23	0.05	n/a	1/30/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Boron (mg/L)	GWC-9	0.05	n/a	1/30/2019	0.05ND	No	120	90.83	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-1	33.2	n/a	1/30/2019	2.5	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-10	33.2	n/a	1/30/2019	26	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-11	33.2	n/a	1/30/2019	11	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-12	33.2	n/a	1/30/2019	0.68	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-19	33.2	n/a	1/29/2019	9.2	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-20	33.2	n/a	1/29/2019	1.8	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-21	33.2	n/a	1/30/2019	1.05	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-23	33.2	n/a	1/30/2019	1.1	No	120	0	n/a	0.000...	NP Inter 1 of 2
Calcium (mg/L)	GWC-9	33.2	n/a	1/30/2019	0.38	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-1	9.4	n/a	1/30/2019	6.8	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-10	9.4	n/a	1/30/2019	5.45	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-11	9.4	n/a	1/30/2019	4.6	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-12	9.4	n/a	1/30/2019	3.7	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-19	9.4	n/a	1/29/2019	8.2	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-20	9.4	n/a	1/29/2019	8.8	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-21	9.4	n/a	1/30/2019	6.65	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-23	9.4	n/a	1/30/2019	7.4	No	120	0	n/a	0.000...	NP Inter 1 of 2
Chloride (mg/L)	GWC-9	9.4	n/a	1/30/2019	9.1	No	120	0	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-1	0.74	n/a	1/30/2019	0.2ND	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-10	0.74	n/a	1/30/2019	0.22	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-11	0.74	n/a	1/30/2019	0.35	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-12	0.74	n/a	1/30/2019	0.2ND	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-19	0.74	n/a	1/29/2019	0.074	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.74	n/a	1/29/2019	0.031	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.74	n/a	1/30/2019	0.2ND	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-23	0.74	n/a	1/30/2019	0.2ND	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.74	n/a	1/30/2019	0.2ND	No	120	73.33	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-1	7.1	4.21	1/30/2019	5.21	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-10	7.1	4.21	1/30/2019	6.2	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-11	7.1	4.21	1/30/2019	6.09	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-12	7.1	4.21	1/30/2019	5.01	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-19	7.1	4.21	1/29/2019	5.58	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-20	7.1	4.21	1/29/2019	4.94	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-21	7.1	4.21	1/30/2019	4.65	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-23	7.1	4.21	1/30/2019	5.14	No	130	0	n/a	0.000...	NP Inter 1 of 2
pH (S.U.)	GWC-9	7.1	4.21	1/30/2019	4.88	No	130	0	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	150	n/a	1/30/2019	55	No	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-10	150	n/a	1/30/2019	160	Yes	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-11	150	n/a	1/30/2019	89	No	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	150	n/a	1/30/2019	22	No	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-19	150	n/a	1/29/2019	62	No	120	14.17	n/a	0.000...	NP Inter 1 of 2

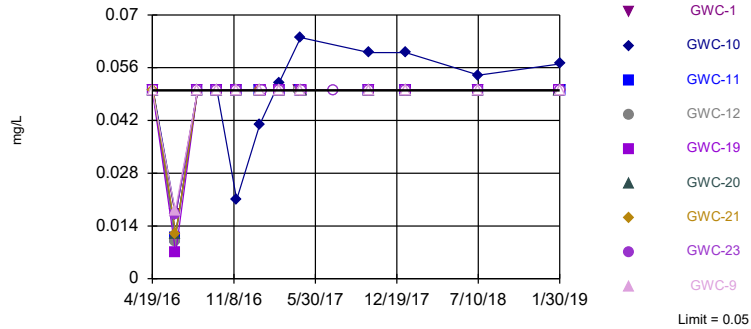
Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/17/2019, 10:16 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Total Dissolved Solids (mg/L)	GWC-20	150	n/a	1/29/2019	27	No	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	150	n/a	1/30/2019	36	No	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-23	150	n/a	1/30/2019	38	No	120	14.17	n/a	0.000...	NP Inter 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	150	n/a	1/30/2019	42	No	120	14.17	n/a	0.000...	NP Inter 1 of 2

Exceeds Limit: GWC-10

Prediction Limit
 Interwell Non-parametric

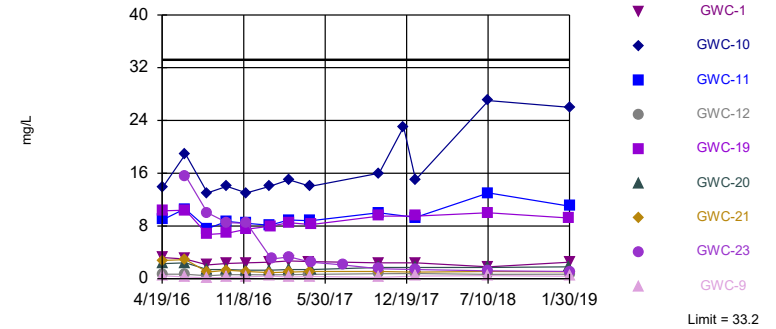


NP test selected by user. Limit is highest of 120 background values. 90.83% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 7/12/2019 6:07 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Interwell Non-parametric

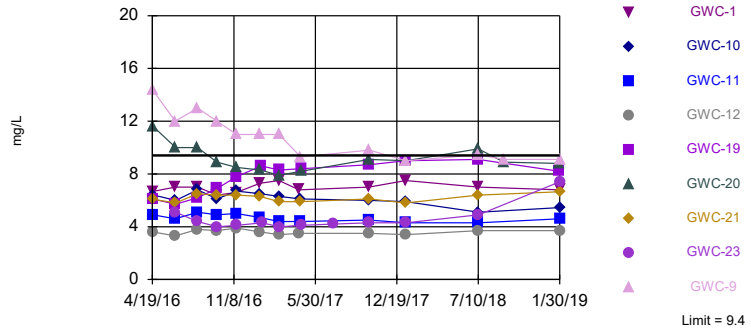


NP test selected by user. Limit is highest of 120 background values. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 7/12/2019 6:07 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Interwell Non-parametric

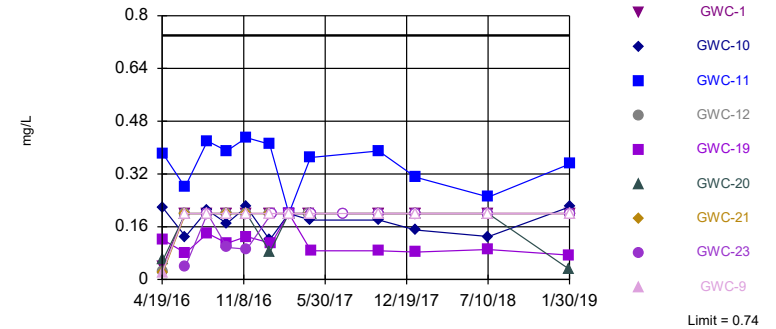


NP test selected by user. Limit is highest of 120 background values. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 7/12/2019 6:07 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Interwell Non-parametric

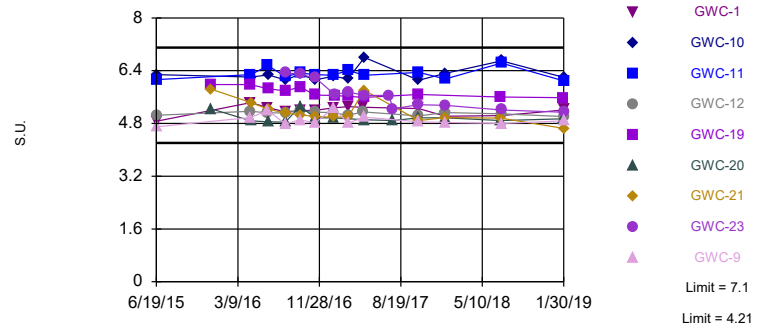


NP test selected by user. Limit is highest of 120 background values. 73.33% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 7/12/2019 6:07 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limits

Prediction Limit
Interwell Non-parametric

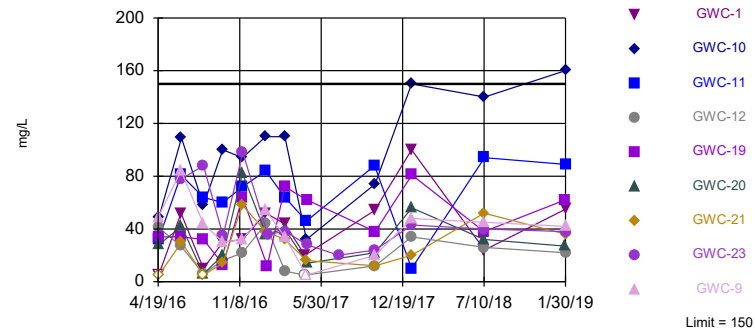


NP test selected by user. Limits are highest and lowest of 130 background values. Annual per-constituent alpha = 0.004211. Individual comparison alpha = 0.0002342 (1 of 2). Comparing 9 points to limit.

Constituent: pH Analysis Run 7/12/2019 6:07 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

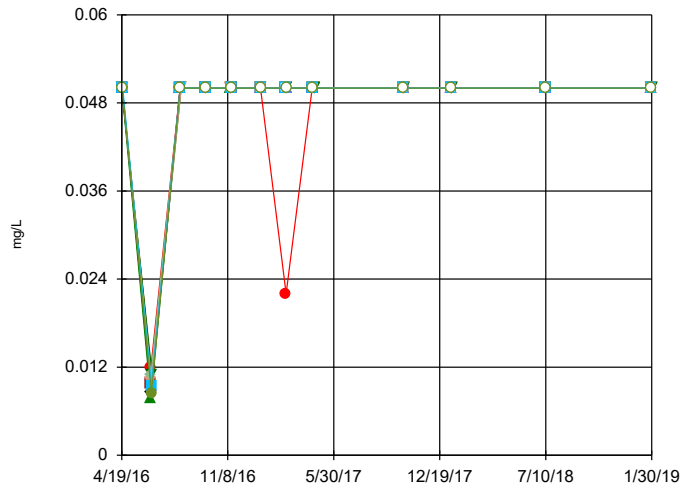
Prediction Limit
Interwell Non-parametric



NP test selected by user. Limit is highest of 120 background values. 14.17% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

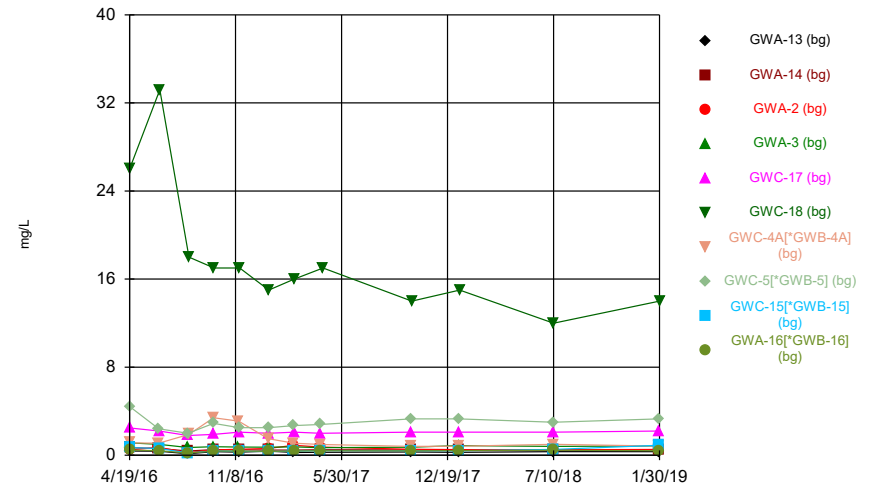
Constituent: Total Dissolved Solids Analysis Run 7/12/2019 6:07 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



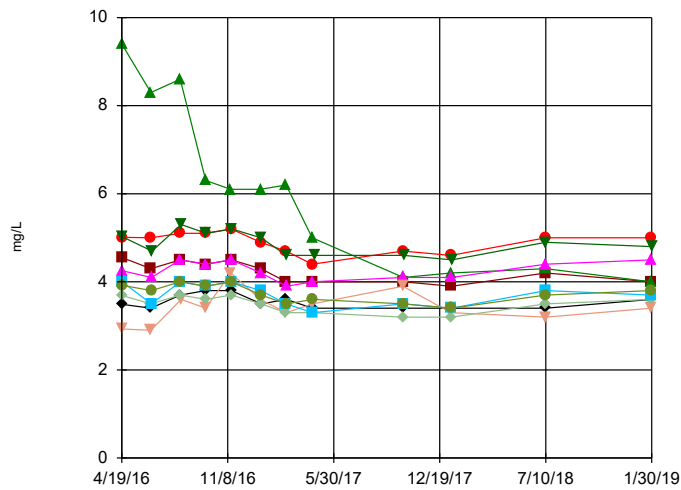
Constituent: Boron Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



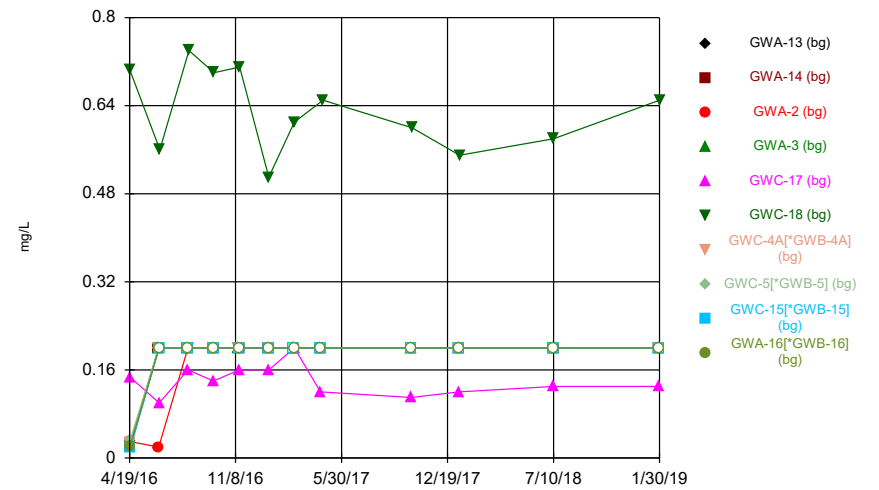
Constituent: Calcium Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



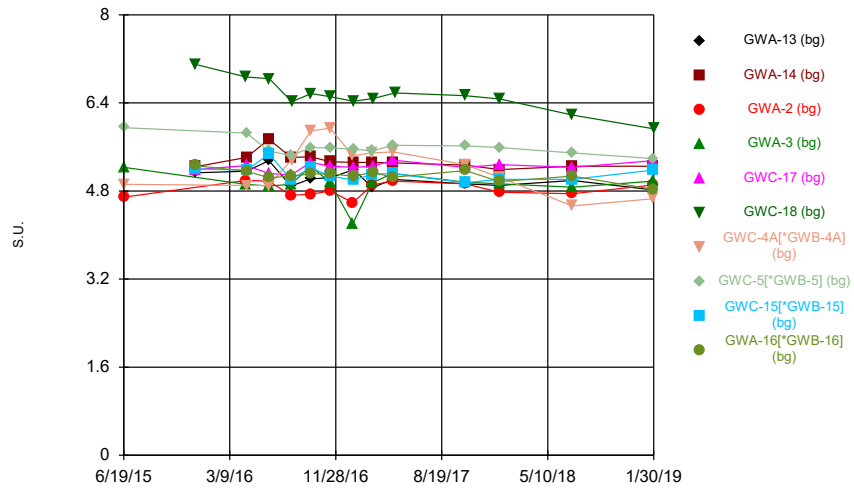
Constituent: Chloride Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



Constituent: Fluoride Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

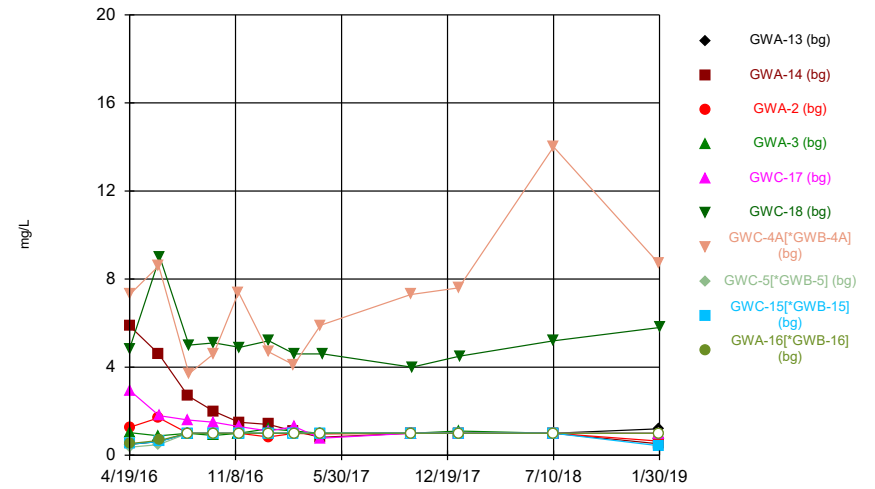
Time Series



Constituent: pH Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Hollow symbols indicate censored values.

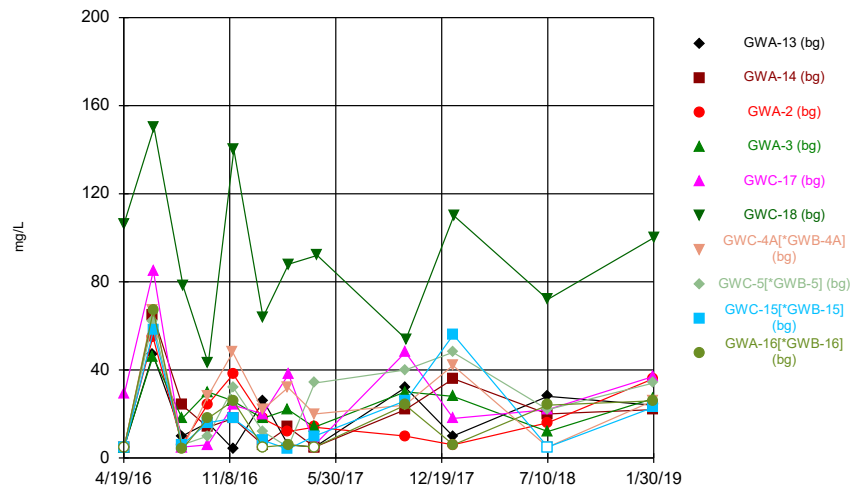
Time Series



Constituent: Sulfate Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 7/12/2019 6:03 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Intrawell Prediction Limit - Significant Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/12/2019, 6:12 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GWA-13	1	n/a	1/29/2019	1.2	Yes	8	75	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-1	2	n/a	1/30/2019	2.1	Yes	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-10	4.2	n/a	1/30/2019	4.8	Yes	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-4A[*GWB-4A]	8.6	n/a	1/29/2019	8.7	Yes	8	0	n/a	0.02144	NP 1 of 2

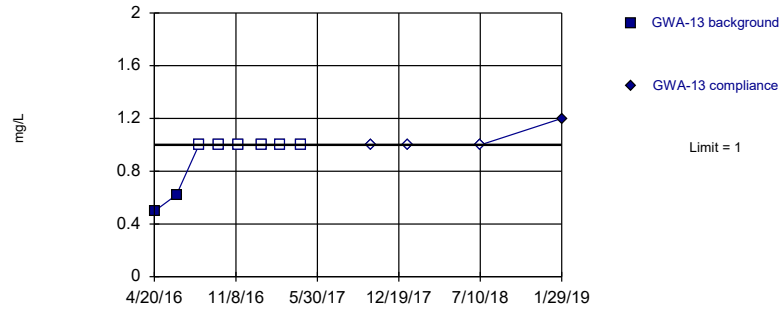
Intrawell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/12/2019, 6:12 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GWA-13	1	n/a	1/29/2019	1.2	Yes	8	75	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWA-14	5.85	n/a	1/29/2019	0.52	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWA-2	1.7	n/a	1/29/2019	0.64	No	8	37.5	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWA-3	1.2	n/a	1/29/2019	1ND	No	8	37.5	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-1	2	n/a	1/30/2019	2.1	Yes	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-10	4.2	n/a	1/30/2019	4.8	Yes	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-11	5.7	n/a	1/30/2019	4.3	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-12	1	n/a	1/30/2019	0.65	No	8	75	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-17	2.93	n/a	1/29/2019	1ND	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-18	9	n/a	1/30/2019	5.8	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-19	2.7	n/a	1/29/2019	1.4	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-20	5.25	n/a	1/29/2019	1.3	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-21	1.99	n/a	1/30/2019	0.705	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-23	9.2	n/a	1/30/2019	2.4	No	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-9	3.84	n/a	1/30/2019	0.58	No	8	25	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-4A[*GWB-4A]	8.6	n/a	1/29/2019	8.7	Yes	8	0	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-5[*GWB-5]	1	n/a	1/29/2019	1ND	No	8	75	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWC-15[*GWB-15]	1	n/a	1/29/2019	0.43	No	8	75	n/a	0.02144	NP 1 of 2
Sulfate (mg/L)	GWA-16[*GWB-16]	1	n/a	1/29/2019	1ND	No	8	75	n/a	0.02144	NP 1 of 2

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

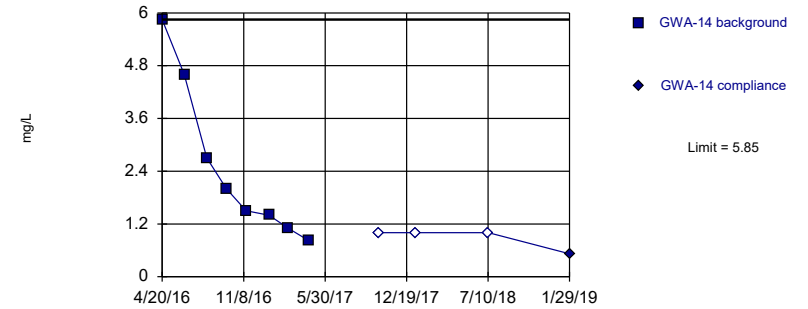


NP test selected by user. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

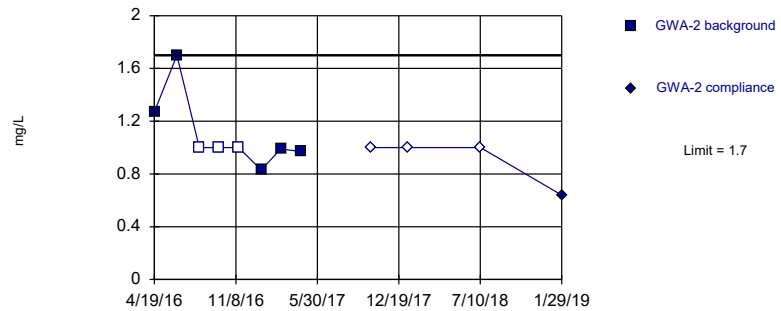


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

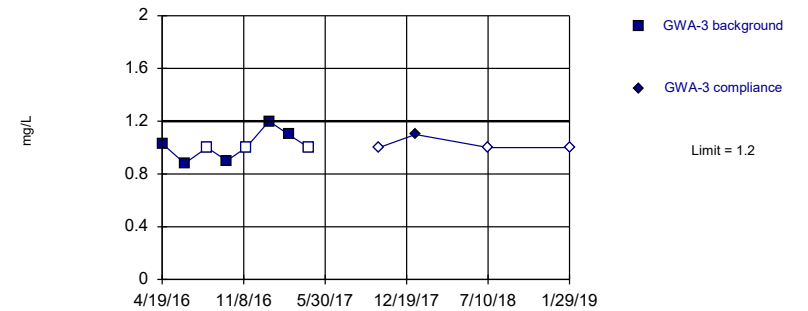


NP test selected by user. Limit is highest of 8 background values. 37.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

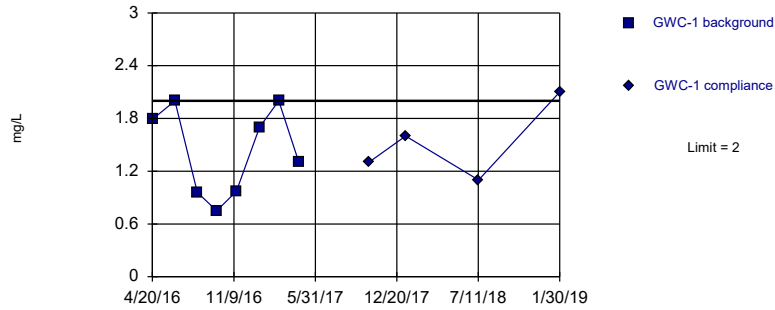


NP test selected by user. Limit is highest of 8 background values. 37.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

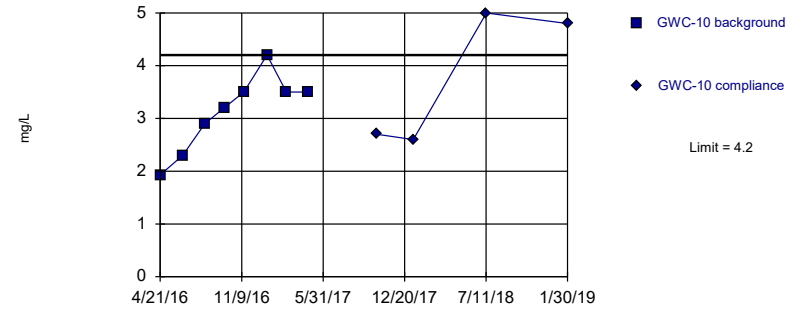


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

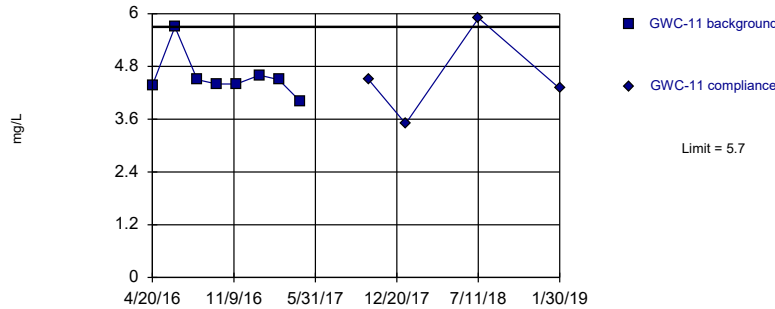


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

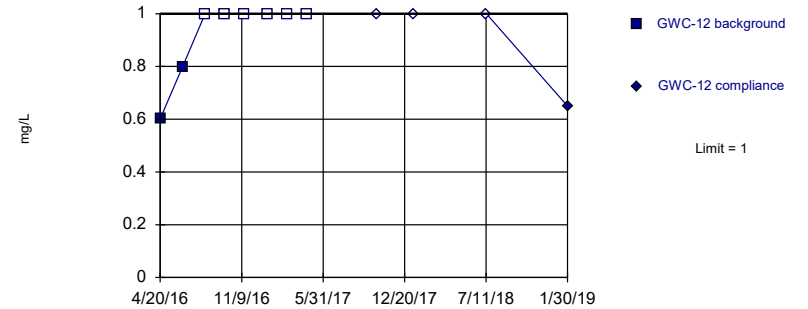


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

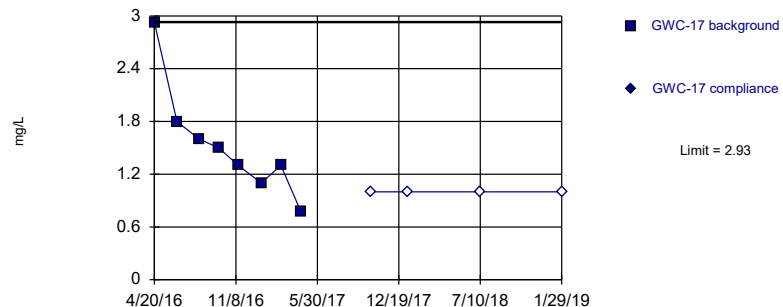


NP test selected by user. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

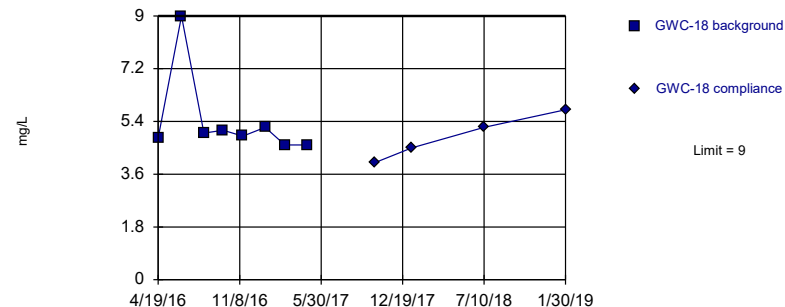


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

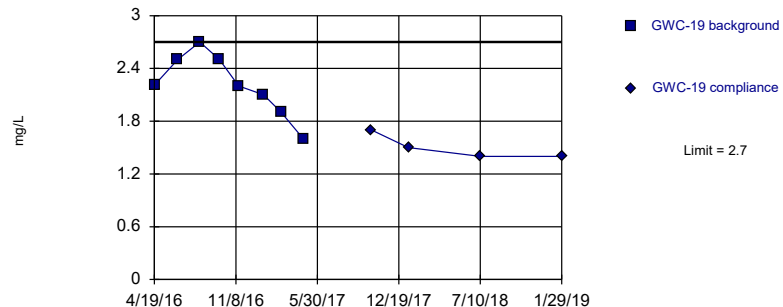


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

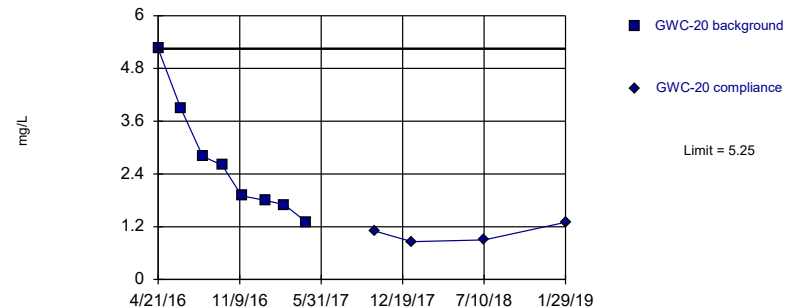


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

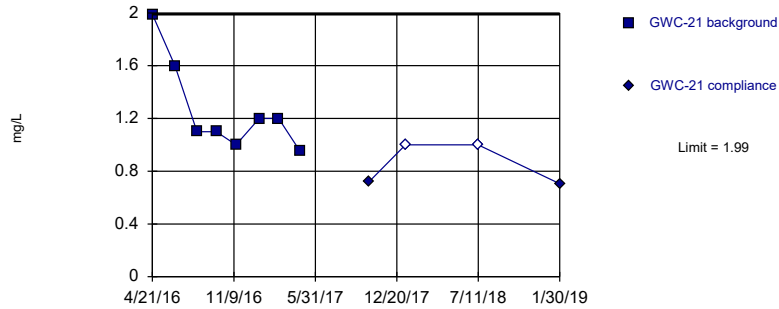


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

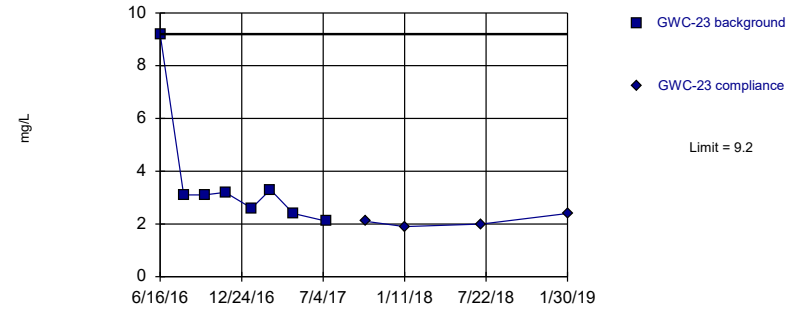


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

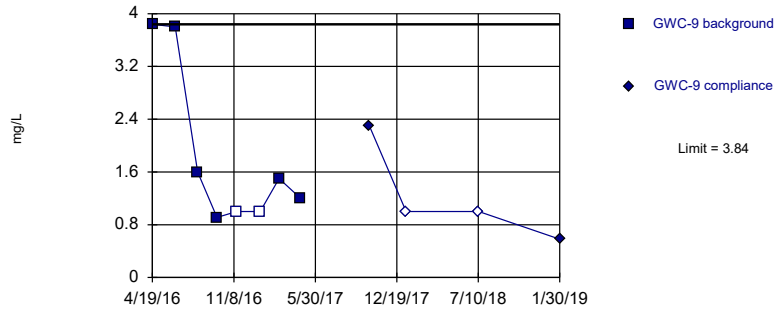


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

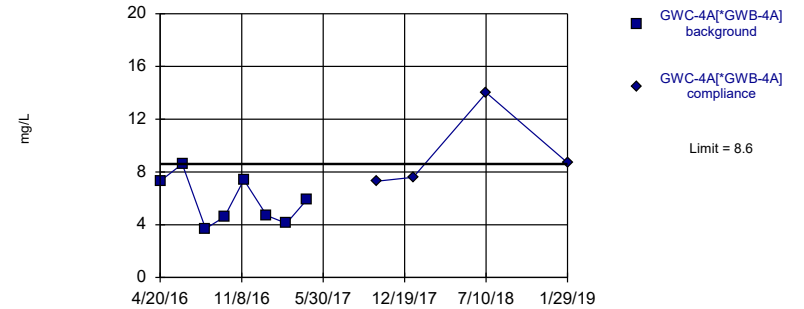


NP test selected by user. Limit is highest of 8 background values. 25% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Exceeds Limit

Prediction Limit
 Intrawell Non-parametric

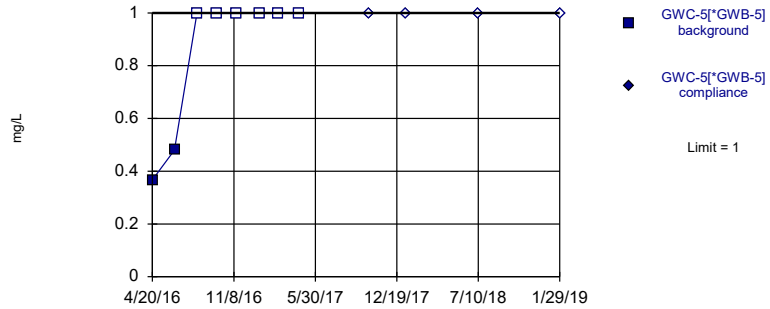


NP test selected by user. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

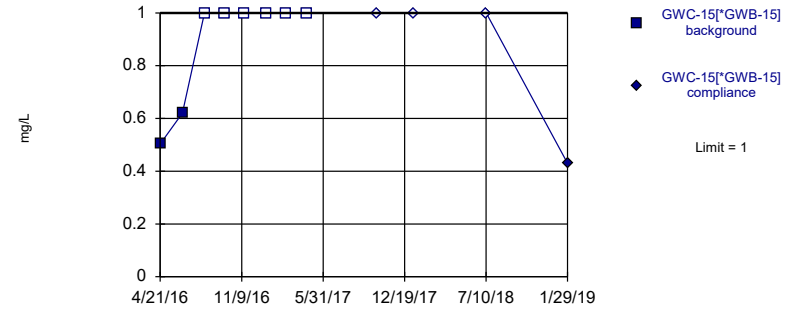


NP test selected by user. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

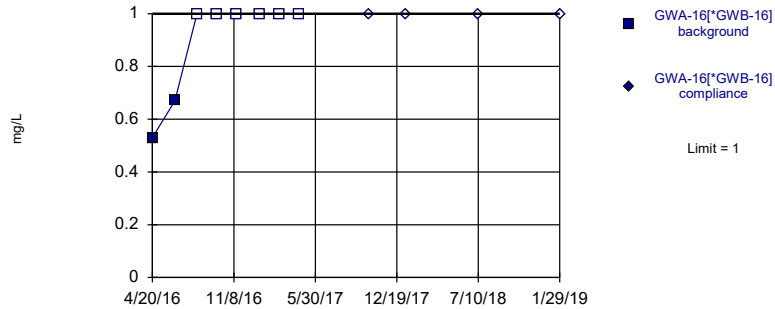


NP test selected by user. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric



NP test selected by user. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/12/2019 6:10 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/12/2019, 6:05 AM

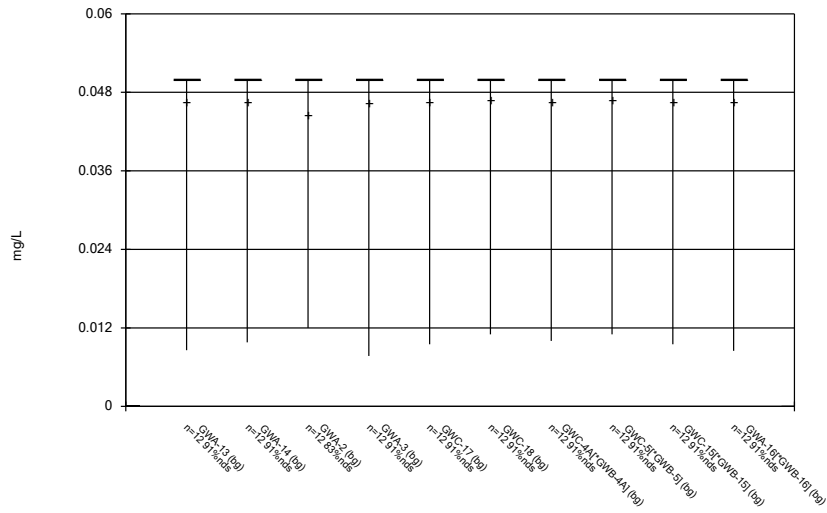
Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Boron (mg/L)	GWA-13 (bg)	12	0.04655	0.01195	0.00345	0.05	0.0086	0.05	91.67
Boron (mg/L)	GWA-14 (bg)	12	0.04665	0.0116	0.00335	0.05	0.0098	0.05	91.67
Boron (mg/L)	GWA-2 (bg)	12	0.0445	0.01302	0.003759	0.05	0.012	0.05	83.33
Boron (mg/L)	GWA-3 (bg)	12	0.04648	0.01221	0.003525	0.05	0.0077	0.05	91.67
Boron (mg/L)	GWC-17 (bg)	12	0.04663	0.01169	0.003375	0.05	0.0095	0.05	91.67
Boron (mg/L)	GWC-18 (bg)	12	0.04675	0.01126	0.00325	0.05	0.011	0.05	91.67
Boron (mg/L)	GWC-4A[*GWB-4A] (bg)	12	0.04667	0.01155	0.003333	0.05	0.01	0.05	91.67
Boron (mg/L)	GWC-5[*GWB-5] (bg)	12	0.04675	0.01126	0.00325	0.05	0.011	0.05	91.67
Boron (mg/L)	GWC-15[*GWB-15] (bg)	12	0.04663	0.01169	0.003375	0.05	0.0095	0.05	91.67
Boron (mg/L)	GWA-16[*GWB-16] (bg)	12	0.04654	0.01198	0.003458	0.05	0.0085	0.05	91.67
Calcium (mg/L)	GWA-13 (bg)	12	0.3024	0.06691	0.01932	0.31	0.14	0.389	0
Calcium (mg/L)	GWA-14 (bg)	12	0.5113	0.07565	0.02184	0.5	0.39	0.686	0
Calcium (mg/L)	GWA-2 (bg)	12	0.5696	0.1673	0.04831	0.535	0.24	0.91	0
Calcium (mg/L)	GWA-3 (bg)	12	0.8175	0.1312	0.03786	0.765	0.69	1.13	0
Calcium (mg/L)	GWC-17 (bg)	12	2.09	0.1687	0.04871	2.1	1.8	2.48	0
Calcium (mg/L)	GWC-18 (bg)	12	17.85	5.937	1.714	16.5	12	33.2	0
Calcium (mg/L)	GWC-4A[*GWB-4A] (bg)	12	1.471	0.8896	0.2568	1.1	0.8	3.4	0
Calcium (mg/L)	GWC-5[*GWB-5] (bg)	12	2.924	0.613	0.1769	2.85	2	4.39	0
Calcium (mg/L)	GWC-15[*GWB-15] (bg)	12	0.4713	0.1873	0.05408	0.41	0.21	0.91	0
Calcium (mg/L)	GWA-16[*GWB-16] (bg)	12	0.3918	0.07051	0.02035	0.405	0.19	0.472	0
Chloride (mg/L)	GWA-13 (bg)	12	3.541	0.1567	0.04523	3.495	3.4	3.8	0
Chloride (mg/L)	GWA-14 (bg)	12	4.221	0.235	0.06783	4.25	3.9	4.55	0
Chloride (mg/L)	GWA-2 (bg)	12	4.893	0.2396	0.06916	5	4.4	5.2	0
Chloride (mg/L)	GWA-3 (bg)	12	6.05	1.87	0.5399	6.1	4	9.4	0
Chloride (mg/L)	GWC-17 (bg)	12	4.246	0.2105	0.06076	4.225	3.9	4.5	0
Chloride (mg/L)	GWC-18 (bg)	12	4.861	0.266	0.0768	4.85	4.5	5.3	0
Chloride (mg/L)	GWC-4A[*GWB-4A] (bg)	12	3.436	0.3687	0.1064	3.4	2.9	4.2	0
Chloride (mg/L)	GWC-5[*GWB-5] (bg)	12	3.483	0.1889	0.05452	3.5	3.2	3.7	0
Chloride (mg/L)	GWC-15[*GWB-15] (bg)	12	3.699	0.2512	0.07251	3.75	3.3	4	0
Chloride (mg/L)	GWA-16[*GWB-16] (bg)	12	3.735	0.2031	0.05863	3.75	3.4	4	0
Fluoride (mg/L)	GWA-13 (bg)	12	0.1848	0.05254	0.01517	0.2	0.018	0.2	91.67
Fluoride (mg/L)	GWA-14 (bg)	12	0.1851	0.05167	0.01492	0.2	0.021	0.2	91.67
Fluoride (mg/L)	GWA-2 (bg)	12	0.1708	0.06815	0.01967	0.2	0.02	0.2	83.33
Fluoride (mg/L)	GWA-3 (bg)	12	0.1852	0.05138	0.01483	0.2	0.022	0.2	91.67
Fluoride (mg/L)	GWC-17 (bg)	12	0.1398	0.02755	0.007953	0.135	0.1	0.2	8.333
Fluoride (mg/L)	GWC-18 (bg)	12	0.6305	0.07353	0.02123	0.63	0.51	0.74	0
Fluoride (mg/L)	GWC-4A[*GWB-4A] (bg)	12	0.1857	0.04965	0.01433	0.2	0.028	0.2	91.67
Fluoride (mg/L)	GWC-5[*GWB-5] (bg)	12	0.186	0.0485	0.014	0.2	0.032	0.2	91.67
Fluoride (mg/L)	GWC-15[*GWB-15] (bg)	12	0.1849	0.05225	0.01508	0.2	0.019	0.2	91.67
Fluoride (mg/L)	GWA-16[*GWB-16] (bg)	12	0.1852	0.05138	0.01483	0.2	0.022	0.2	91.67
pH (S.U.)	GWA-13 (bg)	13	5.022	0.1516	0.04205	5.01	4.82	5.35	0
pH (S.U.)	GWA-14 (bg)	13	5.343	0.1389	0.03852	5.32	5.19	5.74	0
pH (S.U.)	GWA-2 (bg)	13	4.828	0.1293	0.03586	4.8	4.59	4.99	0
pH (S.U.)	GWA-3 (bg)	13	4.938	0.251	0.06962	4.95	4.21	5.25	0
pH (S.U.)	GWC-17 (bg)	13	5.243	0.07889	0.02188	5.25	5.09	5.36	0
pH (S.U.)	GWC-18 (bg)	13	6.532	0.2961	0.08211	6.51	5.93	7.1	0
pH (S.U.)	GWC-4A[*GWB-4A] (bg)	13	5.222	0.439	0.1217	5.28	4.53	5.94	0
pH (S.U.)	GWC-5[*GWB-5] (bg)	13	5.596	0.1527	0.04236	5.58	5.39	5.95	0
pH (S.U.)	GWC-15[*GWB-15] (bg)	13	5.117	0.138	0.03827	5.1	4.95	5.47	0
pH (S.U.)	GWA-16[*GWB-16] (bg)	13	5.081	0.104	0.02883	5.07	4.83	5.26	0

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/12/2019, 6:05 AM

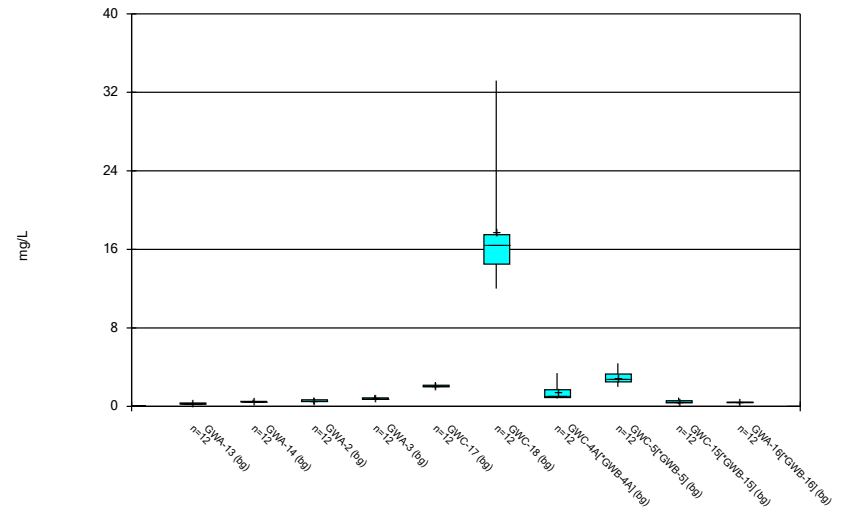
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Sulfate (mg/L)	GWA-13 (bg)	12	0.943	0.1906	0.05501	1	0.496	1.2	75
Sulfate (mg/L)	GWA-14 (bg)	12	1.958	1.653	0.4772	1.25	0.52	5.85	25
Sulfate (mg/L)	GWA-2 (bg)	12	1.033	0.2539	0.07329	1	0.64	1.7	50
Sulfate (mg/L)	GWA-3 (bg)	12	1.018	0.08614	0.02487	1	0.88	1.2	50
Sulfate (mg/L)	GWC-17 (bg)	12	1.358	0.5782	0.1669	1.2	0.77	2.93	33.33
Sulfate (mg/L)	GWC-18 (bg)	12	5.228	1.269	0.3663	4.95	4	9	0
Sulfate (mg/L)	GWC-4A[*GWB-4A] (bg)	12	6.993	2.808	0.8105	7.305	3.7	14	0
Sulfate (mg/L)	GWC-5[*GWB-5] (bg)	12	0.9039	0.2257	0.06515	1	0.367	1	83.33
Sulfate (mg/L)	GWC-15[*GWB-15] (bg)	12	0.8794	0.2219	0.06407	1	0.43	1	75
Sulfate (mg/L)	GWA-16[*GWB-16] (bg)	12	0.9333	0.1585	0.04577	1	0.53	1	83.33
Total Dissolved Solids...	GWA-13 (bg)	12	17.75	13.64	3.937	13	4	47	16.67
Total Dissolved Solids...	GWA-14 (bg)	12	20.92	16.56	4.781	19	5	65	16.67
Total Dissolved Solids...	GWA-2 (bg)	12	20	15.54	4.487	15	5	55	8.333
Total Dissolved Solids...	GWA-3 (bg)	12	23	10.68	3.082	24	5	46	8.333
Total Dissolved Solids...	GWC-17 (bg)	12	28.17	22.45	6.481	23	5	85	8.333
Total Dissolved Solids...	GWC-18 (bg)	12	91.42	32.32	9.329	90	43	150	0
Total Dissolved Solids...	GWC-4A[*GWB-4A] (bg)	12	27	18.65	5.385	25	5	67	25
Total Dissolved Solids...	GWC-5[*GWB-5] (bg)	12	25.83	18.8	5.428	27	5	62	16.67
Total Dissolved Solids...	GWC-15[*GWB-15] (bg)	12	19.58	18.95	5.47	13	4	58	16.67
Total Dissolved Solids...	GWA-16[*GWB-16] (bg)	12	18	18.07	5.217	12	4	67	25

Box & Whiskers Plot



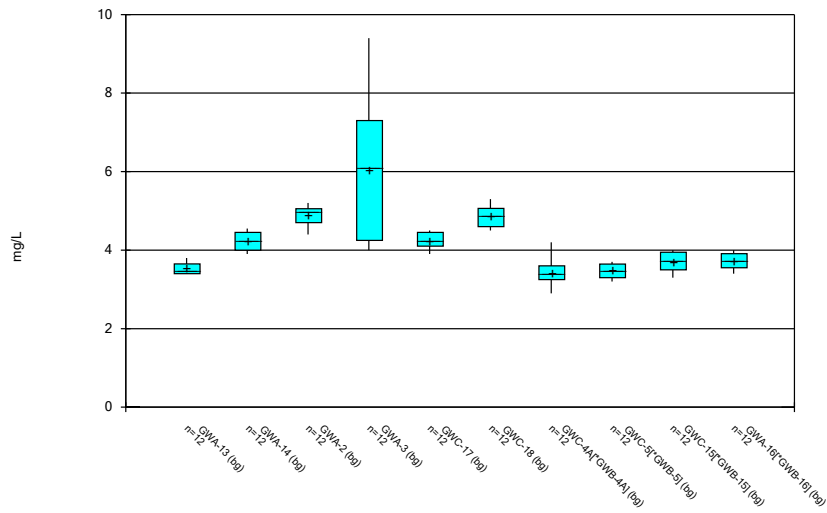
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Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



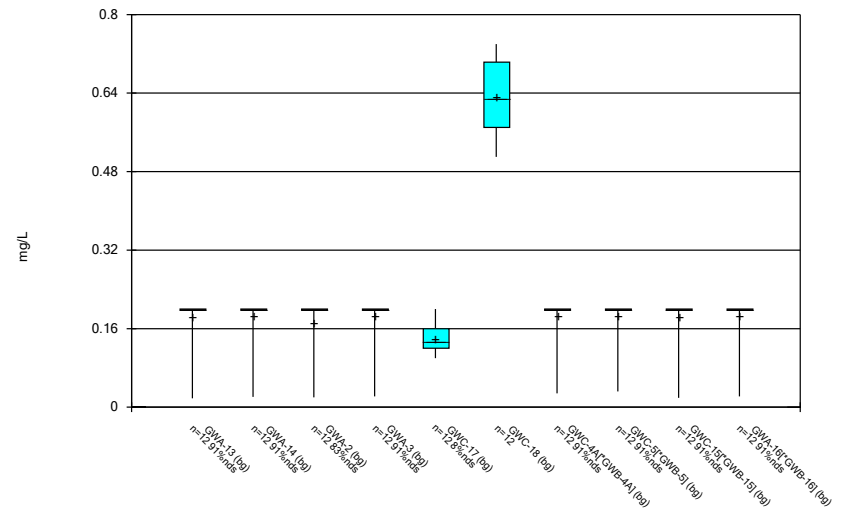
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Box & Whiskers Plot



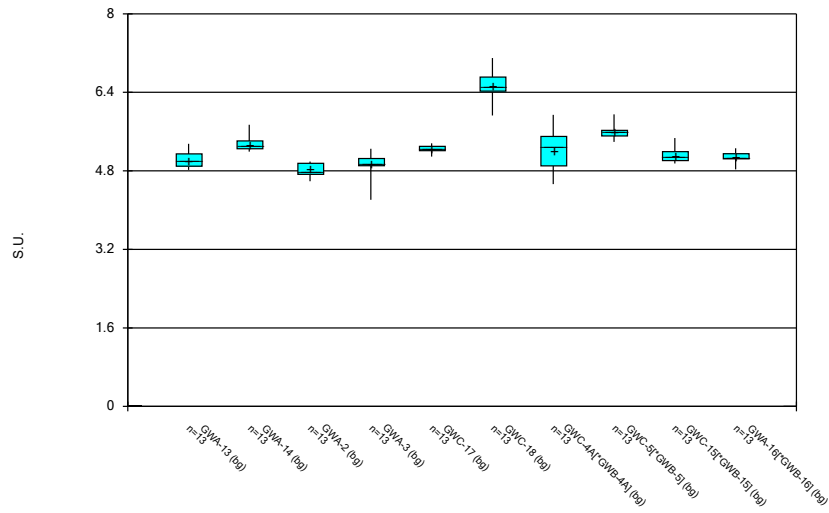
Constituent: Chloride Analysis Run 7/12/2019 6:05 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



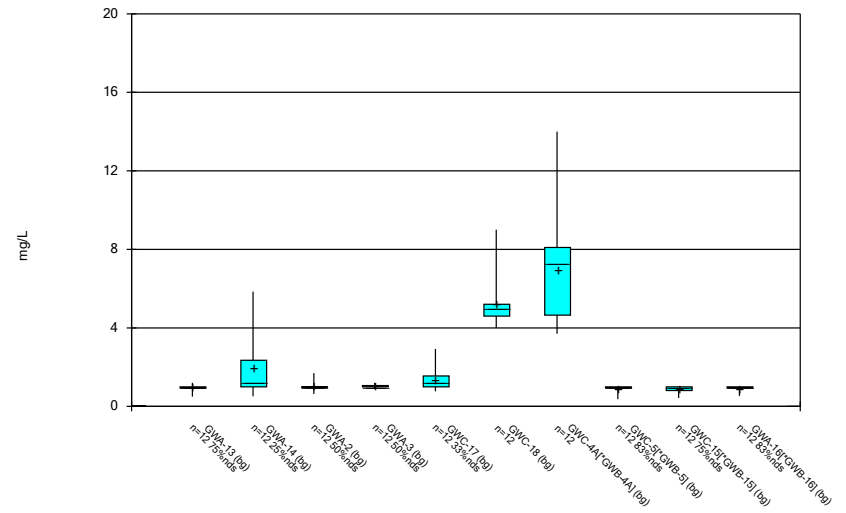
Constituent: Fluoride Analysis Run 7/12/2019 6:05 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



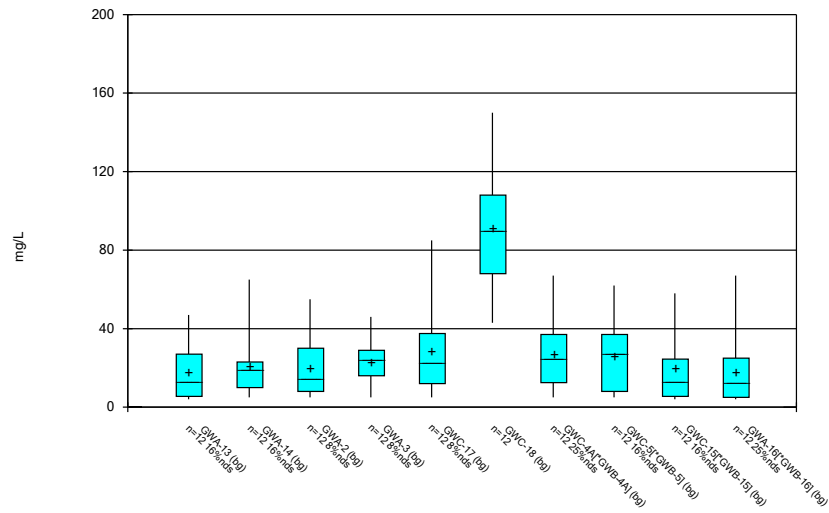
Constituent: pH Analysis Run 7/12/2019 6:05 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Sulfate Analysis Run 7/12/2019 6:05 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 7/12/2019 6:05 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot - Down gradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/12/2019, 6:02 AM

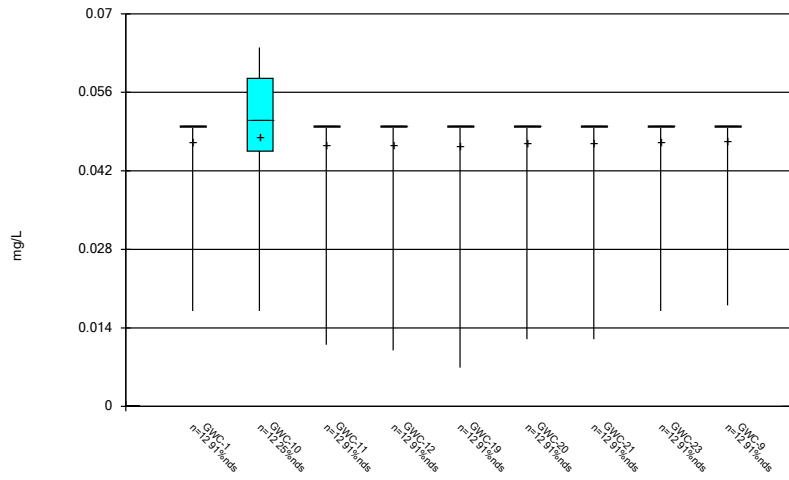
Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Boron (mg/L)	GWC-1	12	0.04725	0.009526	0.00275	0.05	0.017	0.05	91.67
Boron (mg/L)	GWC-10	12	0.048	0.01486	0.004289	0.051	0.017	0.064	25
Boron (mg/L)	GWC-11	12	0.04675	0.01126	0.00325	0.05	0.011	0.05	91.67
Boron (mg/L)	GWC-12	12	0.04667	0.01155	0.003333	0.05	0.01	0.05	91.67
Boron (mg/L)	GWC-19	12	0.04641	0.01244	0.003592	0.05	0.0069	0.05	91.67
Boron (mg/L)	GWC-20	12	0.04683	0.01097	0.003167	0.05	0.012	0.05	91.67
Boron (mg/L)	GWC-21	12	0.04683	0.01097	0.003167	0.05	0.012	0.05	91.67
Boron (mg/L)	GWC-23	12	0.04725	0.009526	0.00275	0.05	0.017	0.05	91.67
Boron (mg/L)	GWC-9	12	0.04733	0.009238	0.002667	0.05	0.018	0.05	91.67
Calcium (mg/L)	GWC-1	12	2.493	0.3739	0.1079	2.45	1.8	3.22	0
Calcium (mg/L)	GWC-10	13	17.14	4.983	1.382	15	13	27	0
Calcium (mg/L)	GWC-11	12	9.445	1.494	0.4312	8.92	7.6	13	0
Calcium (mg/L)	GWC-12	12	0.65	0.08571	0.02474	0.66	0.45	0.78	0
Calcium (mg/L)	GWC-19	12	8.725	1.284	0.3705	8.85	6.7	10.4	0
Calcium (mg/L)	GWC-20	12	1.649	0.3689	0.1065	1.55	1.3	2.4	0
Calcium (mg/L)	GWC-21	12	1.363	0.6967	0.2011	1.1	0.93	2.9	0
Calcium (mg/L)	GWC-23	12	4.883	4.646	1.341	2.75	1.1	15.6	0
Calcium (mg/L)	GWC-9	12	0.3143	0.1058	0.03054	0.305	0.13	0.47	0
Chloride (mg/L)	GWC-1	12	6.965	0.3408	0.09838	7	6.4	7.5	0
Chloride (mg/L)	GWC-10	12	6.113	0.4886	0.1411	6.1	5.1	6.8	0
Chloride (mg/L)	GWC-11	12	4.642	0.2778	0.08021	4.6	4.3	5.1	0
Chloride (mg/L)	GWC-12	12	3.593	0.1782	0.05145	3.605	3.3	3.9	0
Chloride (mg/L)	GWC-19	12	7.75	1.206	0.348	8.25	5.7	9.1	0
Chloride (mg/L)	GWC-20	13	9.162	0.9954	0.2761	8.9	7.9	11.6	0
Chloride (mg/L)	GWC-21	12	6.186	0.293	0.08459	6.2	5.8	6.65	0
Chloride (mg/L)	GWC-23	12	4.592	0.9472	0.2734	4.3	4	7.4	0
Chloride (mg/L)	GWC-9	13	10.78	1.705	0.4729	11	9	14.4	0
Fluoride (mg/L)	GWC-1	12	0.1867	0.04619	0.01333	0.2	0.04	0.2	91.67
Fluoride (mg/L)	GWC-10	12	0.1773	0.03739	0.01079	0.18	0.12	0.22	8.333
Fluoride (mg/L)	GWC-11	12	0.3486	0.07297	0.02106	0.3765	0.2	0.43	8.333
Fluoride (mg/L)	GWC-12	12	0.1855	0.05023	0.0145	0.2	0.026	0.2	91.67
Fluoride (mg/L)	GWC-19	12	0.1095	0.03553	0.01026	0.1005	0.074	0.2	8.333
Fluoride (mg/L)	GWC-20	12	0.1645	0.06518	0.01881	0.2	0.031	0.2	75
Fluoride (mg/L)	GWC-21	12	0.1852	0.05138	0.01483	0.2	0.022	0.2	91.67
Fluoride (mg/L)	GWC-23	12	0.1691	0.05753	0.01661	0.2	0.04	0.2	75
Fluoride (mg/L)	GWC-9	12	0.185	0.05196	0.015	0.2	0.02	0.2	91.67
pH (S.U.)	GWC-1	13	5.193	0.146	0.0405	5.21	4.87	5.43	0
pH (S.U.)	GWC-10	13	6.292	0.2155	0.05978	6.23	6.11	6.8	0
pH (S.U.)	GWC-11	13	6.303	0.1562	0.04331	6.28	6.09	6.63	0
pH (S.U.)	GWC-12	13	5.106	0.05576	0.01546	5.12	5.01	5.19	0
pH (S.U.)	GWC-19	12	5.74	0.1524	0.044	5.67	5.58	5.98	0
pH (S.U.)	GWC-20	13	4.972	0.1449	0.04019	4.94	4.84	5.32	0
pH (S.U.)	GWC-21	13	5.15	0.3468	0.09619	5.01	4.65	5.84	0
pH (S.U.)	GWC-23	12	5.654	0.4229	0.1221	5.65	5.14	6.34	0
pH (S.U.)	GWC-9	13	4.909	0.1674	0.04643	4.85	4.7	5.28	0
Sulfate (mg/L)	GWC-1	12	1.464	0.4626	0.1335	1.45	0.75	2.1	0
Sulfate (mg/L)	GWC-10	12	3.344	0.9508	0.2745	3.35	1.93	5	0
Sulfate (mg/L)	GWC-11	12	4.556	0.6536	0.1887	4.45	3.5	5.9	0
Sulfate (mg/L)	GWC-12	12	0.9209	0.1497	0.04323	1	0.601	1	75
Sulfate (mg/L)	GWC-19	12	1.976	0.458	0.1322	2	1.4	2.7	0

Box & Whiskers Plot - Down gradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/12/2019, 6:02 AM

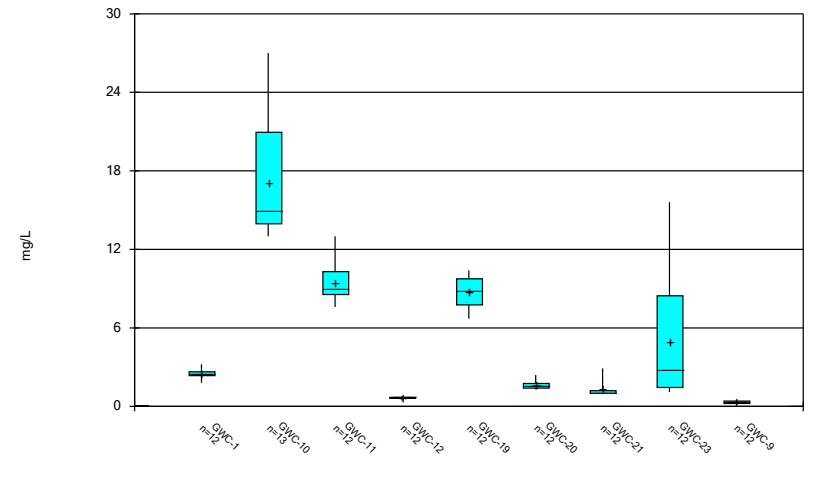
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Sulfate (mg/L)	GWC-20	12	2.118	1.33	0.3838	1.75	0.86	5.25	0
Sulfate (mg/L)	GWC-21	12	1.13	0.3573	0.1031	1.05	0.705	1.99	16.67
Sulfate (mg/L)	GWC-23	12	3.117	1.98	0.5717	2.5	1.9	9.2	0
Sulfate (mg/L)	GWC-9	12	1.644	1.106	0.3192	1.1	0.58	3.84	33.33
Total Dissolved Solids...	GWC-1	12	39.83	25.71	7.421	38	5	100	8.333
Total Dissolved Solids...	GWC-10	12	98.83	40.07	11.57	104.5	32	160	0
Total Dissolved Solids...	GWC-11	12	65.33	25.43	7.341	68	10	94	0
Total Dissolved Solids...	GWC-12	12	21.92	13.17	3.801	22	5	44	8.333
Total Dissolved Solids...	GWC-19	12	45.17	22.53	6.505	38	12	81	0
Total Dissolved Solids...	GWC-20	12	33.75	20.24	5.841	30	6	82	0
Total Dissolved Solids...	GWC-21	12	26.5	17.45	5.038	25	5	58	16.67
Total Dissolved Solids...	GWC-23	12	47.17	25.86	7.464	38	20	98	0
Total Dissolved Solids...	GWC-9	12	40.58	19.41	5.602	43	5	84	8.333

Box & Whiskers Plot



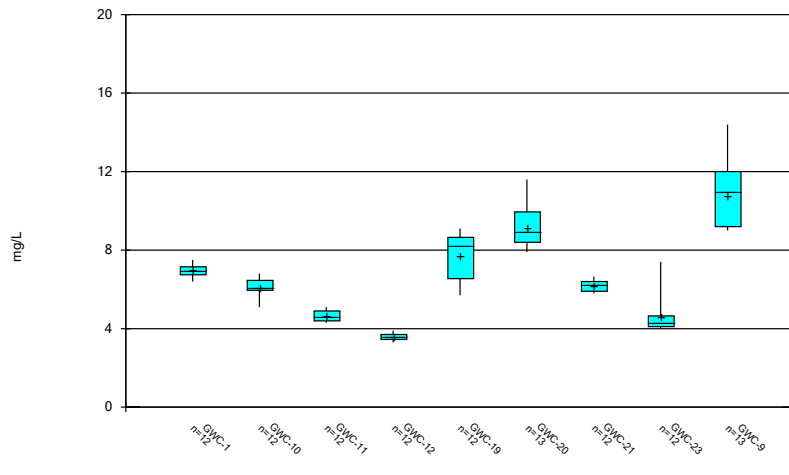
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Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



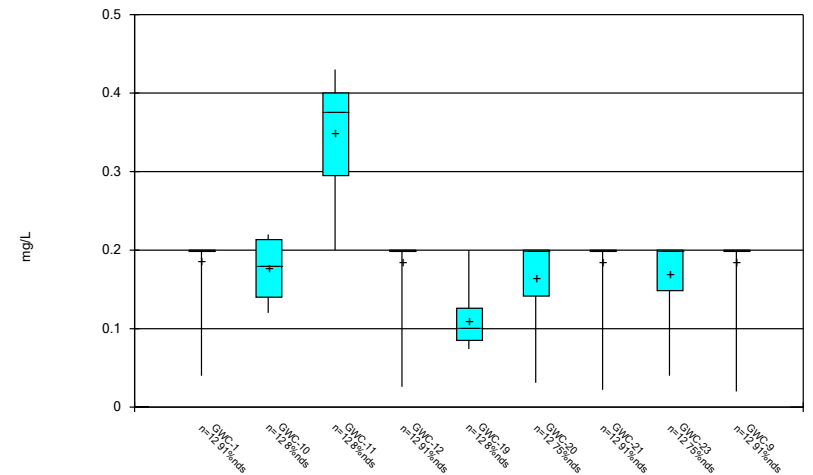
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Box & Whiskers Plot



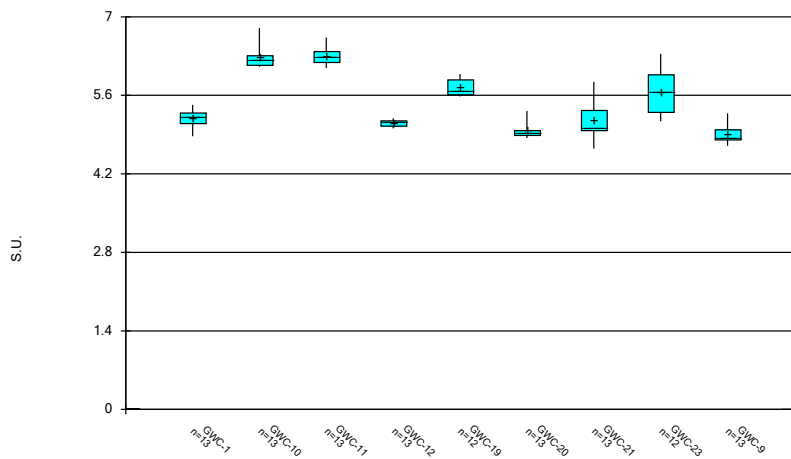
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Box & Whiskers Plot



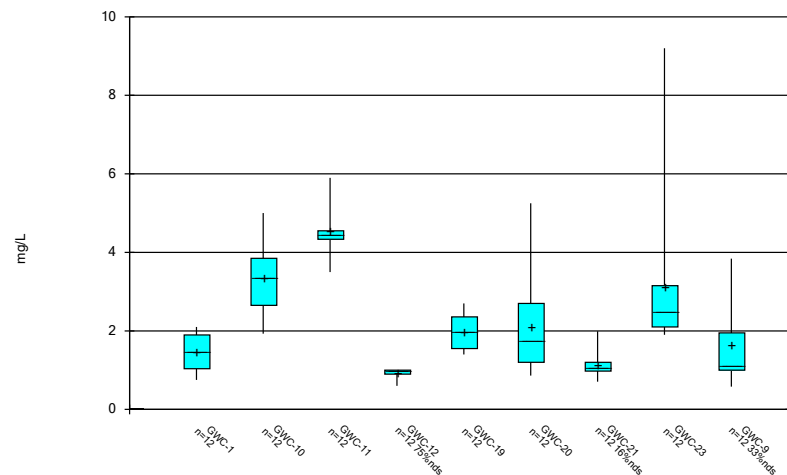
Constituent: Fluoride Analysis Run 7/12/2019 6:01 AM
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Box & Whiskers Plot



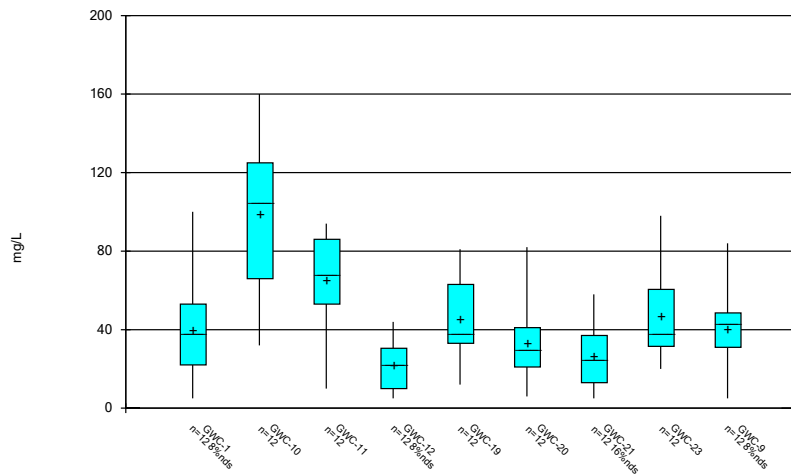
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Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Sulfate Analysis Run 7/12/2019 6:01 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 7/12/2019 6:01 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Appendix C2

Sanitas™ Outputs for Appendix III Parameters – March 2019

Interwell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 1:27 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	GWC-1	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-10	0.05	n/a	3/27/2019	0.021ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-11	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-12	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-19	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-20	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-21	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-23	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Boron (mg/L)	GWC-9	0.05	n/a	3/27/2019	0.05ND	No	130	91.54	n/a	0.000...	NP (NDs) 1 of 2
Calcium (mg/L)	GWC-1	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-10	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-11	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-12	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-19	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-20	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-21	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-23	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Calcium (mg/L)	GWC-9	33.2	n/a	3/27/2019	0.13ND	No	130	3.077	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-1	9.4	n/a	3/27/2019	6.8	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-10	9.4	n/a	3/27/2019	5.3	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-11	9.4	n/a	3/27/2019	4	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-12	9.4	n/a	3/27/2019	3.3	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-19	9.4	n/a	3/27/2019	7.5	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-20	9.4	n/a	3/27/2019	8.9	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-21	9.4	n/a	3/27/2019	6.3	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-23	9.4	n/a	3/27/2019	4.2	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Chloride (mg/L)	GWC-9	9.4	n/a	6/17/2019	9.4	No	130	0	n/a	0.000...	NP (normality) 1 of 2
Fluoride (mg/L)	GWC-1	0.74	n/a	3/27/2019	0.026ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-10	0.74	n/a	3/27/2019	0.026ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-11	0.74	n/a	3/27/2019	0.24	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-12	0.74	n/a	3/27/2019	0.2ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-19	0.74	n/a	3/27/2019	0.026ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-20	0.74	n/a	3/27/2019	0.026ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-21	0.74	n/a	3/27/2019	0.2ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-23	0.74	n/a	3/27/2019	0.026ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-9	0.74	n/a	3/27/2019	0.2ND	No	130	74.62	n/a	0.000...	NP (NDs) 1 of 2
pH (S.U.)	GWC-1	7.1	4.21	3/27/2019	5.15	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-10	7.1	4.21	3/27/2019	6.54	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-11	7.1	4.21	3/27/2019	6.32	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-12	7.1	4.21	3/27/2019	4.93	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-19	7.1	4.21	3/27/2019	5.59	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-20	7.1	4.21	3/27/2019	4.94	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-21	7.1	4.21	3/27/2019	4.96	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-23	7.1	4.21	3/27/2019	5.3	No	140	0	n/a	0.000...	NP (normality) 1 of 2
pH (S.U.)	GWC-9	7.1	4.21	3/27/2019	4.75	No	140	0	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-1	150	n/a	3/27/2019	26	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-10	150	n/a	3/27/2019	130	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-11	150	n/a	3/27/2019	79	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-12	150	n/a	3/27/2019	24	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-19	150	n/a	3/27/2019	61	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2

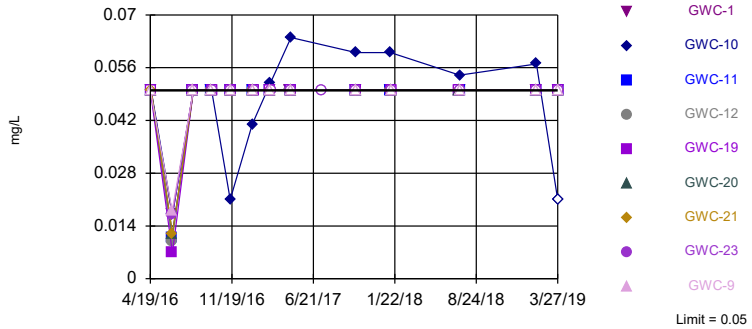
Interwell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 1:27 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Total Dissolved Solids...	GWC-20	150	n/a	3/27/2019	10ND	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-21	150	n/a	3/27/2019	33	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-23	150	n/a	3/27/2019	42	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2
Total Dissolved Solids...	GWC-9	150	n/a	3/27/2019	34	No	130	13.85	n/a	0.000...	NP (normality) 1 of 2

Within Limit

Prediction Limit
Interwell Non-parametric

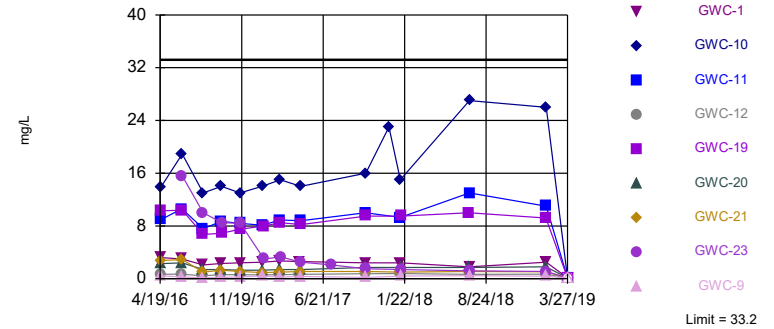


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 130 background values. 91.54% NDs. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 7/1/2019 1:26 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

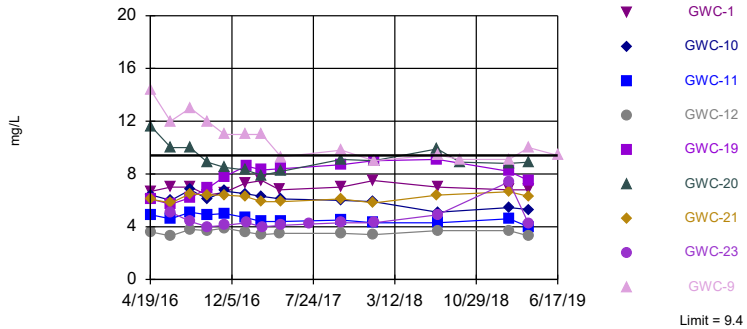


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. 3.077% NDs. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 7/1/2019 1:26 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

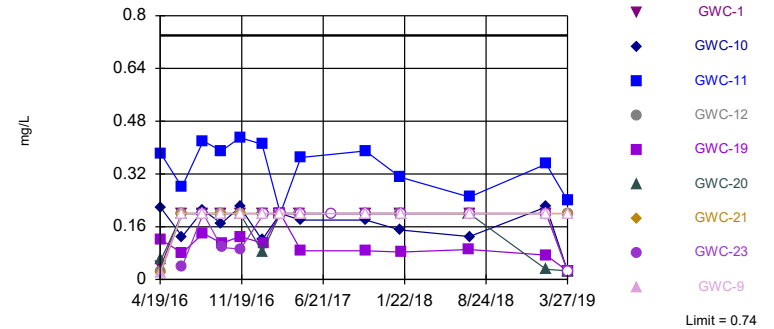


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 130 background values. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 7/1/2019 1:26 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

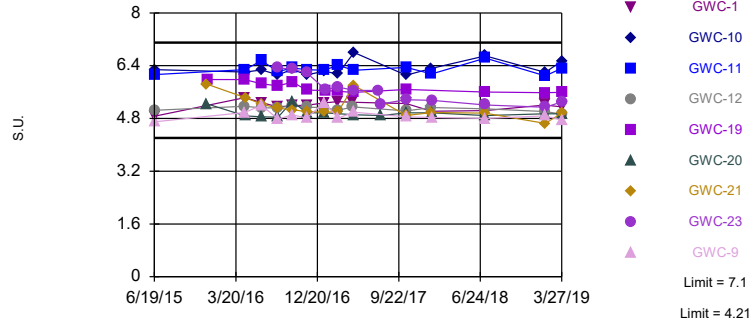


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 130 background values. 74.62% NDs. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 7/1/2019 1:26 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limits

Prediction Limit
Interwell Non-parametric

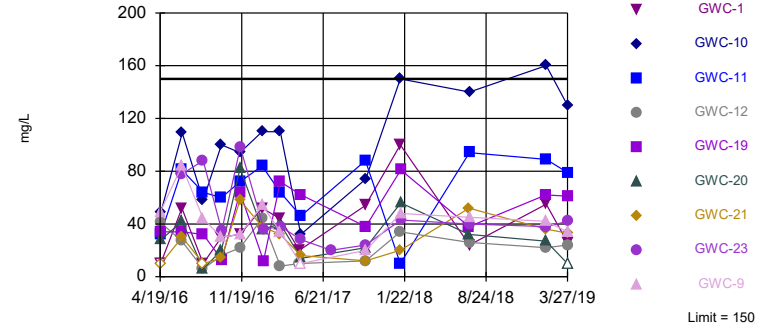


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 140 background values. Annual per-constituent alpha = 0.003578. Individual comparison alpha = 0.0001989 (1 of 2). Comparing 9 points to limit.

Constituent: pH Analysis Run 7/1/2019 1:26 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

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 130 background values. 13.85% NDs. Annual per-constituent alpha = 0.002106. Individual comparison alpha = 0.0001171 (1 of 2). Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 7/1/2019 1:26 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

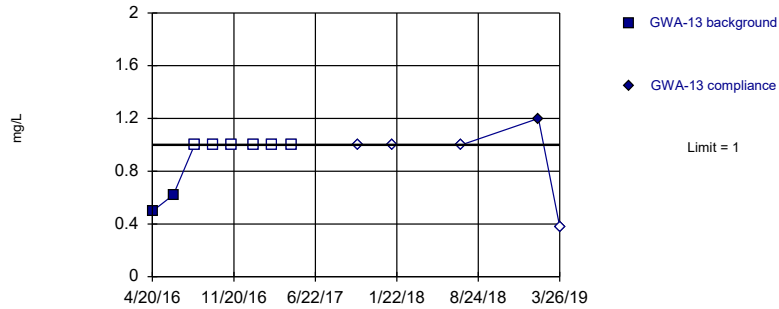
Intrawell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 12:22 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	GWA-13	1	n/a	3/26/2019	0.38ND	No	8	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWA-14	9.401	n/a	3/26/2019	0.38ND	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWA-2	2.227	n/a	3/27/2019	1ND	No	8	37.5	sqrt(x)	0.000266	Param 1 of 2
Sulfate (mg/L)	GWA-3	1.411	n/a	3/27/2019	0.38ND	No	8	37.5	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-1	3.349	n/a	3/27/2019	1.6	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-10	5.919	n/a	3/27/2019	4.3	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-11	6.545	n/a	3/27/2019	5.4	No	8	0	sqrt(x)	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-12	1	n/a	3/27/2019	0.38ND	No	8	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWC-17	3.996	n/a	3/27/2019	1ND	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-18	9	n/a	3/27/2019	4.8	No	8	0	n/a	0.02144	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-19	3.573	n/a	3/27/2019	1.6	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-20	7.726	n/a	3/27/2019	1.7	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-21	2.613	n/a	3/27/2019	0.38ND	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-23	9.2	n/a	3/27/2019	2.8	No	8	0	n/a	0.02144	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-9	7.905	n/a	3/27/2019	1.2	No	8	25	sqrt(x)	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-4A[*GWB-4A]	12.65	n/a	3/26/2019	11	No	8	0	No	0.000266	Param 1 of 2
Sulfate (mg/L)	GWC-5[*GWB-5]	1	n/a	3/26/2019	0.38ND	No	8	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWC-15[*GWB-15]	1	n/a	3/26/2019	0.38ND	No	8	75	n/a	0.02144	NP (NDs) 1 of 2
Sulfate (mg/L)	GWA-16[*GWB-16]	1	n/a	3/26/2019	0.38ND	No	8	75	n/a	0.02144	NP (NDs) 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric

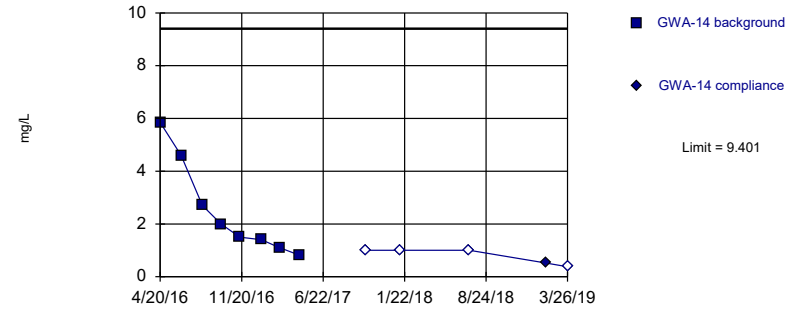


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

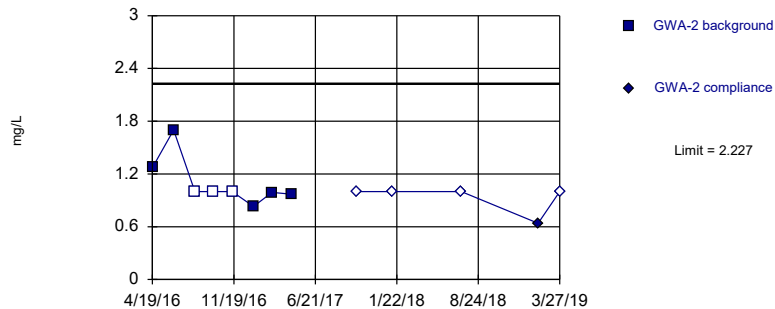


Background Data Summary: Mean=2.496, Std. Dev.=1.809, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8473, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

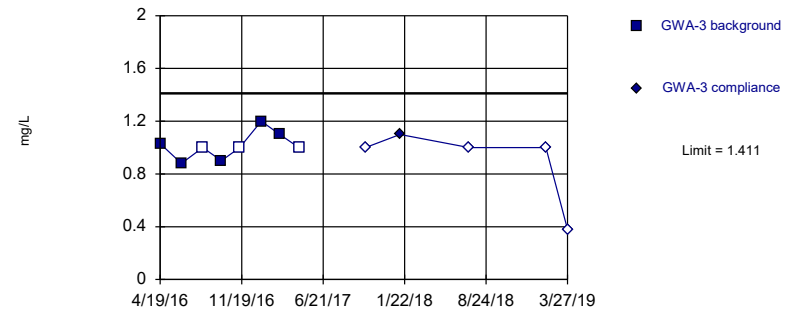


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.027, Std. Dev.=0.122, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7755, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

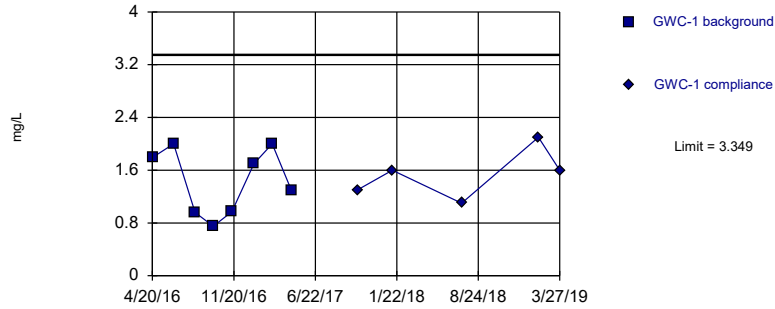


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.9725, Std. Dev.=0.115, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9315, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

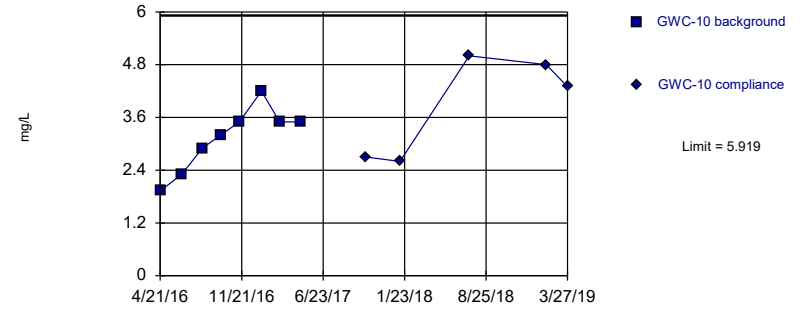


Background Data Summary: Mean=1.434, Std. Dev.=0.502, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8871, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

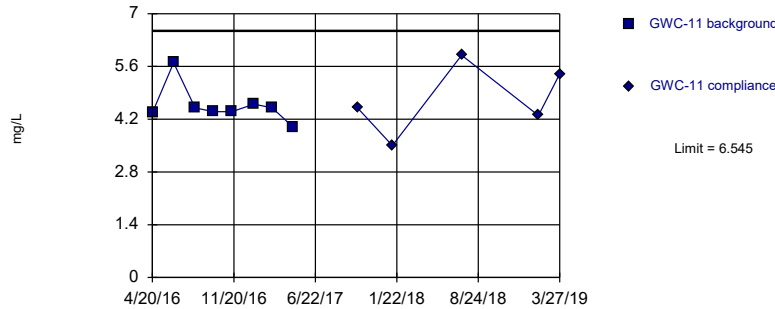


Background Data Summary: Mean=3.129, Std. Dev.=0.7312, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9393, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

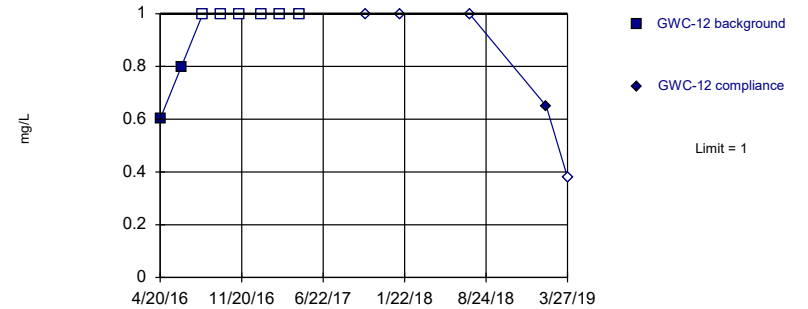


Background Data Summary (based on square root transformation): Mean=2.133, Std. Dev.=0.1116, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7586, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

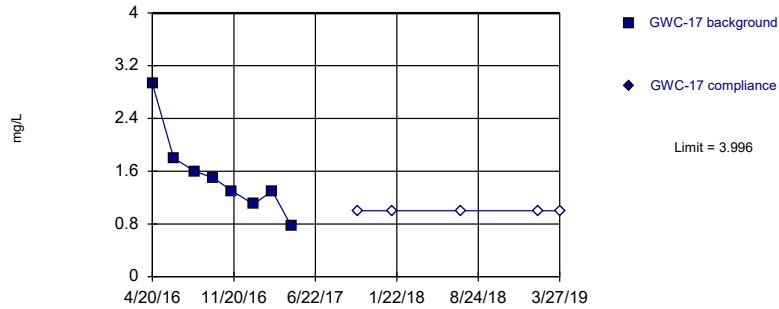


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

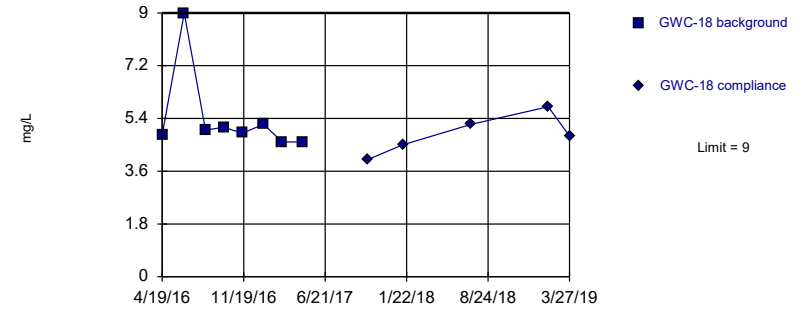


Background Data Summary: Mean=1.538, Std. Dev.=0.6444, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8722, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

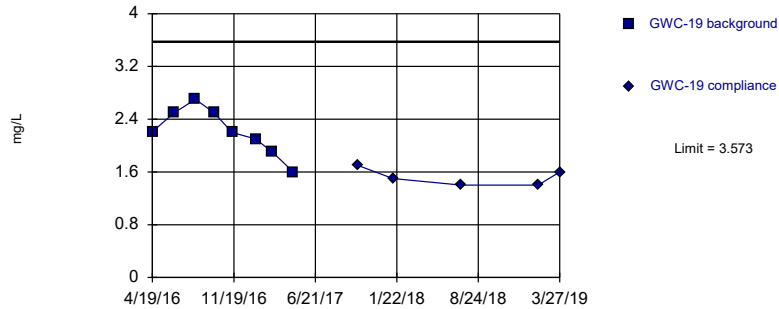


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

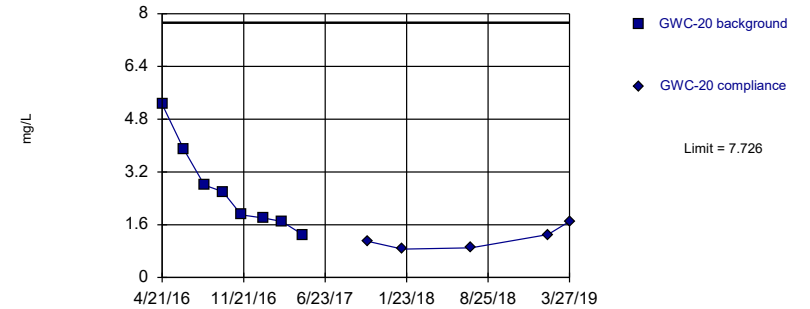


Background Data Summary: Mean=2.214, Std. Dev.=0.3563, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

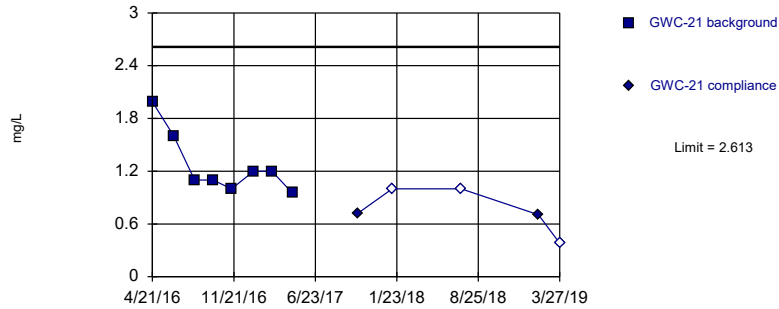


Background Data Summary: Mean=2.656, Std. Dev.=1.329, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8814, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

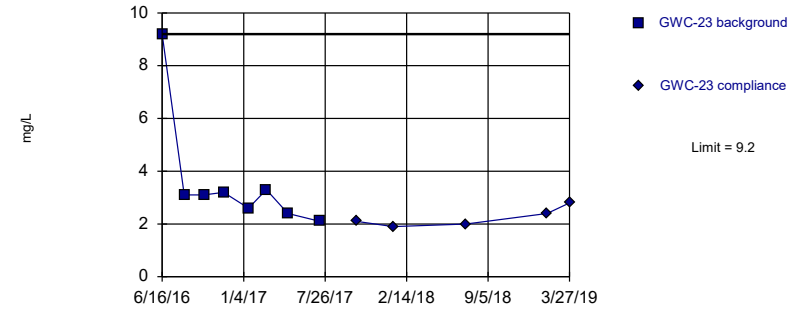


Background Data Summary: Mean=1.268, Std. Dev.=0.3526, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8153, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Non-parametric

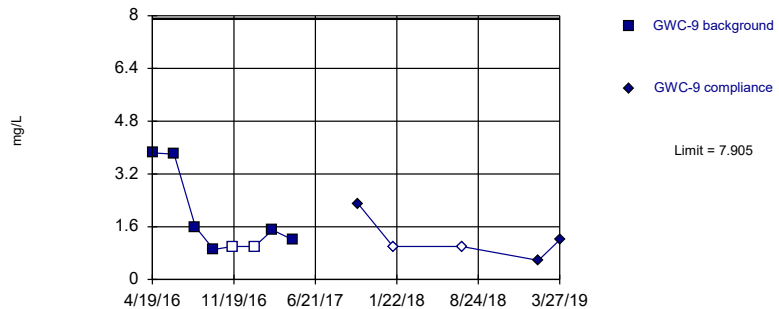


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

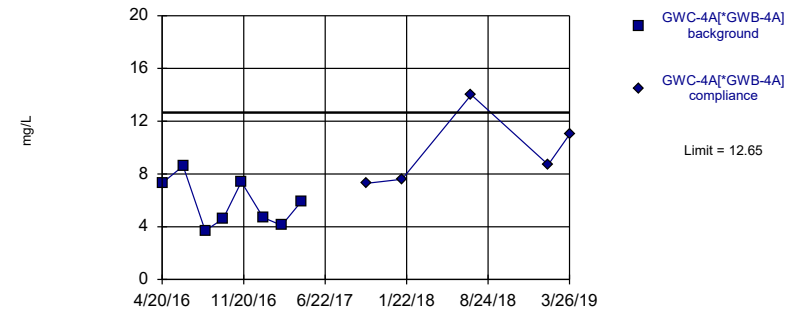


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.294, Std. Dev.=0.3976, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7687, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Intrawell Parametric

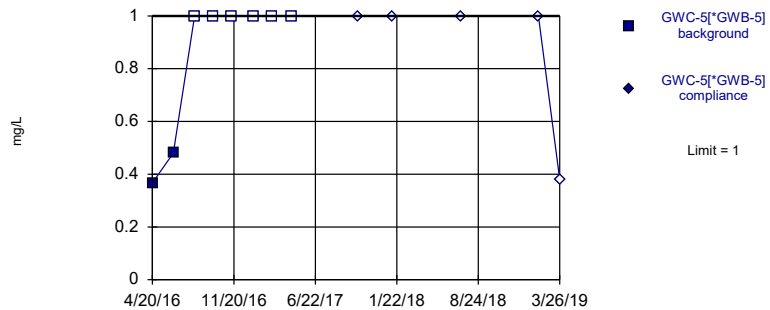


Background Data Summary: Mean=5.789, Std. Dev.=1.798, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.749. Kappa = 3.816 (c=22, w=9, 1 of 2, event alpha = 0.05132). Report alpha = 0.000266.

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

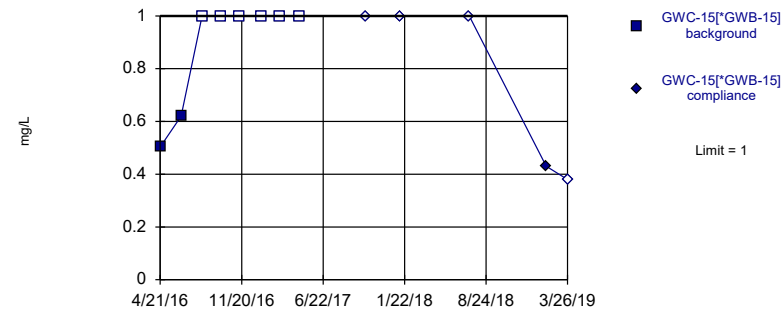


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Intrawell Non-parametric

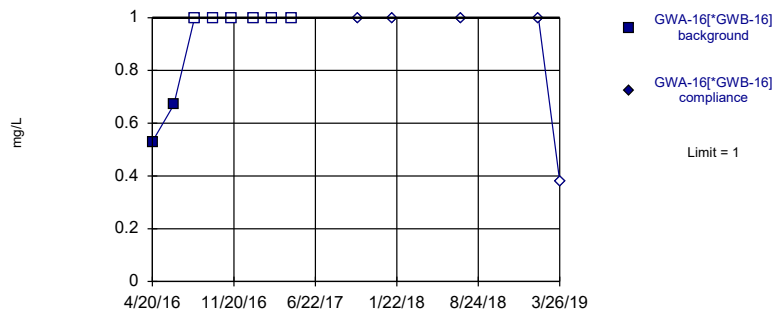


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

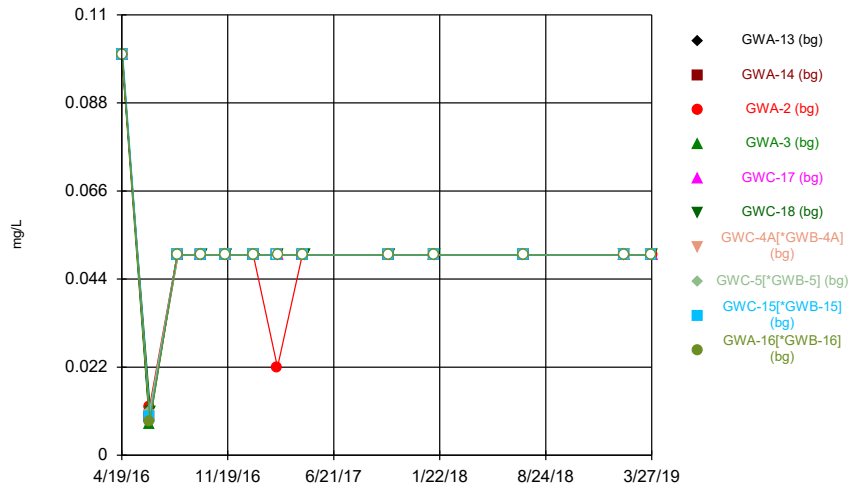
Prediction Limit
 Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

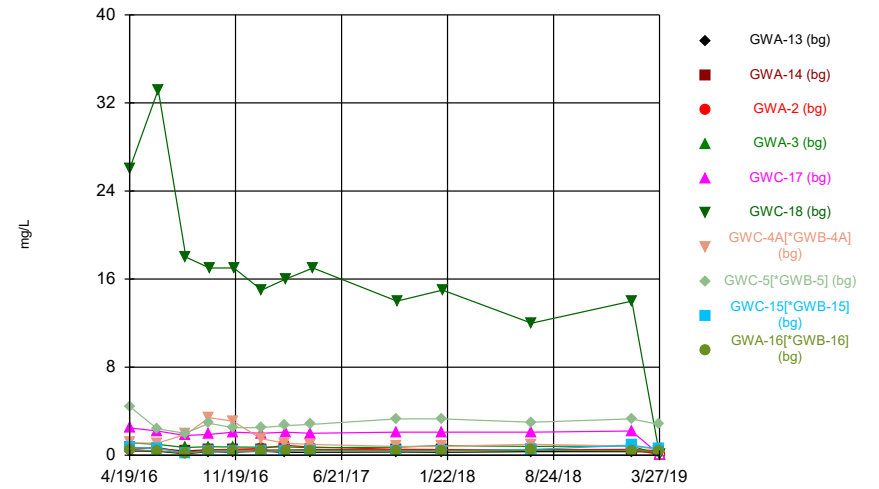
Constituent: Sulfate Analysis Run 7/1/2019 12:21 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



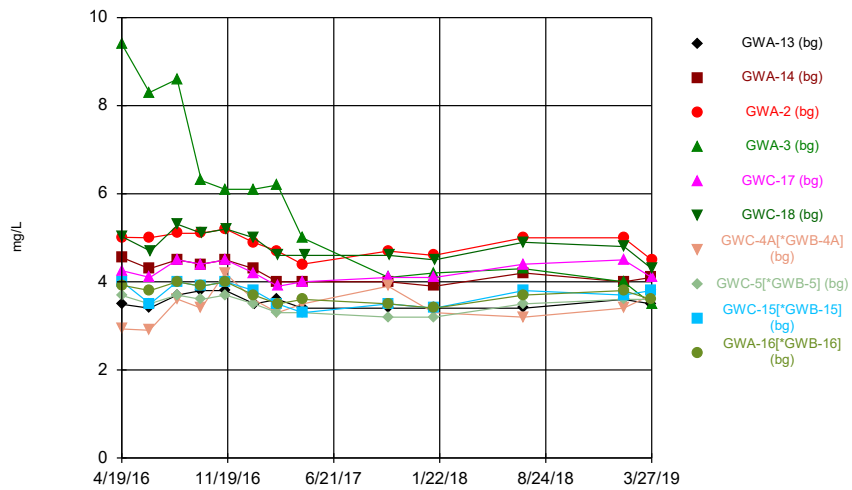
Constituent: Boron Analysis Run 7/1/2019 12:42 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



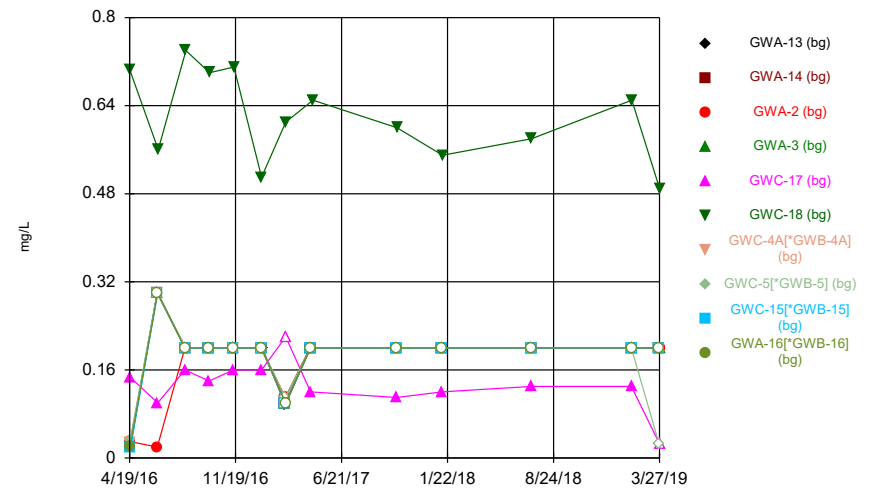
Constituent: Calcium Analysis Run 7/1/2019 12:42 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



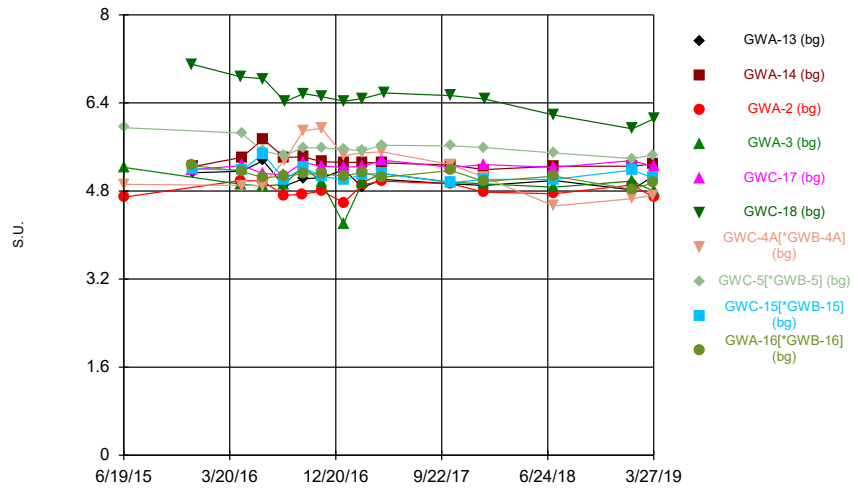
Constituent: Chloride Analysis Run 7/1/2019 12:42 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



Constituent: Fluoride Analysis Run 7/1/2019 12:42 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

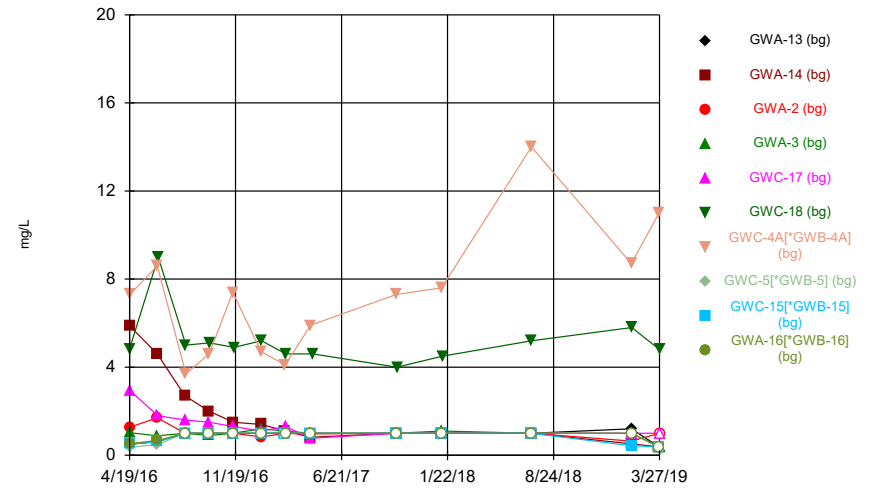
Time Series



Constituent: pH Analysis Run 7/1/2019 12:42 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Hollow symbols indicate censored values.

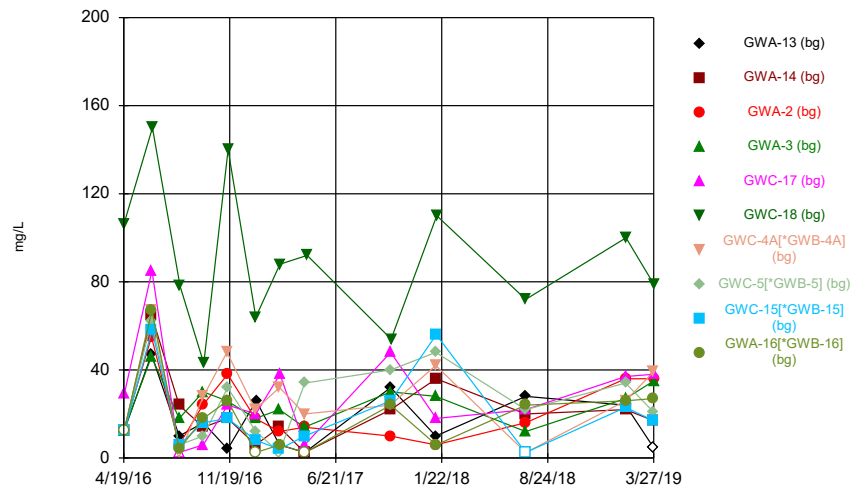
Time Series



Constituent: Sulfate Analysis Run 7/1/2019 12:42 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

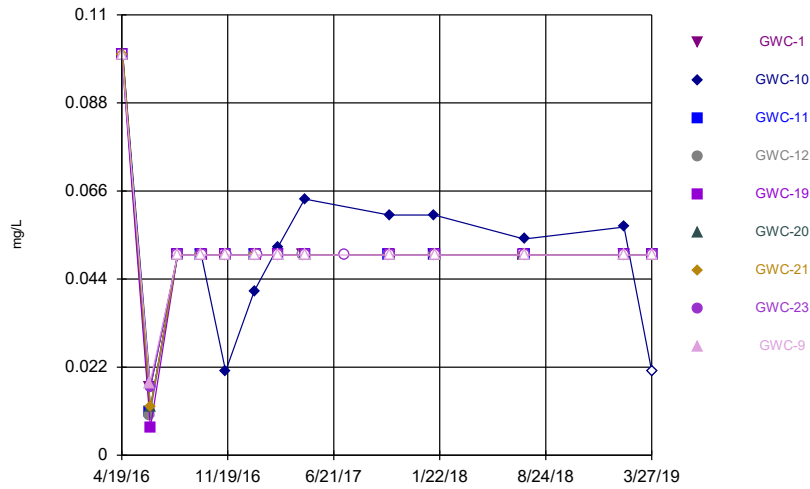
Hollow symbols indicate censored values.

Time Series



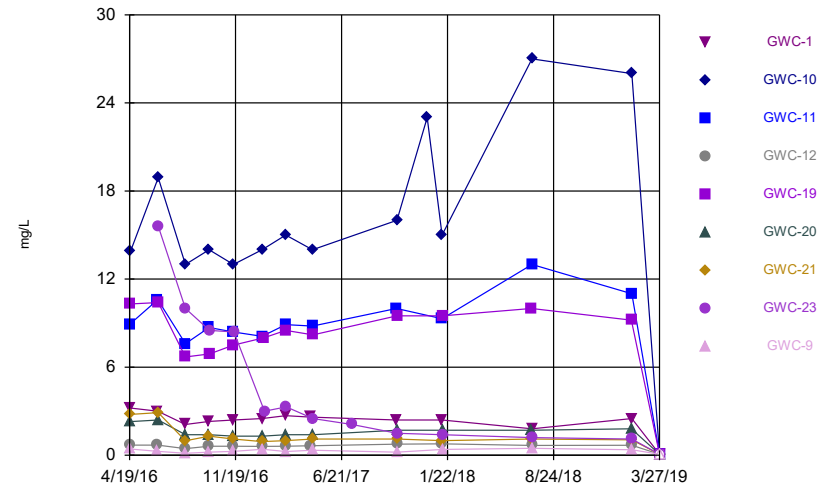
Constituent: Total Dissolved Solids Analysis Run 7/1/2019 12:42 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



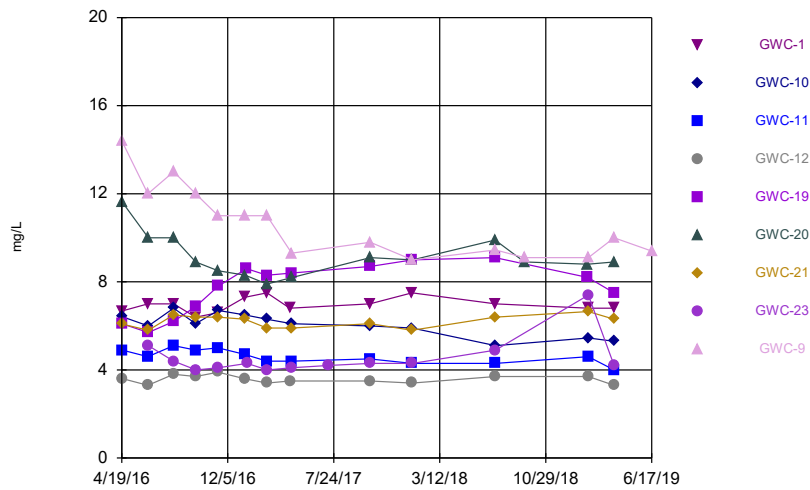
Constituent: Boron Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



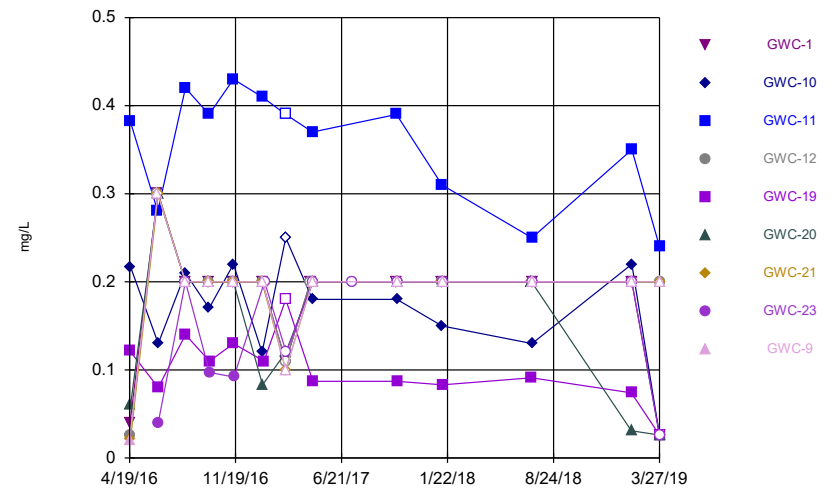
Constituent: Calcium Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



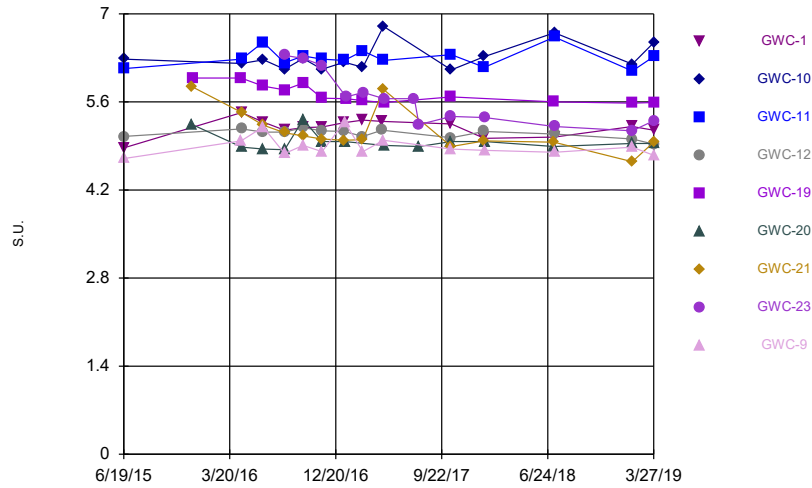
Constituent: Chloride Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



Constituent: Fluoride Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

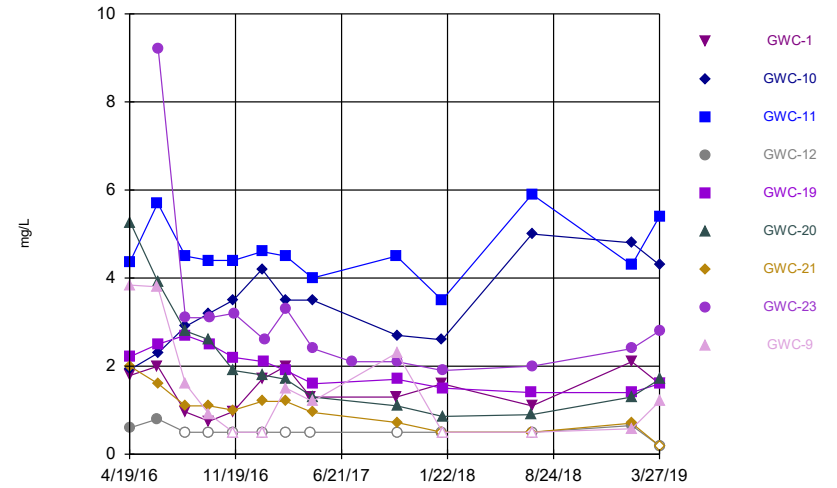
Time Series



Constituent: pH Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Hollow symbols indicate censored values.

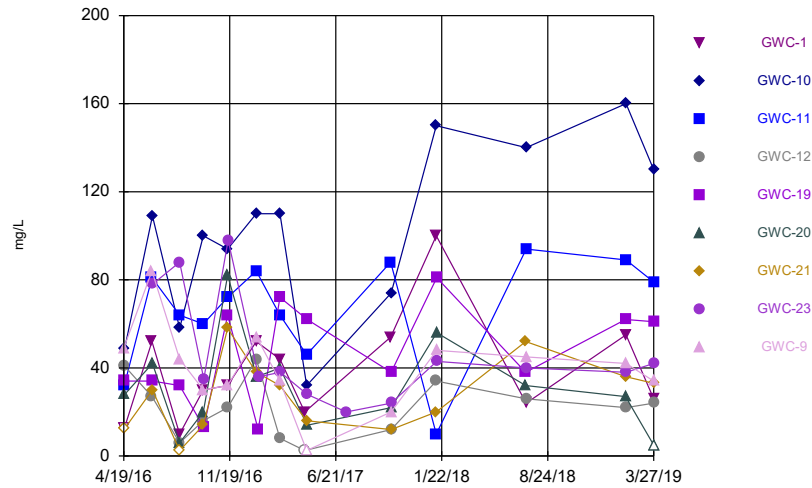
Time Series



Constituent: Sulfate Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 7/1/2019 12:38 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot-Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 12:41 PM

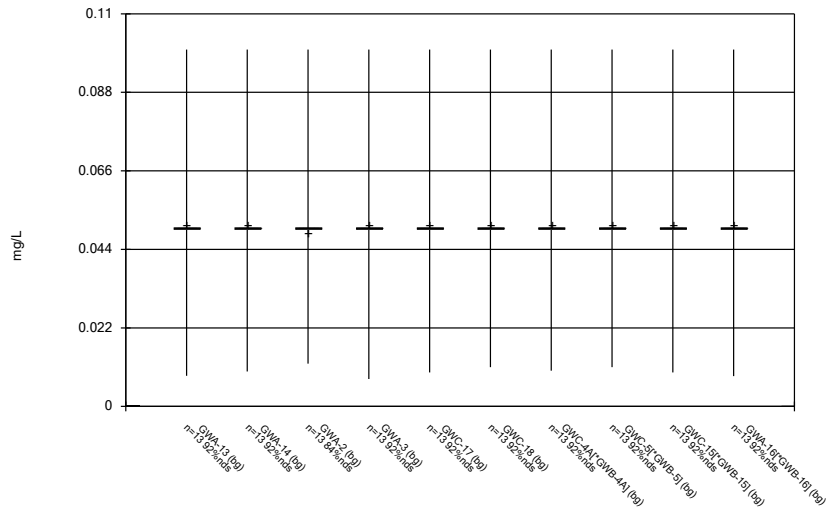
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Boron (mg/L)	GWA-13 (bg)	13	0.05066	0.01873	0.005194	0.05	0.0086	0.1	92.31
Boron (mg/L)	GWA-14 (bg)	13	0.05075	0.0185	0.005132	0.05	0.0098	0.1	92.31
Boron (mg/L)	GWA-2 (bg)	13	0.04877	0.01981	0.005494	0.05	0.012	0.1	84.62
Boron (mg/L)	GWA-3 (bg)	13	0.05059	0.0189	0.005241	0.05	0.0077	0.1	92.31
Boron (mg/L)	GWC-17 (bg)	13	0.05073	0.01856	0.005147	0.05	0.0095	0.1	92.31
Boron (mg/L)	GWC-18 (bg)	13	0.05085	0.01828	0.005071	0.05	0.011	0.1	92.31
Boron (mg/L)	GWC-4A[*GWB-4A] (bg)	13	0.05077	0.01847	0.005122	0.05	0.01	0.1	92.31
Boron (mg/L)	GWC-5[*GWB-5] (bg)	13	0.05085	0.01828	0.005071	0.05	0.011	0.1	92.31
Boron (mg/L)	GWC-15[*GWB-15] (bg)	13	0.05073	0.01856	0.005147	0.05	0.0095	0.1	92.31
Boron (mg/L)	GWA-16[*GWB-16] (bg)	13	0.05065	0.01875	0.005199	0.05	0.0085	0.1	92.31
Calcium (mg/L)	GWA-13 (bg)	13	0.3022	0.06407	0.01777	0.3	0.14	0.389	0
Calcium (mg/L)	GWA-14 (bg)	13	0.5043	0.07673	0.02128	0.5	0.39	0.686	0
Calcium (mg/L)	GWA-2 (bg)	13	0.5308	0.2127	0.059	0.53	0.065	0.91	7.692
Calcium (mg/L)	GWA-3 (bg)	13	0.7596	0.2436	0.06755	0.76	0.065	1.13	7.692
Calcium (mg/L)	GWC-17 (bg)	13	1.934	0.5844	0.1621	2.1	0.065	2.48	7.692
Calcium (mg/L)	GWC-18 (bg)	13	16.48	7.526	2.087	16	0.065	33.2	7.692
Calcium (mg/L)	GWC-4A[*GWB-4A] (bg)	13	1.398	0.8908	0.2471	1.1	0.53	3.4	0
Calcium (mg/L)	GWC-5[*GWB-5] (bg)	13	2.915	0.5879	0.1631	2.8	2	4.39	0
Calcium (mg/L)	GWC-15[*GWB-15] (bg)	13	0.4797	0.1819	0.05044	0.41	0.21	0.91	0
Calcium (mg/L)	GWA-16[*GWB-16] (bg)	13	0.3902	0.06778	0.0188	0.4	0.19	0.472	0
Chloride (mg/L)	GWA-13 (bg)	13	3.538	0.1505	0.04173	3.5	3.4	3.8	0
Chloride (mg/L)	GWA-14 (bg)	13	4.212	0.2274	0.06308	4.2	3.9	4.55	0
Chloride (mg/L)	GWA-2 (bg)	13	4.862	0.2539	0.07042	5	4.4	5.2	0
Chloride (mg/L)	GWA-3 (bg)	13	5.854	1.925	0.5339	6.1	3.5	9.4	0
Chloride (mg/L)	GWC-17 (bg)	13	4.235	0.2055	0.057	4.2	3.9	4.5	0
Chloride (mg/L)	GWC-18 (bg)	13	4.818	0.2984	0.08277	4.8	4.3	5.3	0
Chloride (mg/L)	GWC-4A[*GWB-4A] (bg)	13	3.456	0.3605	0.1	3.4	2.9	4.2	0
Chloride (mg/L)	GWC-5[*GWB-5] (bg)	13	3.492	0.1838	0.05096	3.5	3.2	3.7	0
Chloride (mg/L)	GWC-15[*GWB-15] (bg)	13	3.707	0.2421	0.06715	3.8	3.3	4	0
Chloride (mg/L)	GWA-16[*GWB-16] (bg)	13	3.725	0.198	0.05492	3.7	3.4	4	0
Fluoride (mg/L)	GWA-13 (bg)	13	0.1858	0.06526	0.0181	0.2	0.018	0.3	92.31
Fluoride (mg/L)	GWA-14 (bg)	13	0.1862	0.06428	0.01783	0.2	0.021	0.3	92.31
Fluoride (mg/L)	GWA-2 (bg)	13	0.1662	0.0674	0.01869	0.2	0.02	0.2	84.62
Fluoride (mg/L)	GWA-3 (bg)	13	0.1863	0.06406	0.01777	0.2	0.022	0.3	92.31
Fluoride (mg/L)	GWC-17 (bg)	13	0.1325	0.04418	0.01225	0.13	0.026	0.22	15.38
Fluoride (mg/L)	GWC-18 (bg)	13	0.6197	0.08046	0.02232	0.61	0.49	0.74	0
Fluoride (mg/L)	GWC-4A[*GWB-4A] (bg)	13	0.1868	0.06279	0.01741	0.2	0.028	0.3	92.31
Fluoride (mg/L)	GWC-5[*GWB-5] (bg)	13	0.1745	0.07534	0.0209	0.2	0.026	0.3	92.31
Fluoride (mg/L)	GWC-15[*GWB-15] (bg)	13	0.1861	0.06471	0.01795	0.2	0.019	0.3	92.31
Fluoride (mg/L)	GWA-16[*GWB-16] (bg)	13	0.1863	0.06406	0.01777	0.2	0.022	0.3	92.31
pH (S.U.)	GWA-13 (bg)	14	5.026	0.1462	0.03908	5.015	4.82	5.35	0
pH (S.U.)	GWA-14 (bg)	14	5.339	0.1342	0.03586	5.315	5.19	5.74	0
pH (S.U.)	GWA-2 (bg)	14	4.819	0.1296	0.03464	4.79	4.59	4.99	0
pH (S.U.)	GWA-3 (bg)	14	4.928	0.244	0.06521	4.94	4.21	5.25	0
pH (S.U.)	GWC-17 (bg)	14	5.244	0.07581	0.02026	5.25	5.09	5.36	0
pH (S.U.)	GWC-18 (bg)	14	6.501	0.3059	0.08177	6.495	5.93	7.1	0
pH (S.U.)	GWC-4A[*GWB-4A] (bg)	14	5.186	0.4425	0.1183	5.165	4.53	5.94	0
pH (S.U.)	GWC-5[*GWB-5] (bg)	14	5.586	0.1518	0.04058	5.57	5.39	5.95	0
pH (S.U.)	GWC-15[*GWB-15] (bg)	14	5.111	0.1342	0.03585	5.085	4.95	5.47	0
pH (S.U.)	GWA-16[*GWB-16] (bg)	14	5.071	0.1058	0.02828	5.07	4.83	5.26	0

Box & Whiskers Plot-Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 12:41 PM

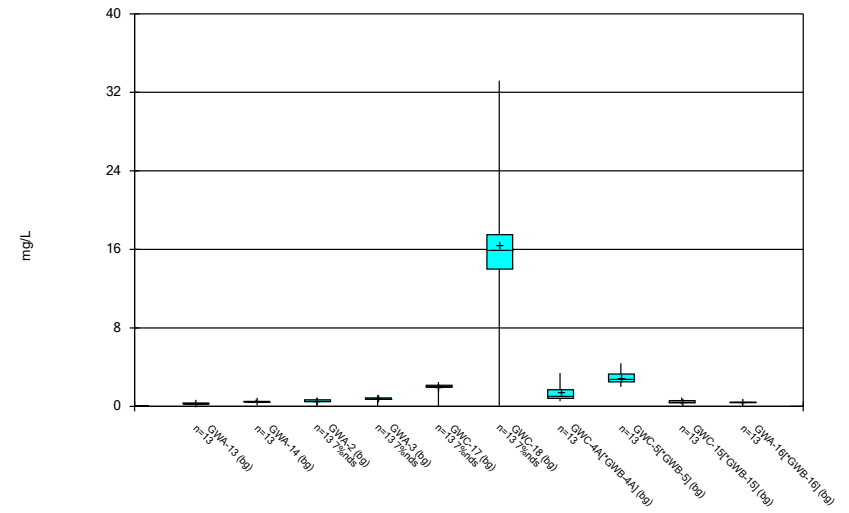
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Sulfate (mg/L)	GWA-13 (bg)	13	0.8997	0.2401	0.0666	1	0.38	1.2	76.92
Sulfate (mg/L)	GWA-14 (bg)	13	1.836	1.642	0.4554	1.1	0.38	5.85	30.77
Sulfate (mg/L)	GWA-2 (bg)	13	1.031	0.2433	0.06747	1	0.64	1.7	53.85
Sulfate (mg/L)	GWA-3 (bg)	13	0.9685	0.1951	0.05411	1	0.38	1.2	53.85
Sulfate (mg/L)	GWC-17 (bg)	13	1.331	0.5624	0.156	1.1	0.77	2.93	38.46
Sulfate (mg/L)	GWC-18 (bg)	13	5.195	1.221	0.3385	4.9	4	9	0
Sulfate (mg/L)	GWC-4A[*GWB-4A] (bg)	13	7.301	2.909	0.8068	7.31	3.7	14	0
Sulfate (mg/L)	GWC-5[*GWB-5] (bg)	13	0.8636	0.2604	0.07222	1	0.367	1	84.62
Sulfate (mg/L)	GWC-15[*GWB-15] (bg)	13	0.841	0.2536	0.07035	1	0.38	1	76.92
Sulfate (mg/L)	GWA-16[*GWB-16] (bg)	13	0.8908	0.2158	0.05987	1	0.38	1	84.62
Total Dissolved Solids...	GWA-13 (bg)	13	17.15	13.35	3.703	12.5	2.5	47	23.08
Total Dissolved Solids...	GWA-14 (bg)	13	21	15.64	4.338	18	2.5	65	15.38
Total Dissolved Solids...	GWA-2 (bg)	13	21.81	15.01	4.162	16	6	55	7.692
Total Dissolved Solids...	GWA-3 (bg)	13	24.5	9.811	2.721	26	12	46	7.692
Total Dissolved Solids...	GWC-17 (bg)	13	28.73	21.91	6.076	24	2.5	85	7.692
Total Dissolved Solids...	GWC-18 (bg)	13	90.46	31.13	8.635	88	43	150	0
Total Dissolved Solids...	GWC-4A[*GWB-4A] (bg)	13	28.12	18.06	5.009	26	2.5	67	23.08
Total Dissolved Solids...	GWC-5[*GWB-5] (bg)	13	25.85	17.72	4.914	22	2.5	62	15.38
Total Dissolved Solids...	GWC-15[*GWB-15] (bg)	13	19.77	17.96	4.982	16	2.5	58	15.38
Total Dissolved Solids...	GWA-16[*GWB-16] (bg)	13	18.88	17.48	4.848	18	2.5	67	23.08

Box & Whiskers Plot



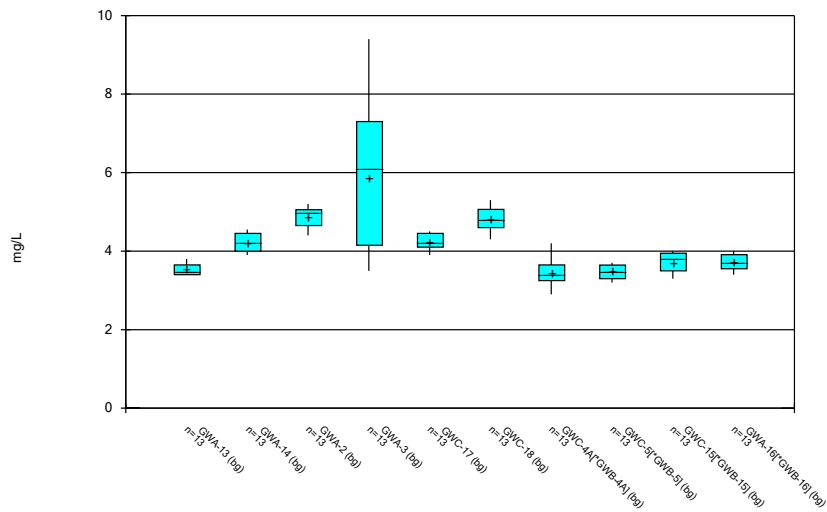
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 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



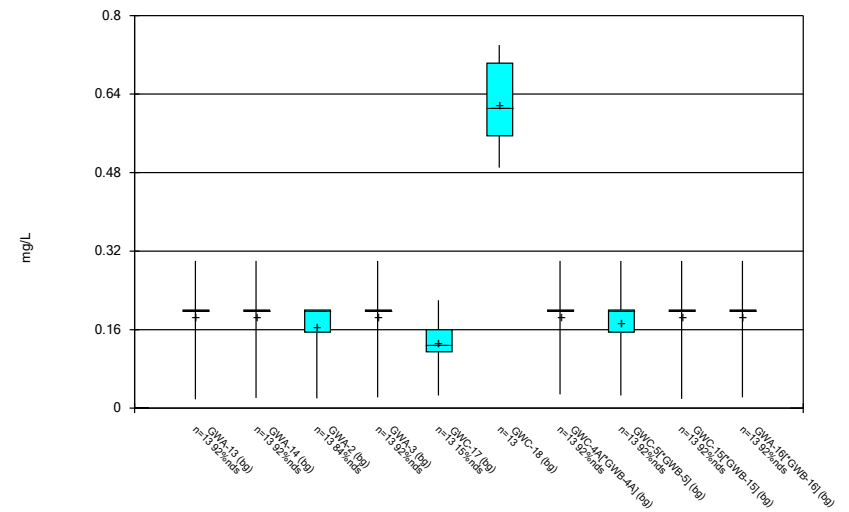
Constituent: Calcium Analysis Run 7/1/2019 12:40 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



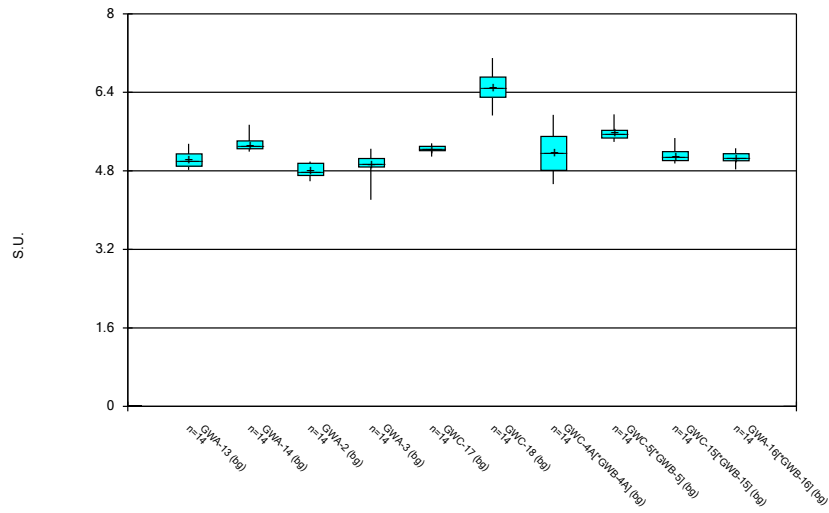
Constituent: Chloride Analysis Run 7/1/2019 12:40 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot

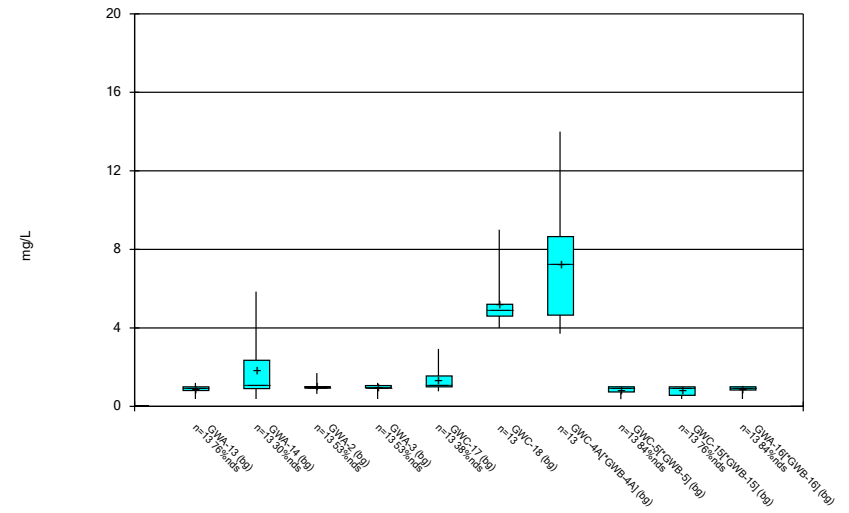


Constituent: Fluoride Analysis Run 7/1/2019 12:40 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

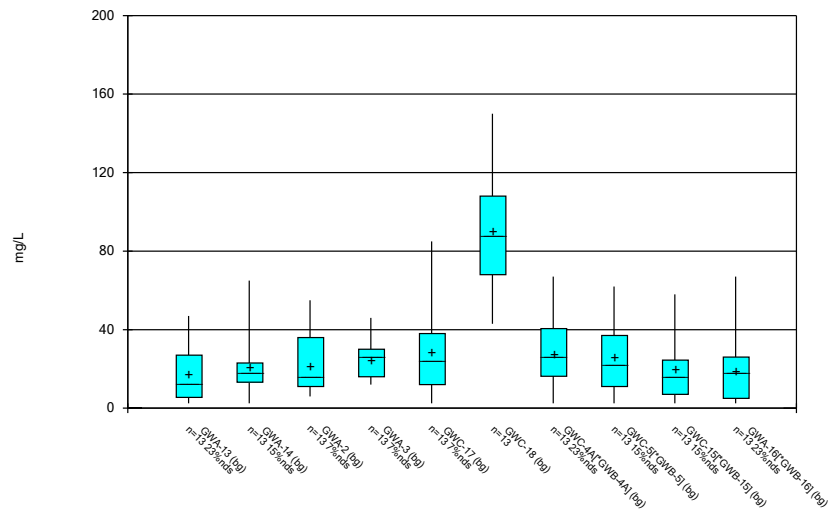
Box & Whiskers Plot



Box & Whiskers Plot



Box & Whiskers Plot



Box & Whiskers Plot-Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 12:40 PM

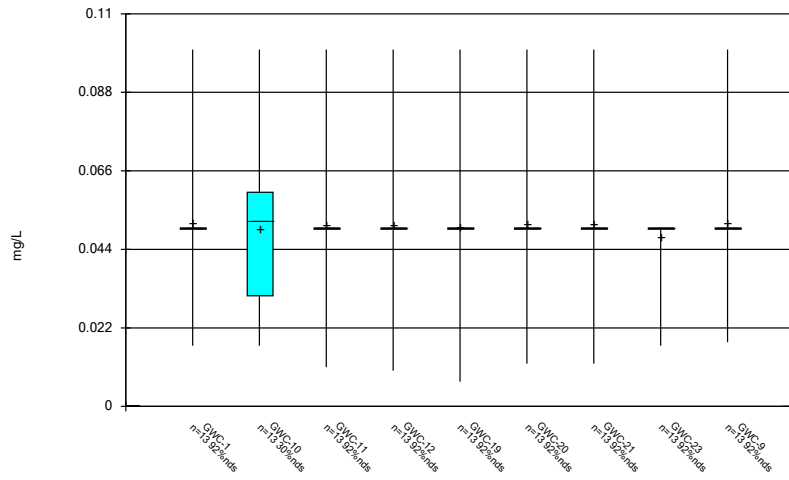
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Boron (mg/L)	GWC-1	13	0.05131	0.01724	0.004782	0.05	0.017	0.1	92.31
Boron (mg/L)	GWC-10	13	0.04977	0.02202	0.006106	0.052	0.017	0.1	30.77
Boron (mg/L)	GWC-11	13	0.05085	0.01828	0.005071	0.05	0.011	0.1	92.31
Boron (mg/L)	GWC-12	13	0.05077	0.01847	0.005122	0.05	0.01	0.1	92.31
Boron (mg/L)	GWC-19	13	0.05053	0.01905	0.005283	0.05	0.0069	0.1	92.31
Boron (mg/L)	GWC-20	13	0.05092	0.0181	0.005021	0.05	0.012	0.1	92.31
Boron (mg/L)	GWC-21	13	0.05092	0.0181	0.005021	0.05	0.012	0.1	92.31
Boron (mg/L)	GWC-23	13	0.04746	0.009153	0.002538	0.05	0.017	0.05	92.31
Boron (mg/L)	GWC-9	13	0.05138	0.01708	0.004736	0.05	0.018	0.1	92.31
Calcium (mg/L)	GWC-1	13	2.307	0.7627	0.2115	2.4	0.065	3.22	7.692
Calcium (mg/L)	GWC-10	14	15.92	6.614	1.768	14.5	0.065	27	7.143
Calcium (mg/L)	GWC-11	13	8.723	2.969	0.8234	8.9	0.065	13	7.692
Calcium (mg/L)	GWC-12	13	0.605	0.1818	0.05043	0.65	0.065	0.78	7.692
Calcium (mg/L)	GWC-19	13	8.059	2.698	0.7483	8.5	0.065	10.4	7.692
Calcium (mg/L)	GWC-20	13	1.527	0.5637	0.1564	1.4	0.065	2.4	7.692
Calcium (mg/L)	GWC-21	13	1.263	0.7579	0.2102	1.1	0.065	2.9	7.692
Calcium (mg/L)	GWC-23	13	4.513	4.644	1.288	2.5	0.065	15.6	7.692
Calcium (mg/L)	GWC-9	13	0.2951	0.1226	0.03401	0.27	0.065	0.47	7.692
Chloride (mg/L)	GWC-1	13	6.952	0.3295	0.09139	7	6.4	7.5	0
Chloride (mg/L)	GWC-10	13	6.051	0.5194	0.1441	6.1	5.1	6.8	0
Chloride (mg/L)	GWC-11	13	4.592	0.3201	0.08877	4.6	4	5.1	0
Chloride (mg/L)	GWC-12	13	3.57	0.1889	0.0524	3.6	3.3	3.9	0
Chloride (mg/L)	GWC-19	13	7.731	1.156	0.3207	8.2	5.7	9.1	0
Chloride (mg/L)	GWC-20	14	9.143	0.9589	0.2563	8.9	7.9	11.6	0
Chloride (mg/L)	GWC-21	13	6.195	0.2823	0.0783	6.3	5.8	6.65	0
Chloride (mg/L)	GWC-23	13	4.562	0.9134	0.2533	4.3	4	7.4	0
Chloride (mg/L)	GWC-9	15	10.64	1.628	0.4203	10	9	14.4	0
Fluoride (mg/L)	GWC-1	13	0.1751	0.07411	0.02055	0.2	0.026	0.3	92.31
Fluoride (mg/L)	GWC-10	13	0.1695	0.05933	0.01646	0.18	0.026	0.25	15.38
Fluoride (mg/L)	GWC-11	13	0.3548	0.06422	0.01781	0.383	0.24	0.43	7.692
Fluoride (mg/L)	GWC-12	13	0.1874	0.06212	0.01723	0.2	0.026	0.3	92.31
Fluoride (mg/L)	GWC-19	13	0.1015	0.03743	0.01038	0.091	0.026	0.18	15.38
Fluoride (mg/L)	GWC-20	13	0.1554	0.08299	0.02302	0.2	0.026	0.3	76.92
Fluoride (mg/L)	GWC-21	13	0.1863	0.06406	0.01777	0.2	0.022	0.3	92.31
Fluoride (mg/L)	GWC-23	13	0.1519	0.06739	0.01869	0.2	0.026	0.2	76.92
Fluoride (mg/L)	GWC-9	13	0.1862	0.06449	0.01789	0.2	0.02	0.3	92.31
pH (S.U.)	GWC-1	14	5.19	0.1408	0.03762	5.205	4.87	5.43	0
pH (S.U.)	GWC-10	14	6.31	0.2174	0.0581	6.25	6.11	6.8	0
pH (S.U.)	GWC-11	14	6.304	0.1501	0.04012	6.28	6.09	6.63	0
pH (S.U.)	GWC-12	14	5.094	0.07132	0.01906	5.12	4.93	5.19	0
pH (S.U.)	GWC-19	13	5.728	0.1518	0.04209	5.66	5.58	5.98	0
pH (S.U.)	GWC-20	14	4.97	0.1395	0.03728	4.94	4.84	5.32	0
pH (S.U.)	GWC-21	14	5.136	0.3371	0.09008	5.005	4.65	5.84	0
pH (S.U.)	GWC-23	13	5.627	0.4167	0.1156	5.65	5.14	6.34	0
pH (S.U.)	GWC-9	14	4.898	0.1664	0.04446	4.84	4.7	5.28	0
Sulfate (mg/L)	GWC-1	13	1.475	0.4445	0.1233	1.6	0.75	2.1	0
Sulfate (mg/L)	GWC-10	13	3.418	0.9481	0.263	3.5	1.93	5	0
Sulfate (mg/L)	GWC-11	13	4.621	0.6682	0.1853	4.5	3.5	5.9	0
Sulfate (mg/L)	GWC-12	13	0.5185	0.1336	0.03707	0.5	0.19	0.8	76.92
Sulfate (mg/L)	GWC-19	13	1.947	0.4507	0.125	1.9	1.4	2.7	0

Box & Whiskers Plot-Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 7/1/2019, 12:40 PM

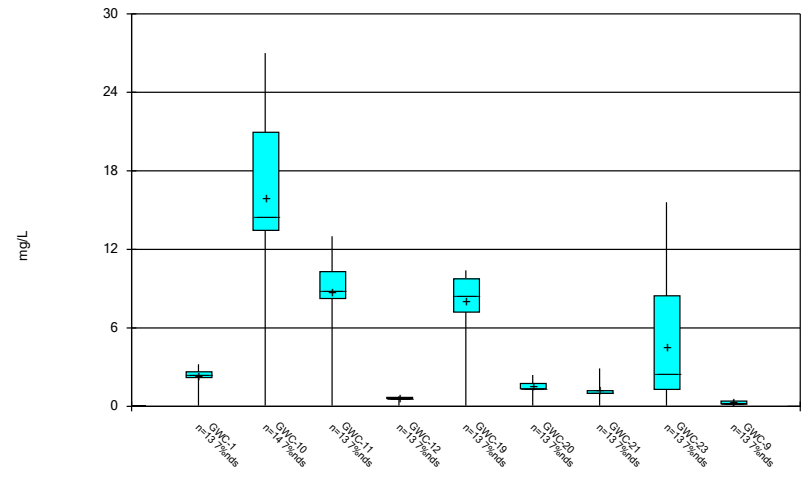
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Std. Err.</u>	<u>Median</u>	<u>Min.</u>	<u>Max.</u>	<u>%NDs</u>
Sulfate (mg/L)	GWC-20	13	2.085	1.278	0.3545	1.7	0.86	5.25	0
Sulfate (mg/L)	GWC-21	13	0.9812	0.4795	0.133	1	0.19	1.99	23.08
Sulfate (mg/L)	GWC-23	13	3.092	1.898	0.5264	2.6	1.9	9.2	0
Sulfate (mg/L)	GWC-9	13	1.456	1.182	0.3278	1.2	0.5	3.84	30.77
Total Dissolved Solids...	GWC-1	13	39.35	24.14	6.695	32	10	100	7.692
Total Dissolved Solids...	GWC-10	13	101.2	39.33	10.91	109	32	160	0
Total Dissolved Solids...	GWC-11	13	66.38	24.64	6.834	72	10	94	0
Total Dissolved Solids...	GWC-12	13	21.88	12.92	3.582	22	2.5	44	7.692
Total Dissolved Solids...	GWC-19	13	46.38	22.02	6.106	38	12	81	0
Total Dissolved Solids...	GWC-20	13	31.54	20.95	5.811	28	5	82	7.692
Total Dissolved Solids...	GWC-21	13	27.38	16.41	4.551	30	2.5	58	15.38
Total Dissolved Solids...	GWC-23	13	46.77	24.8	6.877	38	20	98	0
Total Dissolved Solids...	GWC-9	13	39.88	19.07	5.289	42	2.5	84	7.692

Box & Whiskers Plot



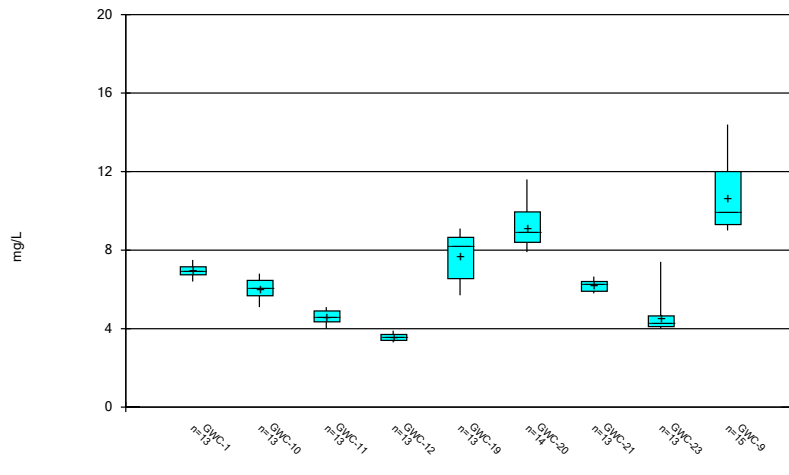
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 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



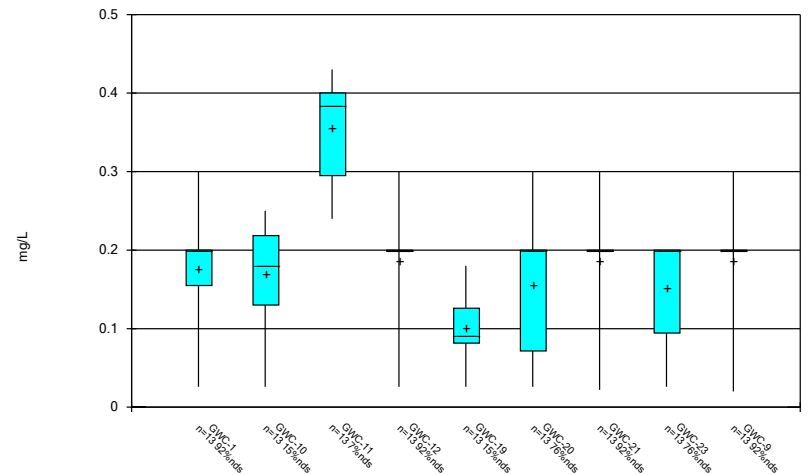
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Box & Whiskers Plot



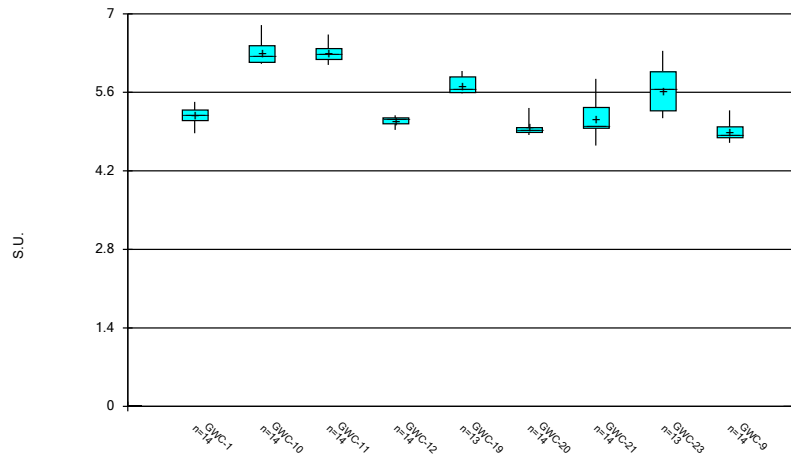
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 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



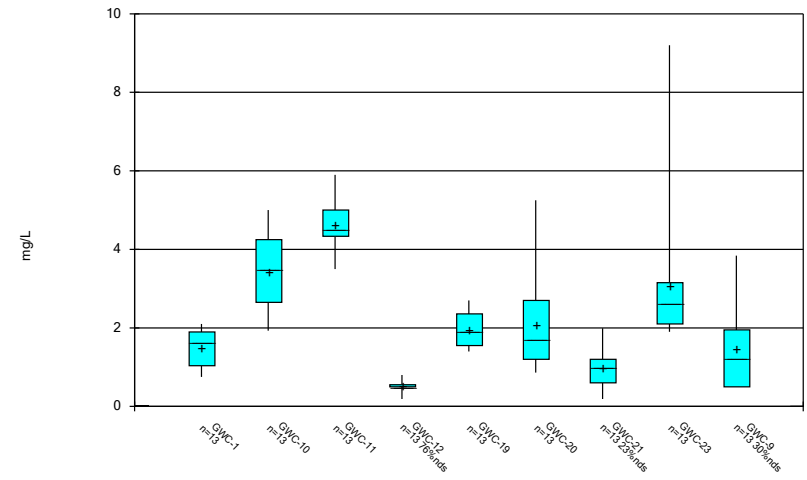
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Box & Whiskers Plot



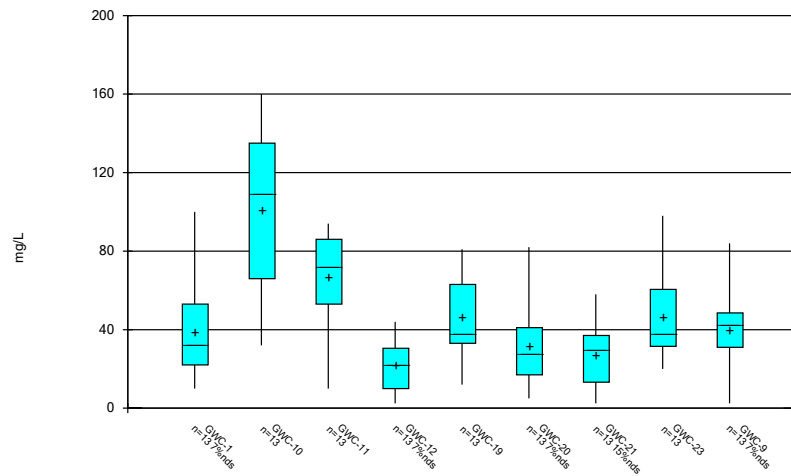
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Box & Whiskers Plot



Constituent: Sulfate Analysis Run 7/1/2019 12:39 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 7/1/2019 12:39 PM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Appendix D1

Sanitas™ Outputs for State Compliance Parameters – January 2019

Interwell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:31 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GWC-1	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-10	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-19	0.0025	n/a	1/29/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.0025	n/a	1/29/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-23	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	99.02	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-1	0.0089	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-10	0.0089	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-11	0.0089	n/a	1/30/2019	0.0015	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-12	0.0089	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-19	0.0089	n/a	1/29/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-20	0.0089	n/a	1/29/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-21	0.0089	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-23	0.0089	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Arsenic, Total (mg/L)	GWC-9	0.0089	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	92.16	n/a	0.00004916	NP (NDs) 1 of 2
Barium, Total (mg/L)	GWC-1	0.21	n/a	1/30/2019	0.05	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-10	0.21	n/a	1/30/2019	0.023	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-11	0.21	n/a	1/30/2019	0.014	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-12	0.21	n/a	1/30/2019	0.011	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-19	0.21	n/a	1/29/2019	0.016	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-20	0.21	n/a	1/29/2019	0.017	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-21	0.21	n/a	1/30/2019	0.0175	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-23	0.21	n/a	1/30/2019	0.034	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Barium, Total (mg/L)	GWC-9	0.21	n/a	1/30/2019	0.032	No	204	n/a	n/a	0	n/a	0.00004916	NP (normality) 1 of 2
Beryllium, Total (mg/L)	GWC-1	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-10	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-11	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-12	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-19	0.0025	n/a	1/29/2019	0.00023	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-20	0.0025	n/a	1/29/2019	0.00016	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-21	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-23	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Beryllium, Total (mg/L)	GWC-9	0.0025	n/a	1/30/2019	0.0025ND	No	203	n/a	n/a	86.7	n/a	0.00004916	NP (NDs) 1 of 2
Boron (mg/L)	GWC-1	0.05	n/a	1/30/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-10	0.05	n/a	1/30/2019	0.057	Yes	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-11	0.05	n/a	1/30/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-12	0.05	n/a	1/30/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-19	0.05	n/a	1/29/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-20	0.05	n/a	1/29/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-21	0.05	n/a	1/30/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-23	0.05	n/a	1/30/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Boron (mg/L)	GWC-9	0.05	n/a	1/30/2019	0.05ND	No	120	n/a	n/a	90.83	n/a	0.0001347	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-1	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-10	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-11	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-12	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-19	0.0025	n/a	1/29/2019	0.0002	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2

Interwell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:31 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Cadmium, Total (mg/L)	GWC-20	0.0025	n/a	1/29/2019	0.00016	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-21	0.0025	n/a	1/30/2019	0.000155	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-23	0.0025	n/a	1/30/2019	0.00015	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Cadmium, Total (mg/L)	GWC-9	0.0025	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	91.67	n/a	0.00004916	NP (NDs) 1 of 2
Calcium (mg/L)	GWC-1	33.2	n/a	1/30/2019	2.5	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-10	33.2	n/a	1/30/2019	26	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-11	33.2	n/a	1/30/2019	11	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-12	33.2	n/a	1/30/2019	0.68	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-19	33.2	n/a	1/29/2019	9.2	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-20	33.2	n/a	1/29/2019	1.8	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-21	33.2	n/a	1/30/2019	1.05	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-23	33.2	n/a	1/30/2019	1.1	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Calcium (mg/L)	GWC-9	33.2	n/a	1/30/2019	0.38	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-1	9.4	n/a	1/30/2019	6.8	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-10	9.4	n/a	1/30/2019	5.45	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-11	9.4	n/a	1/30/2019	4.6	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-12	9.4	n/a	1/30/2019	3.7	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-19	9.4	n/a	1/29/2019	8.2	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-20	9.4	n/a	1/29/2019	8.8	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-21	9.4	n/a	1/30/2019	6.65	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-23	9.4	n/a	1/30/2019	7.4	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chloride (mg/L)	GWC-9	9.4	n/a	1/30/2019	9.1	No	120	n/a	n/a	0	n/a	0.0001347	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-1	0.22	n/a	1/30/2019	0.0025ND	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-10	0.22	n/a	1/30/2019	0.0067	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-11	0.22	n/a	1/30/2019	0.006	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-12	0.22	n/a	1/30/2019	0.0039	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-19	0.22	n/a	1/29/2019	0.0025ND	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-20	0.22	n/a	1/29/2019	0.0025ND	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-21	0.22	n/a	1/30/2019	0.0025ND	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-23	0.22	n/a	1/30/2019	0.0025ND	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Chromium, Total (mg/L)	GWC-9	0.22	n/a	1/30/2019	0.0025ND	No	198	n/a	n/a	50	n/a	0.0000503	NP (normality) 1 of 2
Cobalt, Total (mg/L)	GWC-1	0.013	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-10	0.013	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-11	0.013	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-12	0.013	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-19	0.013	n/a	1/29/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-20	0.013	n/a	1/29/2019	0.00084	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-21	0.013	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-23	0.013	n/a	1/30/2019	0.0061	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Cobalt, Total (mg/L)	GWC-9	0.013	n/a	1/30/2019	0.0025ND	No	204	n/a	n/a	55.88	n/a	0.00004916	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-1	0.014	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-10	0.014	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-11	0.014	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-12	0.014	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-19	0.014	n/a	1/29/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-20	0.014	n/a	1/29/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-21	0.014	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-23	0.014	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Copper, Total (mg/L)	GWC-9	0.014	n/a	1/30/2019	0.002	No	184	n/a	n/a	90.76	n/a	0.00005827	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-1	0.74	n/a	1/30/2019	0.2ND	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2

Interwell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:31 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	GWC-10	0.74	n/a	1/30/2019	0.22	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-11	0.74	n/a	1/30/2019	0.35	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-12	0.74	n/a	1/30/2019	0.2ND	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-19	0.74	n/a	1/29/2019	0.074	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-20	0.74	n/a	1/29/2019	0.031	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-21	0.74	n/a	1/30/2019	0.2ND	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-23	0.74	n/a	1/30/2019	0.2ND	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-9	0.74	n/a	1/30/2019	0.2ND	No	120	n/a	n/a	73.33	n/a	0.0001347	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-1	0.014	n/a	1/30/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-10	0.014	n/a	1/30/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-11	0.014	n/a	1/30/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-12	0.014	n/a	1/30/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-19	0.014	n/a	1/29/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-20	0.014	n/a	1/29/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-21	0.014	n/a	1/30/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-23	0.014	n/a	1/30/2019	0.00013	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Lead, Total (mg/L)	GWC-9	0.014	n/a	1/30/2019	0.001ND	No	204	n/a	n/a	97.55	n/a	0.00004916	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-1	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-10	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-11	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-12	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-19	0.03	n/a	1/29/2019	0.0017	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-20	0.03	n/a	1/29/2019	0.00093	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-21	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-23	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
Nickel, Total (mg/L)	GWC-9	0.03	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	79.35	n/a	0.00005827	NP (NDs) 1 of 2
pH (S.U.)	GWC-1	7.1	4.21	1/30/2019	5.21	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-10	7.1	4.21	1/30/2019	6.2	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-11	7.1	4.21	1/30/2019	6.09	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-12	7.1	4.21	1/30/2019	5.01	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-19	7.1	4.21	1/29/2019	5.58	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-20	7.1	4.21	1/29/2019	4.94	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-21	7.1	4.21	1/30/2019	4.65	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-23	7.1	4.21	1/30/2019	5.14	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
pH (S.U.)	GWC-9	7.1	4.21	1/30/2019	4.88	No	130	n/a	n/a	0	n/a	0.0002342	NP (normality) 1 of 2
Selenium (mg/L)	GWC-1	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-10	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-19	0.002	n/a	1/29/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.002	n/a	1/29/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-23	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.002	n/a	1/30/2019	0.0013ND	No	204	n/a	n/a	94.12	n/a	0.00004916	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-1	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-10	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-11	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-12	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-19	0.0013	n/a	1/29/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-20	0.0013	n/a	1/29/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2

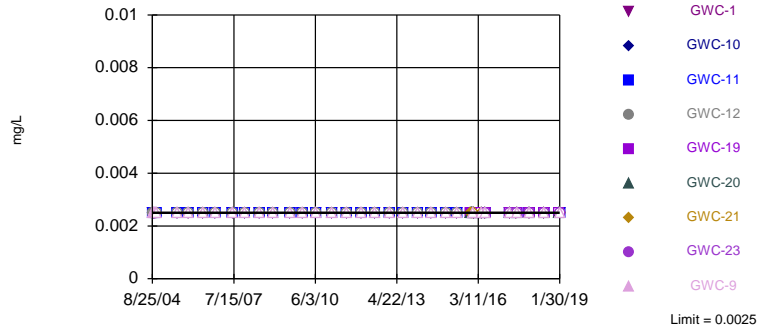
Interwell Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:31 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Silver, Total (mg/L)	GWC-21	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-23	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Silver, Total (mg/L)	GWC-9	0.0013	n/a	1/30/2019	0.0013ND	No	184	n/a	n/a	100	n/a	0.00005827	NP (NDs) 1 of 2
Sulfate (mg/L)	GWC-1	14	n/a	1/30/2019	2.1	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-10	14	n/a	1/30/2019	4.8	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-11	14	n/a	1/30/2019	4.3	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-12	14	n/a	1/30/2019	0.65	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-19	14	n/a	1/29/2019	1.4	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-20	14	n/a	1/29/2019	1.3	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-21	14	n/a	1/30/2019	0.705	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-23	14	n/a	1/30/2019	2.4	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Sulfate (mg/L)	GWC-9	14	n/a	1/30/2019	0.58	No	120	n/a	n/a	47.5	n/a	0.0001347	NP (normality) 1 of 2
Thallium (mg/L)	GWC-1	0.0005	n/a	1/30/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-10	0.0005	n/a	1/30/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-11	0.0005	n/a	1/30/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-12	0.0005	n/a	1/30/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-19	0.0005	n/a	1/29/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-20	0.0005	n/a	1/29/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-21	0.0005	n/a	1/30/2019	0.0002915	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-23	0.0005	n/a	1/30/2019	0.00016	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-9	0.0005	n/a	1/30/2019	0.0005ND	No	196	n/a	n/a	89.29	n/a	0.00005144	NP (NDs) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	150	n/a	1/30/2019	55	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-10	150	n/a	1/30/2019	160	Yes	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-11	150	n/a	1/30/2019	89	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	150	n/a	1/30/2019	22	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-19	150	n/a	1/29/2019	62	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	150	n/a	1/29/2019	27	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	150	n/a	1/30/2019	36	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-23	150	n/a	1/30/2019	38	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	150	n/a	1/30/2019	42	No	120	n/a	n/a	14.17	n/a	0.0001347	NP (normality) 1 of 2
Vanadium, Total (mg/L)	GWC-1	0.056	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-10	0.056	n/a	1/30/2019	0.0026	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-11	0.056	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-12	0.056	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-19	0.056	n/a	1/29/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-20	0.056	n/a	1/29/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-21	0.056	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-23	0.056	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Vanadium, Total (mg/L)	GWC-9	0.056	n/a	1/30/2019	0.0025ND	No	184	n/a	n/a	85.33	n/a	0.00005827	NP (NDs) 1 of 2
Zinc, Total (mg/L)	GWC-1	0.5	n/a	1/30/2019	0.0031	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-10	0.5	n/a	1/30/2019	0.02ND	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-11	0.5	n/a	1/30/2019	0.02ND	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-12	0.5	n/a	1/30/2019	0.02ND	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-19	0.5	n/a	1/29/2019	0.0051	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-20	0.5	n/a	1/29/2019	0.02ND	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-21	0.5	n/a	1/30/2019	0.00255	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-23	0.5	n/a	1/30/2019	0.0049	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2
Zinc, Total (mg/L)	GWC-9	0.5	n/a	1/30/2019	0.051	No	184	n/a	n/a	33.15	n/a	0.00005827	NP (normality) 1 of 2

Within Limit

Prediction Limit
Interwell Non-parametric

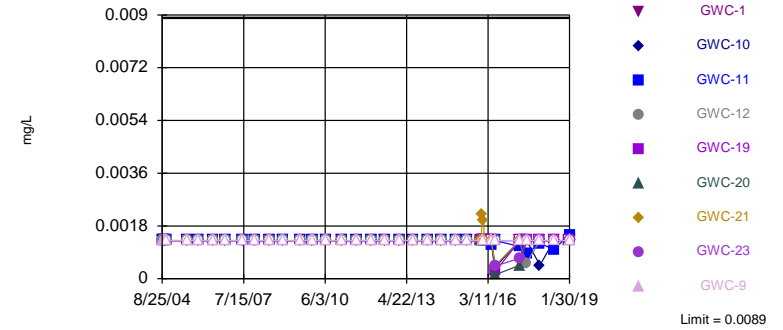


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 204 background values. 99.02% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Antimony Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

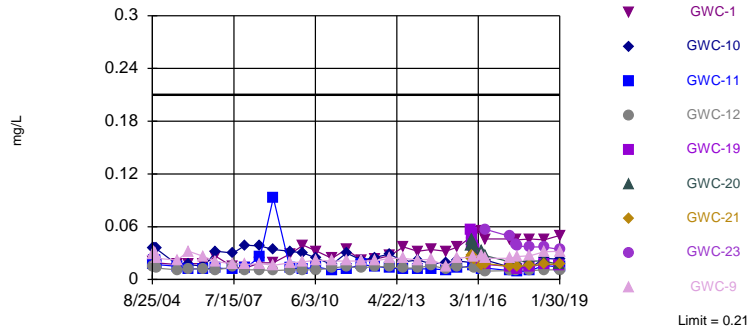


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 204 background values. 92.16% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Arsenic, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

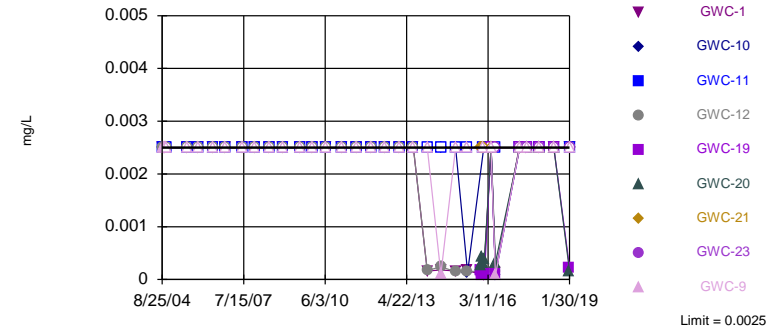


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 204 background values. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Barium, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

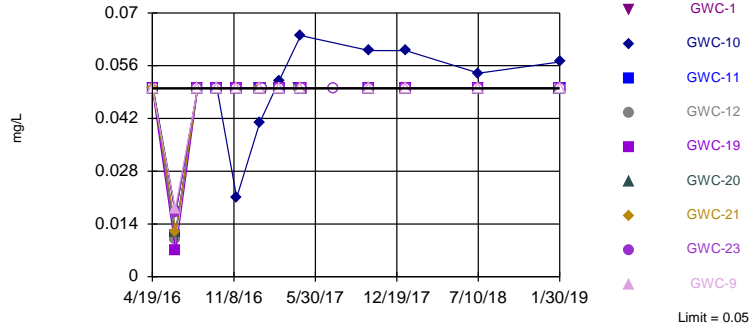


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 203 background values. 86.7% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Beryllium, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Exceeds Limit: GWC-10

Prediction Limit
Interwell Non-parametric

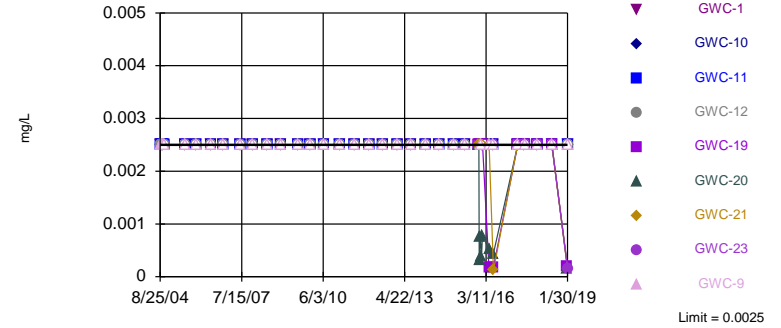


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 120 background values. 90.83% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Boron Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

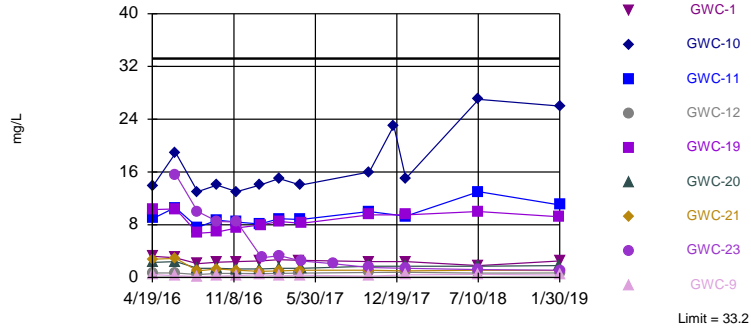


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 204 background values. 91.67% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Cadmium, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

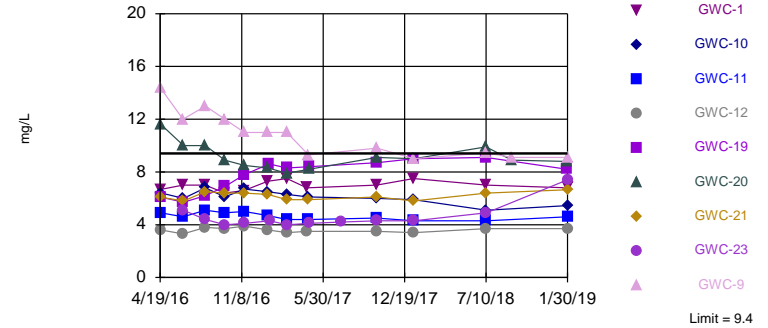


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 120 background values. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Calcium Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

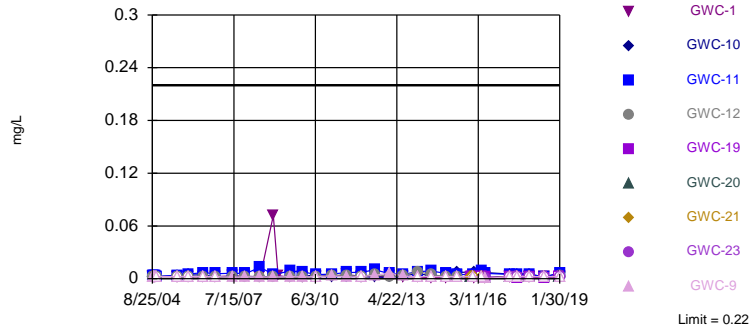


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 120 background values. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Chloride Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

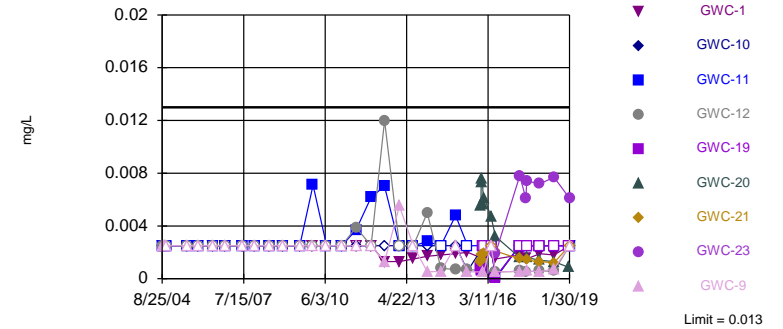


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 198 background values. 50% NDs. Annual per-constituent alpha = 0.000905. Individual comparison alpha = 0.0000503 (1 of 2). Comparing 9 points to limit.

Constituent: Chromium, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

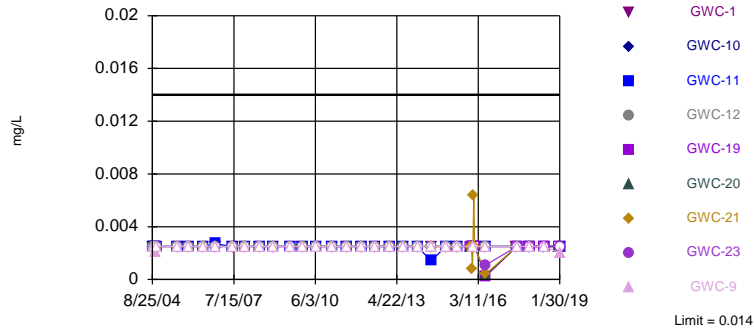


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 204 background values. 55.88% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Cobalt, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

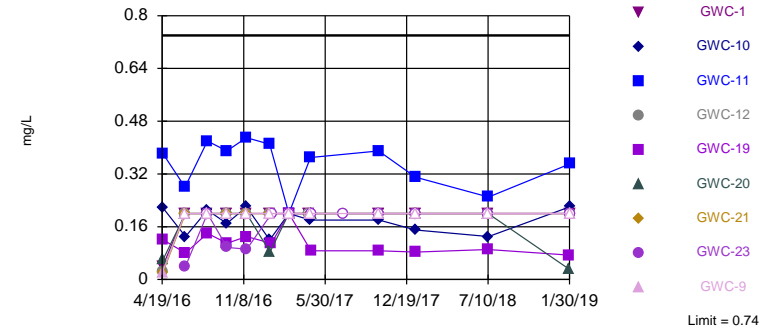


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 184 background values. 90.76% NDs. Annual per-constituent alpha = 0.001048. Individual comparison alpha = 0.00005827 (1 of 2). Comparing 9 points to limit.

Constituent: Copper, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

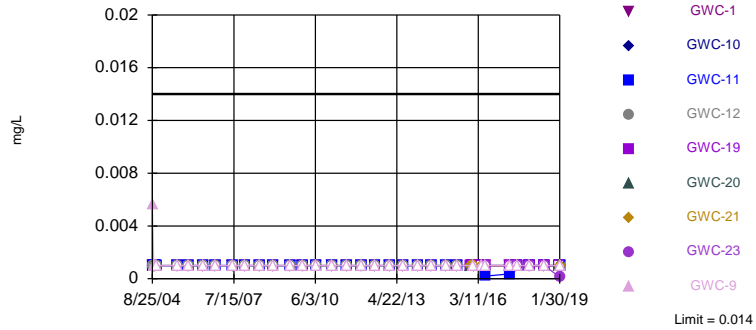


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 120 background values. 73.33% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Fluoride Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

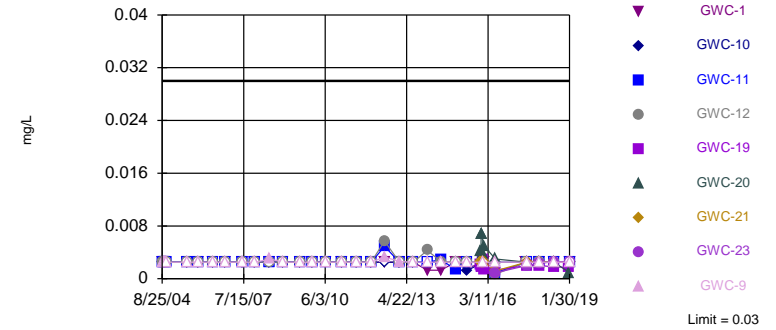


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 204 background values. 97.55% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Lead, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

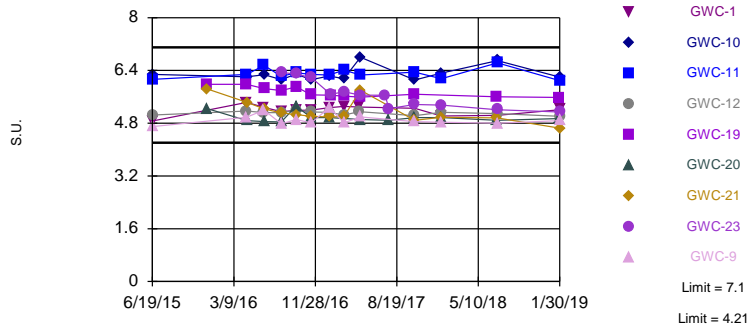


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 184 background values. 79.35% NDs. Annual per-constituent alpha = 0.001048. Individual comparison alpha = 0.00005827 (1 of 2). Comparing 9 points to limit.

Constituent: Nickel, Total Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limits

Prediction Limit
Interwell Non-parametric

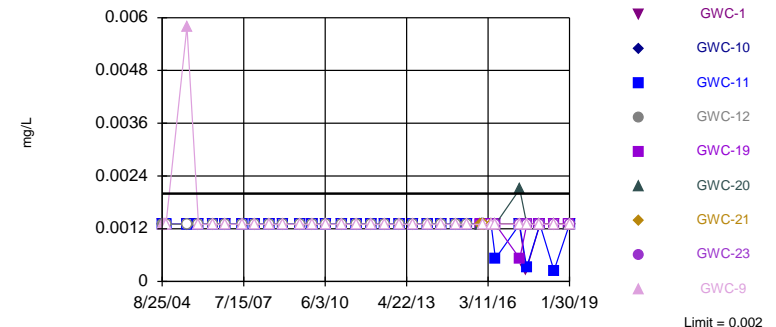


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 130 background values. Annual per-constituent alpha = 0.004211. Individual comparison alpha = 0.0002342 (1 of 2). Comparing 9 points to limit.

Constituent: pH Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

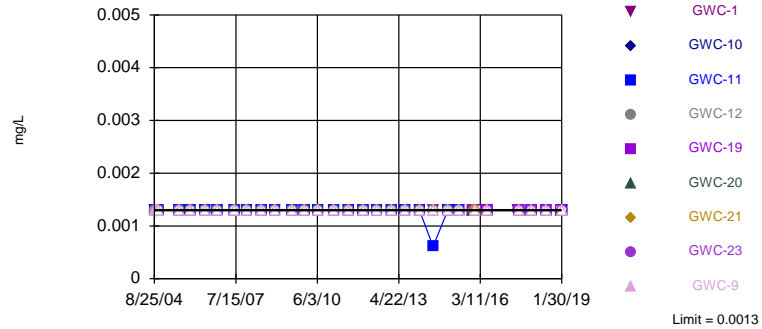


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 204 background values. 94.12% NDs. Annual per-constituent alpha = 0.0008845. Individual comparison alpha = 0.00004916 (1 of 2). Comparing 9 points to limit.

Constituent: Selenium Analysis Run 5/15/2019 11:28 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

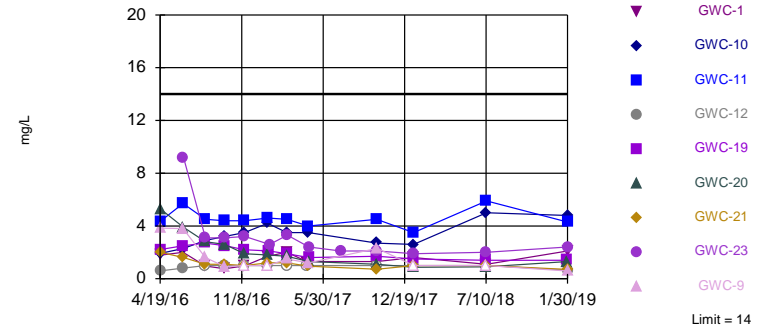


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 184) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.001048. Individual comparison alpha = 0.00005827 (1 of 2). Comparing 9 points to limit.

Constituent: Silver, Total Analysis Run 5/16/2019 1:50 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

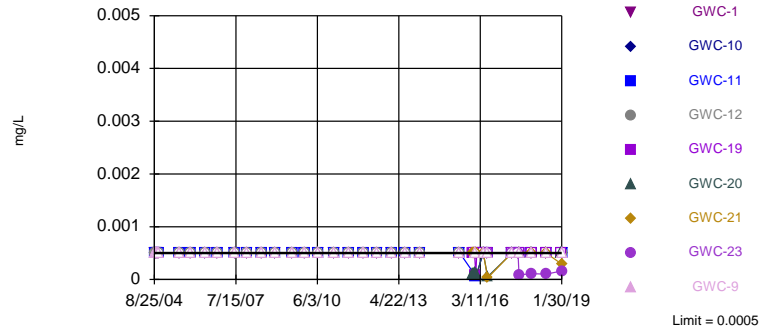


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 120 background values. 47.5% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Sulfate Analysis Run 5/16/2019 1:50 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

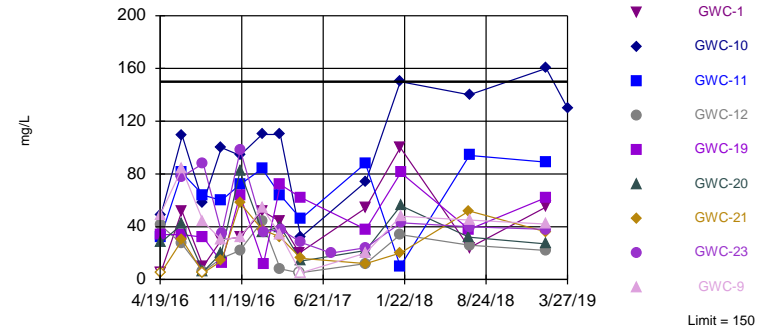


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 196 background values. 89.29% NDs. Annual per-constituent alpha = 0.0009254. Individual comparison alpha = 0.00005144 (1 of 2). Comparing 9 points to limit.

Constituent: Thallium Analysis Run 5/16/2019 1:50 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
Interwell Non-parametric

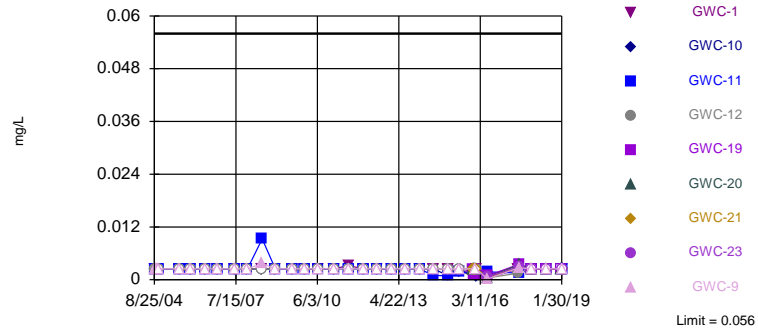


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 120 background values. 14.17% NDs. Annual per-constituent alpha = 0.002422. Individual comparison alpha = 0.0001347 (1 of 2). Comparing 9 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/16/2019 1:50 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

Prediction Limit
 Interwell Non-parametric

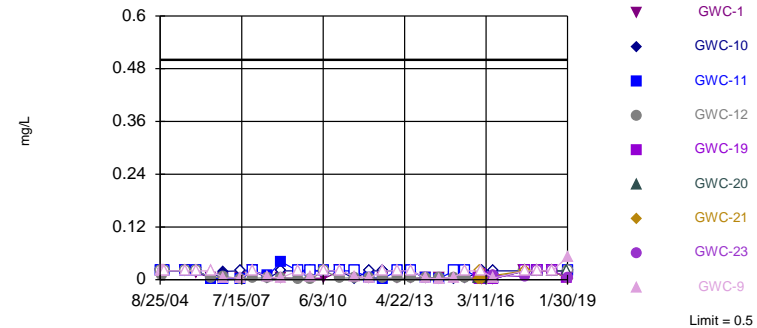


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 184 background values. 85.33% NDs. Annual per-constituent alpha = 0.001048. Individual comparison alpha = 0.00005827 (1 of 2). Comparing 9 points to limit.

Constituent: Vanadium, Total Analysis Run 5/15/2019 11:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Within Limit

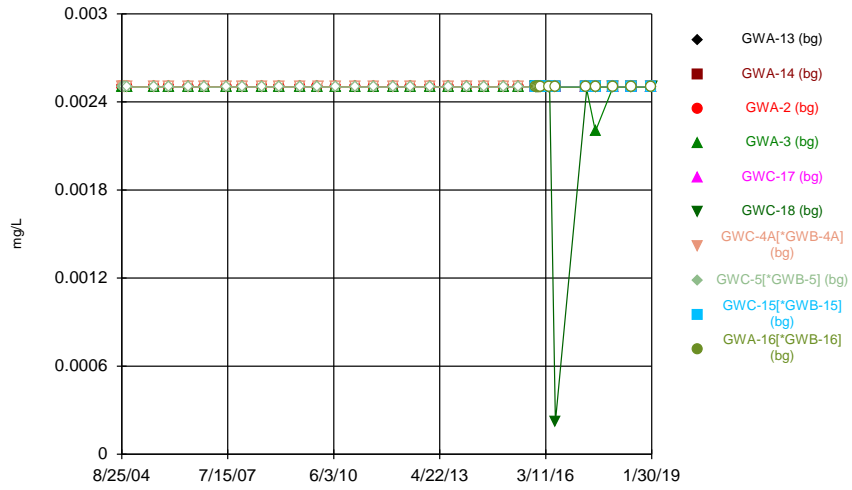
Prediction Limit
 Interwell Non-parametric



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 184 background values. 33.15% NDs. Annual per-constituent alpha = 0.001048. Individual comparison alpha = 0.00005827 (1 of 2). Comparing 9 points to limit.

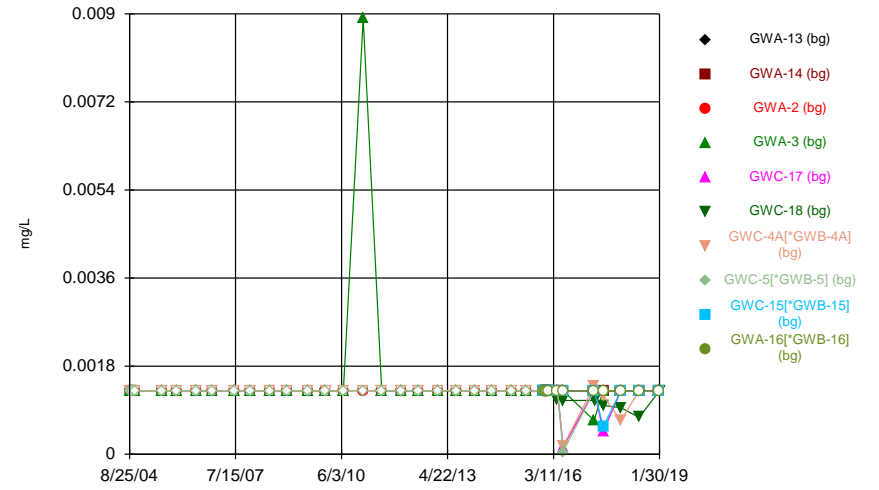
Constituent: Zinc, Total Analysis Run 5/15/2019 11:28 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



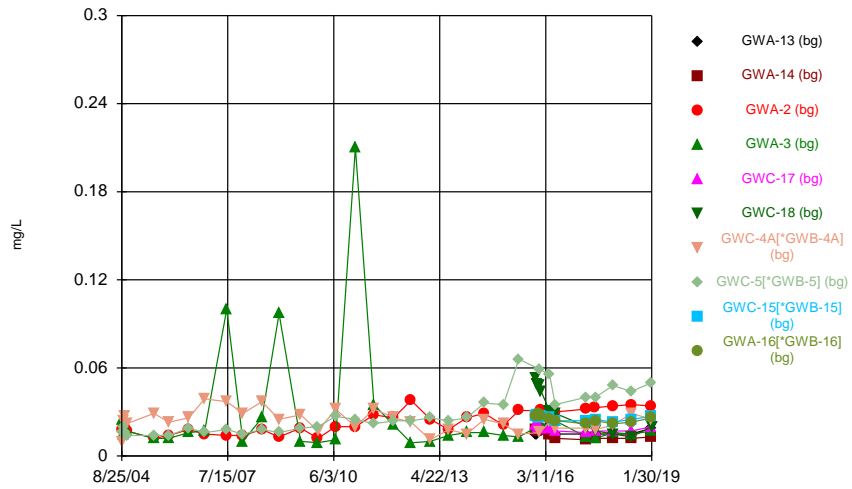
Constituent: Antimony Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



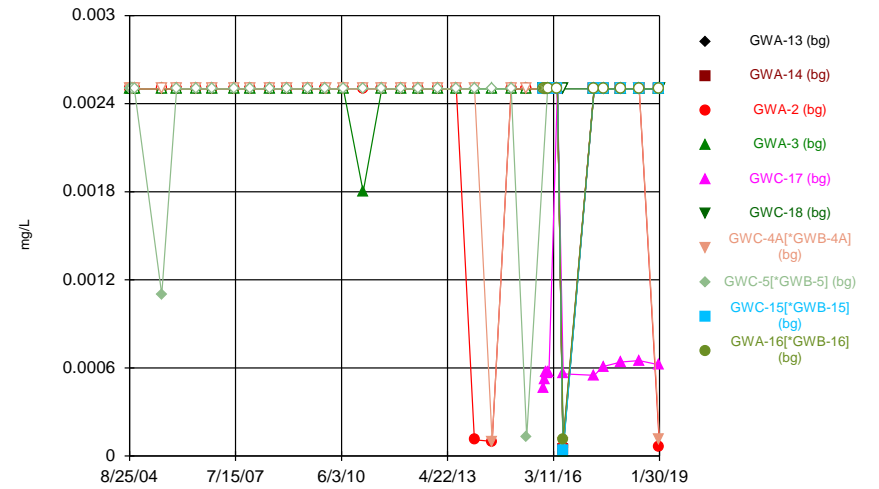
Constituent: Arsenic, Total Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



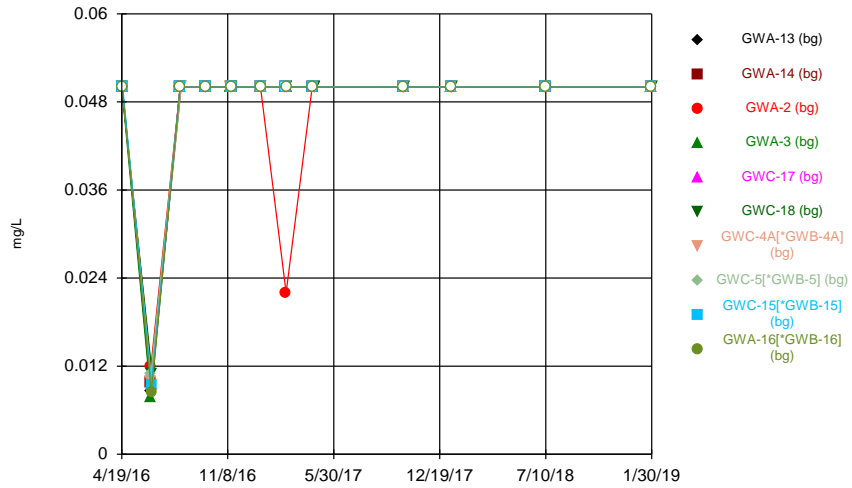
Constituent: Barium, Total Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



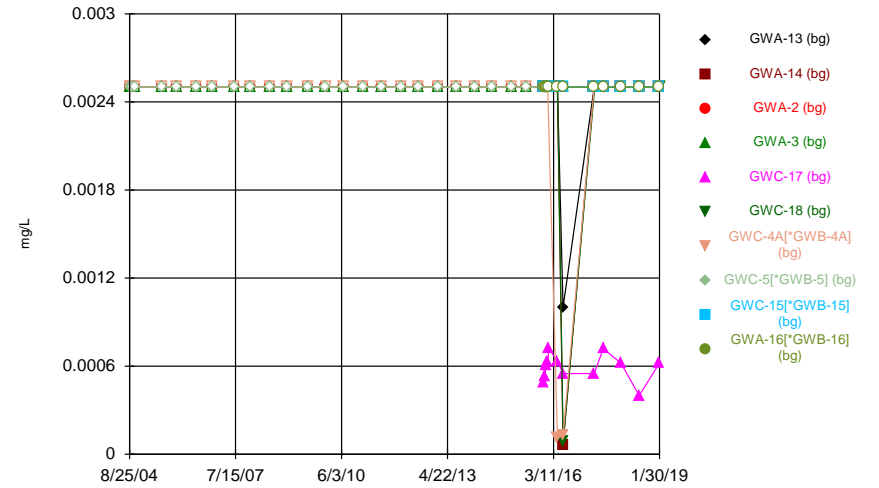
Constituent: Beryllium, Total Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



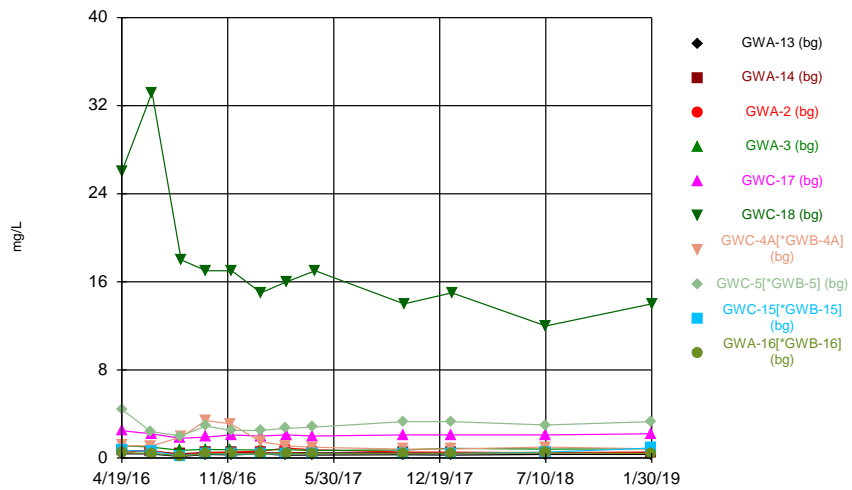
Constituent: Boron Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



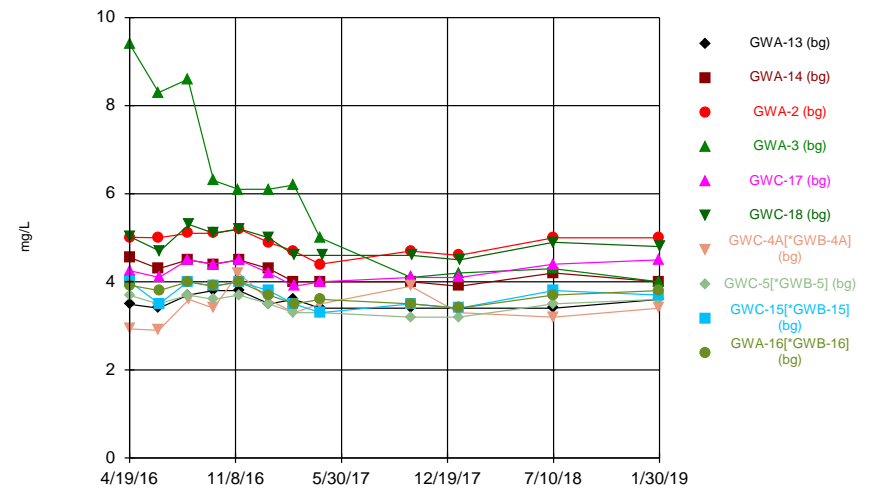
Constituent: Cadmium, Total Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



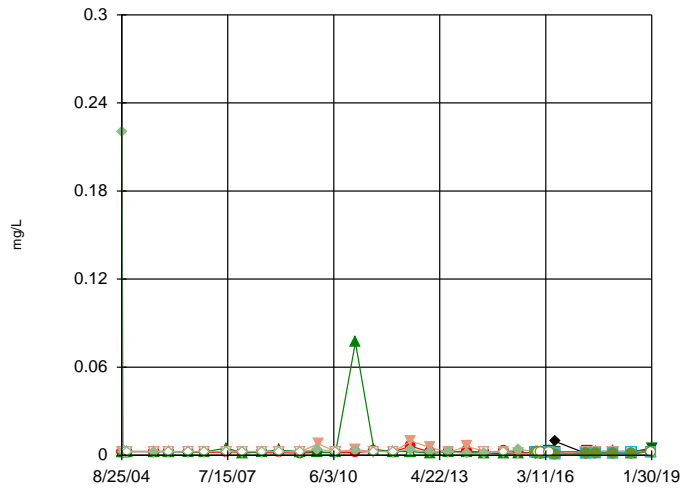
Constituent: Calcium Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



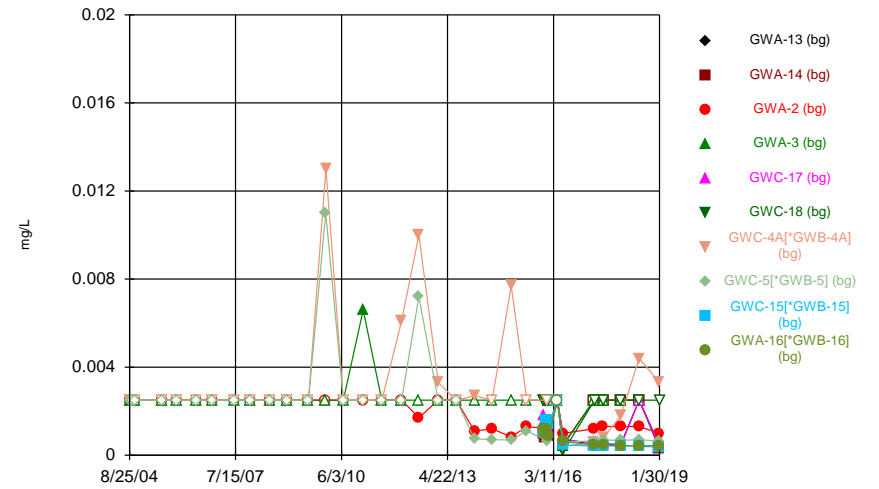
Constituent: Chloride Analysis Run 5/15/2019 11:31 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



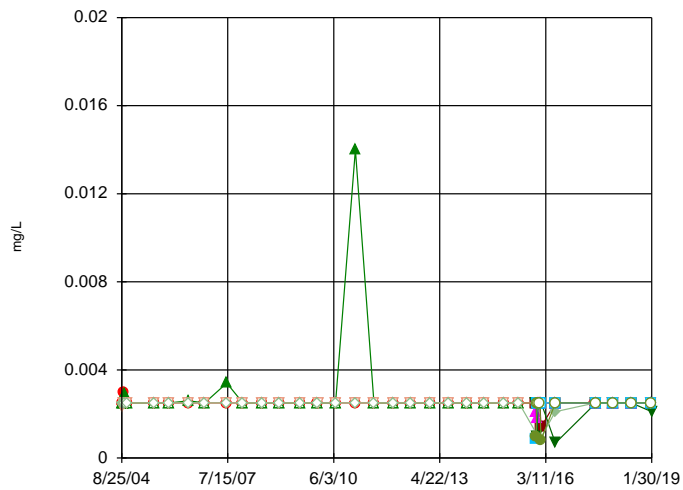
Constituent: Chromium, Total Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



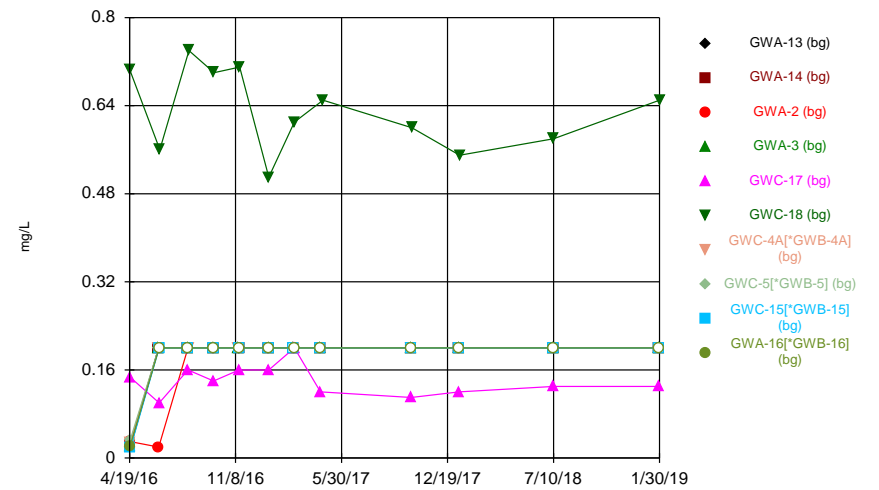
Constituent: Cobalt, Total Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



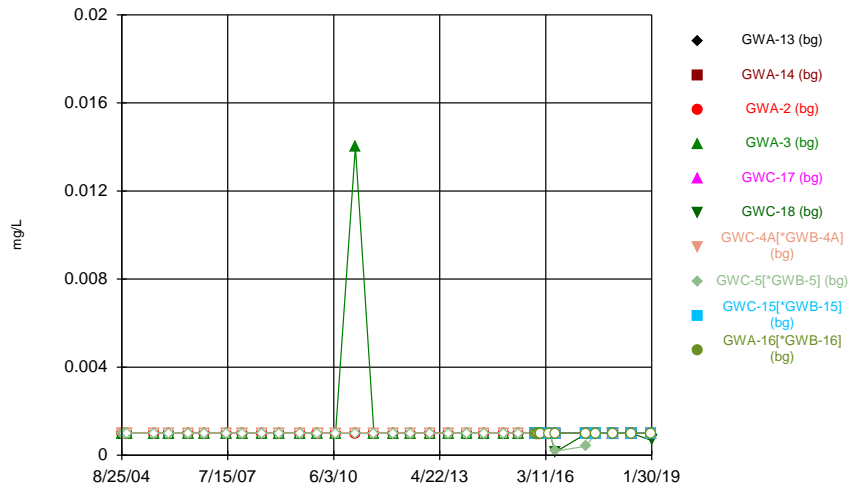
Constituent: Copper, Total Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



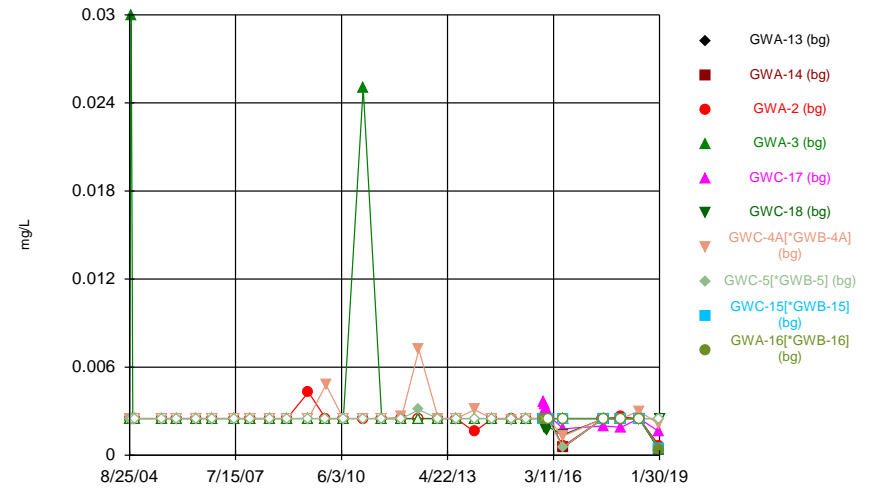
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Time Series



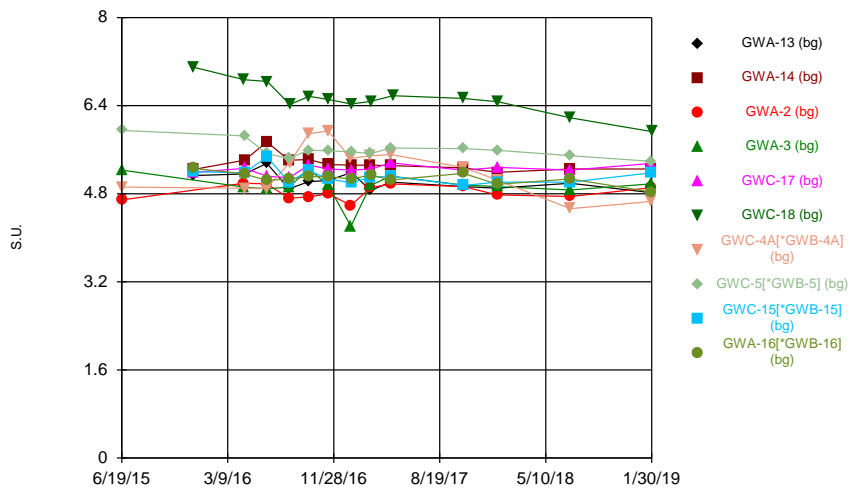
Constituent: Lead, Total Analysis Run 5/15/2019 11:31 AM
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Time Series



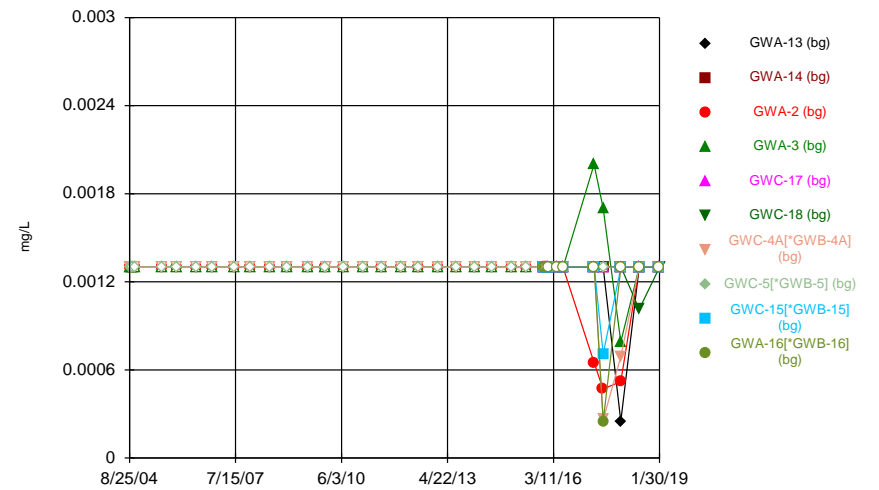
Constituent: Nickel, Total Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



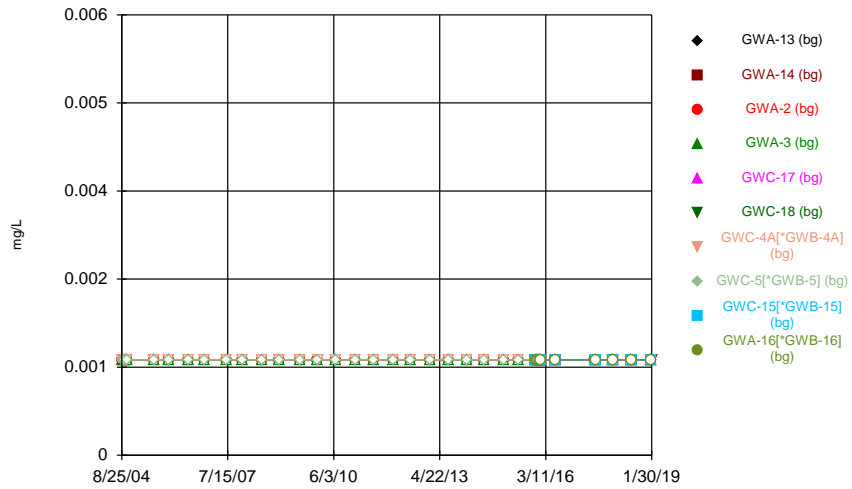
Constituent: pH Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



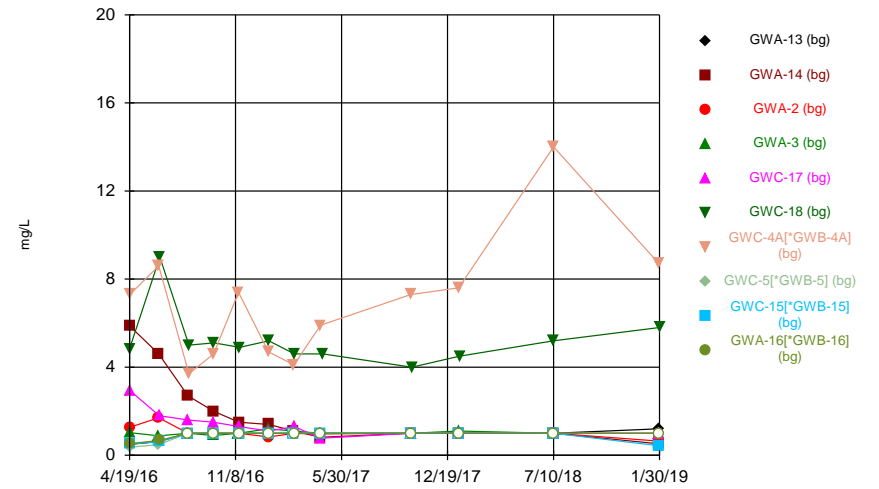
Constituent: Selenium Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



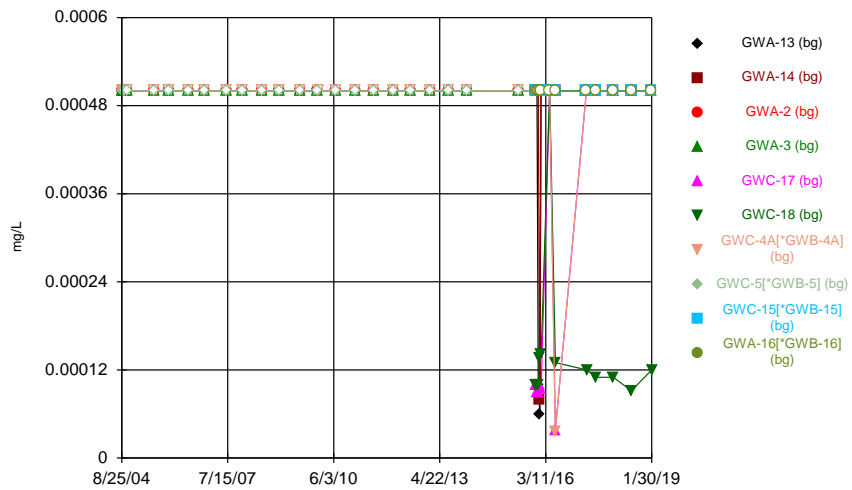
Constituent: Silver, Total Analysis Run 5/15/2019 11:31 AM
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Time Series



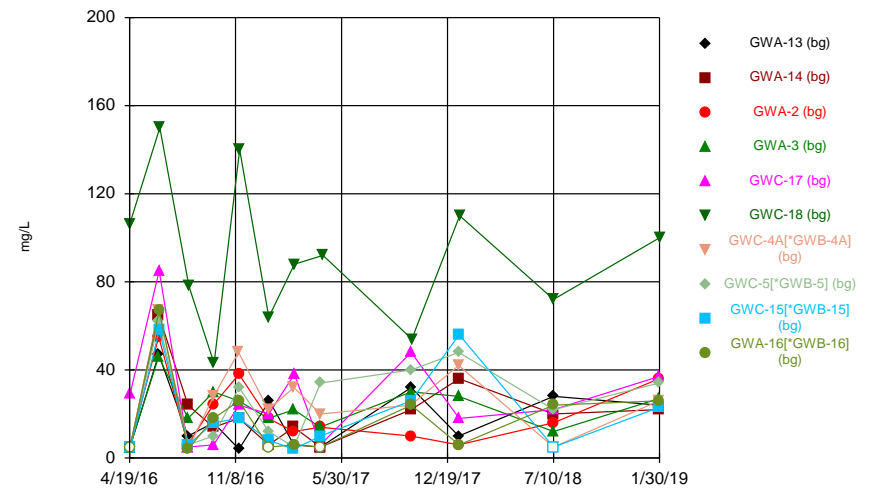
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Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



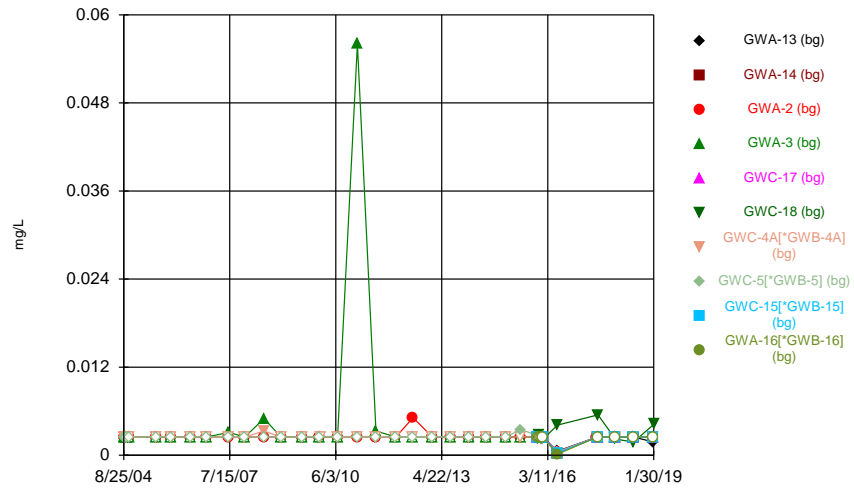
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Time Series



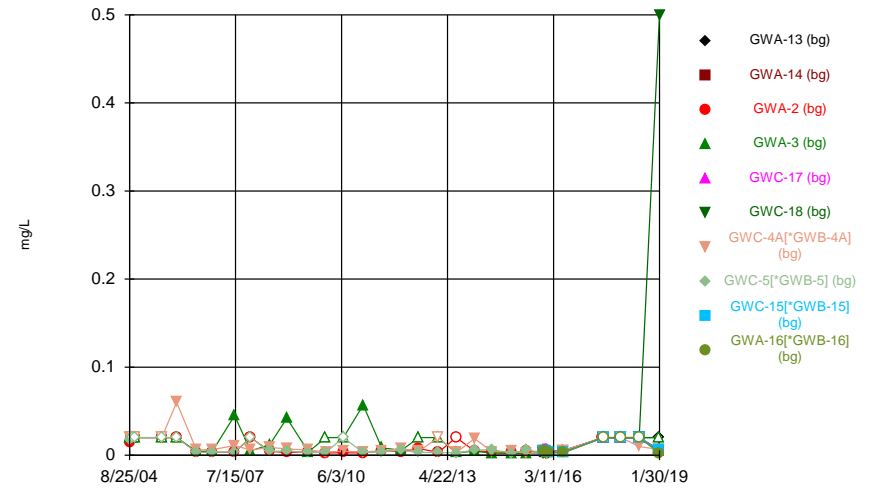
Constituent: Total Dissolved Solids Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



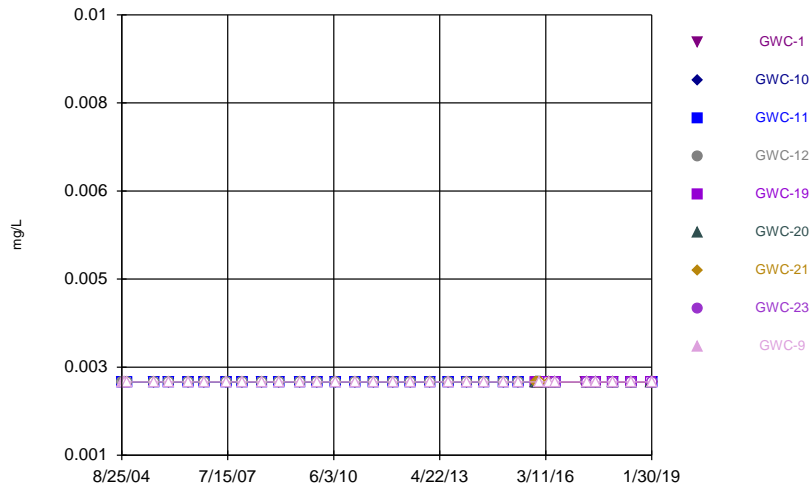
Constituent: Vanadium, Total Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



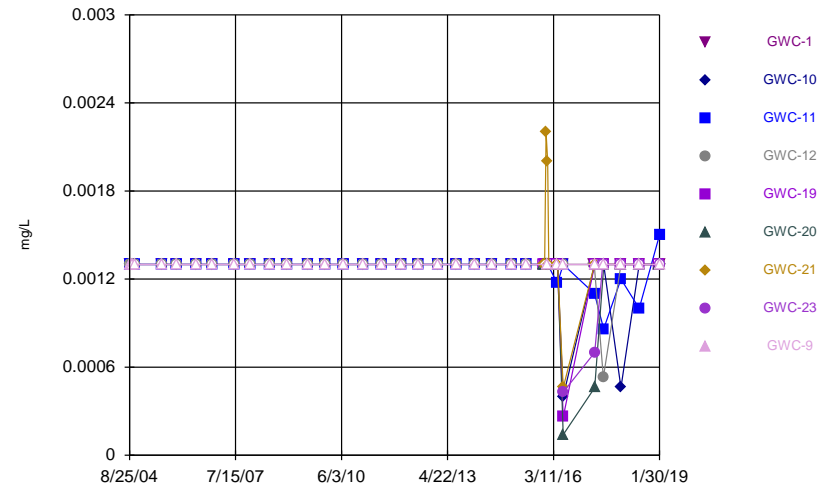
Constituent: Zinc, Total Analysis Run 5/15/2019 11:31 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



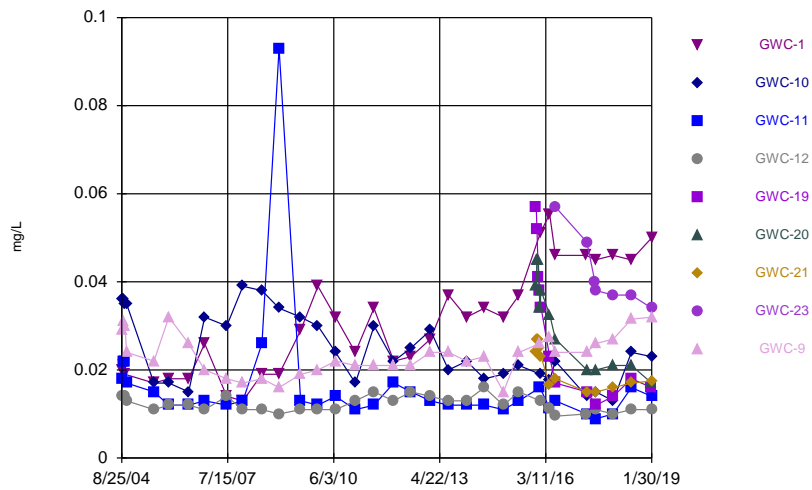
Constituent: Antimony Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



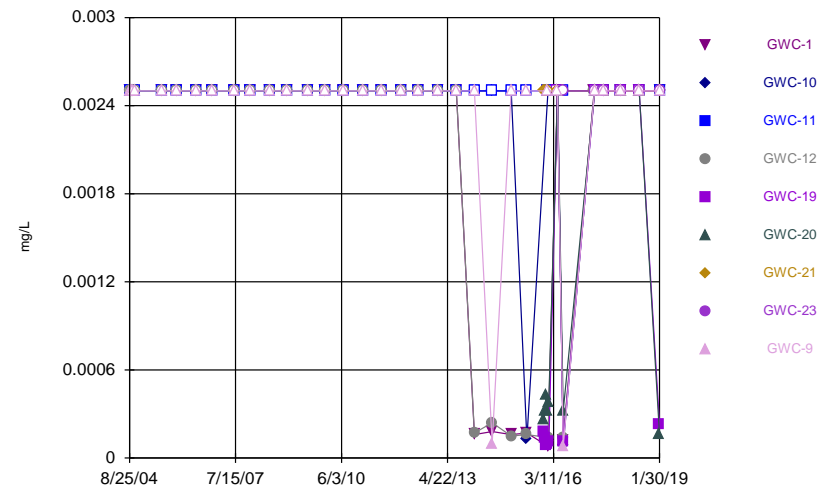
Constituent: Arsenic, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



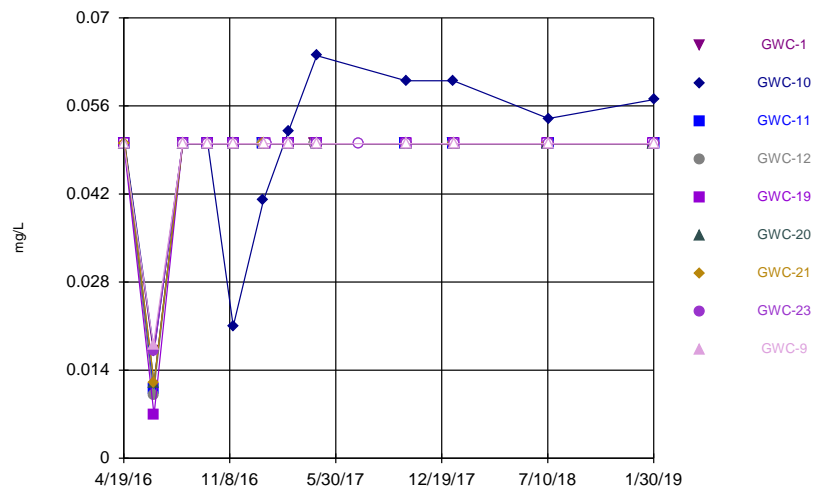
Constituent: Barium, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



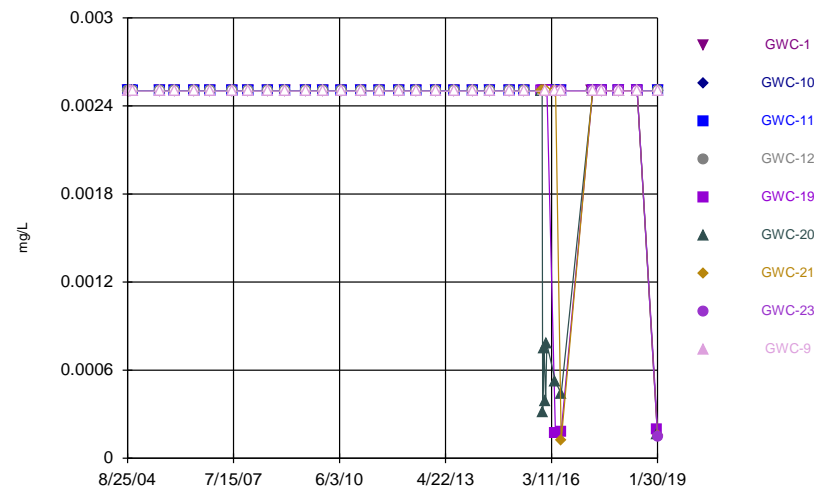
Constituent: Beryllium, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



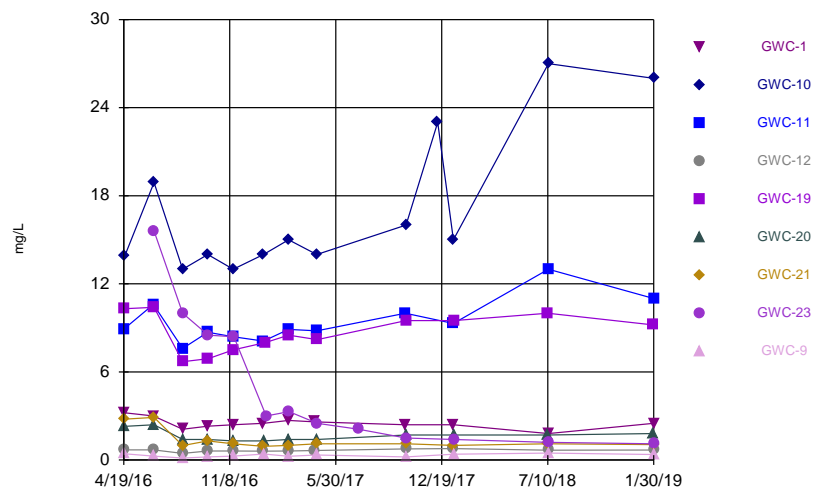
Constituent: Boron Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



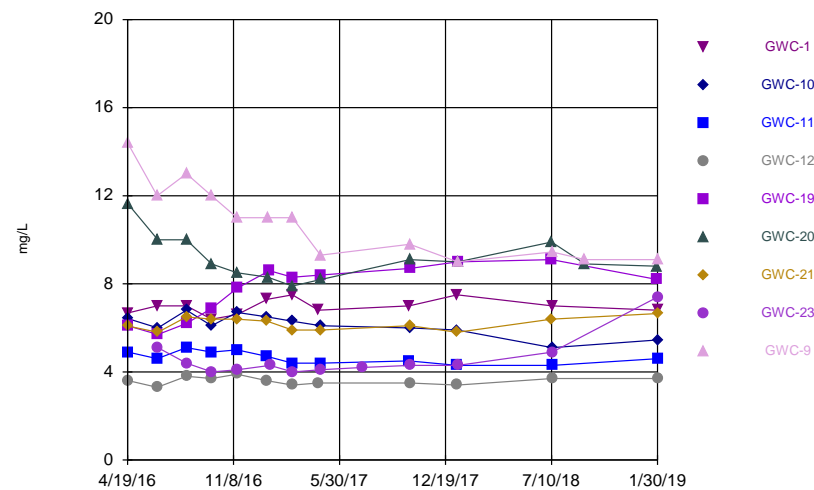
Constituent: Cadmium, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



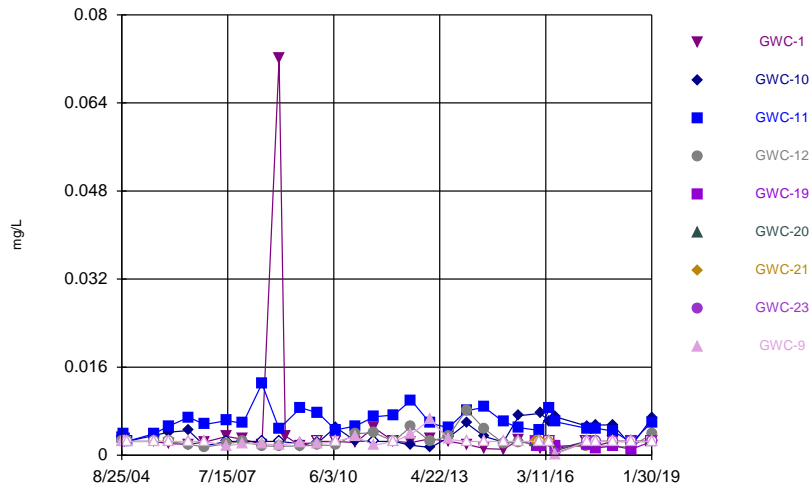
Constituent: Calcium Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



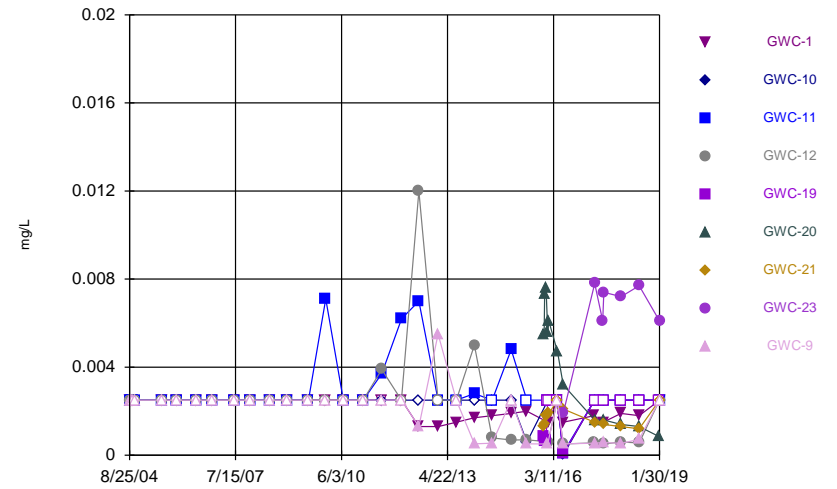
Constituent: Chloride Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



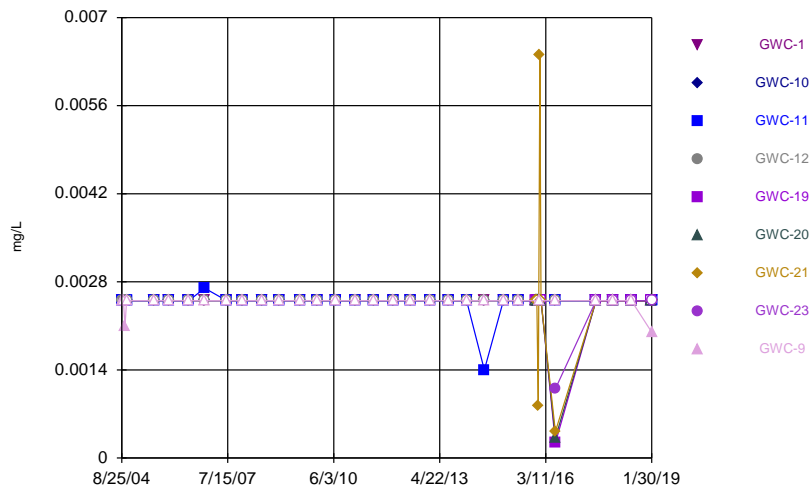
Constituent: Chromium, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



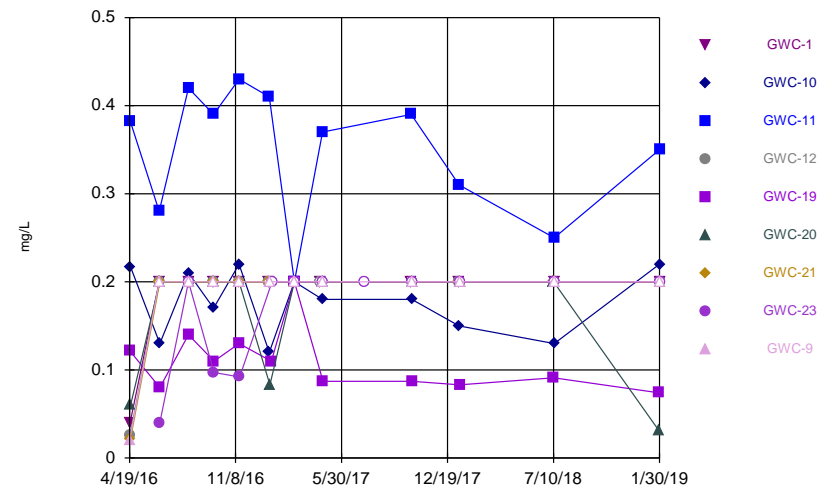
Constituent: Cobalt, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



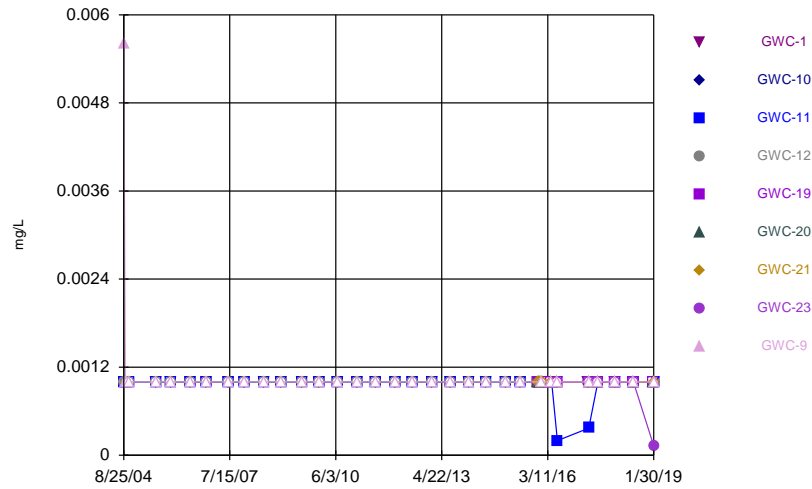
Constituent: Copper, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



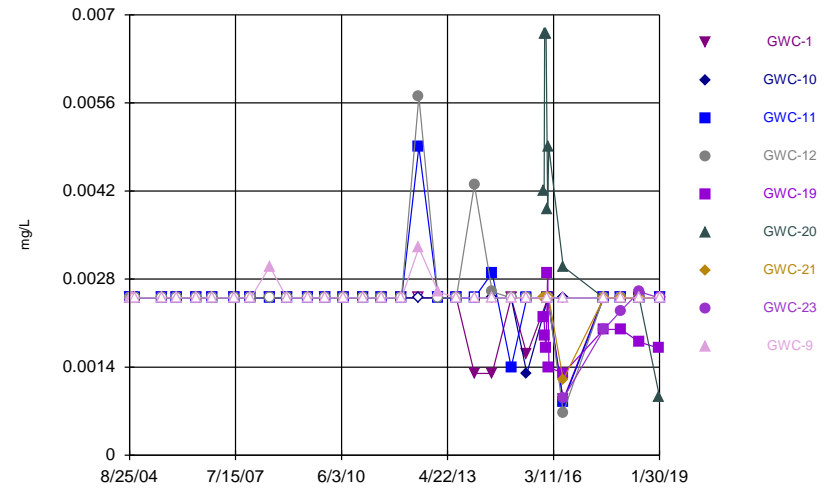
Constituent: Fluoride Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



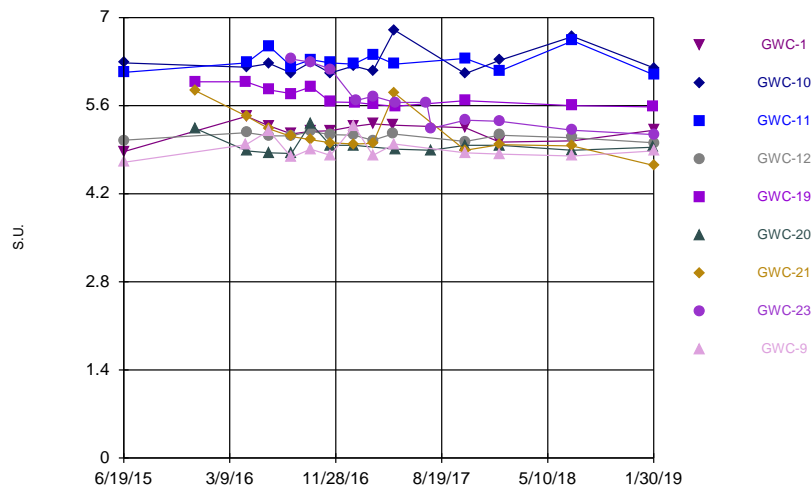
Constituent: Lead, Total Analysis Run 5/15/2019 11:34 AM
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Time Series



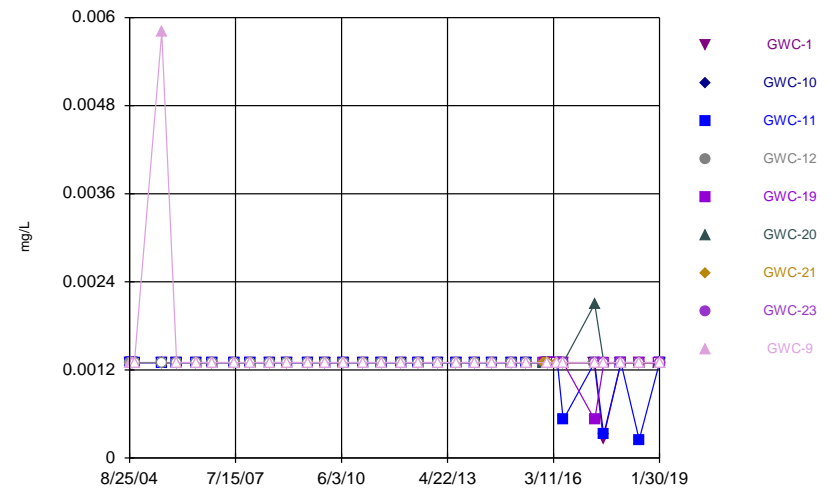
Constituent: Nickel, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



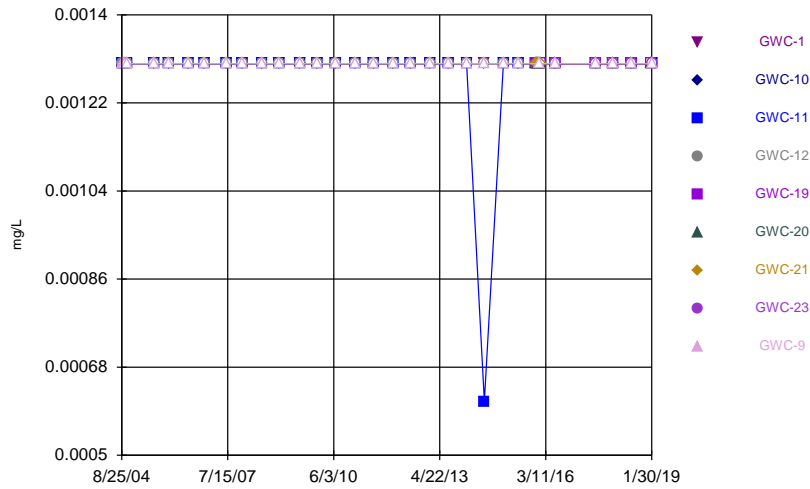
Constituent: pH Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



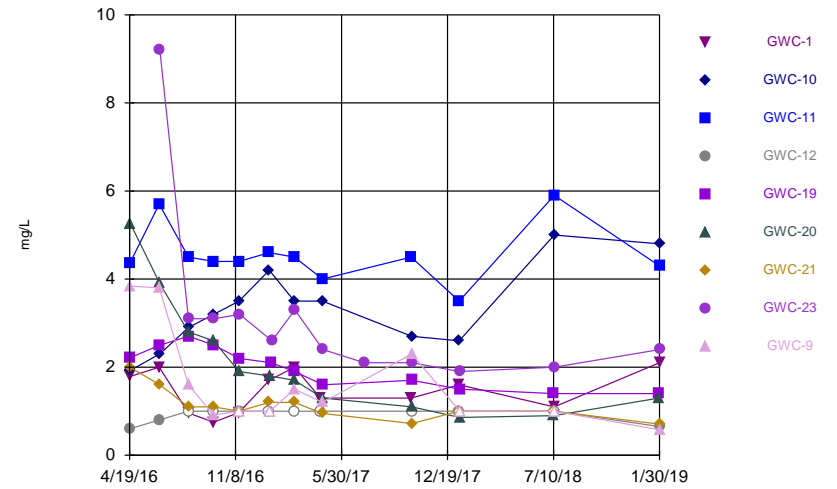
Constituent: Selenium Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



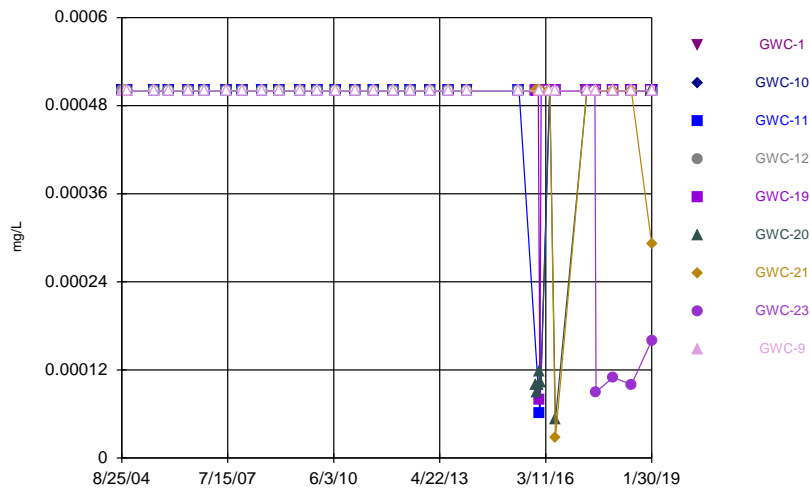
Constituent: Silver, Total Analysis Run 5/16/2019 1:53 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



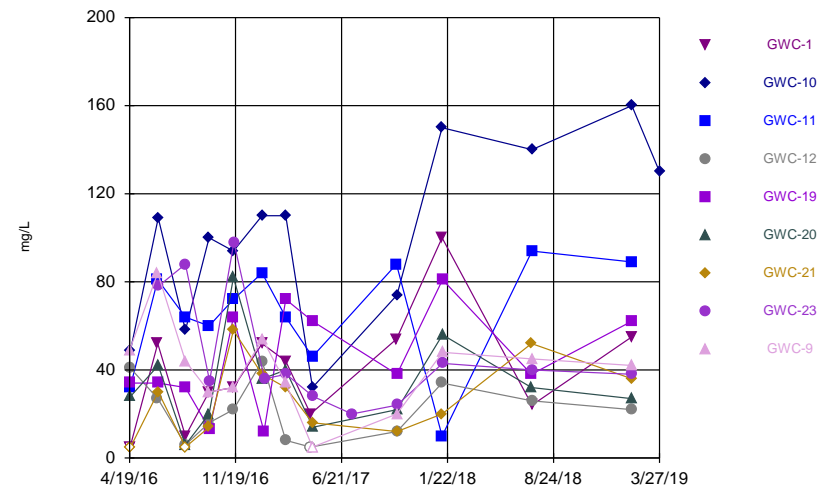
Constituent: Sulfate Analysis Run 5/16/2019 1:53 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



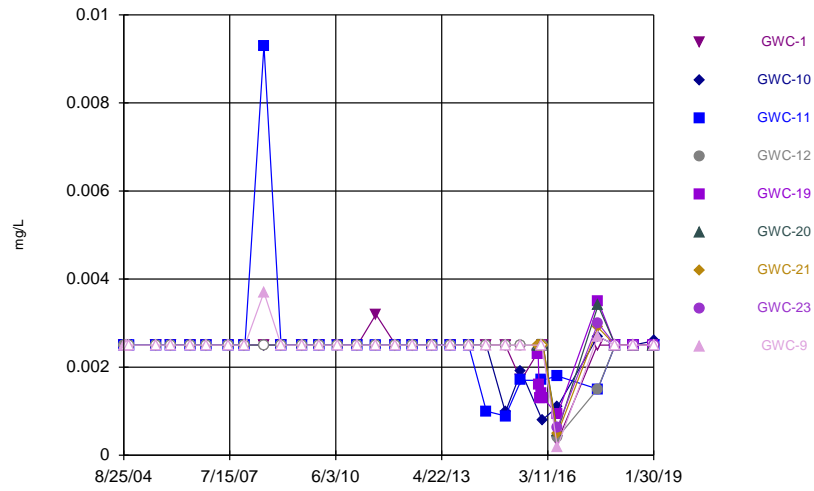
Constituent: Thallium Analysis Run 5/16/2019 1:53 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



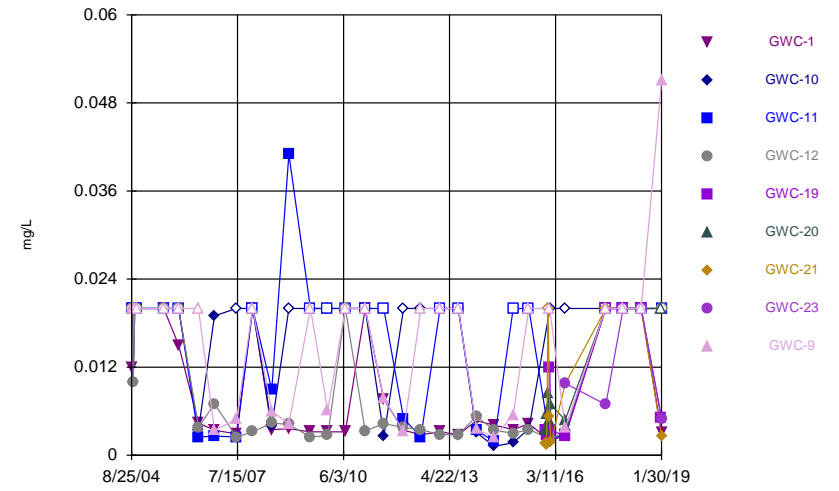
Constituent: Total Dissolved Solids Analysis Run 5/16/2019 1:53 PM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



Constituent: Vanadium, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Time Series



Constituent: Zinc, Total Analysis Run 5/15/2019 11:34 AM
Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:33 AM

Constituent	Well	N	Mean	Std. Dev.	Median	%NDs
Antimony (mg/L)	GWA-13 (bg)	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWA-14 (bg)	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWA-2 (bg)	33	0.0025	0	0.0025	100
Antimony (mg/L)	GWA-3 (bg)	33	0.002491	0.00005222	0.0025	96.97
Antimony (mg/L)	GWC-17 (bg)	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-18 (bg)	12	0.00231	0.0006582	0.0025	91.67
Antimony (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-5[*GWB-5] (bg)	33	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-15[*GWB-15] (bg)	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWA-16[*GWB-16] (bg)	12	0.0025	0	0.0025	100
Arsenic, Total (mg/L)	GWA-13 (bg)	12	0.0013	0	0.0013	100
Arsenic, Total (mg/L)	GWA-14 (bg)	12	0.0013	0	0.0013	100
Arsenic, Total (mg/L)	GWA-2 (bg)	33	0.0013	0	0.0013	100
Arsenic, Total (mg/L)	GWA-3 (bg)	33	0.001512	0.001331	0.0013	93.94
Arsenic, Total (mg/L)	GWC-17 (bg)	12	0.001135	0.0003913	0.0013	83.33
Arsenic, Total (mg/L)	GWC-18 (bg)	12	0.001152	0.0001811	0.00121	50
Arsenic, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.001247	0.0002243	0.0013	87.88
Arsenic, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.001262	0.0002176	0.0013	96.97
Arsenic, Total (mg/L)	GWC-15[*GWB-15] (bg)	12	0.001238	0.0002136	0.0013	91.67
Arsenic, Total (mg/L)	GWA-16[*GWB-16] (bg)	12	0.0013	0	0.0013	100
Barium, Total (mg/L)	GWA-13 (bg)	12	0.0157	0.001331	0.015	0
Barium, Total (mg/L)	GWA-14 (bg)	12	0.01461	0.002933	0.01365	0
Barium, Total (mg/L)	GWA-2 (bg)	33	0.02317	0.007817	0.02	0
Barium, Total (mg/L)	GWA-3 (bg)	33	0.02702	0.03883	0.016	0
Barium, Total (mg/L)	GWC-17 (bg)	12	0.01857	0.001726	0.0189	0
Barium, Total (mg/L)	GWC-18 (bg)	12	0.03223	0.01525	0.0299	0
Barium, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.0237	0.007088	0.0234	0
Barium, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.02852	0.01442	0.024	0
Barium, Total (mg/L)	GWC-15[*GWB-15] (bg)	12	0.02568	0.001503	0.026	0
Barium, Total (mg/L)	GWA-16[*GWB-16] (bg)	12	0.02549	0.002429	0.02595	0
Beryllium, Total (mg/L)	GWA-13 (bg)	11	0.002279	0.0007324	0.0025	90.91
Beryllium, Total (mg/L)	GWA-14 (bg)	12	0.002295	0.000709	0.0025	91.67
Beryllium, Total (mg/L)	GWA-2 (bg)	33	0.002207	0.0008006	0.0025	87.88
Beryllium, Total (mg/L)	GWA-3 (bg)	33	0.002404	0.0004429	0.0025	93.94
Beryllium, Total (mg/L)	GWC-17 (bg)	12	0.0007342	0.0005586	0.00057	8.333
Beryllium, Total (mg/L)	GWC-18 (bg)	12	0.0025	0	0.0025	100
Beryllium, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.002282	0.0007009	0.0025	90.91
Beryllium, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.002312	0.0006222	0.0025	90.91
Beryllium, Total (mg/L)	GWC-15[*GWB-15] (bg)	12	0.002295	0.0007107	0.0025	91.67
Beryllium, Total (mg/L)	GWA-16[*GWB-16] (bg)	12	0.002301	0.0006899	0.0025	91.67
Boron (mg/L)	GWA-13 (bg)	12	0.04655	0.01195	0.05	91.67
Boron (mg/L)	GWA-14 (bg)	12	0.04665	0.0116	0.05	91.67
Boron (mg/L)	GWA-2 (bg)	12	0.0445	0.01302	0.05	83.33
Boron (mg/L)	GWA-3 (bg)	12	0.04648	0.01221	0.05	91.67
Boron (mg/L)	GWC-17 (bg)	12	0.04663	0.01169	0.05	91.67
Boron (mg/L)	GWC-18 (bg)	12	0.04675	0.01126	0.05	91.67
Boron (mg/L)	GWC-4A[*GWB-4A] (bg)	12	0.04667	0.01155	0.05	91.67
Boron (mg/L)	GWC-5[*GWB-5] (bg)	12	0.04675	0.01126	0.05	91.67
Boron (mg/L)	GWC-15[*GWB-15] (bg)	12	0.04663	0.01169	0.05	91.67
Boron (mg/L)	GWA-16[*GWB-16] (bg)	12	0.04654	0.01198	0.05	91.67

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:33 AM

Constituent	Well	N	Mean	Std. Dev.	Median	%NDs
Cadmium, Total (mg/L)	GWA-13 (bg)	12	0.002375	0.000433	0.0025	91.67
Cadmium, Total (mg/L)	GWA-14 (bg)	12	0.002297	0.0007038	0.0025	91.67
Cadmium, Total (mg/L)	GWA-2 (bg)	33	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWA-3 (bg)	33	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWC-17 (bg)	12	0.0005894	0.00009162	0.000615	0
Cadmium, Total (mg/L)	GWC-18 (bg)	12	0.002299	0.0006972	0.0025	91.67
Cadmium, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.002356	0.0005766	0.0025	93.94
Cadmium, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWC-15[*GWB-15] (bg)	12	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWA-16[*GWB-16] (bg)	12	0.0025	0	0.0025	100
Calcium (mg/L)	GWA-13 (bg)	12	0.3024	0.06691	0.31	0
Calcium (mg/L)	GWA-14 (bg)	12	0.5113	0.07565	0.5	0
Calcium (mg/L)	GWA-2 (bg)	12	0.5696	0.1673	0.535	0
Calcium (mg/L)	GWA-3 (bg)	12	0.8175	0.1312	0.765	0
Calcium (mg/L)	GWC-17 (bg)	12	2.09	0.1687	2.1	0
Calcium (mg/L)	GWC-18 (bg)	12	17.85	5.937	16.5	0
Calcium (mg/L)	GWC-4A[*GWB-4A] (bg)	12	1.471	0.8896	1.1	0
Calcium (mg/L)	GWC-5[*GWB-5] (bg)	12	2.924	0.613	2.85	0
Calcium (mg/L)	GWC-15[*GWB-15] (bg)	12	0.4713	0.1873	0.41	0
Calcium (mg/L)	GWA-16[*GWB-16] (bg)	12	0.3918	0.07051	0.405	0
Chloride (mg/L)	GWA-13 (bg)	12	3.541	0.1567	3.495	0
Chloride (mg/L)	GWA-14 (bg)	12	4.221	0.235	4.25	0
Chloride (mg/L)	GWA-2 (bg)	12	4.893	0.2396	5	0
Chloride (mg/L)	GWA-3 (bg)	12	6.05	1.87	6.1	0
Chloride (mg/L)	GWC-17 (bg)	12	4.246	0.2105	4.225	0
Chloride (mg/L)	GWC-18 (bg)	12	4.861	0.266	4.85	0
Chloride (mg/L)	GWC-4A[*GWB-4A] (bg)	12	3.436	0.3687	3.4	0
Chloride (mg/L)	GWC-5[*GWB-5] (bg)	12	3.483	0.1889	3.5	0
Chloride (mg/L)	GWC-15[*GWB-15] (bg)	12	3.699	0.2512	3.75	0
Chloride (mg/L)	GWA-16[*GWB-16] (bg)	12	3.735	0.2031	3.75	0
Chromium, Total (mg/L)	GWA-13 (bg)	11	0.003109	0.002166	0.0025	72.73
Chromium, Total (mg/L)	GWA-14 (bg)	11	0.002351	0.0004945	0.0025	90.91
Chromium, Total (mg/L)	GWA-2 (bg)	33	0.002182	0.0008557	0.0021	27.27
Chromium, Total (mg/L)	GWA-3 (bg)	33	0.004426	0.01306	0.0024	33.33
Chromium, Total (mg/L)	GWC-17 (bg)	11	0.002582	0.0005474	0.0025	45.45
Chromium, Total (mg/L)	GWC-18 (bg)	11	0.002255	0.001001	0.0021	0
Chromium, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.002942	0.001765	0.0025	66.67
Chromium, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.009033	0.03788	0.0025	63.64
Chromium, Total (mg/L)	GWC-15[*GWB-15] (bg)	11	0.001991	0.0007162	0.0025	63.64
Chromium, Total (mg/L)	GWA-16[*GWB-16] (bg)	11	0.001911	0.0007015	0.0025	54.55
Cobalt, Total (mg/L)	GWA-13 (bg)	12	0.001099	0.0007172	0.00097	16.67
Cobalt, Total (mg/L)	GWA-14 (bg)	12	0.001487	0.0009174	0.001	41.67
Cobalt, Total (mg/L)	GWA-2 (bg)	33	0.002028	0.0006464	0.0025	63.64
Cobalt, Total (mg/L)	GWA-3 (bg)	33	0.002497	0.0008957	0.0025	90.91
Cobalt, Total (mg/L)	GWC-17 (bg)	12	0.001251	0.0007589	0.00125	16.67
Cobalt, Total (mg/L)	GWC-18 (bg)	12	0.002306	0.0006726	0.0025	91.67
Cobalt, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.00323	0.002533	0.0025	63.64
Cobalt, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.002305	0.002003	0.0025	60.61
Cobalt, Total (mg/L)	GWC-15[*GWB-15] (bg)	12	0.0009842	0.0006864	0.000785	8.333
Cobalt, Total (mg/L)	GWA-16[*GWB-16] (bg)	12	0.0008867	0.0005933	0.00076	8.333

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:33 AM

<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Median</u>	<u>%NDs</u>
Copper, Total (mg/L)	GWA-13 (bg)	10	0.0025	0	0.0025	100
Copper, Total (mg/L)	GWA-14 (bg)	10	0.00239	0.0003479	0.0025	90
Copper, Total (mg/L)	GWA-2 (bg)	31	0.002516	0.0000898	0.0025	96.77
Copper, Total (mg/L)	GWA-3 (bg)	31	0.002916	0.002064	0.0025	87.1
Copper, Total (mg/L)	GWC-17 (bg)	10	0.00239	0.0002424	0.0025	80
Copper, Total (mg/L)	GWC-18 (bg)	10	0.002124	0.0007016	0.0025	70
Copper, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	31	0.002494	0.00003592	0.0025	96.77
Copper, Total (mg/L)	GWC-5[*GWB-5] (bg)	31	0.002434	0.0003043	0.0025	93.55
Copper, Total (mg/L)	GWC-15[*GWB-15] (bg)	10	0.002334	0.0005249	0.0025	90
Copper, Total (mg/L)	GWA-16[*GWB-16] (bg)	10	0.002181	0.000674	0.0025	80
Fluoride (mg/L)	GWA-13 (bg)	12	0.1848	0.05254	0.2	91.67
Fluoride (mg/L)	GWA-14 (bg)	12	0.1851	0.05167	0.2	91.67
Fluoride (mg/L)	GWA-2 (bg)	12	0.1708	0.06815	0.2	83.33
Fluoride (mg/L)	GWA-3 (bg)	12	0.1852	0.05138	0.2	91.67
Fluoride (mg/L)	GWC-17 (bg)	12	0.1398	0.02755	0.135	8.333
Fluoride (mg/L)	GWC-18 (bg)	12	0.6305	0.07353	0.63	0
Fluoride (mg/L)	GWC-4A[*GWB-4A] (bg)	12	0.1857	0.04965	0.2	91.67
Fluoride (mg/L)	GWC-5[*GWB-5] (bg)	12	0.186	0.0485	0.2	91.67
Fluoride (mg/L)	GWC-15[*GWB-15] (bg)	12	0.1849	0.05225	0.2	91.67
Fluoride (mg/L)	GWA-16[*GWB-16] (bg)	12	0.1852	0.05138	0.2	91.67
Lead, Total (mg/L)	GWA-13 (bg)	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWA-14 (bg)	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWA-2 (bg)	33	0.001	0	0.001	100
Lead, Total (mg/L)	GWA-3 (bg)	33	0.001394	0.002263	0.001	96.97
Lead, Total (mg/L)	GWC-17 (bg)	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-18 (bg)	12	0.0009017	0.000255	0.001	83.33
Lead, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	33	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-5[*GWB-5] (bg)	33	0.0009576	0.0001718	0.001	93.94
Lead, Total (mg/L)	GWC-15[*GWB-15] (bg)	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWA-16[*GWB-16] (bg)	12	0.001	0	0.001	100
Nickel, Total (mg/L)	GWA-13 (bg)	10	0.002283	0.0006862	0.0025	90
Nickel, Total (mg/L)	GWA-14 (bg)	10	0.002092	0.0008606	0.0025	80
Nickel, Total (mg/L)	GWA-2 (bg)	31	0.002411	0.0006033	0.0025	83.87
Nickel, Total (mg/L)	GWA-3 (bg)	31	0.004043	0.006307	0.0025	90.32
Nickel, Total (mg/L)	GWC-17 (bg)	10	0.00257	0.0007273	0.0026	10
Nickel, Total (mg/L)	GWC-18 (bg)	10	0.00212	0.0004237	0.0022	50
Nickel, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	31	0.00271	0.0009703	0.0025	70.97
Nickel, Total (mg/L)	GWC-5[*GWB-5] (bg)	31	0.002456	0.0003716	0.0025	93.55
Nickel, Total (mg/L)	GWC-15[*GWB-15] (bg)	10	0.002296	0.0006451	0.0025	90
Nickel, Total (mg/L)	GWA-16[*GWB-16] (bg)	10	0.00229	0.0006641	0.0025	90
pH (S.U.)	GWA-13 (bg)	13	5.022	0.1516	5.01	0
pH (S.U.)	GWA-14 (bg)	13	5.343	0.1389	5.32	0
pH (S.U.)	GWA-2 (bg)	13	4.828	0.1293	4.8	0
pH (S.U.)	GWA-3 (bg)	13	4.938	0.251	4.95	0
pH (S.U.)	GWC-17 (bg)	13	5.243	0.07889	5.25	0
pH (S.U.)	GWC-18 (bg)	13	6.532	0.2961	6.51	0
pH (S.U.)	GWC-4A[*GWB-4A] (bg)	13	5.222	0.439	5.28	0
pH (S.U.)	GWC-5[*GWB-5] (bg)	13	5.596	0.1527	5.58	0
pH (S.U.)	GWC-15[*GWB-15] (bg)	13	5.117	0.138	5.1	0
pH (S.U.)	GWA-16[*GWB-16] (bg)	13	5.081	0.104	5.07	0

Box & Whiskers Plot - Upgradient Wells - Upgradient Wells

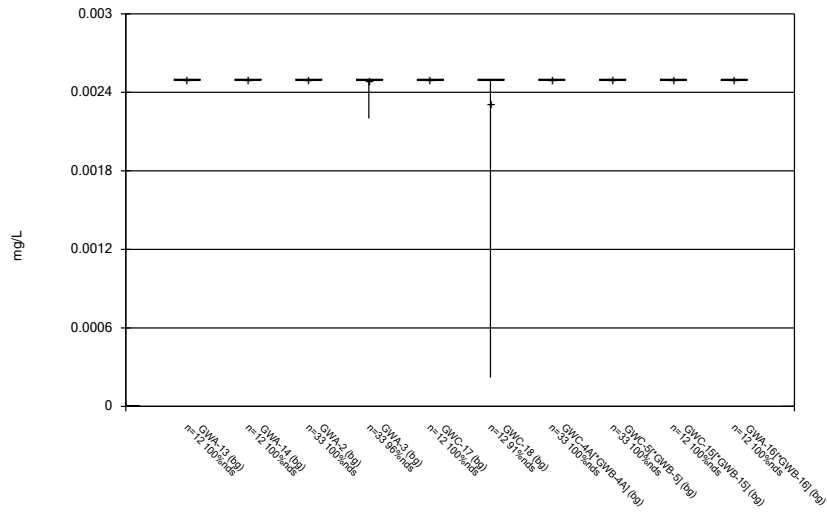
Constituent	Well	Plant McIntosh	Client: GEI	Data: McIntosh No 4	Mean	Std. Dev.	Median	%NDs
Selenium (mg/L)	GWA-13 (bg)			12	0.001213	0.0003031	0.0013	91.67
Selenium (mg/L)	GWA-14 (bg)			12	0.0013	0	0.0013	100
Selenium (mg/L)	GWA-2 (bg)			33	0.001232	0.0002211	0.0013	90.91
Selenium (mg/L)	GWA-3 (bg)			33	0.001318	0.0001677	0.0013	90.91
Selenium (mg/L)	GWC-17 (bg)			12	0.0013	0	0.0013	100
Selenium (mg/L)	GWC-18 (bg)			12	0.001276	0.00008275	0.0013	91.67
Selenium (mg/L)	GWC-4A[*GWB-4A] (bg)			33	0.00125	0.000207	0.0013	93.94
Selenium (mg/L)	GWC-5[*GWB-5] (bg)			33	0.0013	0	0.0013	100
Selenium (mg/L)	GWC-15[*GWB-15] (bg)			12	0.001251	0.0001703	0.0013	91.67
Selenium (mg/L)	GWA-16[*GWB-16] (bg)			12	0.001213	0.0003031	0.0013	91.67
Silver, Total (mg/L)	GWA-13 (bg)			10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWA-14 (bg)			10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWA-2 (bg)			31	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWA-3 (bg)			31	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-17 (bg)			10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-18 (bg)			10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-4A[*GWB-4A] (bg)			31	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-5[*GWB-5] (bg)			31	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-15[*GWB-15] (bg)			10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWA-16[*GWB-16] (bg)			10	0.0013	0	0.0013	100
Sulfate (mg/L)	GWA-13 (bg)			12	0.943	0.1906	1	75
Sulfate (mg/L)	GWA-14 (bg)			12	1.958	1.653	1.25	25
Sulfate (mg/L)	GWA-2 (bg)			12	1.033	0.2539	1	50
Sulfate (mg/L)	GWA-3 (bg)			12	1.018	0.08614	1	50
Sulfate (mg/L)	GWC-17 (bg)			12	1.358	0.5782	1.2	33.33
Sulfate (mg/L)	GWC-18 (bg)			12	5.228	1.269	4.95	0
Sulfate (mg/L)	GWC-4A[*GWB-4A] (bg)			12	6.993	2.808	7.305	0
Sulfate (mg/L)	GWC-5[*GWB-5] (bg)			12	0.9039	0.2257	1	83.33
Sulfate (mg/L)	GWC-15[*GWB-15] (bg)			12	0.8794	0.2219	1	75
Sulfate (mg/L)	GWA-16[*GWB-16] (bg)			12	0.9333	0.1585	1	83.33
Thallium (mg/L)	GWA-13 (bg)			12	0.00043	0.0001637	0.0005	83.33
Thallium (mg/L)	GWA-14 (bg)			12	0.0004649	0.0001215	0.0005	91.67
Thallium (mg/L)	GWA-2 (bg)			31	0.0005	0	0.0005	100
Thallium (mg/L)	GWA-3 (bg)			31	0.0005	0	0.0005	100
Thallium (mg/L)	GWC-17 (bg)			12	0.0002928	0.0002171	0.0003	50
Thallium (mg/L)	GWC-18 (bg)			12	0.0001467	0.0001124	0.000115	8.333
Thallium (mg/L)	GWC-4A[*GWB-4A] (bg)			31	0.000485	0.00008334	0.0005	96.77
Thallium (mg/L)	GWC-5[*GWB-5] (bg)			31	0.0005	0	0.0005	100
Thallium (mg/L)	GWC-15[*GWB-15] (bg)			12	0.0005	0	0.0005	100
Thallium (mg/L)	GWA-16[*GWB-16] (bg)			12	0.0005	0	0.0005	100
Total Dissolved Solids (mg/L)	GWA-13 (bg)			12	17.75	13.64	13	16.67
Total Dissolved Solids (mg/L)	GWA-14 (bg)			12	20.92	16.56	19	16.67
Total Dissolved Solids (mg/L)	GWA-2 (bg)			12	20	15.54	15	8.333
Total Dissolved Solids (mg/L)	GWA-3 (bg)			12	23	10.68	24	8.333
Total Dissolved Solids (mg/L)	GWC-17 (bg)			12	28.17	22.45	23	8.333
Total Dissolved Solids (mg/L)	GWC-18 (bg)			12	91.42	32.32	90	0
Total Dissolved Solids (mg/L)	GWC-4A[*GWB-4A] (bg)			12	27	18.65	25	25
Total Dissolved Solids (mg/L)	GWC-5[*GWB-5] (bg)			12	25.83	18.8	27	16.67
Total Dissolved Solids (mg/L)	GWC-15[*GWB-15] (bg)			12	19.58	18.95	13	16.67
Total Dissolved Solids (mg/L)	GWA-16[*GWB-16] (bg)			12	18	18.07	12	25

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:33 AM

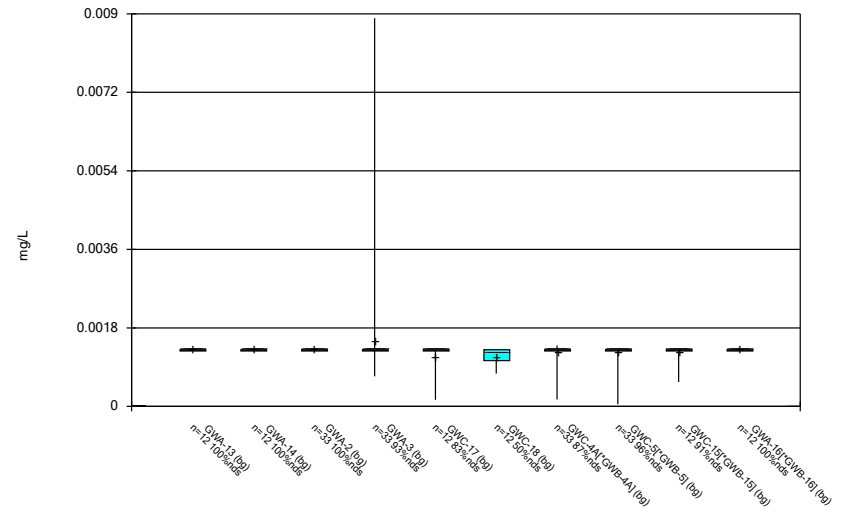
<u>Constituent</u>	<u>Well</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Median</u>	<u>%NDs</u>
Vanadium, Total (mg/L)	GWA-13 (bg)	10	0.002235	0.0006316	0.0025	80
Vanadium, Total (mg/L)	GWA-14 (bg)	10	0.002283	0.0006862	0.0025	90
Vanadium, Total (mg/L)	GWA-2 (bg)	31	0.002517	0.0006054	0.0025	93.55
Vanadium, Total (mg/L)	GWA-3 (bg)	31	0.00428	0.00962	0.0025	83.87
Vanadium, Total (mg/L)	GWC-17 (bg)	10	0.002297	0.0006419	0.0025	90
Vanadium, Total (mg/L)	GWC-18 (bg)	10	0.00297	0.001208	0.00235	0
Vanadium, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	31	0.002454	0.0004283	0.0025	93.55
Vanadium, Total (mg/L)	GWC-5[*GWB-5] (bg)	31	0.002467	0.0004118	0.0025	93.55
Vanadium, Total (mg/L)	GWC-15[*GWB-15] (bg)	10	0.00228	0.0006957	0.0025	90
Vanadium, Total (mg/L)	GWA-16[*GWB-16] (bg)	10	0.002265	0.0007431	0.0025	90
Zinc, Total (mg/L)	GWA-13 (bg)	10	0.00981	0.008786	0.0038	40
Zinc, Total (mg/L)	GWA-14 (bg)	10	0.00849	0.007968	0.004	30
Zinc, Total (mg/L)	GWA-2 (bg)	31	0.009542	0.007606	0.0045	32.26
Zinc, Total (mg/L)	GWA-3 (bg)	31	0.01574	0.01335	0.02	45.16
Zinc, Total (mg/L)	GWC-17 (bg)	10	0.0099	0.006981	0.00585	30
Zinc, Total (mg/L)	GWC-18 (bg)	10	0.05793	0.1555	0.0044	30
Zinc, Total (mg/L)	GWC-4A[*GWB-4A] (bg)	31	0.01153	0.01128	0.0064	25.81
Zinc, Total (mg/L)	GWC-5[*GWB-5] (bg)	31	0.009432	0.007844	0.0049	32.26
Zinc, Total (mg/L)	GWC-15[*GWB-15] (bg)	10	0.00901	0.007631	0.0049	30
Zinc, Total (mg/L)	GWA-16[*GWB-16] (bg)	10	0.00853	0.00794	0.004	30

Box & Whiskers Plot



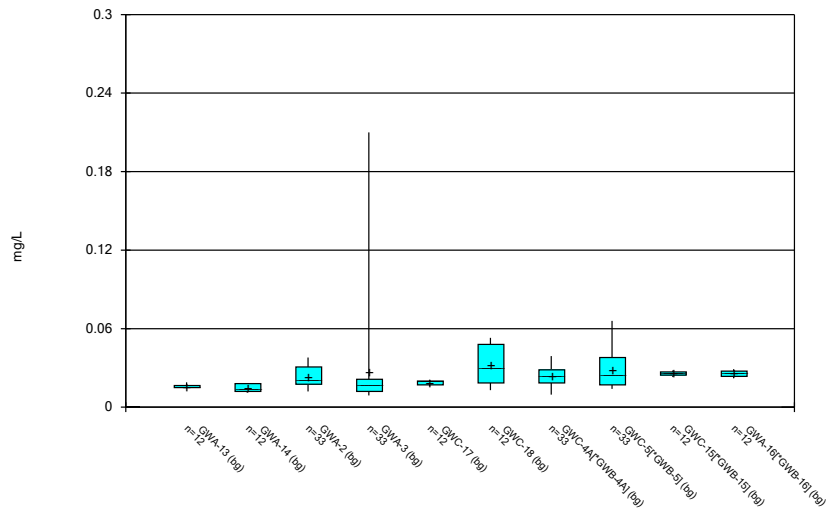
Constituent: Antimony Analysis Run 5/15/2019 11:32 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



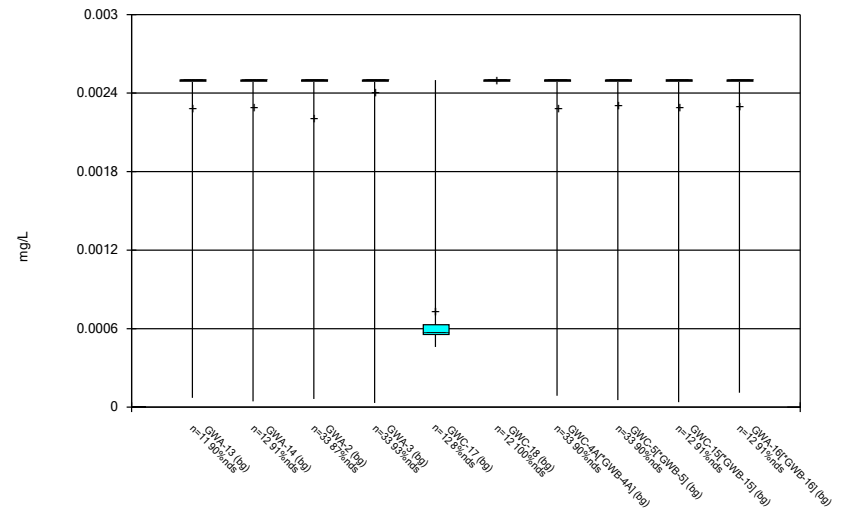
Constituent: Arsenic, Total Analysis Run 5/15/2019 11:32 AM
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Box & Whiskers Plot



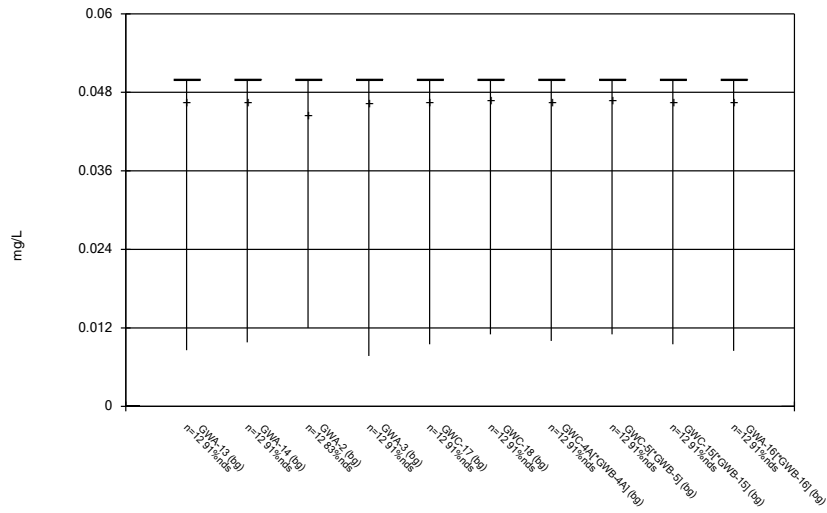
Constituent: Barium, Total Analysis Run 5/15/2019 11:32 AM
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Box & Whiskers Plot



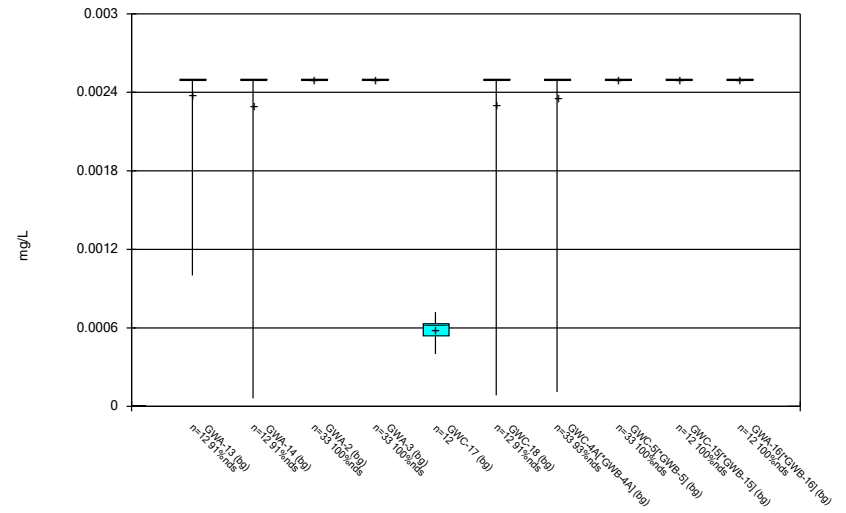
Constituent: Beryllium, Total Analysis Run 5/15/2019 11:32 AM
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Box & Whiskers Plot



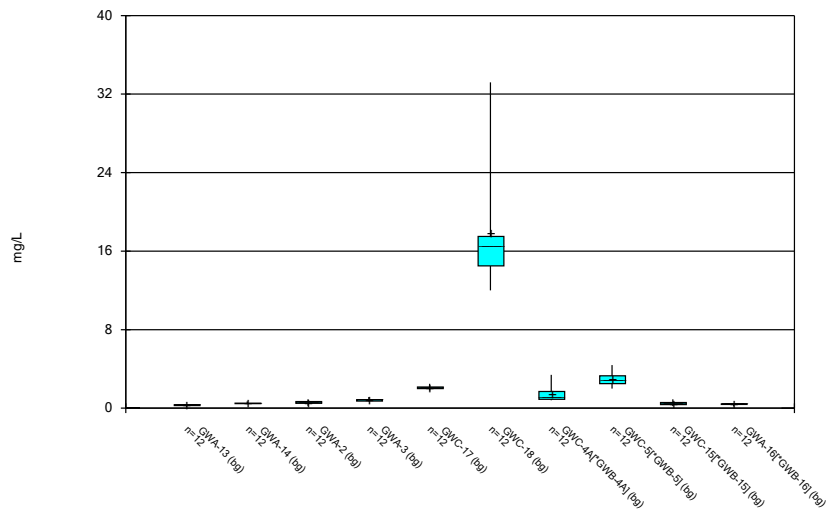
Constituent: Boron Analysis Run 5/15/2019 11:32 AM
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Box & Whiskers Plot



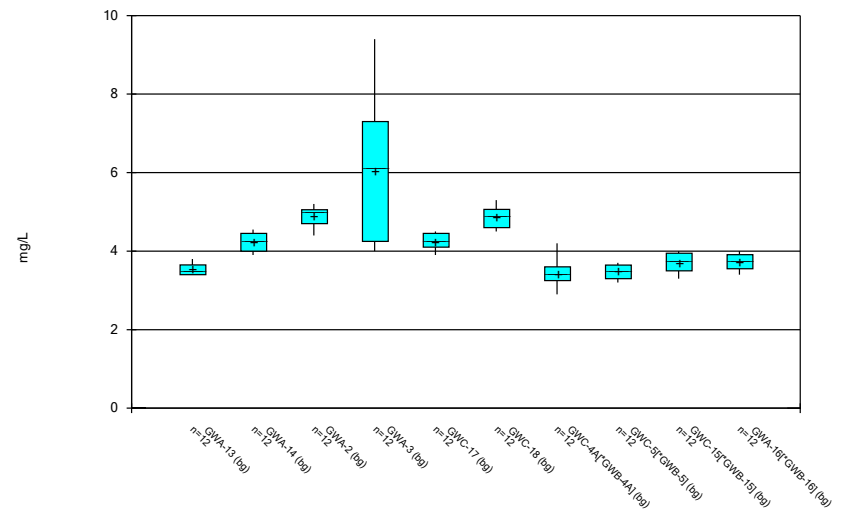
Constituent: Cadmium, Total Analysis Run 5/15/2019 11:32 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



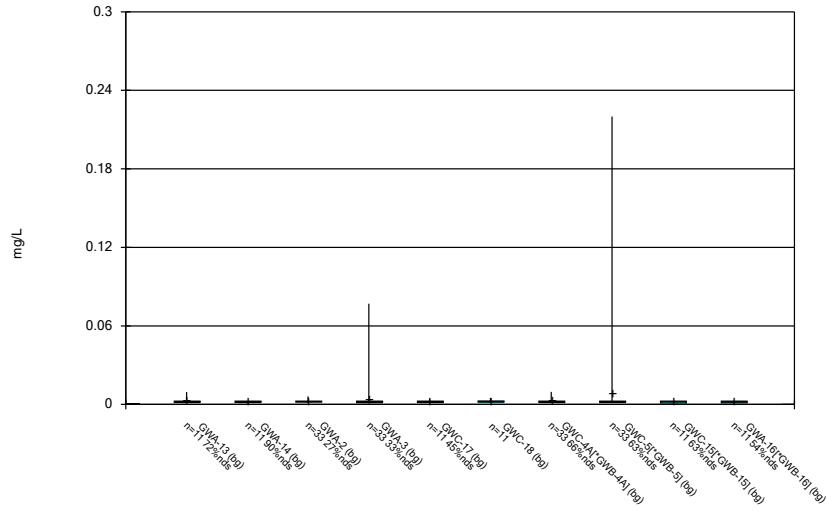
Constituent: Calcium Analysis Run 5/15/2019 11:32 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



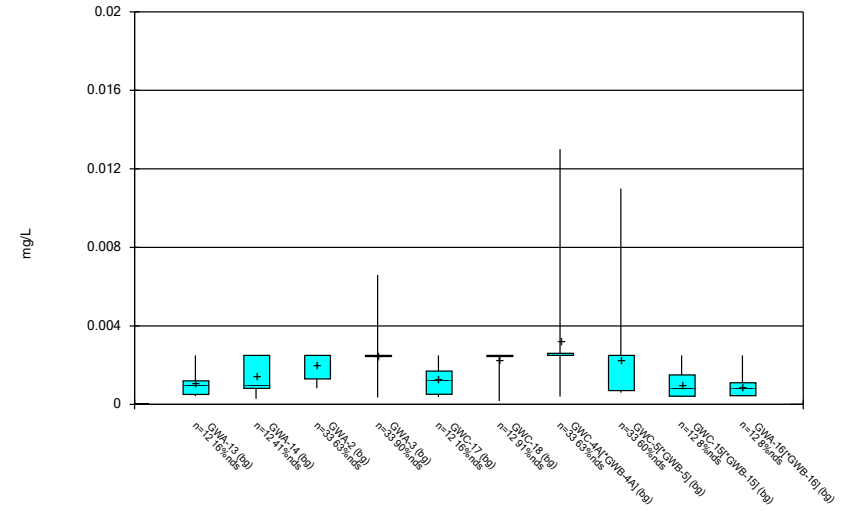
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Box & Whiskers Plot



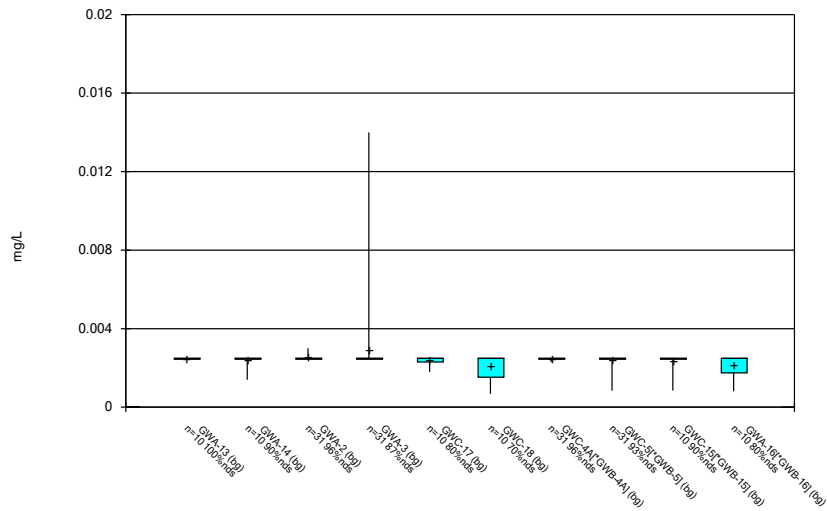
Constituent: Chromium, Total Analysis Run 5/15/2019 11:32 AM
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Box & Whiskers Plot



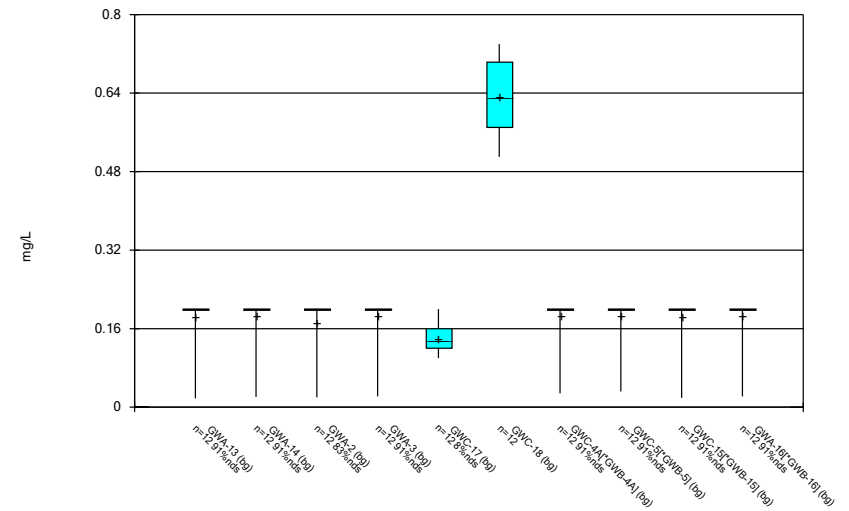
Constituent: Cobalt, Total Analysis Run 5/15/2019 11:32 AM
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Box & Whiskers Plot



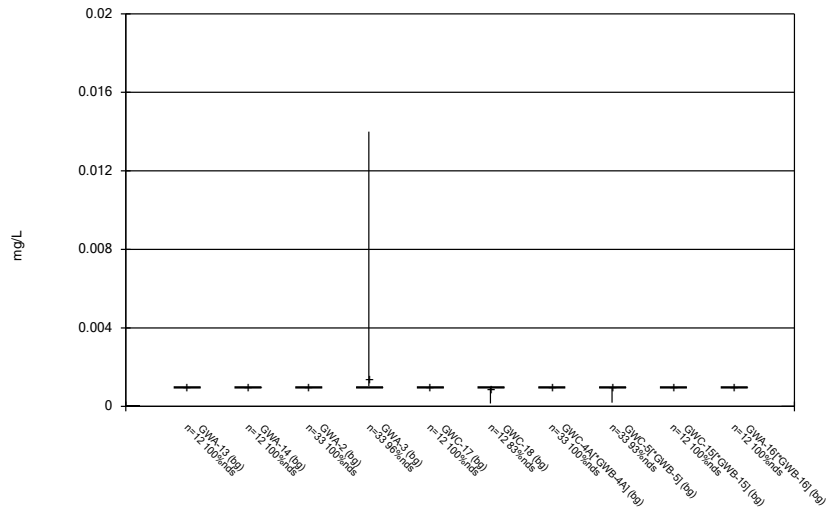
Constituent: Copper, Total Analysis Run 5/15/2019 11:33 AM
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Box & Whiskers Plot



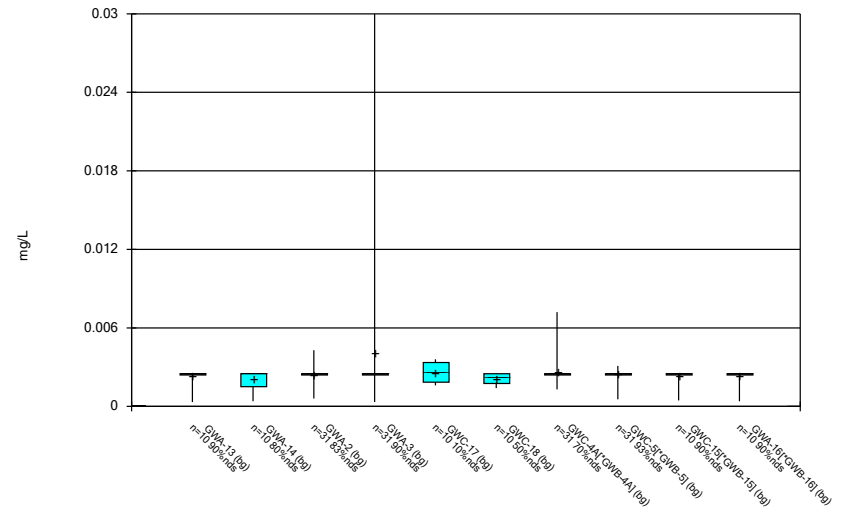
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Box & Whiskers Plot



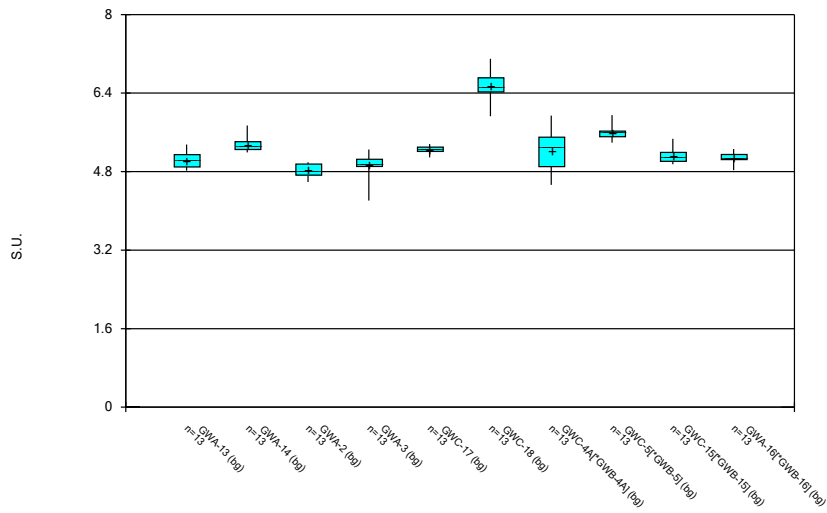
Constituent: Lead, Total Analysis Run 5/15/2019 11:33 AM
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Box & Whiskers Plot



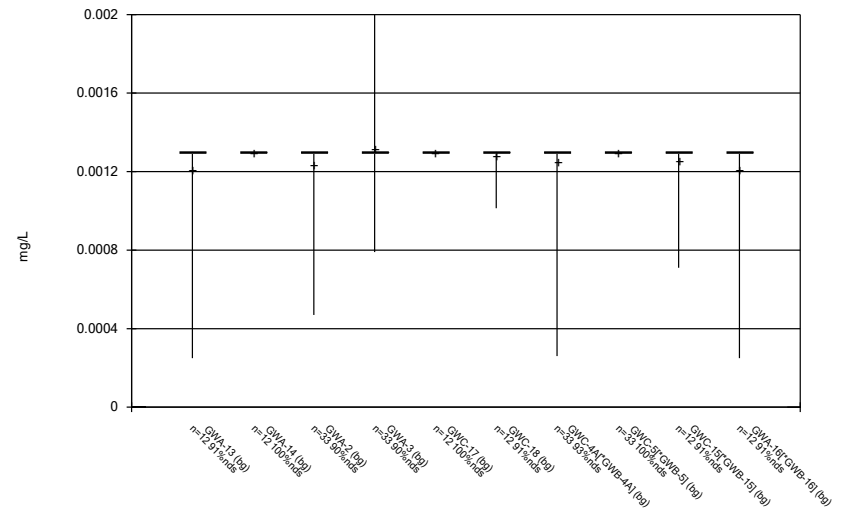
Constituent: Nickel, Total Analysis Run 5/15/2019 11:33 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



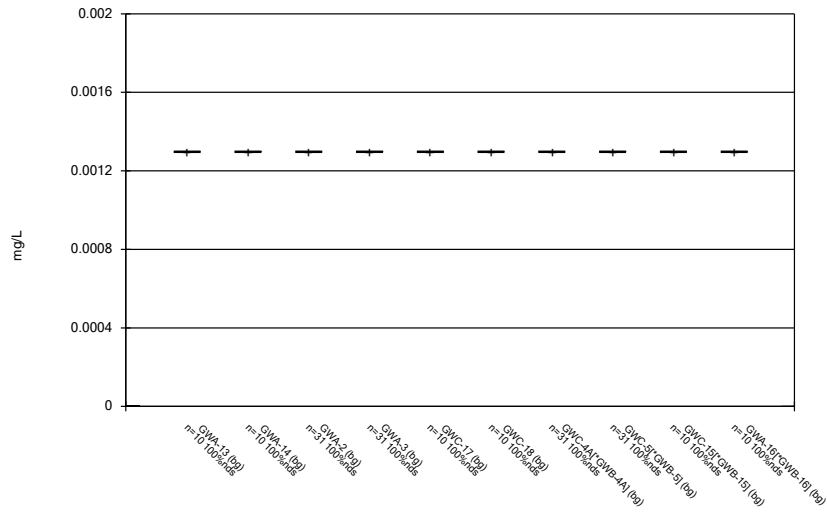
Constituent: pH Analysis Run 5/15/2019 11:33 AM
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Box & Whiskers Plot



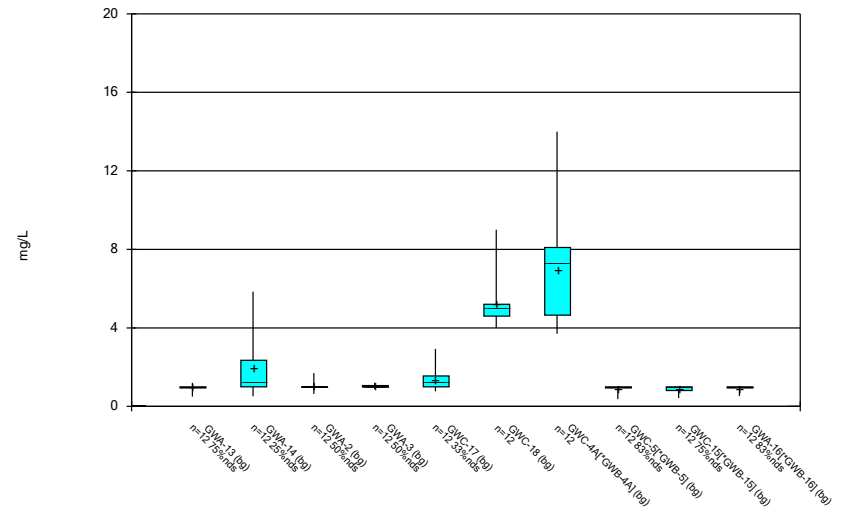
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Box & Whiskers Plot



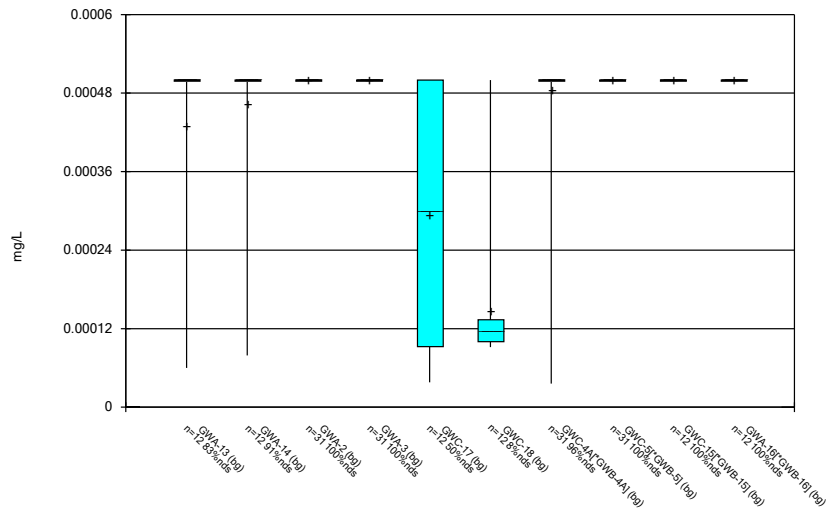
Constituent: Silver, Total Analysis Run 5/15/2019 11:33 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



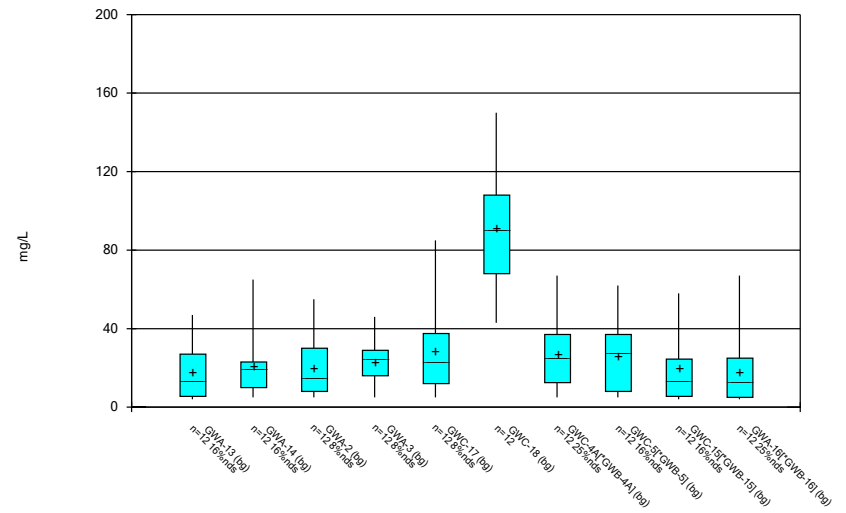
Constituent: Sulfate Analysis Run 5/15/2019 11:33 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



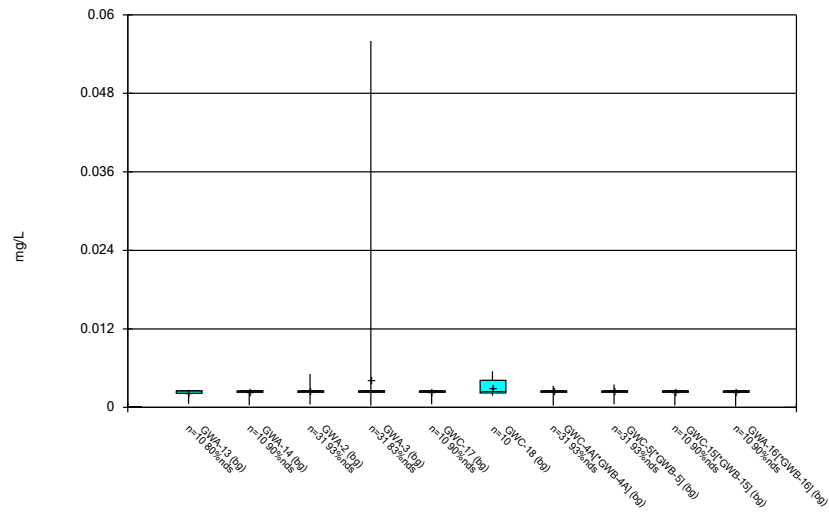
Constituent: Thallium Analysis Run 5/15/2019 11:33 AM
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Box & Whiskers Plot



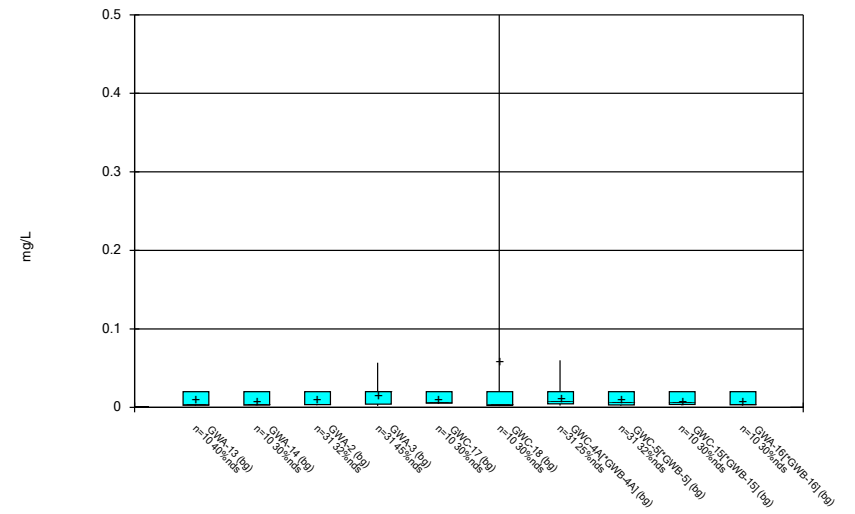
Constituent: Total Dissolved Solids Analysis Run 5/15/2019 11:33 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Vanadium, Total Analysis Run 5/15/2019 11:33 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Zinc, Total Analysis Run 5/15/2019 11:33 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot - Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:36 AM

Constituent	Well	N	Mean	Std. Dev.	Median	%NDs
Antimony (mg/L)	GWC-1	32	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-10	33	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-11	33	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-12	33	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-19	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-20	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-21	12	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-23	7	0.0025	0	0.0025	100
Antimony (mg/L)	GWC-9	33	0.0025	0	0.0025	100
Arsenic, Total (mg/L)	GWC-1	32	0.0013	0	0.0013	100
Arsenic, Total (mg/L)	GWC-10	33	0.001247	0.0002109	0.0013	93.94
Arsenic, Total (mg/L)	GWC-11	33	0.001271	0.0001064	0.0013	78.79
Arsenic, Total (mg/L)	GWC-12	33	0.001277	0.000134	0.0013	96.97
Arsenic, Total (mg/L)	GWC-19	12	0.001213	0.0003002	0.0013	91.67
Arsenic, Total (mg/L)	GWC-20	12	0.001133	0.0003952	0.0013	83.33
Arsenic, Total (mg/L)	GWC-21	12	0.001363	0.0004218	0.0013	75
Arsenic, Total (mg/L)	GWC-23	7	0.00109	0.000367	0.0013	71.43
Arsenic, Total (mg/L)	GWC-9	33	0.0013	0	0.0013	100
Barium, Total (mg/L)	GWC-1	32	0.03095	0.01221	0.0305	0
Barium, Total (mg/L)	GWC-10	33	0.02487	0.007867	0.023	0
Barium, Total (mg/L)	GWC-11	33	0.0164	0.01424	0.013	0
Barium, Total (mg/L)	GWC-12	33	0.0123	0.00172	0.012	0
Barium, Total (mg/L)	GWC-19	12	0.02808	0.01576	0.0205	0
Barium, Total (mg/L)	GWC-20	12	0.02996	0.01026	0.02975	0
Barium, Total (mg/L)	GWC-21	12	0.02008	0.004723	0.01775	0
Barium, Total (mg/L)	GWC-23	7	0.04171	0.00824	0.038	0
Barium, Total (mg/L)	GWC-9	33	0.02357	0.004653	0.024	0
Beryllium, Total (mg/L)	GWC-1	32	0.002058	0.000934	0.0025	81.25
Beryllium, Total (mg/L)	GWC-10	33	0.002355	0.0005797	0.0025	93.94
Beryllium, Total (mg/L)	GWC-11	33	0.0025	0	0.0025	100
Beryllium, Total (mg/L)	GWC-12	33	0.002076	0.000914	0.0025	81.82
Beryllium, Total (mg/L)	GWC-19	12	0.001122	0.001217	0.000205	41.67
Beryllium, Total (mg/L)	GWC-20	12	0.001224	0.001128	0.000405	41.67
Beryllium, Total (mg/L)	GWC-21	12	0.0025	0	0.0025	100
Beryllium, Total (mg/L)	GWC-23	7	0.0025	0	0.0025	100
Beryllium, Total (mg/L)	GWC-9	33	0.002354	0.0005843	0.0025	93.94
Boron (mg/L)	GWC-1	12	0.04725	0.009526	0.05	91.67
Boron (mg/L)	GWC-10	12	0.048	0.01486	0.051	25
Boron (mg/L)	GWC-11	12	0.04675	0.01126	0.05	91.67
Boron (mg/L)	GWC-12	12	0.04667	0.01155	0.05	91.67
Boron (mg/L)	GWC-19	12	0.04641	0.01244	0.05	91.67
Boron (mg/L)	GWC-20	12	0.04683	0.01097	0.05	91.67
Boron (mg/L)	GWC-21	12	0.04683	0.01097	0.05	91.67
Boron (mg/L)	GWC-23	12	0.04725	0.009526	0.05	91.67
Boron (mg/L)	GWC-9	12	0.04733	0.009238	0.05	91.67
Cadmium, Total (mg/L)	GWC-1	32	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWC-10	33	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWC-11	33	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWC-12	33	0.0025	0	0.0025	100
Cadmium, Total (mg/L)	GWC-19	12	0.001921	0.001048	0.0025	75

Box & Whiskers Plot - Downgradient Wells

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Constituent	Well	N	Mean	Std. Dev.	Median	%NDs
Cadmium, Total (mg/L)	GWC-20	12	0.001321	0.001054	0.000765	41.67
Cadmium, Total (mg/L)	GWC-21	12	0.002106	0.0009196	0.0025	83.33
Cadmium, Total (mg/L)	GWC-23	7	0.002164	0.0008882	0.0025	85.71
Cadmium, Total (mg/L)	GWC-9	33	0.0025	0	0.0025	100
Calcium (mg/L)	GWC-1	12	2.493	0.3739	2.45	0
Calcium (mg/L)	GWC-10	13	17.14	4.983	15	0
Calcium (mg/L)	GWC-11	12	9.445	1.494	8.92	0
Calcium (mg/L)	GWC-12	12	0.65	0.08571	0.66	0
Calcium (mg/L)	GWC-19	12	8.725	1.284	8.85	0
Calcium (mg/L)	GWC-20	12	1.649	0.3689	1.55	0
Calcium (mg/L)	GWC-21	12	1.363	0.6967	1.1	0
Calcium (mg/L)	GWC-23	12	4.883	4.646	2.75	0
Calcium (mg/L)	GWC-9	12	0.3143	0.1058	0.305	0
Chloride (mg/L)	GWC-1	12	6.965	0.3408	7	0
Chloride (mg/L)	GWC-10	12	6.113	0.4886	6.1	0
Chloride (mg/L)	GWC-11	12	4.642	0.2778	4.6	0
Chloride (mg/L)	GWC-12	12	3.593	0.1782	3.605	0
Chloride (mg/L)	GWC-19	12	7.75	1.206	8.25	0
Chloride (mg/L)	GWC-20	13	9.162	0.9954	8.9	0
Chloride (mg/L)	GWC-21	12	6.186	0.293	6.2	0
Chloride (mg/L)	GWC-23	12	4.592	0.9472	4.3	0
Chloride (mg/L)	GWC-9	13	10.78	1.705	11	0
Chromium, Total (mg/L)	GWC-1	33	0.004494	0.01214	0.0025	39.39
Chromium, Total (mg/L)	GWC-10	33	0.003696	0.00184	0.0026	27.27
Chromium, Total (mg/L)	GWC-11	33	0.005914	0.002243	0.0056	3.03
Chromium, Total (mg/L)	GWC-12	33	0.002648	0.001378	0.0025	24.24
Chromium, Total (mg/L)	GWC-19	11	0.001827	0.0005002	0.0017	18.18
Chromium, Total (mg/L)	GWC-20	11	0.002345	0.0005126	0.0025	90.91
Chromium, Total (mg/L)	GWC-21	11	0.002301	0.0006603	0.0025	90.91
Chromium, Total (mg/L)	GWC-23	7	0.002176	0.000858	0.0025	85.71
Chromium, Total (mg/L)	GWC-9	33	0.002525	0.0009013	0.0025	63.64
Cobalt, Total (mg/L)	GWC-1	32	0.002156	0.0004464	0.0025	59.38
Cobalt, Total (mg/L)	GWC-10	33	0.002367	0.000537	0.0025	93.94
Cobalt, Total (mg/L)	GWC-11	33	0.002931	0.001386	0.0025	78.79
Cobalt, Total (mg/L)	GWC-12	33	0.002392	0.002017	0.0025	63.64
Cobalt, Total (mg/L)	GWC-19	12	0.001854	0.0009708	0.0025	66.67
Cobalt, Total (mg/L)	GWC-20	12	0.003893	0.002515	0.00394	0
Cobalt, Total (mg/L)	GWC-21	12	0.001725	0.0004555	0.00165	16.67
Cobalt, Total (mg/L)	GWC-23	7	0.006314	0.002068	0.0072	0
Cobalt, Total (mg/L)	GWC-9	33	0.002025	0.001075	0.0025	66.67
Copper, Total (mg/L)	GWC-1	30	0.0025	0	0.0025	100
Copper, Total (mg/L)	GWC-10	31	0.0025	0	0.0025	100
Copper, Total (mg/L)	GWC-11	31	0.002471	0.000202	0.0025	93.55
Copper, Total (mg/L)	GWC-12	31	0.0025	0	0.0025	100
Copper, Total (mg/L)	GWC-19	10	0.002274	0.0007147	0.0025	90
Copper, Total (mg/L)	GWC-20	10	0.002282	0.0006894	0.0025	90
Copper, Total (mg/L)	GWC-21	10	0.002514	0.001576	0.0025	70
Copper, Total (mg/L)	GWC-23	5	0.00222	0.0006261	0.0025	80
Copper, Total (mg/L)	GWC-9	31	0.002471	0.0001131	0.0025	93.55
Fluoride (mg/L)	GWC-1	12	0.1867	0.04619	0.2	91.67

Box & Whiskers Plot - Downgradient Wells

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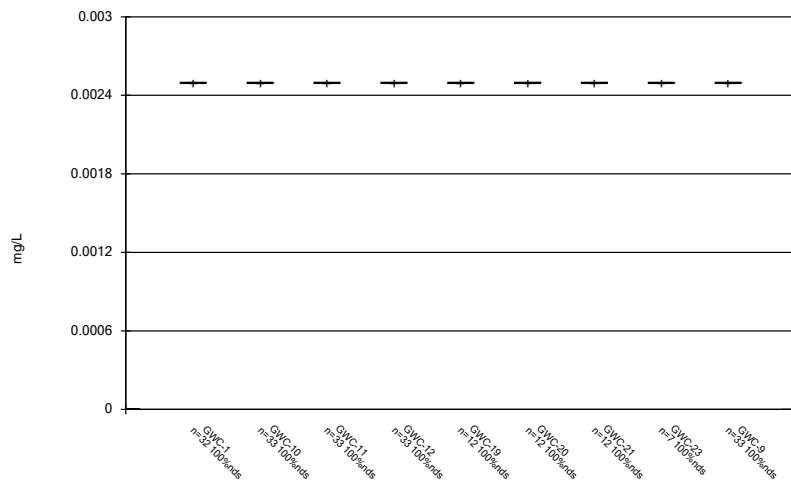
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Fluoride (mg/L)	GWC-10	12	0.1773	0.03739	0.18	8.333
Fluoride (mg/L)	GWC-11	12	0.3486	0.07297	0.3765	8.333
Fluoride (mg/L)	GWC-12	12	0.1855	0.05023	0.2	91.67
Fluoride (mg/L)	GWC-19	12	0.1095	0.03553	0.1005	8.333
Fluoride (mg/L)	GWC-20	12	0.1645	0.06518	0.2	75
Fluoride (mg/L)	GWC-21	12	0.1852	0.05138	0.2	91.67
Fluoride (mg/L)	GWC-23	12	0.1691	0.05753	0.2	75
Fluoride (mg/L)	GWC-9	12	0.185	0.05196	0.2	91.67
Lead, Total (mg/L)	GWC-1	32	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-10	33	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-11	33	0.0009567	0.0001745	0.001	93.94
Lead, Total (mg/L)	GWC-12	33	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-19	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-20	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-21	12	0.001	0	0.001	100
Lead, Total (mg/L)	GWC-23	7	0.0008757	0.0003288	0.001	85.71
Lead, Total (mg/L)	GWC-9	33	0.001139	0.0008008	0.001	96.97
Nickel, Total (mg/L)	GWC-1	30	0.002336	0.0004358	0.0025	86.67
Nickel, Total (mg/L)	GWC-10	31	0.002461	0.0002155	0.0025	96.77
Nickel, Total (mg/L)	GWC-11	31	0.002502	0.0005731	0.0025	87.1
Nickel, Total (mg/L)	GWC-12	31	0.002606	0.0007406	0.0025	87.1
Nickel, Total (mg/L)	GWC-19	10	0.00189	0.0004483	0.00185	0
Nickel, Total (mg/L)	GWC-20	10	0.003783	0.00189	0.00345	30
Nickel, Total (mg/L)	GWC-21	10	0.00237	0.0004111	0.0025	90
Nickel, Total (mg/L)	GWC-23	5	0.00206	0.0006877	0.0023	20
Nickel, Total (mg/L)	GWC-9	31	0.002545	0.000167	0.0025	90.32
pH (S.U.)	GWC-1	13	5.193	0.146	5.21	0
pH (S.U.)	GWC-10	13	6.292	0.2155	6.23	0
pH (S.U.)	GWC-11	13	6.303	0.1562	6.28	0
pH (S.U.)	GWC-12	13	5.106	0.05576	5.12	0
pH (S.U.)	GWC-19	12	5.74	0.1524	5.67	0
pH (S.U.)	GWC-20	13	4.972	0.1449	4.94	0
pH (S.U.)	GWC-21	13	5.15	0.3468	5.01	0
pH (S.U.)	GWC-23	12	5.654	0.4229	5.65	0
pH (S.U.)	GWC-9	13	4.909	0.1674	4.85	0
Selenium (mg/L)	GWC-1	32	0.001268	0.0001838	0.0013	96.88
Selenium (mg/L)	GWC-10	33	0.0013	0	0.0013	100
Selenium (mg/L)	GWC-11	33	0.001215	0.0002757	0.0013	90.91
Selenium (mg/L)	GWC-12	33	0.0013	0	0.0013	100
Selenium (mg/L)	GWC-19	12	0.001235	0.0002252	0.0013	91.67
Selenium (mg/L)	GWC-20	12	0.001367	0.0002309	0.0013	91.67
Selenium (mg/L)	GWC-21	12	0.0013	0	0.0013	100
Selenium (mg/L)	GWC-23	7	0.0013	0	0.0013	100
Selenium (mg/L)	GWC-9	33	0.001436	0.0007833	0.0013	96.97
Silver, Total (mg/L)	GWC-1	30	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-10	31	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-11	31	0.001278	0.0001239	0.0013	96.77
Silver, Total (mg/L)	GWC-12	31	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-19	10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-20	10	0.0013	0	0.0013	100

Box & Whiskers Plot - Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb Printed 5/15/2019, 11:36 AM

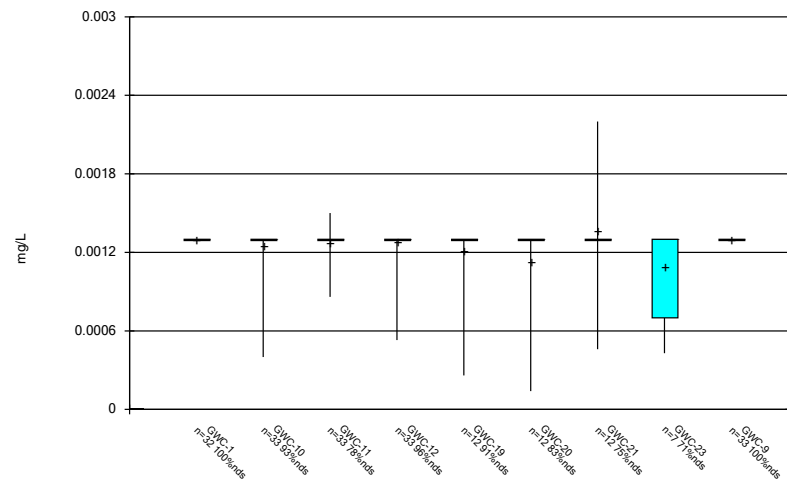
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Silver, Total (mg/L)	GWC-21	10	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-23	5	0.0013	0	0.0013	100
Silver, Total (mg/L)	GWC-9	31	0.0013	0	0.0013	100
Sulfate (mg/L)	GWC-1	12	1.464	0.4626	1.45	0
Sulfate (mg/L)	GWC-10	12	3.344	0.9508	3.35	0
Sulfate (mg/L)	GWC-11	12	4.556	0.6536	4.45	0
Sulfate (mg/L)	GWC-12	12	0.9209	0.1497	1	75
Sulfate (mg/L)	GWC-19	12	1.976	0.458	2	0
Sulfate (mg/L)	GWC-20	12	2.118	1.33	1.75	0
Sulfate (mg/L)	GWC-21	12	1.13	0.3573	1.05	16.67
Sulfate (mg/L)	GWC-23	12	3.117	1.98	2.5	0
Sulfate (mg/L)	GWC-9	12	1.644	1.106	1.1	33.33
Thallium (mg/L)	GWC-1	31	0.0005	0	0.0005	100
Thallium (mg/L)	GWC-10	31	0.0005	0	0.0005	100
Thallium (mg/L)	GWC-11	31	0.0004858	0.00007885	0.0005	96.77
Thallium (mg/L)	GWC-12	31	0.0005	0	0.0005	100
Thallium (mg/L)	GWC-19	12	0.0004649	0.0001215	0.0005	91.67
Thallium (mg/L)	GWC-20	12	0.0002968	0.0002127	0.000309	50
Thallium (mg/L)	GWC-21	12	0.0004432	0.0001441	0.0005	83.33
Thallium (mg/L)	GWC-23	7	0.00028	0.000207	0.00016	42.86
Thallium (mg/L)	GWC-9	31	0.0005	0	0.0005	100
Total Dissolved Solids (mg/L)	GWC-1	12	39.83	25.71	38	8.333
Total Dissolved Solids (mg/L)	GWC-10	12	98.83	40.07	104.5	0
Total Dissolved Solids (mg/L)	GWC-11	12	65.33	25.43	68	0
Total Dissolved Solids (mg/L)	GWC-12	12	21.92	13.17	22	8.333
Total Dissolved Solids (mg/L)	GWC-19	12	45.17	22.53	38	0
Total Dissolved Solids (mg/L)	GWC-20	12	33.75	20.24	30	0
Total Dissolved Solids (mg/L)	GWC-21	12	26.5	17.45	25	16.67
Total Dissolved Solids (mg/L)	GWC-23	12	47.17	25.86	38	0
Total Dissolved Solids (mg/L)	GWC-9	12	40.58	19.41	43	8.333
Vanadium, Total (mg/L)	GWC-1	30	0.002424	0.0004453	0.0025	90
Vanadium, Total (mg/L)	GWC-10	31	0.002341	0.0004757	0.0025	80.65
Vanadium, Total (mg/L)	GWC-11	31	0.002513	0.00134	0.0025	74.19
Vanadium, Total (mg/L)	GWC-12	31	0.0024	0.0004123	0.0025	93.55
Vanadium, Total (mg/L)	GWC-19	10	0.001982	0.0007995	0.00195	30
Vanadium, Total (mg/L)	GWC-20	10	0.002394	0.0007102	0.0025	80
Vanadium, Total (mg/L)	GWC-21	10	0.002338	0.0006648	0.0025	80
Vanadium, Total (mg/L)	GWC-23	5	0.002226	0.0009181	0.0025	60
Vanadium, Total (mg/L)	GWC-9	31	0.002471	0.0004757	0.0025	90.32
Zinc, Total (mg/L)	GWC-1	30	0.00862	0.007476	0.00385	26.67
Zinc, Total (mg/L)	GWC-10	31	0.01576	0.007357	0.02	70.97
Zinc, Total (mg/L)	GWC-11	31	0.01533	0.009222	0.02	64.52
Zinc, Total (mg/L)	GWC-12	31	0.009077	0.007797	0.0042	32.26
Zinc, Total (mg/L)	GWC-19	10	0.00917	0.007978	0.0043	30
Zinc, Total (mg/L)	GWC-20	10	0.0114	0.007515	0.00765	40
Zinc, Total (mg/L)	GWC-21	10	0.01022	0.008755	0.00745	40
Zinc, Total (mg/L)	GWC-23	5	0.01232	0.007224	0.0098	40
Zinc, Total (mg/L)	GWC-9	31	0.01554	0.009954	0.02	61.29

Box & Whiskers Plot



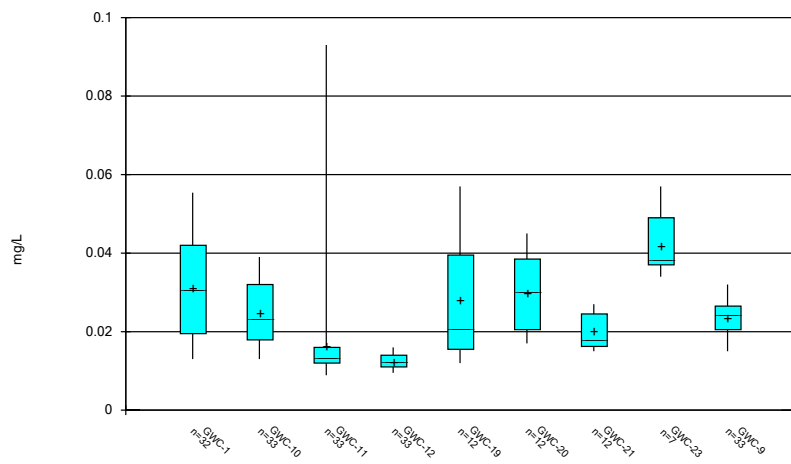
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Box & Whiskers Plot



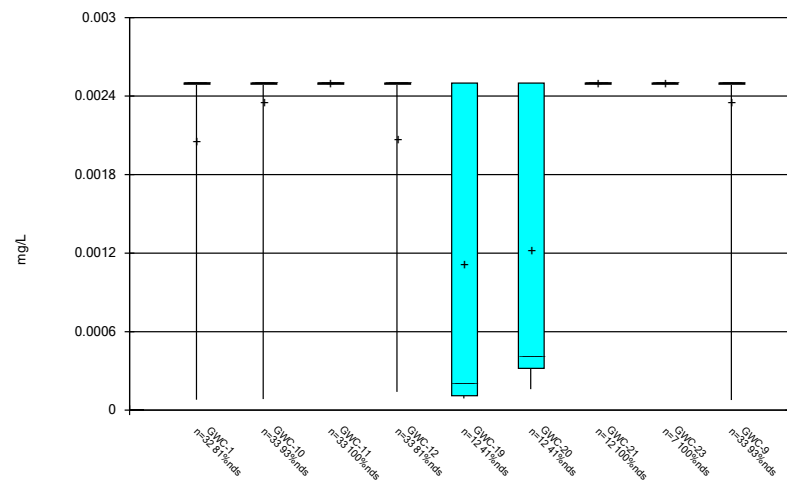
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Box & Whiskers Plot



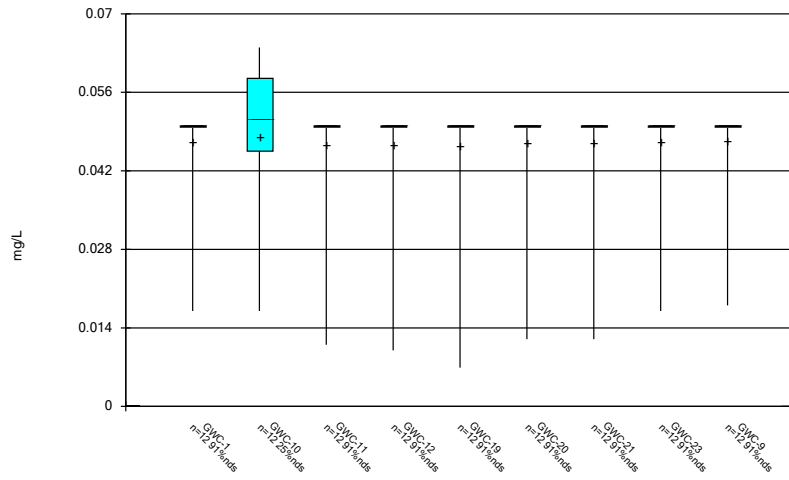
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Box & Whiskers Plot



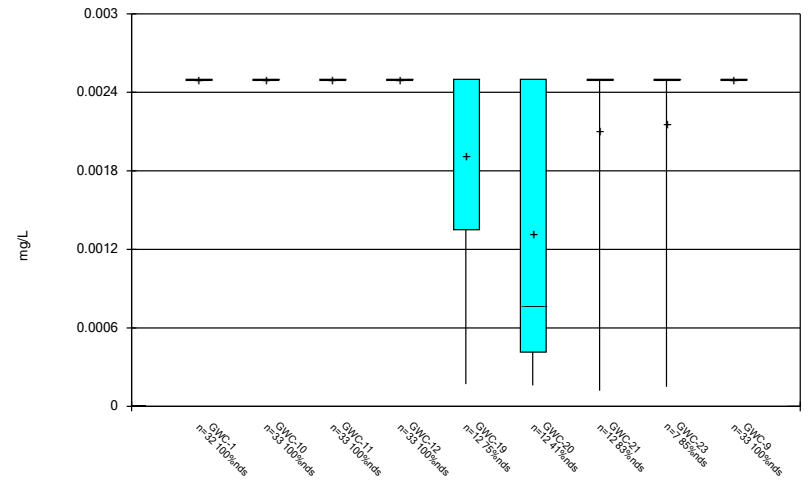
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Box & Whiskers Plot



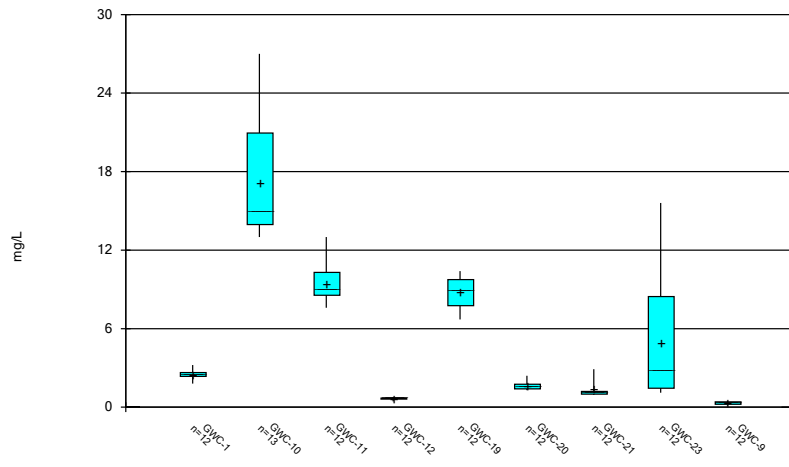
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Box & Whiskers Plot



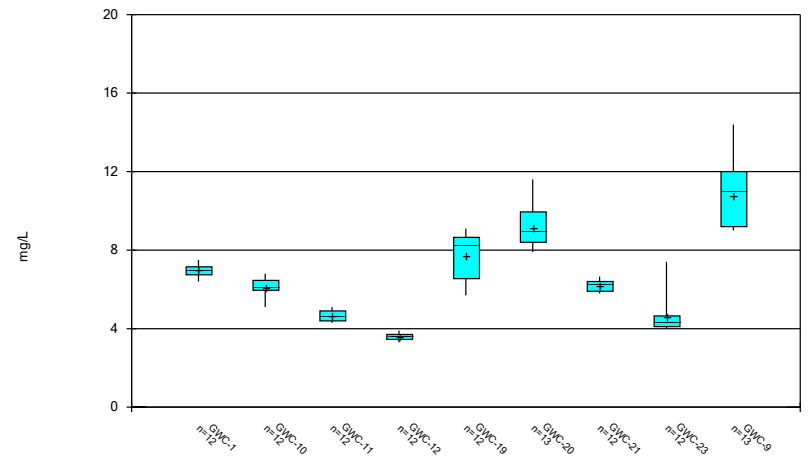
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Box & Whiskers Plot



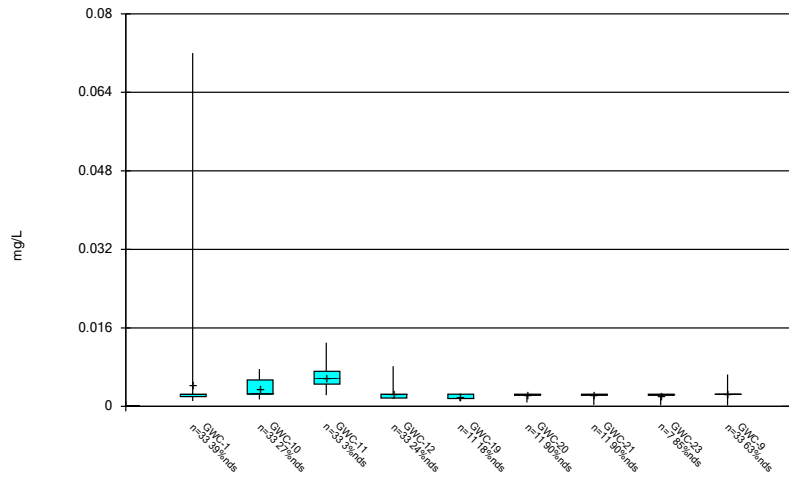
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Box & Whiskers Plot



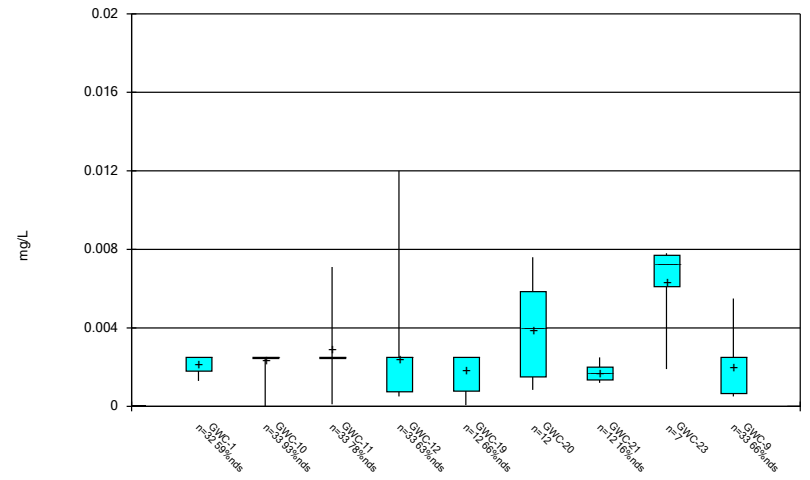
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Box & Whiskers Plot



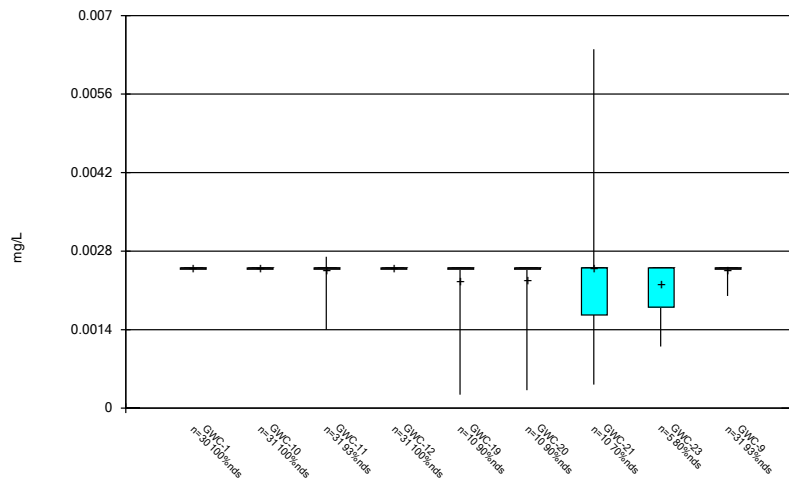
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Box & Whiskers Plot



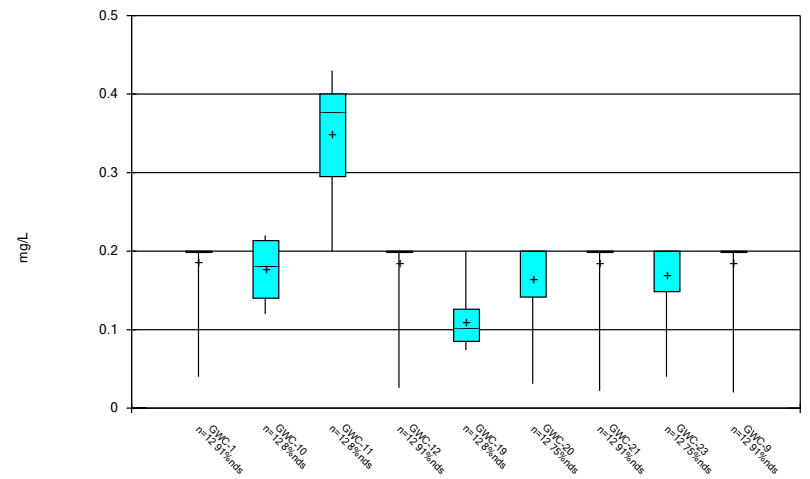
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Box & Whiskers Plot



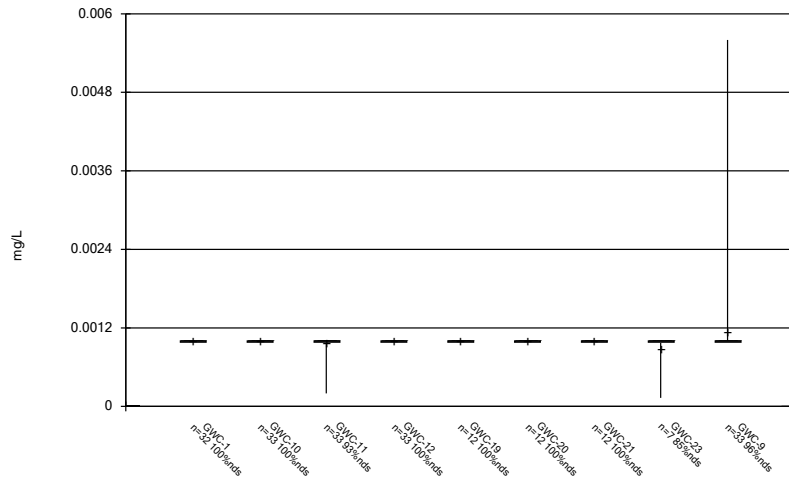
Constituent: Copper, Total Analysis Run 5/15/2019 11:35 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



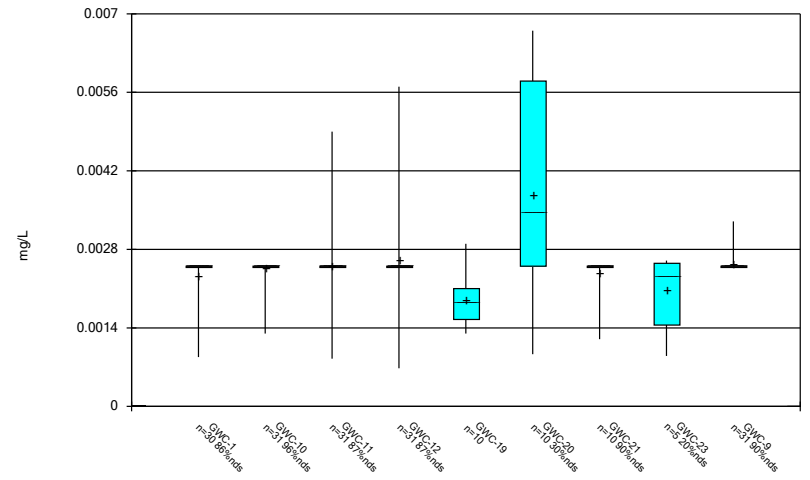
Constituent: Fluoride Analysis Run 5/15/2019 11:35 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



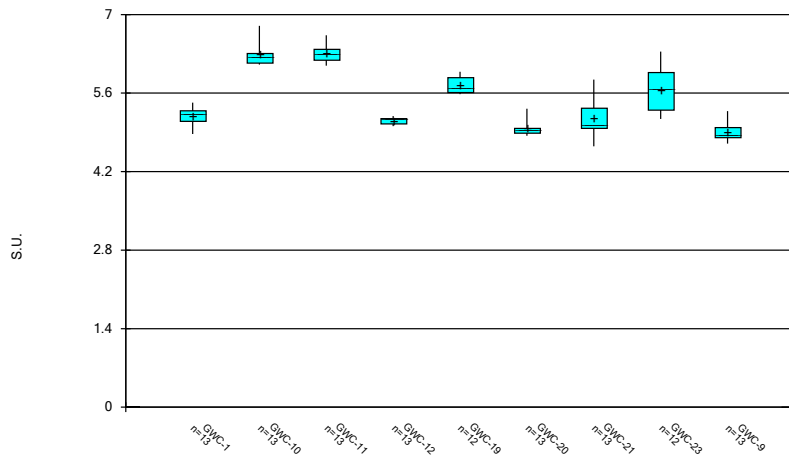
Constituent: Lead, Total Analysis Run 5/15/2019 11:35 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



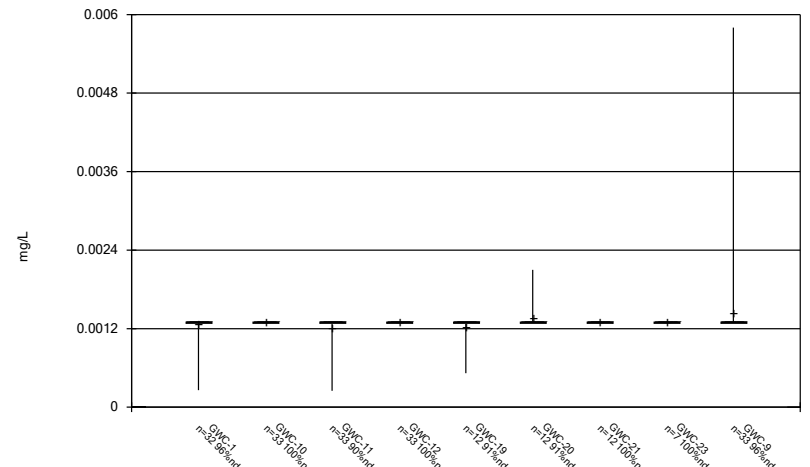
Constituent: Nickel, Total Analysis Run 5/15/2019 11:35 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



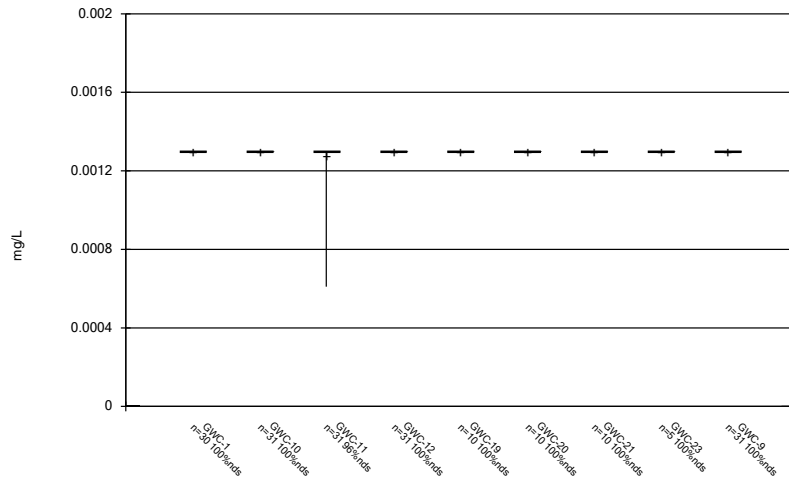
Constituent: pH Analysis Run 5/15/2019 11:35 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



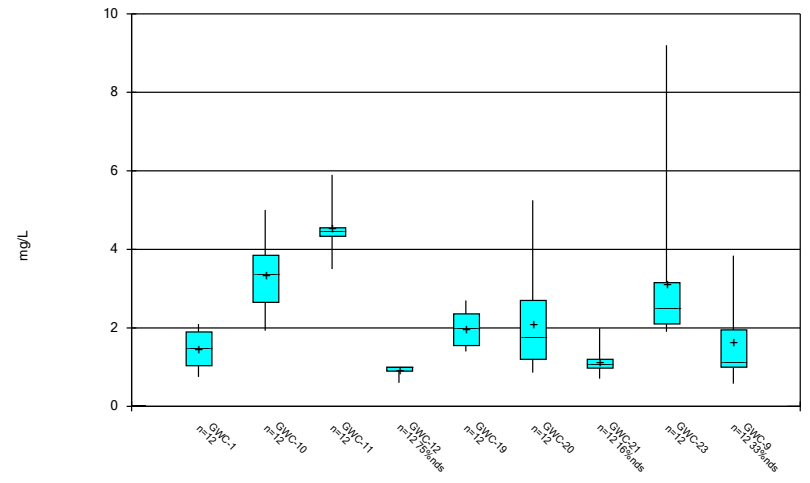
Constituent: Selenium Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



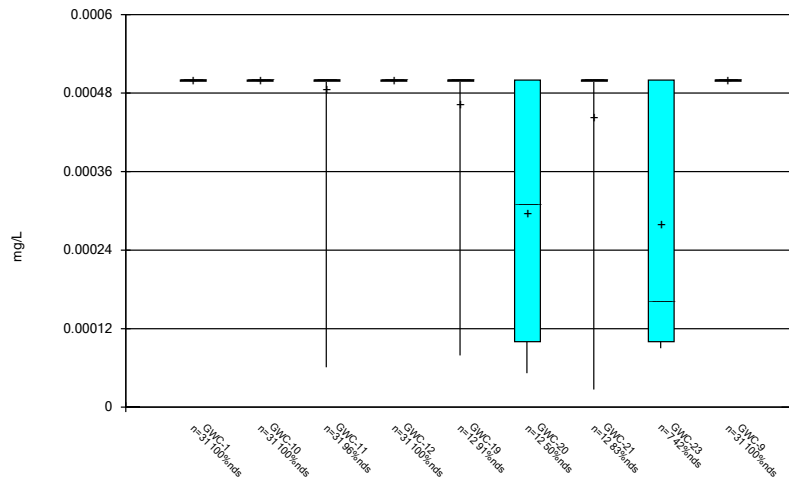
Constituent: Silver, Total Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



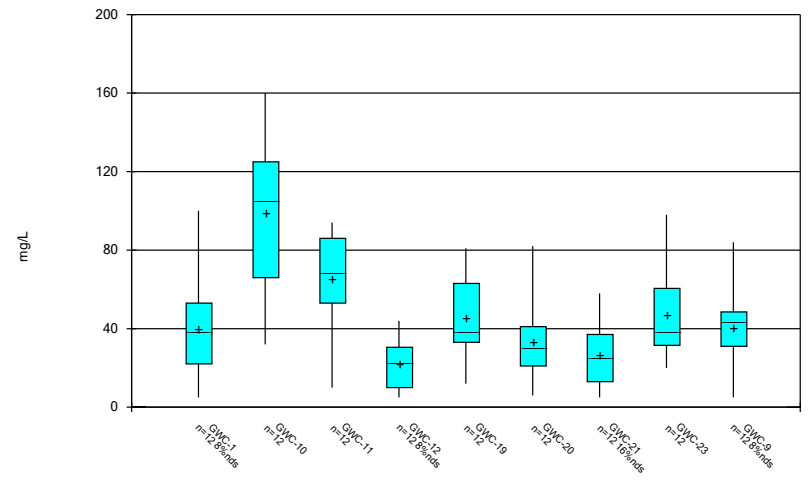
Constituent: Sulfate Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



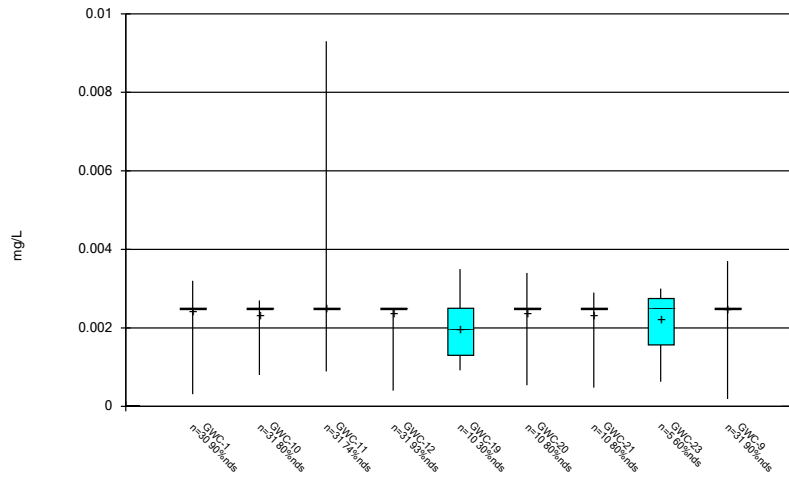
Constituent: Thallium Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



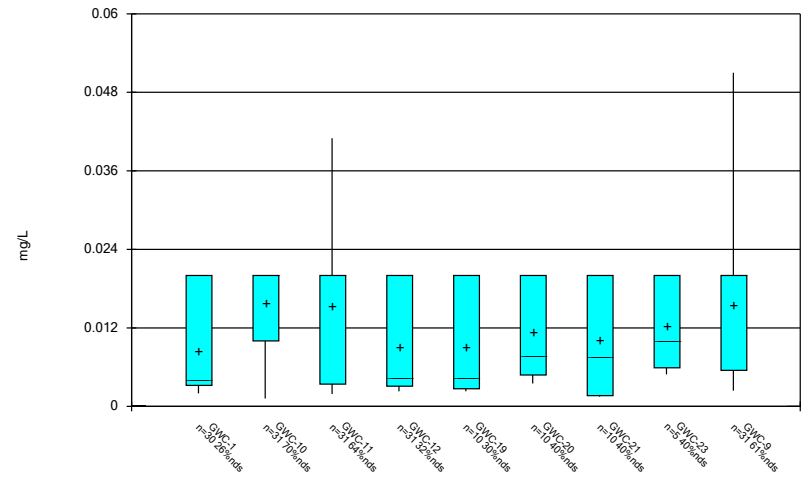
Constituent: Total Dissolved Solids Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Vanadium, Total Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Box & Whiskers Plot



Constituent: Zinc, Total Analysis Run 5/15/2019 11:36 AM
 Plant McIntosh Client: GEI Data: McIntosh No 4 flat 3_28.mdb

Georgia Power Company
2019 Semiannual Groundwater Monitoring and Corrective
Action Report
Plant McIntosh Landfill No. 4
Permit No. 051-010D(LI)
August 2019

Appendix D2

Sanitas™ Outputs for State Compliance Parameters – March 2019

Prediction Limit - Significant Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic, Total (mg/L)	GWC-18	0.001255	n/a	3/27/2019	0.0019	Yes	11	45.45	No	0.000...	Param Intra 1 of 3

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GWA-13	0.0025	n/a	3/26/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWA-16[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWA-2	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWA-3	0.0025	n/a	3/27/2019	0.0025ND	No	32	96.88	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-1	0.0025	n/a	3/27/2019	0.0025ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-10	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-11	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-12	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-17	0.0025	n/a	3/27/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-18	0.0025	n/a	3/27/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-19	0.0025	n/a	3/27/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-20	0.0025	n/a	3/27/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-21	0.0025	n/a	3/27/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-23	0.0025	n/a	3/27/2019	0.0025ND	No	6	100	n/a	0.01143	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-4A[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-5[*GW...	0.0025	n/a	3/26/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Antimony (mg/L)	GWC-9	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWA-13	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWA-14	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWA-16[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWA-2	0.0013	n/a	3/27/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWA-3	0.0013	n/a	3/27/2019	0.00046ND	No	31	96.77	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-1	0.0013	n/a	3/27/2019	0.0013ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-10	0.0013	n/a	3/27/2019	0.0013	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-11	0.005	n/a	3/27/2019	0.0013	No	32	81.25	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-12	0.0013	n/a	3/27/2019	0.00046ND	No	32	96.88	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-15[*G...	0.0013	n/a	3/26/2019	0.00046ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-17	0.0013	n/a	3/27/2019	0.00046ND	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-18	0.001255	n/a	3/27/2019	0.0019	Yes	11	45.45	No	0.000...	Param Intra 1 of 3
Arsenic, Total (mg/L)	GWC-19	0.0013	n/a	3/27/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-20	0.0013	n/a	3/27/2019	0.0013ND	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-21	0.0022	n/a	3/27/2019	0.00046ND	No	11	72.73	n/a	0.002806	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-23	0.0013	n/a	3/27/2019	0.00046ND	No	6	66.67	n/a	0.01143	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-4A[*G...	0.0014	n/a	3/26/2019	0.00046ND	No	32	87.5	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-5[*GW...	0.0013	n/a	3/26/2019	0.0013ND	No	32	96.88	n/a	0.000...	NP Intra (NDs) 1 of 3
Arsenic, Total (mg/L)	GWC-9	0.0013	n/a	3/27/2019	0.00046ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Barium, Total (mg/L)	GWA-13	0.017	n/a	3/26/2019	0.016	No	11	0	n/a	0.002806	NP Intra (normality) 1 of 3
Barium, Total (mg/L)	GWA-14	0.018	n/a	3/26/2019	0.012	No	11	0	n/a	0.002806	NP Intra (normality) 1 of 3
Barium, Total (mg/L)	GWA-16[*G...	0.03094	n/a	3/26/2019	0.023	No	11	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWA-2	0.04056	n/a	3/27/2019	0.00049ND	No	9	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWA-3	0.02627	n/a	3/27/2019	0.00049ND	No	29	0	sqrt(x)	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-1	0.05878	n/a	3/27/2019	0.00049ND	No	12	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-10	0.03811	n/a	3/27/2019	0.00049ND	No	32	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-11	0.0203	n/a	3/27/2019	0.00049ND	No	31	0	ln(x)	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-12	0.0152	n/a	3/27/2019	0.00049ND	No	32	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-15[*G...	0.02884	n/a	3/26/2019	0.028	No	11	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-17	0.02221	n/a	3/27/2019	0.00049ND	No	11	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-18	0.06681	n/a	3/27/2019	0.00049ND	No	11	0	No	0.000...	Param Intra 1 of 3

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Barium, Total (mg/L)	GWC-19	0.06387	n/a	3/27/2019	0.00049ND	No	11	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-20	0.05247	n/a	3/27/2019	0.00049ND	No	11	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-21	0.03087	n/a	3/27/2019	0.00049ND	No	11	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-23	0.06971	n/a	3/27/2019	0.00049ND	No	6	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-4A[*G...	0.03553	n/a	3/26/2019	0.023	No	32	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-5[*GW...	0.06758	n/a	3/26/2019	0.046	No	13	0	No	0.000...	Param Intra 1 of 3
Barium, Total (mg/L)	GWC-9	0.03069	n/a	3/27/2019	0.00049ND	No	32	0	No	0.000...	Param Intra 1 of 3
Beryllium, Total (mg/L)	GWA-13	0.0025	n/a	3/26/2019	0.0025ND	No	10	90	n/a	0.00344	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWA-16[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWA-2	0.0025	n/a	3/27/2019	0.0025ND	No	32	90.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWA-3	0.0025	n/a	3/27/2019	0.0025ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-1	0.0025	n/a	3/27/2019	0.0025ND	No	31	80.65	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-10	0.0025	n/a	3/27/2019	0.0025ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-11	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-12	0.0025	n/a	3/27/2019	0.0025ND	No	32	81.25	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-17	0.0006948	n/a	3/27/2019	0.00034ND	No	10	0	No	0.000...	Param Intra 1 of 3
Beryllium, Total (mg/L)	GWC-18	0.0025	n/a	3/27/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-19	0.0025	n/a	3/27/2019	0.0025ND	No	11	45.45	n/a	0.002806	NP Intra (normality) 1 of 3
Beryllium, Total (mg/L)	GWC-20	0.0025	n/a	3/27/2019	0.0025ND	No	11	45.45	n/a	0.002806	NP Intra (normality) 1 of 3
Beryllium, Total (mg/L)	GWC-21	0.0025	n/a	3/27/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-23	0.0025	n/a	3/27/2019	0.0025ND	No	6	100	n/a	0.01143	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-4A[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-5[*GW...	0.0025	n/a	3/26/2019	0.0025ND	No	32	90.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Beryllium, Total (mg/L)	GWC-9	0.0025	n/a	3/27/2019	0.0025ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWA-13	0.0025	n/a	3/26/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWA-16[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWA-2	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWA-3	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-1	0.0025	n/a	3/27/2019	0.0025ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-10	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-11	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-12	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-17	0.0007932	n/a	3/27/2019	0.00034ND	No	11	0	No	0.000...	Param Intra 1 of 3
Cadmium, Total (mg/L)	GWC-18	0.0025	n/a	3/27/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-19	0.0025	n/a	3/27/2019	0.0025ND	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-20	0.001036	n/a	3/27/2019	0.0025ND	No	11	45.45	ln(x)	0.000...	Param Intra 1 of 3
Cadmium, Total (mg/L)	GWC-21	0.0025	n/a	3/27/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-23	0.0025	n/a	3/27/2019	0.0025ND	No	6	100	n/a	0.01143	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-4A[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-5[*GW...	0.0025	n/a	3/26/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Cadmium, Total (mg/L)	GWC-9	0.0025	n/a	3/27/2019	0.0025ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Calcium (mg/L)	GWA-13	0.4504	n/a	3/26/2019	0.3	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-14	0.683	n/a	3/26/2019	0.42	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-16[*G...	0.4861	n/a	3/26/2019	0.37	No	10	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-2	0.9516	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-3	1.111	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	GWC-1	3.341	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-10	27	n/a	3/27/2019	0.13ND	No	12	0	n/a	0.002173	NP Intra (normality) 1 of 3
Calcium (mg/L)	GWC-11	12.54	n/a	3/27/2019	0.13ND	No	12	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-12	0.8404	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-15[*G...	0.7184	n/a	3/26/2019	0.58	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-17	2.454	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-18	24.48	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-19	11.37	n/a	3/27/2019	0.13ND	No	12	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-20	2.498	n/a	3/27/2019	0.13ND	No	11	0	sqrt(x)	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-21	1.327	n/a	3/27/2019	0.13ND	No	9	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-23	11.76	n/a	3/27/2019	0.13ND	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-4A[*G...	3.648	n/a	3/26/2019	0.53	No	11	0	sqrt(x)	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-5[*GW...	4.254	n/a	3/26/2019	2.8	No	11	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-9	0.552	n/a	3/27/2019	0.13ND	No	11	0	No	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWA-13	0.0094	n/a	3/26/2019	0.0011ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	10	90	n/a	0.00344	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWA-16[*G...	0.001792	n/a	3/26/2019	0.0011ND	No	10	50	No	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWA-2	0.002494	n/a	3/27/2019	0.0011ND	No	31	25.81	No	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWA-3	0.003331	n/a	3/27/2019	0.0011ND	No	31	32.26	sqrt(x)	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWC-1	0.003449	n/a	3/27/2019	0.0025ND	No	31	38.71	sqrt(x)	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWC-10	0.0076	n/a	3/27/2019	0.0035	No	32	28.13	n/a	0.000...	NP Intra (normality) 1 of 3
Chromium, Total (mg/L)	GWC-11	0.009619	n/a	3/27/2019	0.0031	No	32	3.125	No	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWC-12	0.01	n/a	3/27/2019	0.0011ND	No	32	25	n/a	0.000...	NP Intra (normality) 1 of 3
Chromium, Total (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0011ND	No	10	60	n/a	0.00344	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWC-17	0.01	n/a	3/27/2019	0.0028	No	10	50	n/a	0.00344	NP Intra (normality) 1 of 3
Chromium, Total (mg/L)	GWC-18	0.003136	n/a	3/27/2019	0.0025	No	10	0	No	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWC-19	0.002682	n/a	3/27/2019	0.0011ND	No	9	0	No	0.000...	Param Intra 1 of 3
Chromium, Total (mg/L)	GWC-20	0.0025	n/a	3/27/2019	0.0025ND	No	10	90	n/a	0.00344	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWC-21	0.0025	n/a	3/27/2019	0.0025ND	No	10	90	n/a	0.00344	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWC-23	0.0025	n/a	3/27/2019	0.0025ND	No	6	83.33	n/a	0.01143	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWC-4A[*G...	0.0096	n/a	3/26/2019	0.0025ND	No	32	65.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWC-5[*GW...	0.004	n/a	3/26/2019	0.0025ND	No	31	64.52	n/a	0.000...	NP Intra (NDs) 1 of 3
Chromium, Total (mg/L)	GWC-9	0.0038	n/a	3/27/2019	0.0025ND	No	31	64.52	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWA-13	0.0013	n/a	3/26/2019	0.0025ND	No	11	18.18	No	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWA-14	0.00129	n/a	3/26/2019	0.0025ND	No	11	45.45	x^(1/3)	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWA-16[*G...	0.001495	n/a	3/26/2019	0.0025ND	No	10	0	No	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWA-2	0.01	n/a	3/27/2019	0.0004ND	No	32	65.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWA-3	0.0025	n/a	3/27/2019	0.0025ND	No	31	96.77	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-1	0.0025	n/a	3/27/2019	0.0004ND	No	31	58.06	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-10	0.0025	n/a	3/27/2019	0.0025ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-11	0.0071	n/a	3/27/2019	0.0025ND	No	32	78.13	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-12	0.012	n/a	3/27/2019	0.0004ND	No	31	61.29	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-15[*G...	0.002063	n/a	3/26/2019	0.0025ND	No	10	0	No	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWC-17	0.00213	n/a	3/27/2019	0.0025ND	No	11	18.18	No	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWC-18	0.0025	n/a	3/27/2019	0.0025ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-19	0.0025	n/a	3/27/2019	0.0025ND	No	11	63.64	n/a	0.002806	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-20	0.009441	n/a	3/27/2019	0.0004ND	No	11	0	No	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWC-21	0.002258	n/a	3/27/2019	0.0004ND	No	10	0	No	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWC-23	0.01074	n/a	3/27/2019	0.006	No	6	0	x^2	0.000...	Param Intra 1 of 3
Cobalt, Total (mg/L)	GWC-4A[*G...	0.013	n/a	3/26/2019	0.0037	No	32	65.63	n/a	0.000...	NP Intra (NDs) 1 of 3

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Cobalt, Total (mg/L)	GWC-5[*GW...	0.011	n/a	3/26/2019	0.0004ND	No	32	62.5	n/a	0.000...	NP Intra (NDs) 1 of 3
Cobalt, Total (mg/L)	GWC-9	0.0055	n/a	3/27/2019	0.0004ND	No	32	65.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWA-13	0.0025	n/a	3/26/2019	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWA-16[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWA-2	0.003	n/a	3/27/2019	0.0025ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWA-3	0.0034	n/a	3/27/2019	0.0025ND	No	29	89.66	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-1	0.0025	n/a	3/27/2019	0.0025ND	No	29	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-10	0.0025	n/a	3/27/2019	0.0025ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-11	0.0027	n/a	3/27/2019	0.0025ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-12	0.0025	n/a	3/27/2019	0.0025ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-17	0.0025	n/a	3/27/2019	0.0025ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-18	0.0025	n/a	3/27/2019	0.0025ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-19	0.0025	n/a	3/27/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-20	0.0025	n/a	3/27/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-21	0.0025	n/a	3/27/2019	0.0025ND	No	8	75	n/a	0.005912	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-23	0.0025	n/a	3/27/2019	0.0025ND	No	4	75	n/a	0.02654	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-4A[*G...	0.0025	n/a	3/26/2019	0.0021ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-5[*GW...	0.0025	n/a	3/26/2019	0.0025ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Copper, Total (mg/L)	GWC-9	0.0025	n/a	3/27/2019	0.0025ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWA-13	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWA-14	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWA-16[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWA-2	0.0013	n/a	3/27/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWA-3	0.0013	n/a	3/27/2019	0.0013ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-1	0.0013	n/a	3/27/2019	0.0013ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-10	0.0013	n/a	3/27/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-11	0.0013	n/a	3/27/2019	0.0013ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-12	0.0013	n/a	3/27/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-15[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-17	0.0013	n/a	3/27/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-18	0.0013	n/a	3/27/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-19	0.0013	n/a	3/27/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-20	0.0013	n/a	3/27/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-21	0.0013	n/a	3/27/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-23	0.0013	n/a	3/27/2019	0.0013ND	No	6	100	n/a	0.01143	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-4A[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-5[*GW...	0.0013	n/a	3/26/2019	0.0013ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Lead, Total (mg/L)	GWC-9	0.0013	n/a	3/27/2019	0.0013ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWA-13	0.0025	n/a	3/26/2019	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWA-16[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWA-2	0.0043	n/a	3/27/2019	0.0025ND	No	30	86.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWA-3	0.0025	n/a	3/27/2019	0.0025ND	No	28	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-1	0.0025	n/a	3/27/2019	0.0025ND	No	29	86.21	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-10	0.0025	n/a	3/27/2019	0.0025ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-11	0.0029	n/a	3/27/2019	0.0025ND	No	29	89.66	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-12	0.0043	n/a	3/27/2019	0.0025ND	No	29	89.66	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Nickel, Total (mg/L)	GWC-17	0.004317	n/a	3/27/2019	0.0018ND	No	9	11.11	No	0.000...	Param Intra 1 of 3
Nickel, Total (mg/L)	GWC-18	0.002133	n/a	3/27/2019	0.0025ND	No	9	44.44	No	0.000...	Param Intra 1 of 3
Nickel, Total (mg/L)	GWC-19	0.003042	n/a	3/27/2019	0.0025ND	No	9	0	No	0.000...	Param Intra 1 of 3
Nickel, Total (mg/L)	GWC-20	0.005981	n/a	3/27/2019	0.0025ND	No	7	42.86	No	0.000...	Param Intra 1 of 3
Nickel, Total (mg/L)	GWC-21	0.0025	n/a	3/27/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-23	0.00634	n/a	3/27/2019	0.0018ND	No	4	0	No	0.000...	Param Intra 1 of 3
Nickel, Total (mg/L)	GWC-4A[*G...	0.0048	n/a	3/26/2019	0.0018ND	No	29	75.86	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-5[*GW...	0.0031	n/a	3/26/2019	0.0025ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Nickel, Total (mg/L)	GWC-9	0.0033	n/a	3/27/2019	0.0025ND	No	30	90	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWA-13	0.0013	n/a	3/26/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWA-14	0.0013	n/a	3/26/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWA-16[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWA-2	0.0013	n/a	3/27/2019	0.0013ND	No	32	90.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWA-3	0.002	n/a	3/27/2019	0.0013ND	No	32	90.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-1	0.0013	n/a	3/27/2019	0.0013ND	No	31	96.77	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-10	0.0013	n/a	3/27/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-11	0.0013	n/a	3/27/2019	0.0013ND	No	32	90.63	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-12	0.0013	n/a	3/27/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-15[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-17	0.0013	n/a	3/27/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-18	0.0013	n/a	3/27/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-19	0.0013	n/a	3/27/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-20	0.0021	n/a	3/27/2019	0.0013ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-21	0.0013	n/a	3/27/2019	0.0013ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-23	0.0013	n/a	3/27/2019	0.0013ND	No	6	100	n/a	0.01143	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-4A[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	32	93.75	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-5[*GW...	0.0013	n/a	3/26/2019	0.0013ND	No	32	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Selenium (mg/L)	GWC-9	0.0013	n/a	3/27/2019	0.0013ND	No	31	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWA-13	0.0013	n/a	3/26/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWA-14	0.0013	n/a	3/26/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWA-16[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWA-2	0.0013	n/a	3/27/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWA-3	0.0013	n/a	3/27/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-1	0.0013	n/a	3/27/2019	0.0013ND	No	29	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-10	0.0013	n/a	3/27/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-11	0.0013	n/a	3/27/2019	0.0013ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-12	0.0013	n/a	3/27/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-15[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-17	0.0013	n/a	3/27/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-18	0.0013	n/a	3/27/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-19	0.0013	n/a	3/27/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-20	0.0013	n/a	3/27/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-21	0.0013	n/a	3/27/2019	0.0013ND	No	9	100	n/a	0.004675	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-23	0.0013	n/a	3/27/2019	0.0013ND	No	4	100	n/a	0.02654	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-4A[*G...	0.0013	n/a	3/26/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-5[*GW...	0.0013	n/a	3/26/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Silver, Total (mg/L)	GWC-9	0.0013	n/a	3/27/2019	0.0013ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWA-13	0.0005	n/a	3/26/2019	0.0005ND	No	11	81.82	n/a	0.002806	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWA-14	0.0005	n/a	3/26/2019	0.0005ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWA-16[*G...	0.0005	n/a	3/26/2019	0.0005ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3

Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Thallium (mg/L)	GWA-2	0.0005	n/a	3/27/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWA-3	0.0005	n/a	3/27/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-1	0.0005	n/a	3/27/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-10	0.0005	n/a	3/27/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-11	0.0005	n/a	3/27/2019	0.0005ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-12	0.0005	n/a	3/27/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-15[*G...	0.0005	n/a	3/26/2019	0.0005ND	No	11	100	n/a	0.002806	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-17	0.0005	n/a	3/27/2019	0.0005ND	No	11	45.45	n/a	0.002806	NP Intra (normality) 1 of 3
Thallium (mg/L)	GWC-18	0.0001532	n/a	3/27/2019	0.0005ND	No	10	0	No	0.000...	Param Intra 1 of 3
Thallium (mg/L)	GWC-19	0.0005	n/a	3/27/2019	0.0005ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-20	0.0005	n/a	3/27/2019	0.0005ND	No	11	45.45	n/a	0.002806	NP Intra (normality) 1 of 3
Thallium (mg/L)	GWC-21	0.0005	n/a	3/27/2019	0.0005ND	No	11	90.91	n/a	0.002806	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-23	0.0001287	n/a	3/27/2019	0.000085ND	No	6	50	x^(1/3)	0.000...	Param Intra 1 of 3
Thallium (mg/L)	GWC-4A[*G...	0.0005	n/a	3/26/2019	0.0005ND	No	30	96.67	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-5[*GW...	0.0005	n/a	3/26/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Thallium (mg/L)	GWC-9	0.0005	n/a	3/27/2019	0.0005ND	No	30	100	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWA-13	0.0025	n/a	3/26/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWA-14	0.0025	n/a	3/26/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWA-16[*G...	0.0025	n/a	3/26/2019	0.0025ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWA-2	0.0051	n/a	3/27/2019	0.0025ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWA-3	0.005	n/a	3/27/2019	0.0014ND	No	29	86.21	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-1	0.0032	n/a	3/27/2019	0.0025ND	No	29	89.66	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-10	0.0027	n/a	3/27/2019	0.0014ND	No	30	83.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-11	0.0025	n/a	3/27/2019	0.0025ND	No	29	75.86	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-12	0.0025	n/a	3/27/2019	0.0014ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-15[*G...	0.0025	n/a	3/26/2019	0.0014ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-17	0.0025	n/a	3/27/2019	0.0014ND	No	9	88.89	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-18	0.005907	n/a	3/27/2019	0.0014ND	No	9	0	sqrt(x)	0.000...	Param Intra 1 of 3
Vanadium, Total (mg/L)	GWC-19	0.003546	n/a	3/27/2019	0.0025ND	No	9	22.22	No	0.000...	Param Intra 1 of 3
Vanadium, Total (mg/L)	GWC-20	0.0034	n/a	3/27/2019	0.0014ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-21	0.0029	n/a	3/27/2019	0.0014ND	No	9	77.78	n/a	0.004675	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-23	0.007298	n/a	3/27/2019	0.0014ND	No	4	50	No	0.000...	Param Intra 1 of 3
Vanadium, Total (mg/L)	GWC-4A[*G...	0.0033	n/a	3/26/2019	0.0027ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-5[*GW...	0.0035	n/a	3/26/2019	0.0025ND	No	30	93.33	n/a	0.000...	NP Intra (NDs) 1 of 3
Vanadium, Total (mg/L)	GWC-9	0.0027	n/a	3/27/2019	0.0014ND	No	29	93.1	n/a	0.000...	NP Intra (NDs) 1 of 3
Zinc, Total (mg/L)	GWA-13	0.02	n/a	3/26/2019	0.02ND	No	9	33.33	n/a	0.004675	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWA-14	0.02	n/a	3/26/2019	0.02ND	No	9	33.33	n/a	0.004675	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWA-16[*G...	0.02	n/a	3/26/2019	0.02ND	No	9	33.33	n/a	0.004675	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWA-2	0.02	n/a	3/27/2019	0.02ND	No	30	33.33	n/a	0.000...	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWA-3	0.045	n/a	3/27/2019	0.02ND	No	29	44.83	n/a	0.000...	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWC-1	0.02	n/a	3/27/2019	0.02ND	No	29	27.59	n/a	0.000...	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWC-10	0.02	n/a	3/27/2019	0.02ND	No	30	70	n/a	0.000...	NP Intra (NDs) 1 of 3
Zinc, Total (mg/L)	GWC-11	0.02	n/a	3/27/2019	0.02ND	No	29	65.52	n/a	0.000...	NP Intra (NDs) 1 of 3
Zinc, Total (mg/L)	GWC-12	0.02	n/a	3/27/2019	0.02ND	No	30	30	n/a	0.000...	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWC-15[*G...	0.006346	n/a	3/26/2019	0.02ND	No	9	33.33	ln(x)	0.000...	Param Intra 1 of 3
Zinc, Total (mg/L)	GWC-17	0.02	n/a	3/27/2019	0.02ND	No	9	33.33	n/a	0.004675	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWC-18	0.006285	n/a	3/27/2019	0.02ND	No	9	33.33	x^(1/3)	0.000...	Param Intra 1 of 3
Zinc, Total (mg/L)	GWC-19	0.01317	n/a	3/27/2019	0.02ND	No	9	33.33	x^(1/3)	0.000...	Param Intra 1 of 3
Zinc, Total (mg/L)	GWC-20	0.0103	n/a	3/27/2019	0.02ND	No	9	33.33	sqrt(x)	0.000...	Param Intra 1 of 3
Zinc, Total (mg/L)	GWC-21	0.01164	n/a	3/27/2019	0.02ND	No	9	44.44	No	0.000...	Param Intra 1 of 3

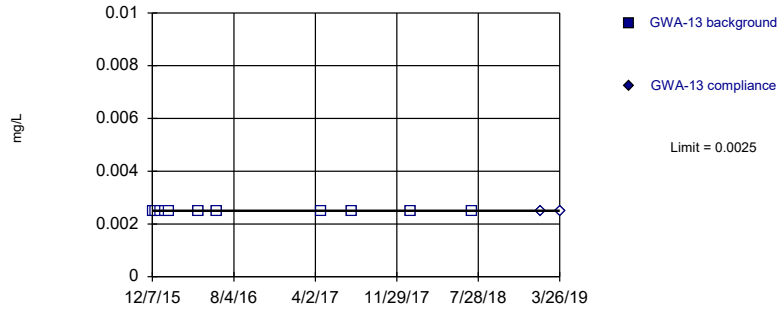
Prediction Limit - All Results

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 3:50 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Zinc, Total (mg/L)	GWC-23	0.01693	n/a	3/27/2019	0.02ND	No	4	50	No	0.000...	Param Intra 1 of 3
Zinc, Total (mg/L)	GWC-4A[*G...	0.02	n/a	3/26/2019	0.0065ND	No	29	27.59	n/a	0.000...	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWC-5[*GW...	0.02	n/a	3/26/2019	0.02ND	No	30	33.33	n/a	0.000...	NP Intra (normality) 1 of 3
Zinc, Total (mg/L)	GWC-9	0.02	n/a	3/27/2019	0.02ND	No	30	63.33	n/a	0.000...	NP Intra (NDs) 1 of 3

Within Limit

Prediction Limit
Intrawell Non-parametric

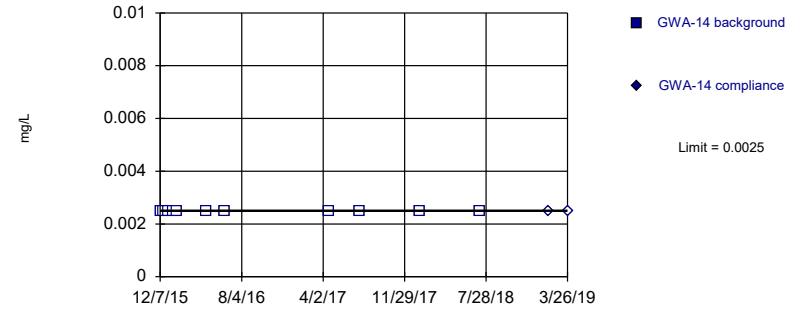


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

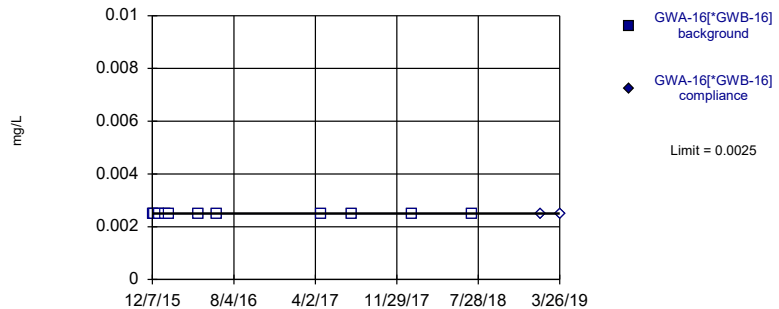


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

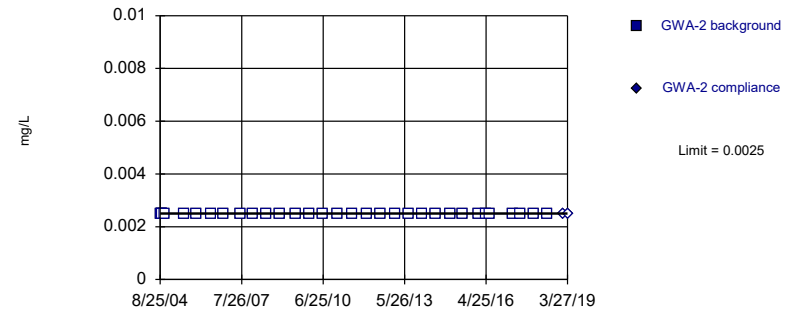


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

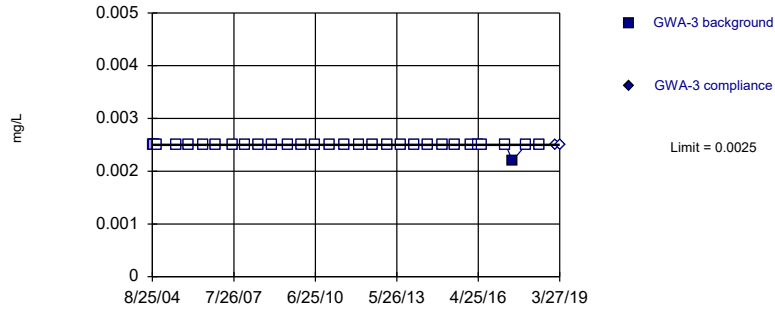


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

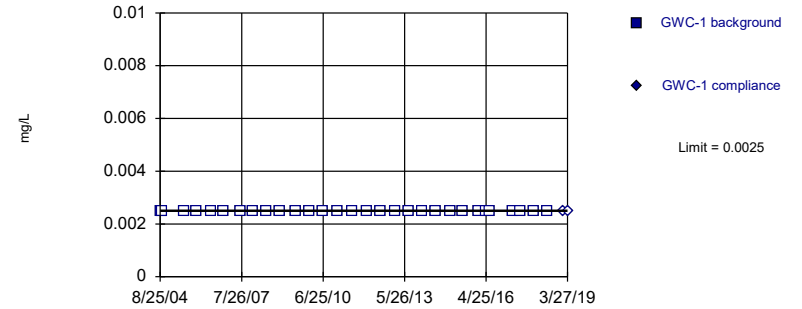


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 96.88% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

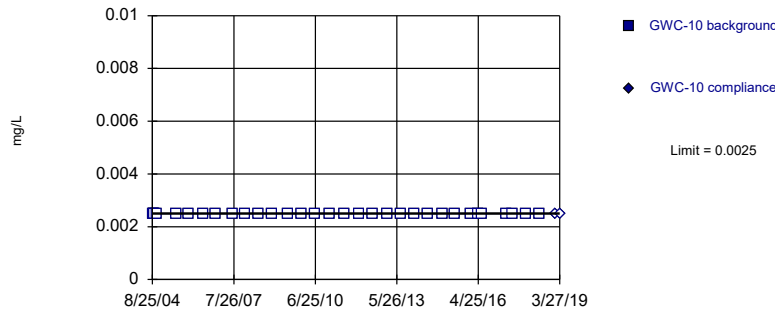


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

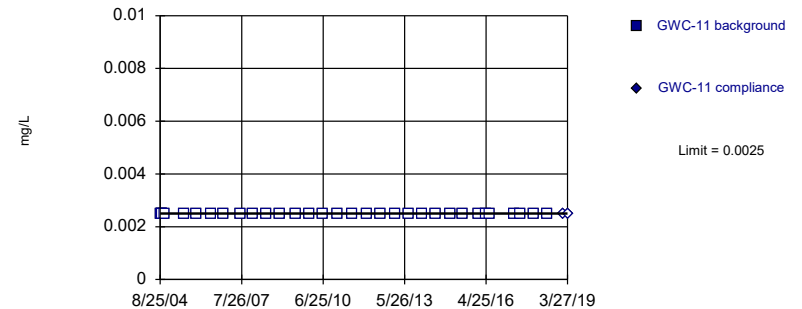


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

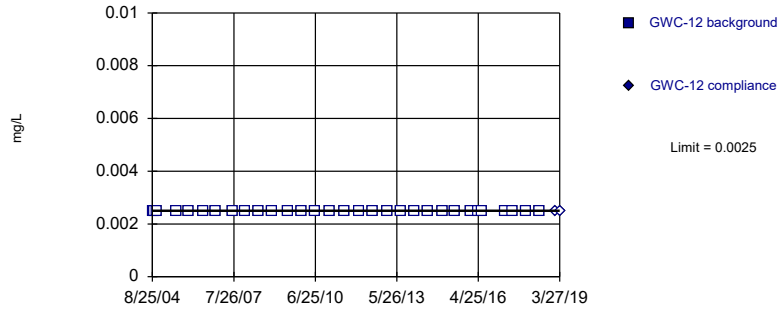


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

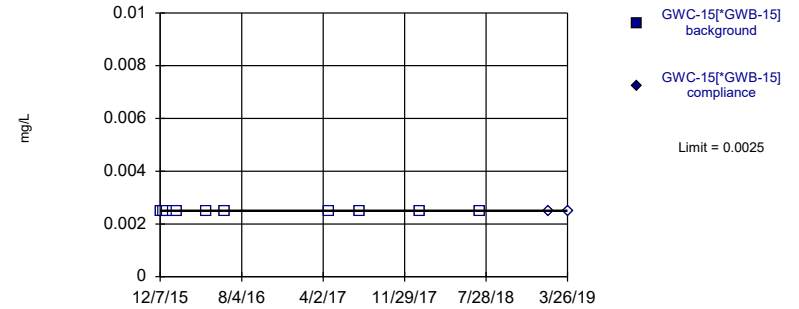


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

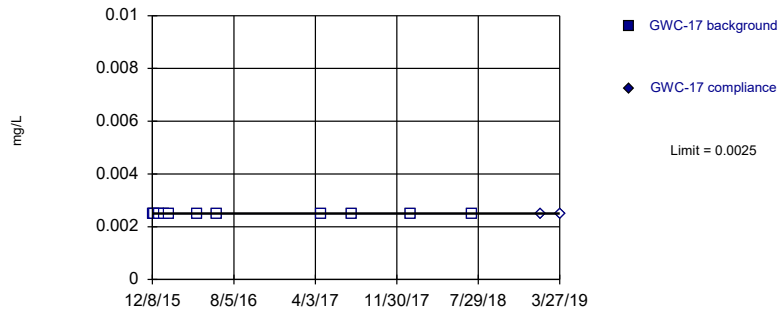


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

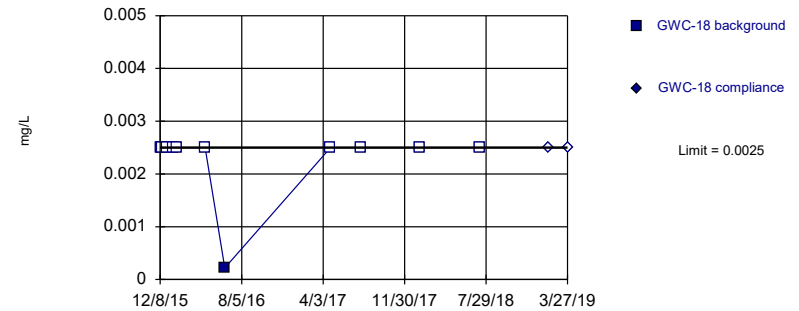


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

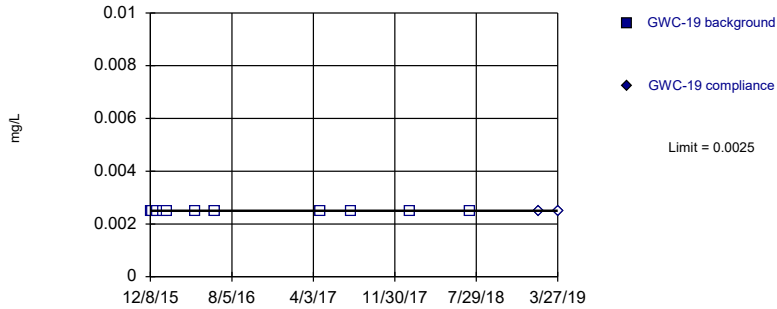


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

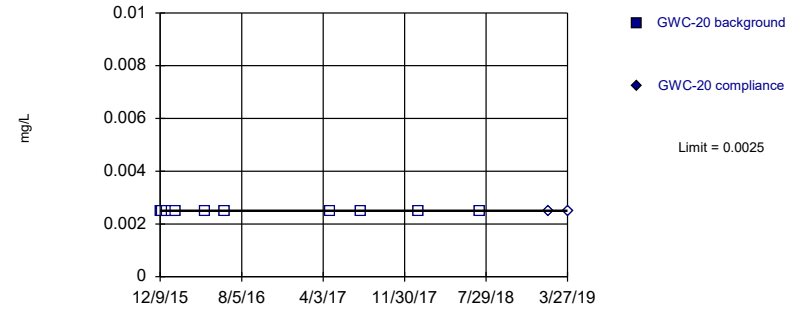


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

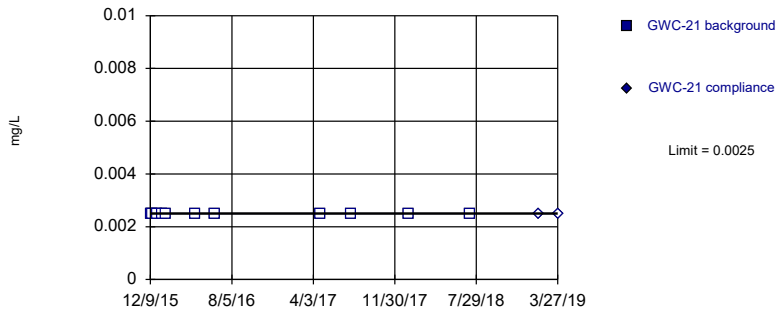


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:40 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

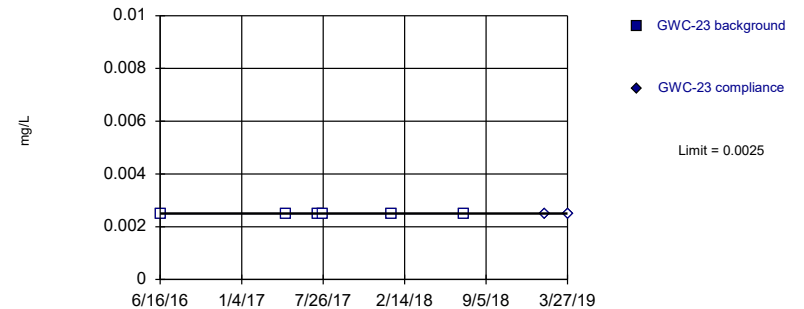


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

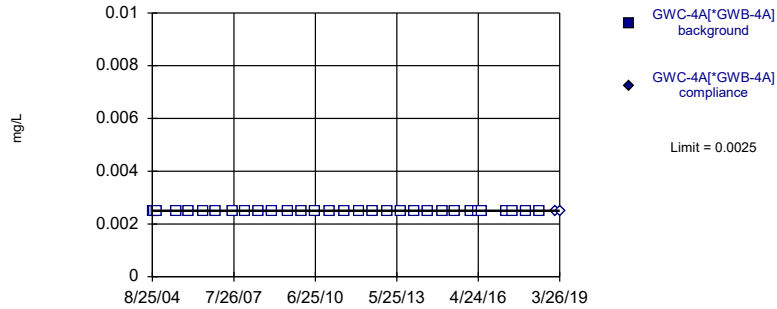


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 6) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

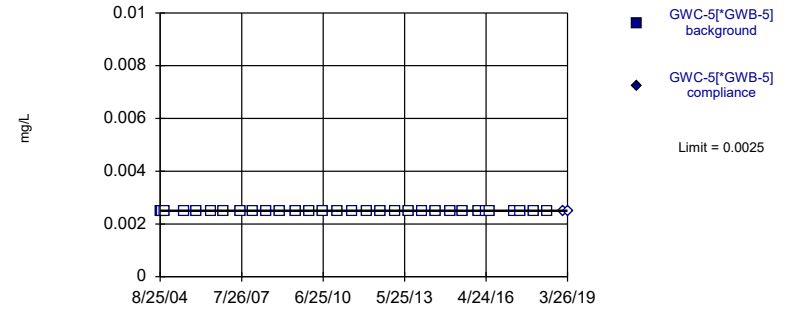


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

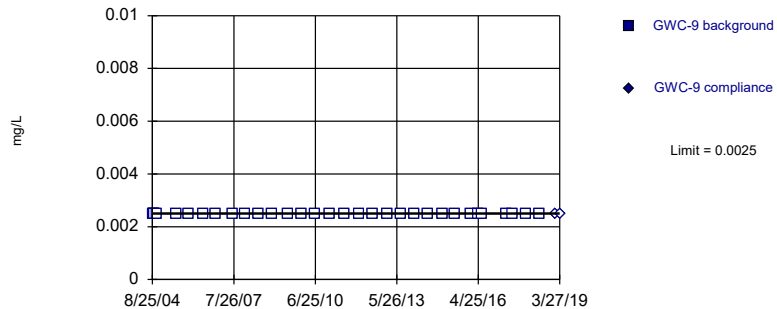


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

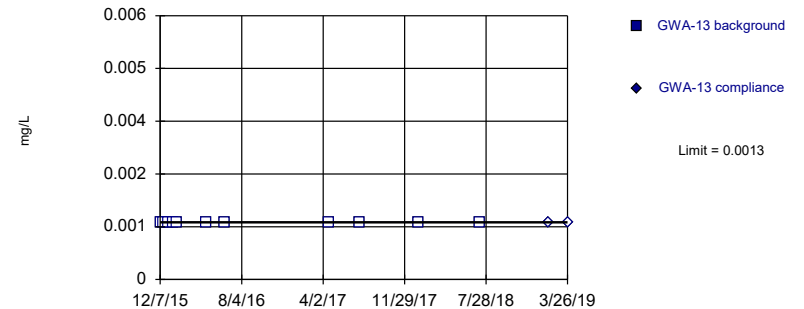


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Antimony Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

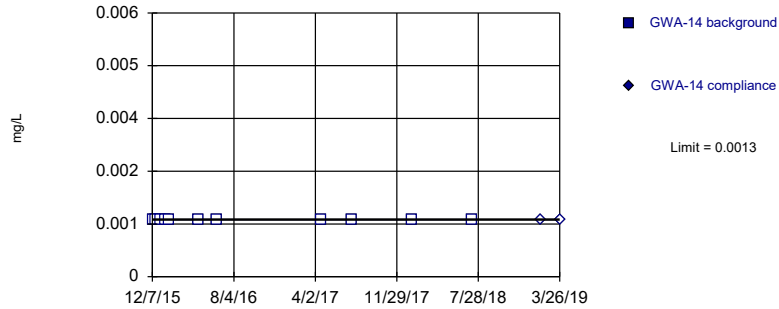


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

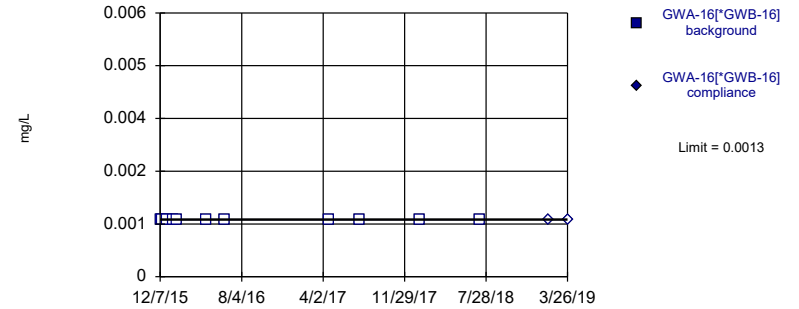


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

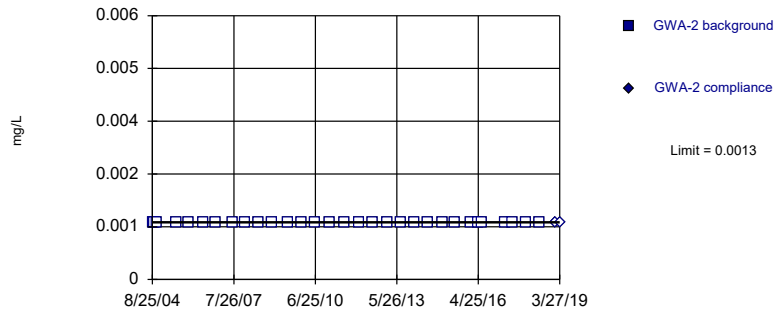


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

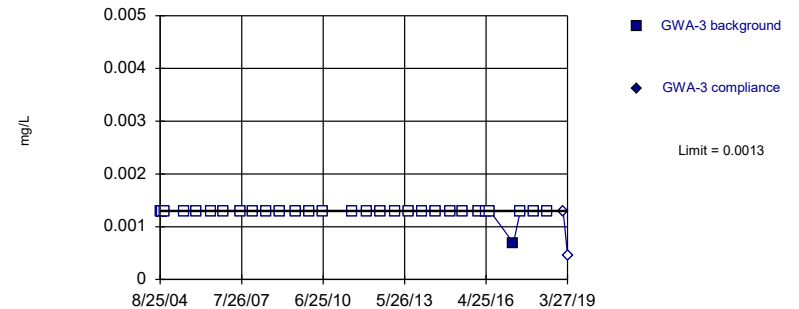


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

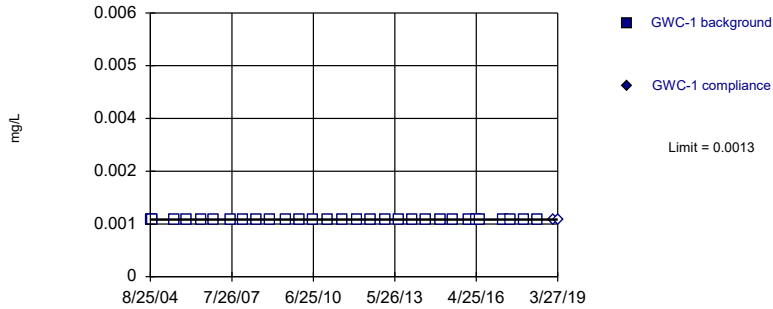


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 96.77% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

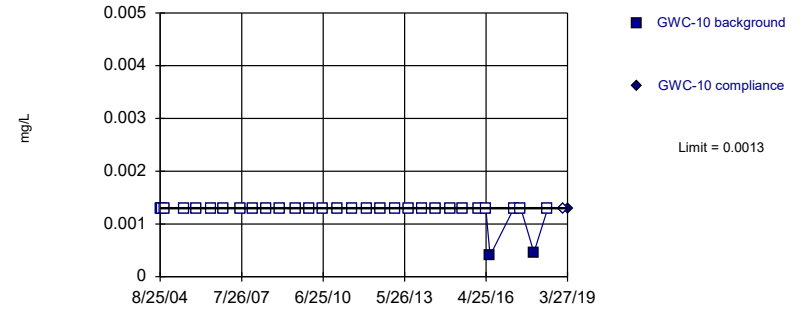


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

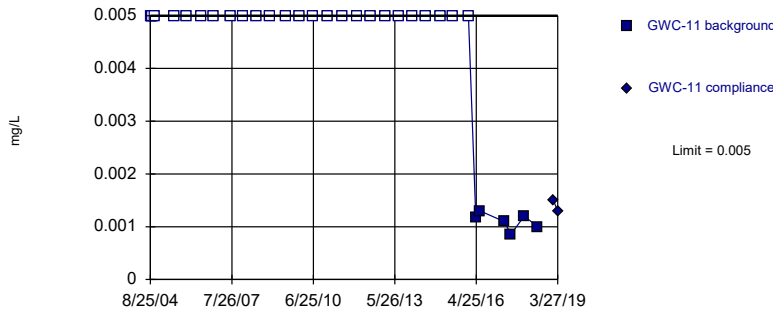


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

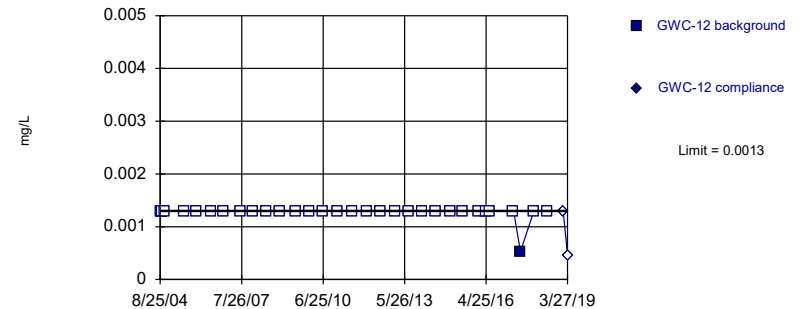


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 81.25% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

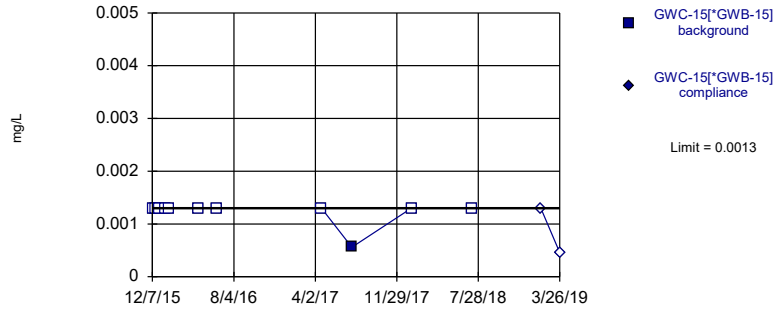


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 96.88% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

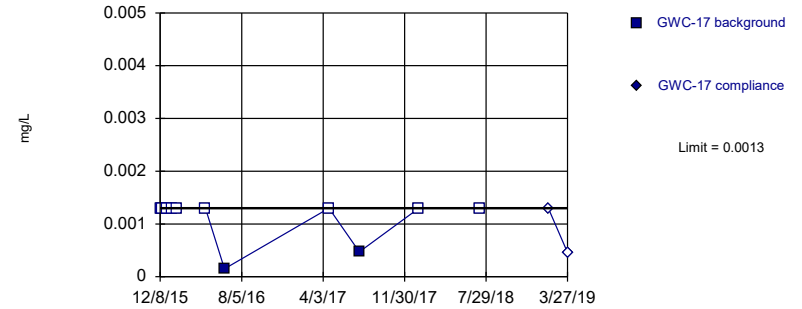


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

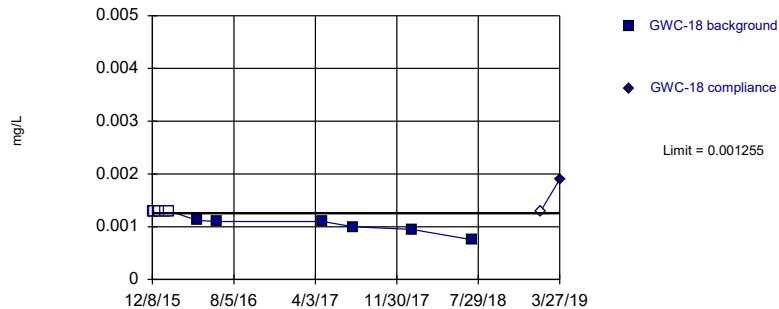


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

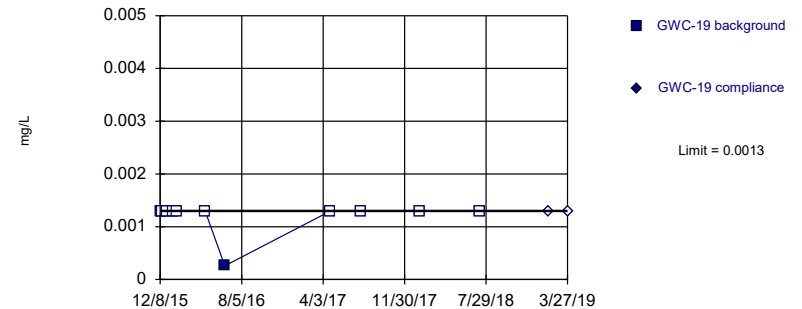


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0009707, Std. Dev.=0.0001315, n=11, 45.45% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8419, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

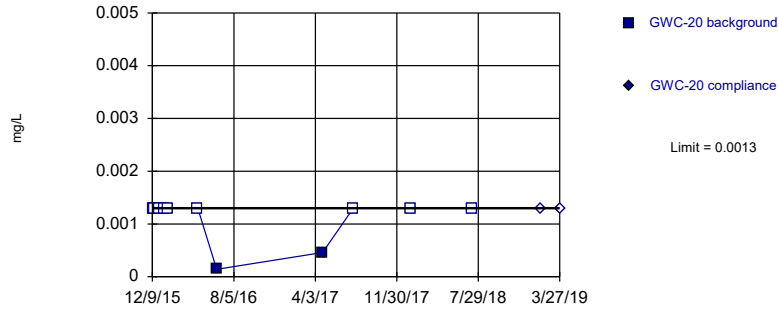


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

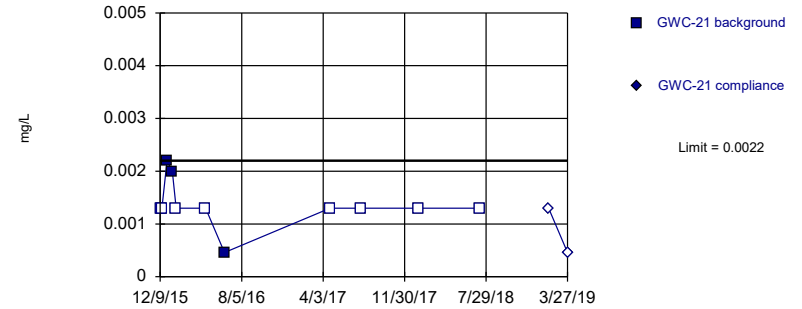


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

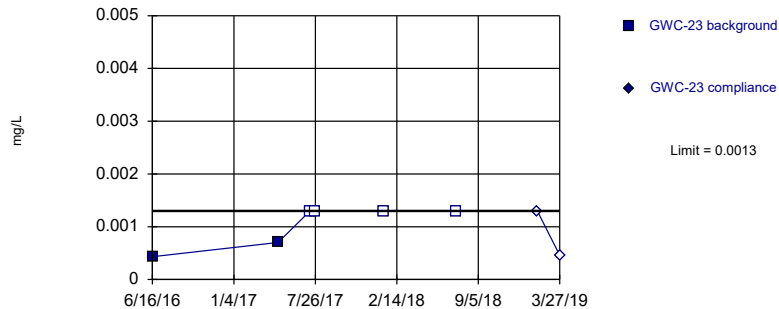


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 72.73% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

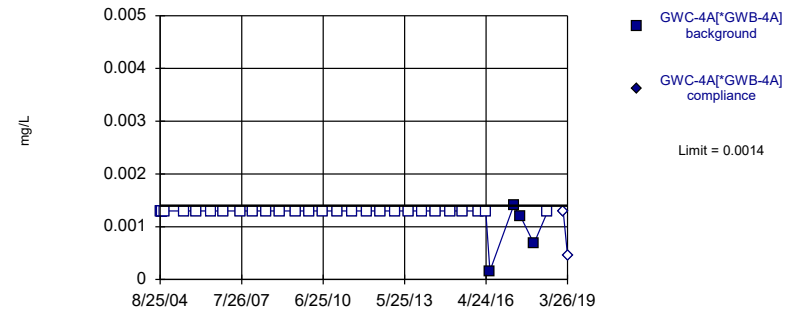


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 6 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

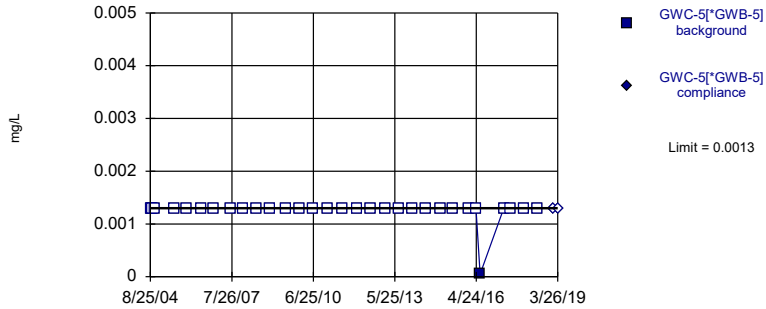


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

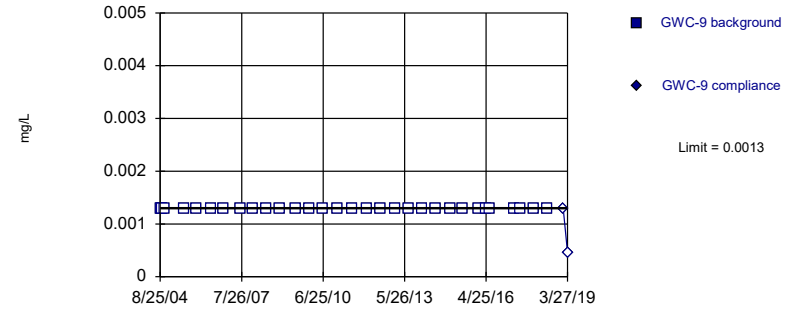


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 96.88% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

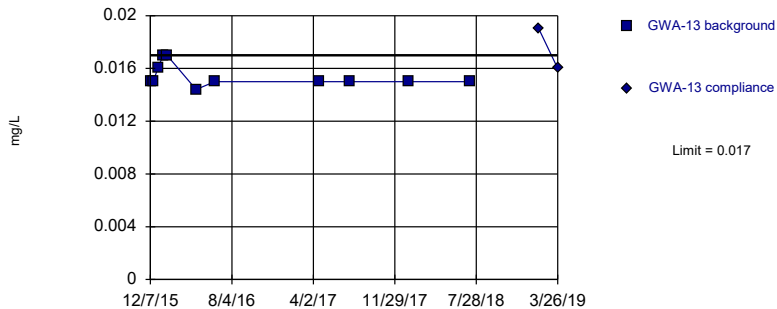


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Arsenic, Total Analysis Run 8/8/2019 3:41 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

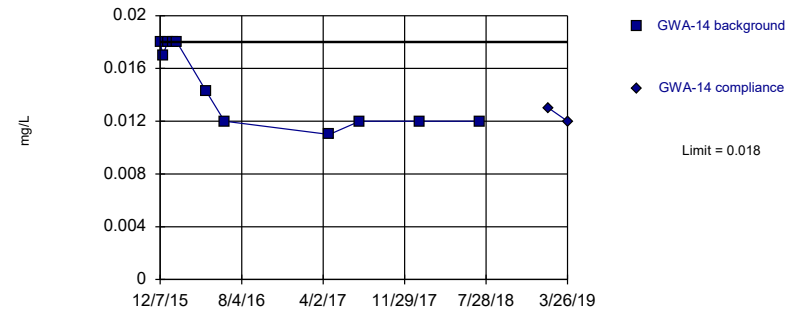


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

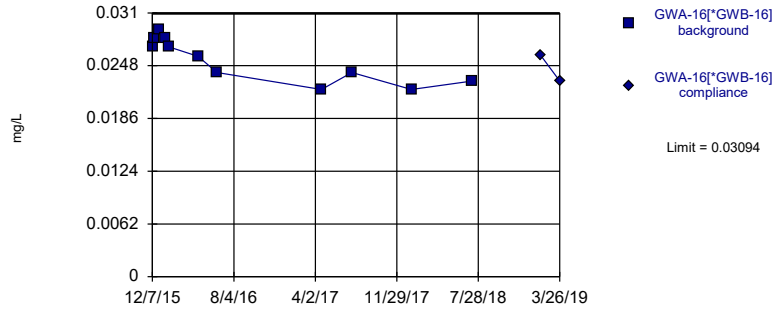


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

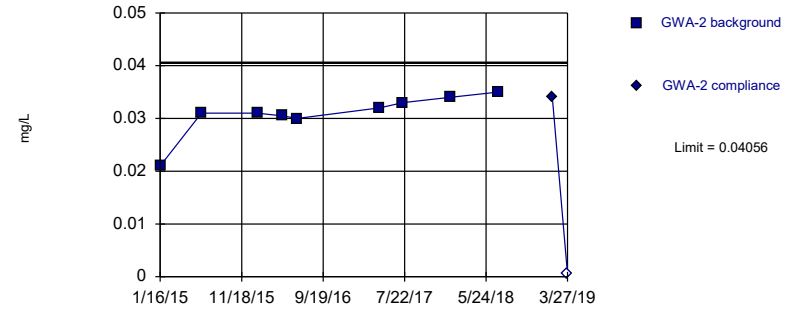


Background Data Summary: Mean=0.02545, Std. Dev.=0.002542, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9119, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

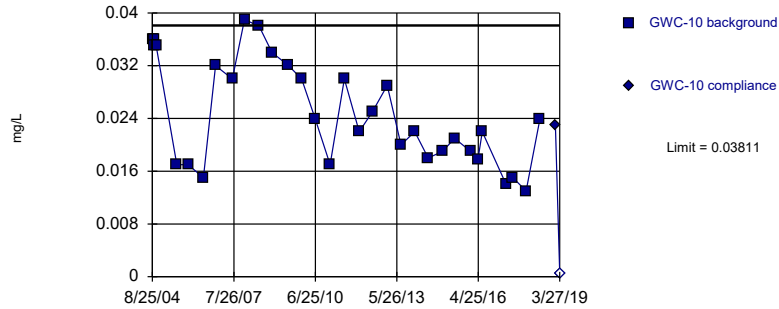
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

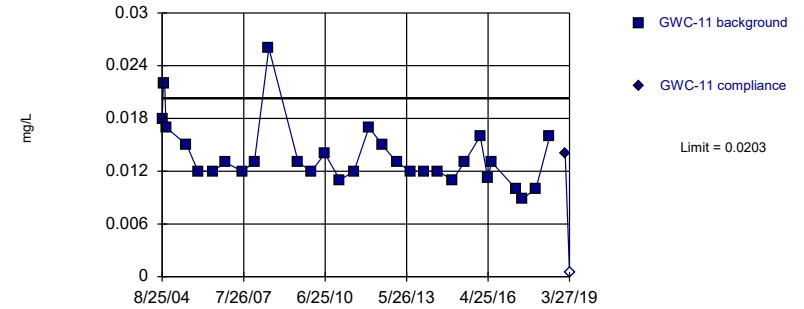


Background Data Summary: Mean=0.02493, Std. Dev.=0.007985, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9227, critical = 0.904. Kappa = 1.65 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

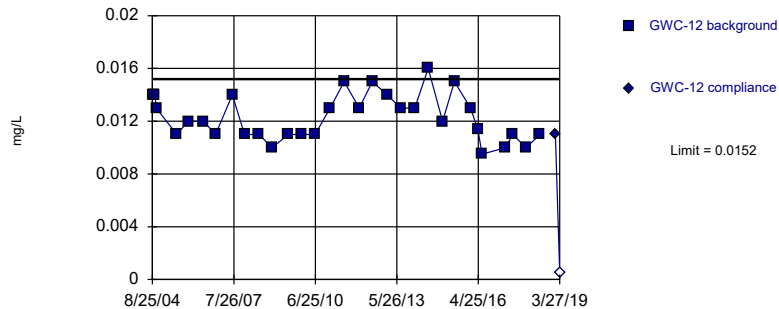


Background Data Summary (based on natural log transformation): Mean=-4.299, Std. Dev.=0.2425, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9211, critical = 0.902. Kappa = 1.656 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

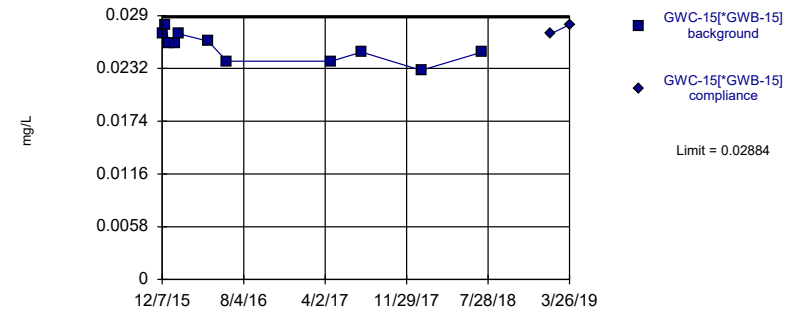


Background Data Summary: Mean=0.01234, Std. Dev.=0.001731, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9337, critical = 0.904. Kappa = 1.65 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

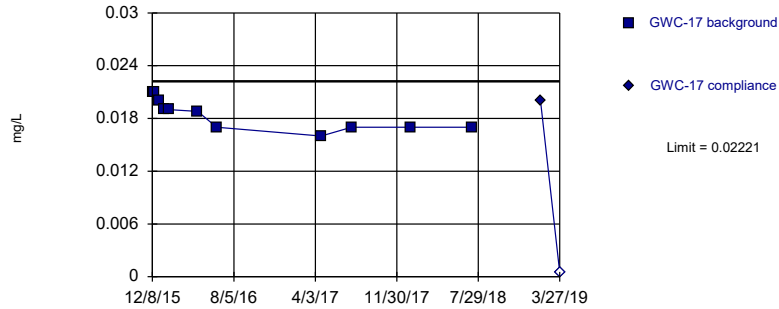


Background Data Summary: Mean=0.02556, Std. Dev.=0.001515, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9685, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

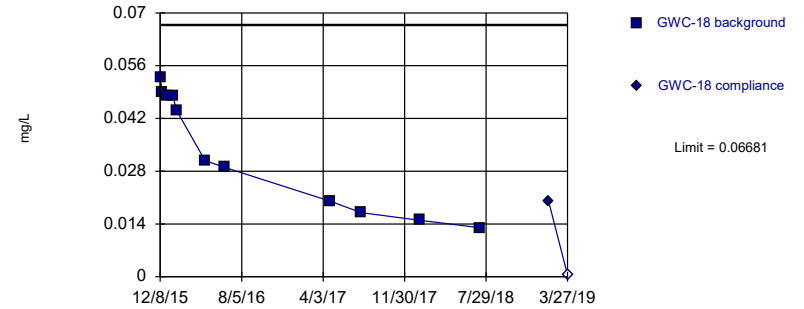


Background Data Summary: Mean=0.01844, Std. Dev.=0.001748, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8952, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

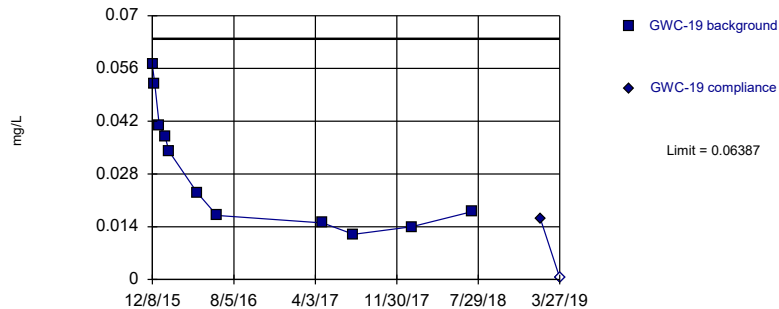


Background Data Summary: Mean=0.03335, Std. Dev.=0.01548, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8728, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

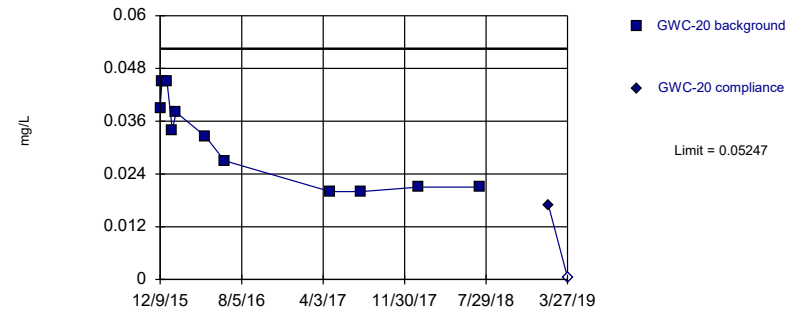


Background Data Summary: Mean=0.02918, Std. Dev.=0.01604, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8874, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

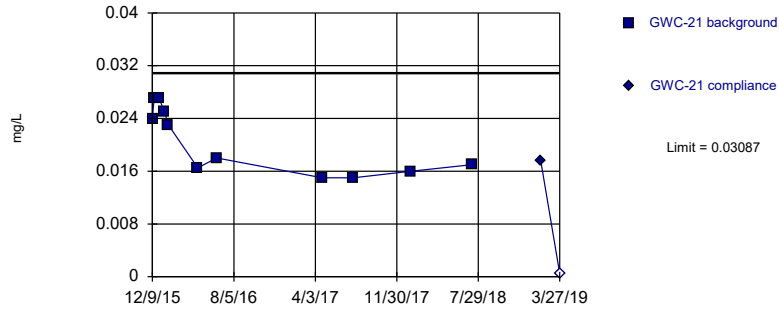


Background Data Summary: Mean=0.03114, Std. Dev.=0.009869, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8798, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

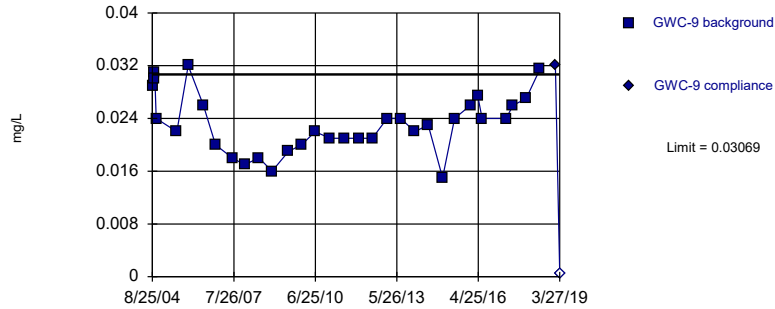
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

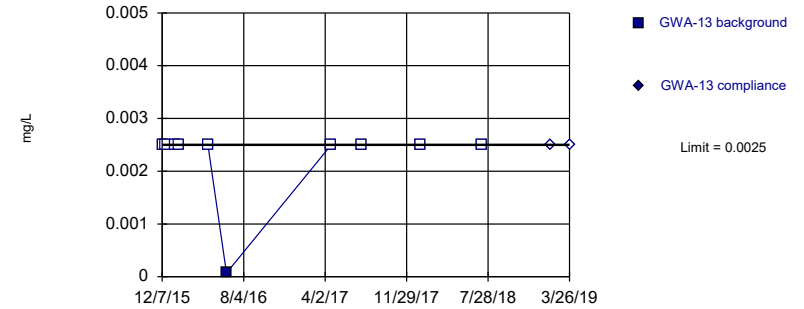


Background Data Summary: Mean=0.02331, Std. Dev.=0.004471, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9689, critical = 0.904. Kappa = 1.65 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Barium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

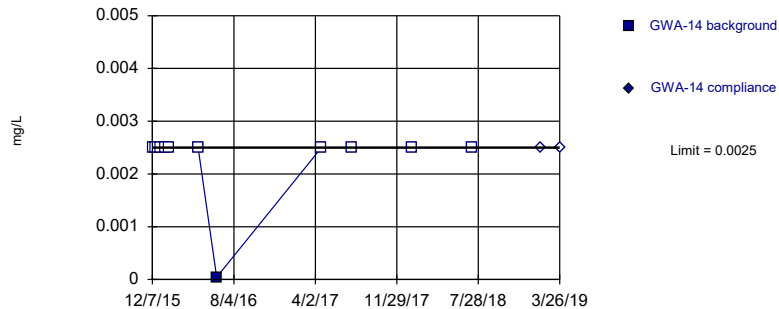


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 90% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

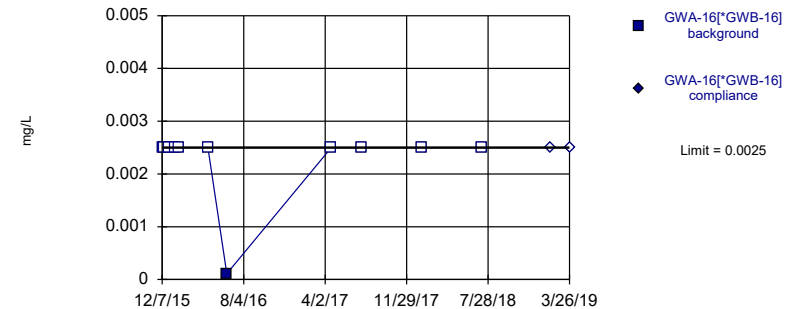


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

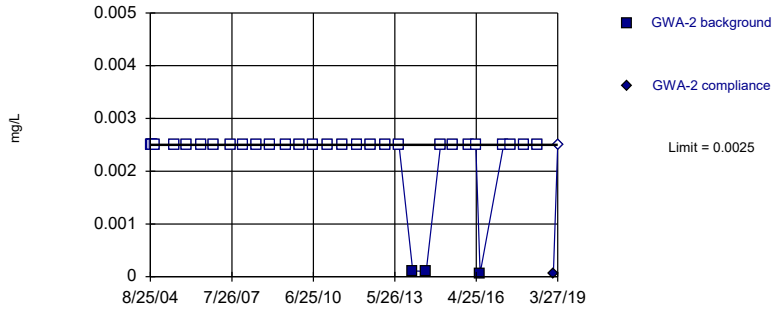


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:41 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

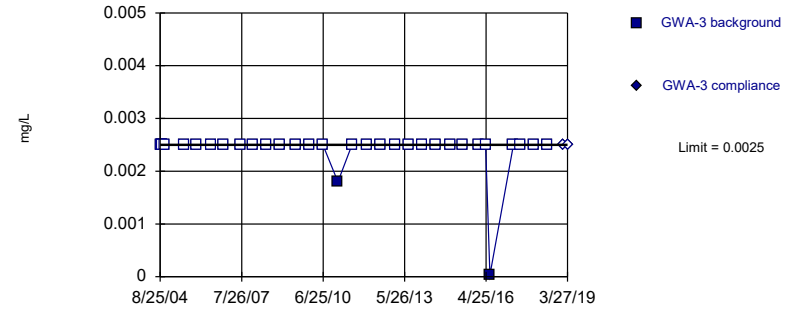


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 90.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

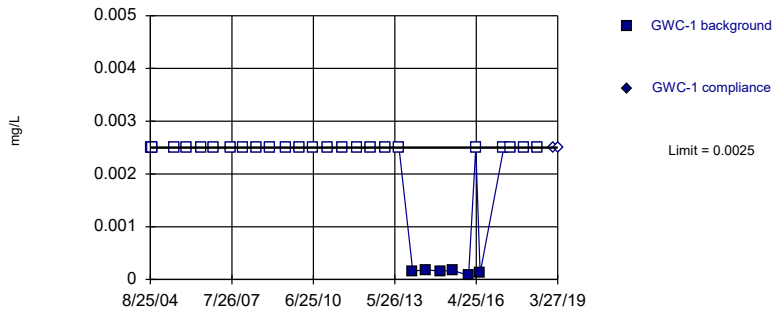


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

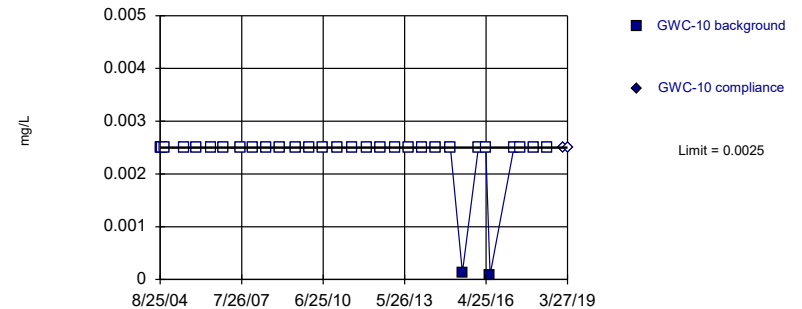


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 80.65% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

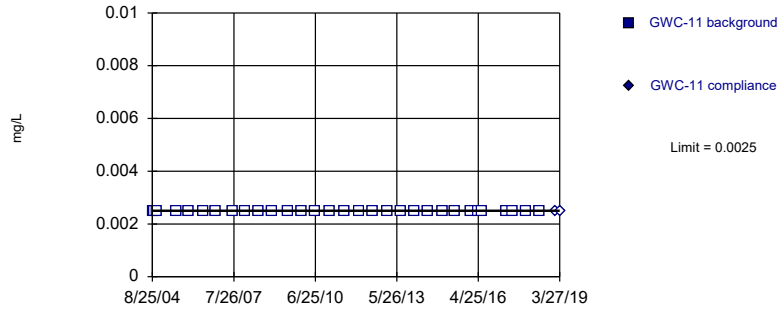


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

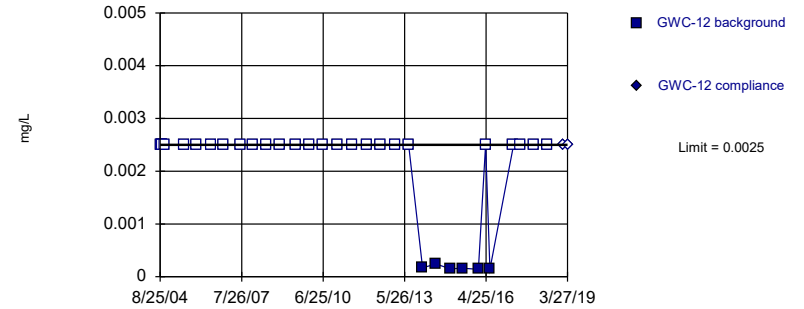


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

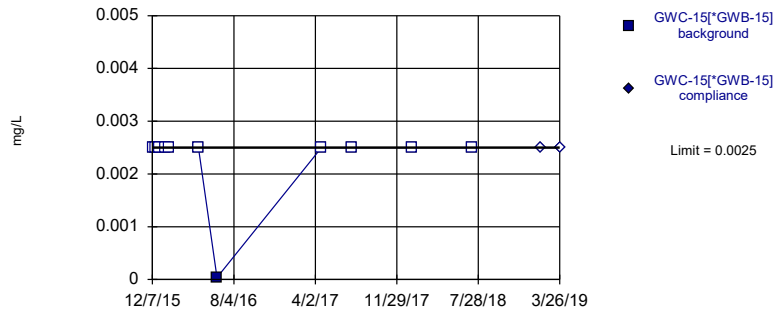


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 81.25% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

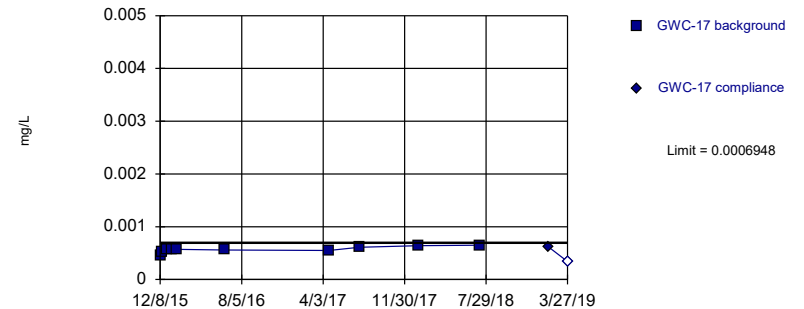


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

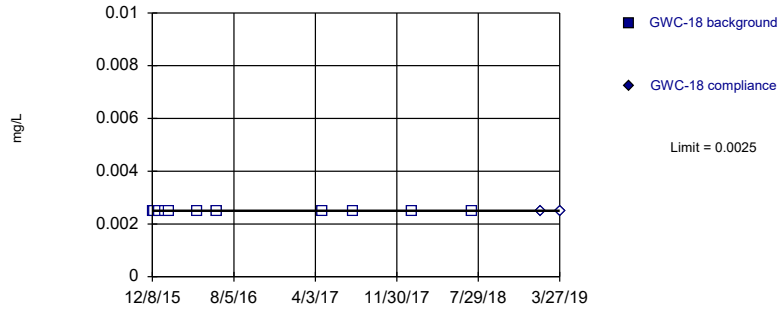


Background Data Summary: Mean=0.000569, Std. Dev.=0.00005587, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9459, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

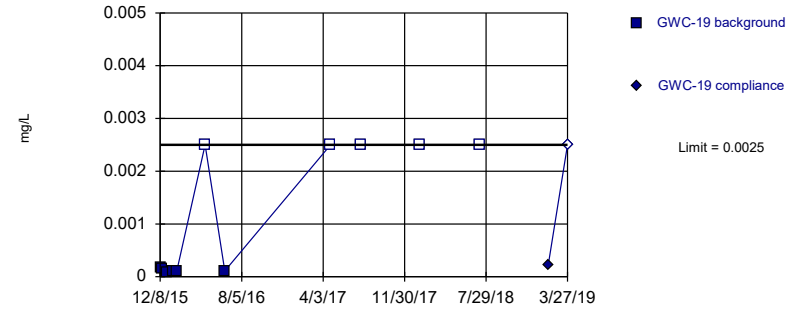


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

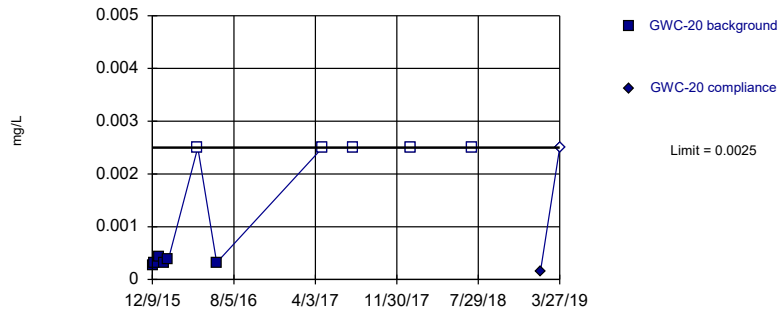


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. 45.45% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

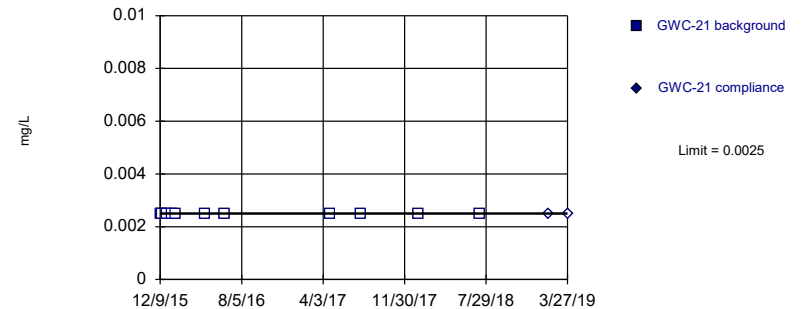


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. 45.45% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

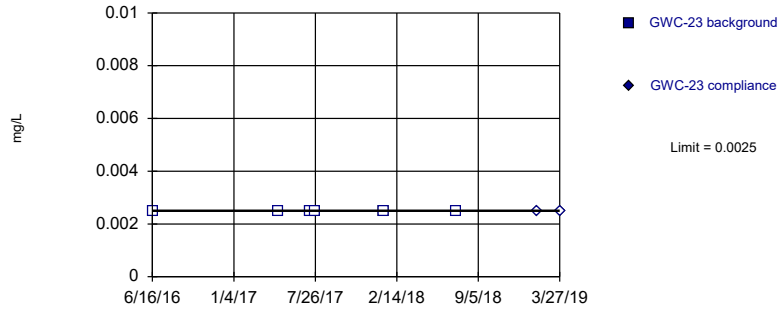


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

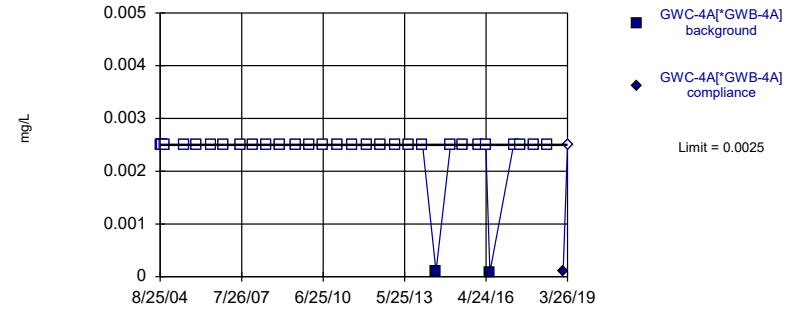


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 6) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

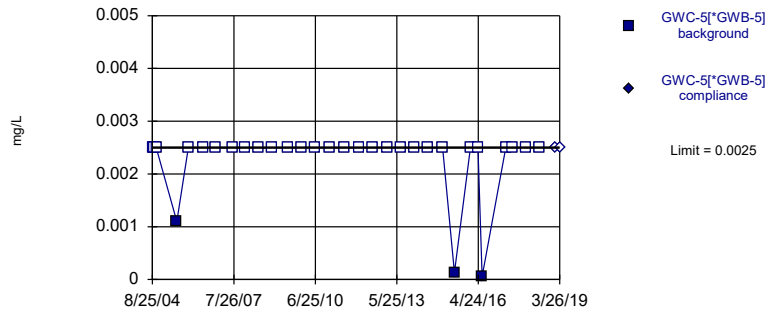


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

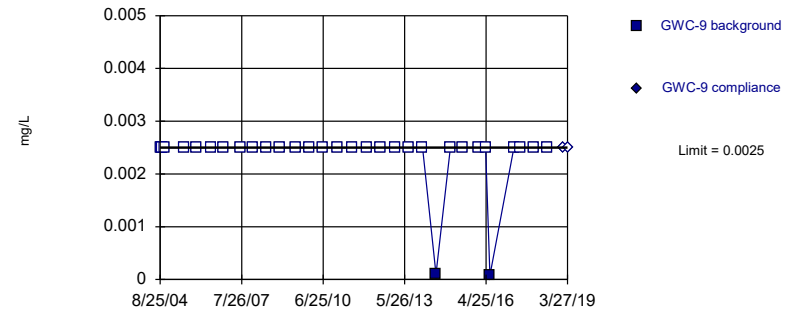


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 90.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

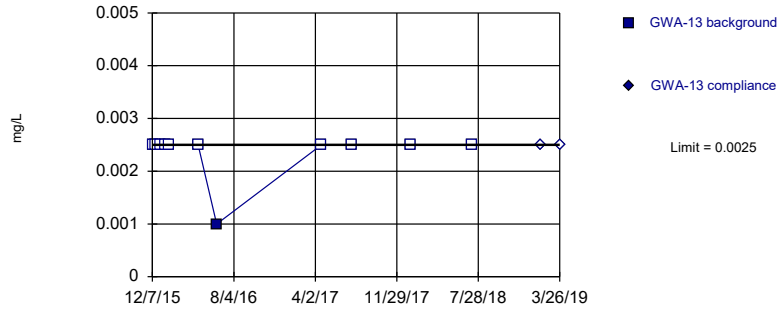


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Beryllium, Total Analysis Run 8/8/2019 3:42 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

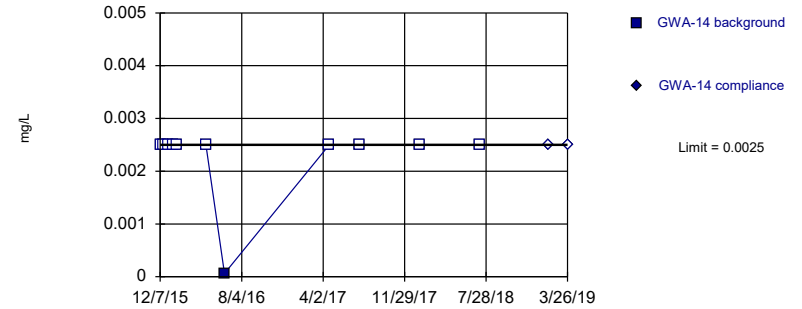


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

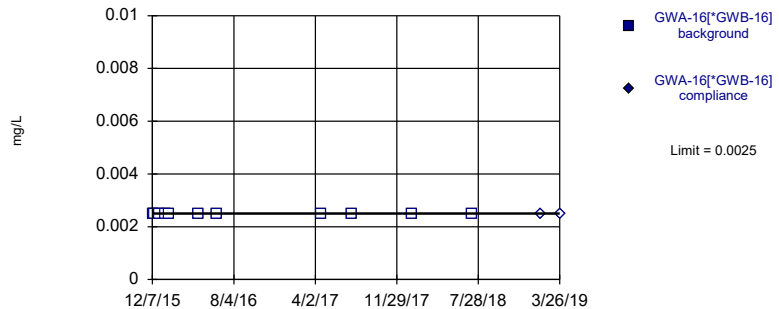


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

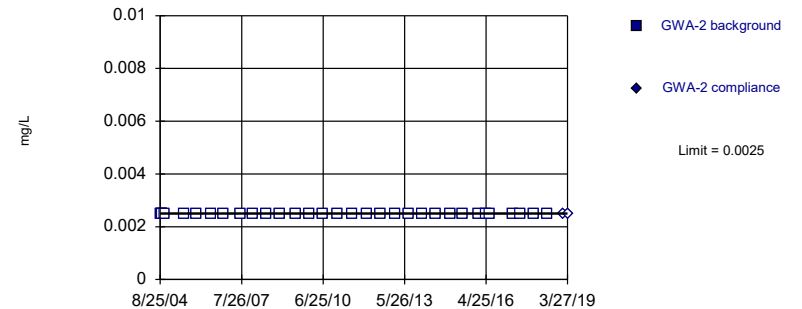


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

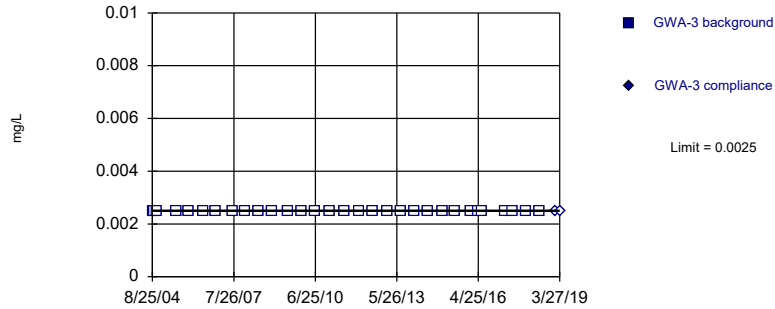


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

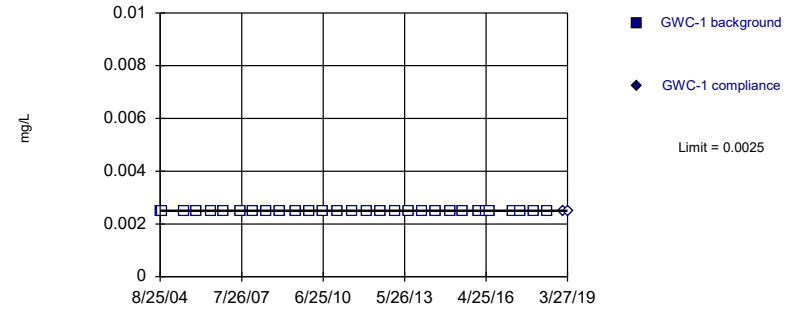


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

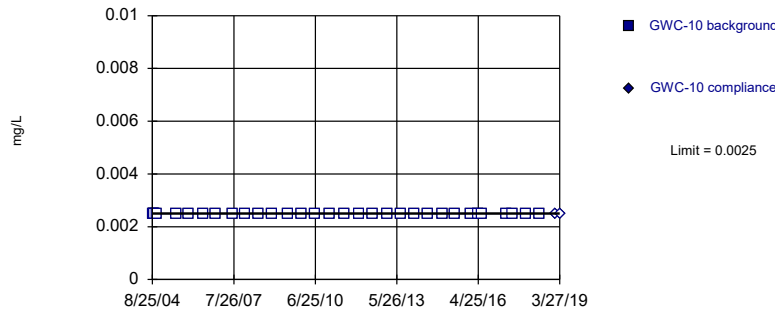


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

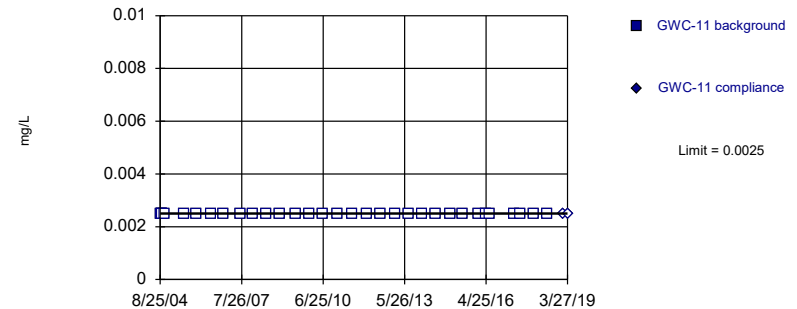


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

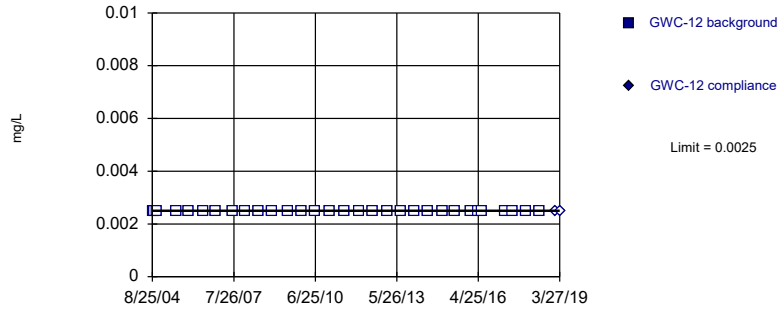


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

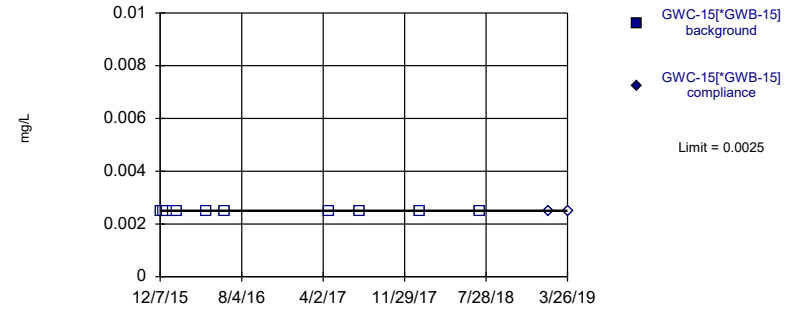


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

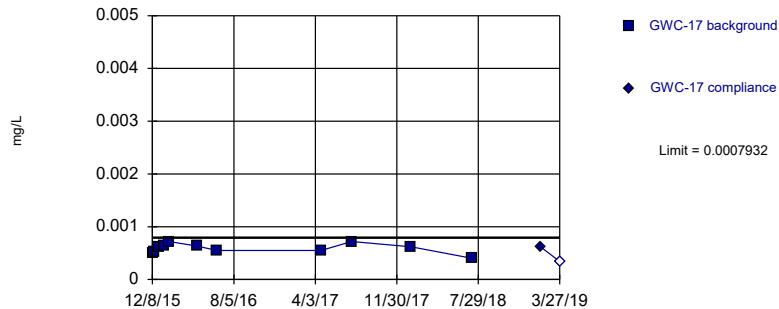


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

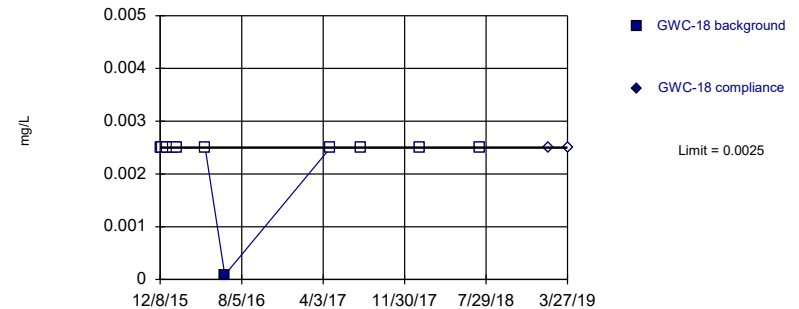


Background Data Summary: Mean=0.0005866, Std. Dev.=0.00009556, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9533, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

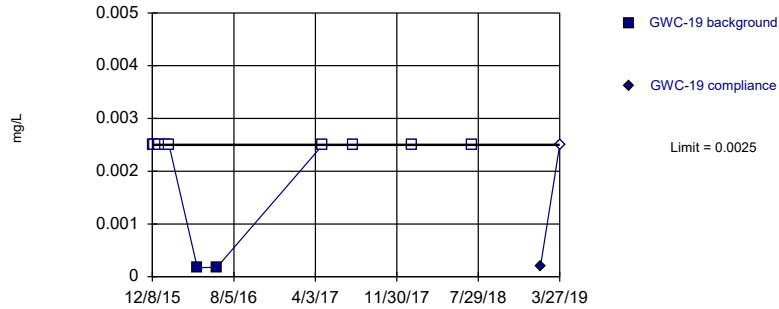


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

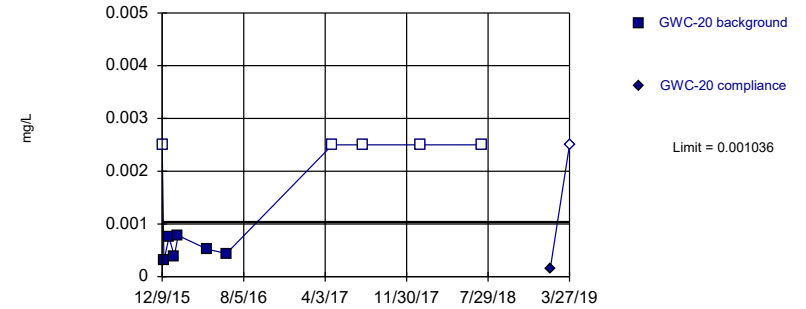


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

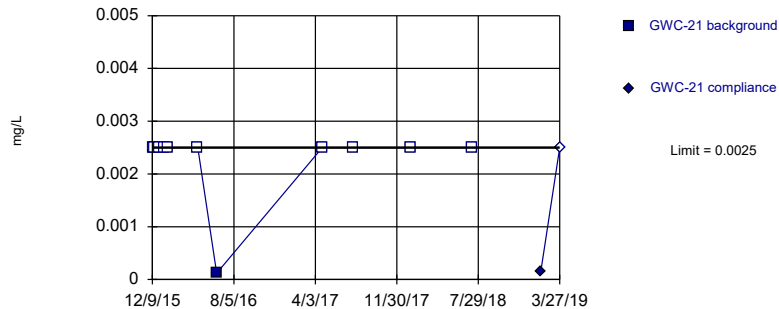


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-7.595, Std. Dev.=0.3342, n=11, 45.45% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8042, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

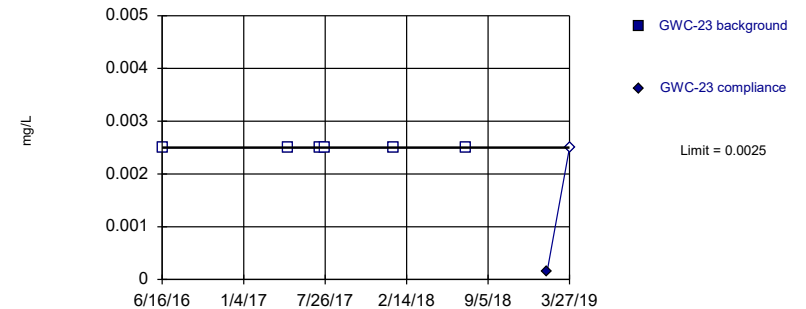


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

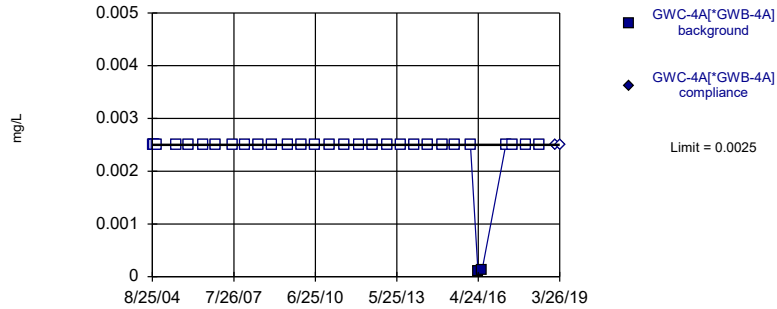


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 6) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

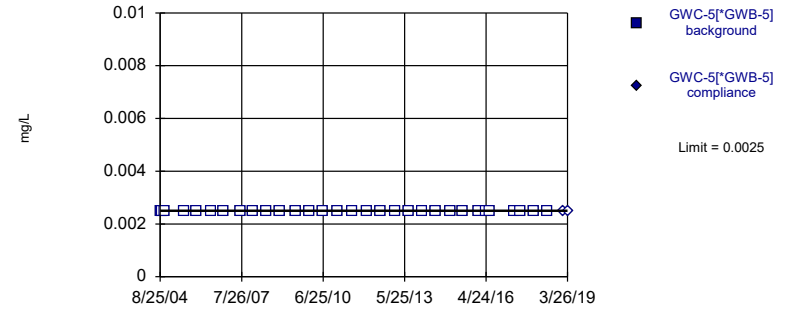


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

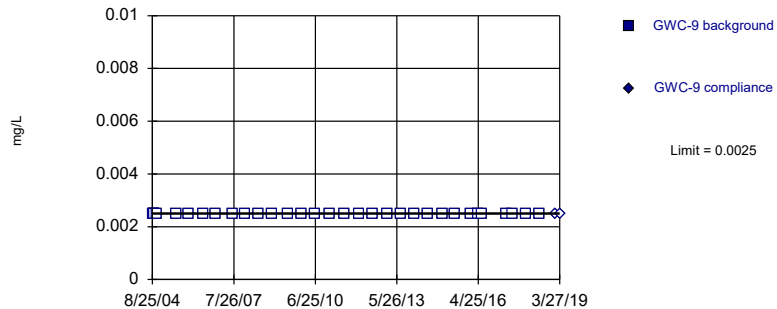


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

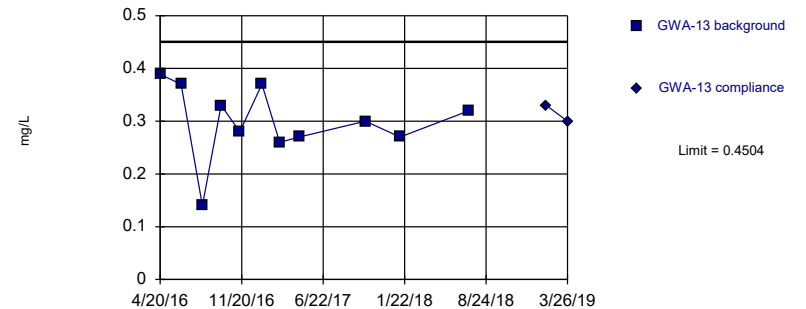


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cadmium, Total Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

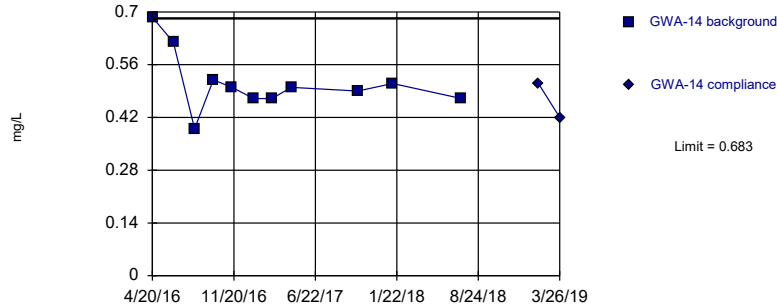


Background Data Summary: Mean=0.2999, Std. Dev.=0.06959, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9098, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

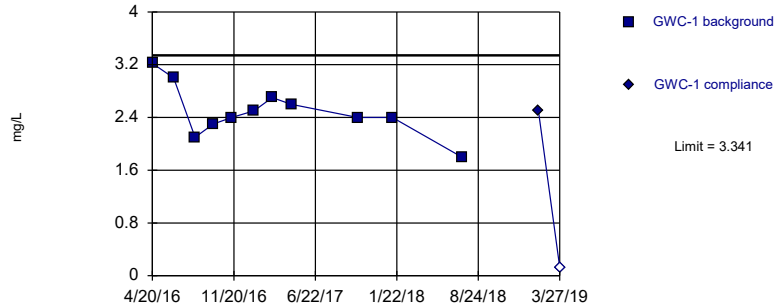
Within Limit

Prediction Limit Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

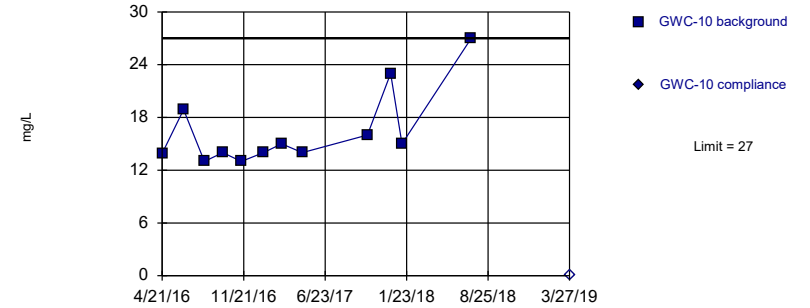


Background Data Summary: Mean=2.493, Std. Dev.=0.3922, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9673, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

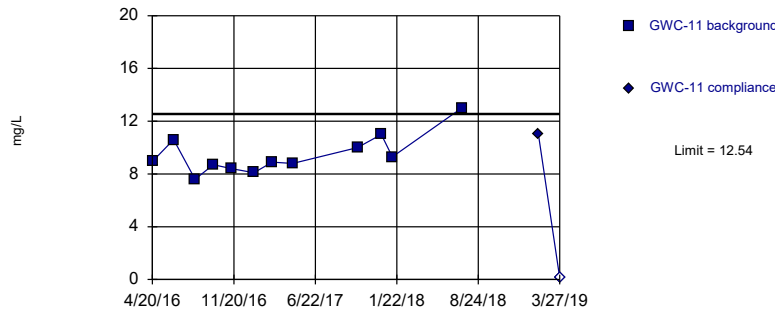


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.004342. Individual comparison alpha = 0.002173 (1 of 3).

Constituent: Calcium Analysis Run 8/8/2019 3:42 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

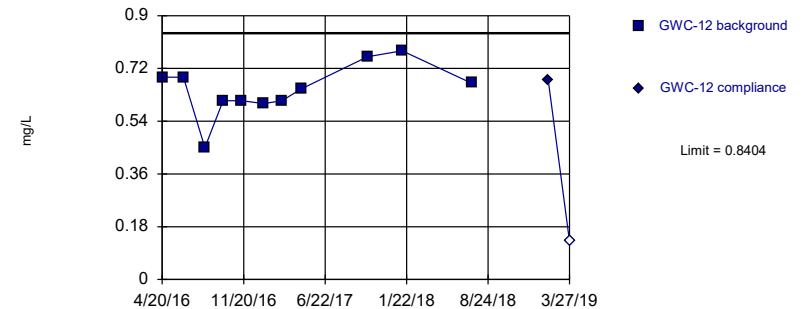


Background Data Summary: Mean=9.445, Std. Dev.=1.494, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8963, critical = 0.805. Kappa = 2.073 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

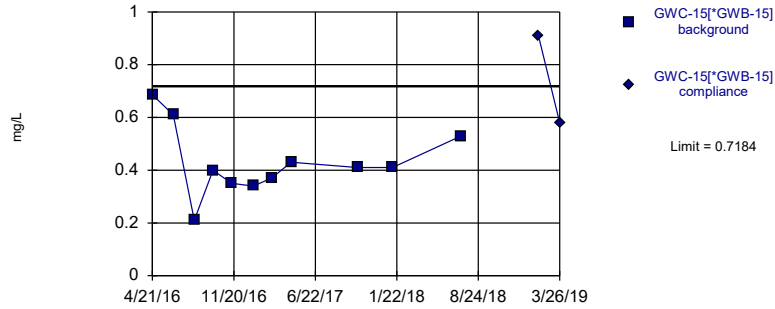


Background Data Summary: Mean=0.6473, Std. Dev.=0.08934, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9239, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

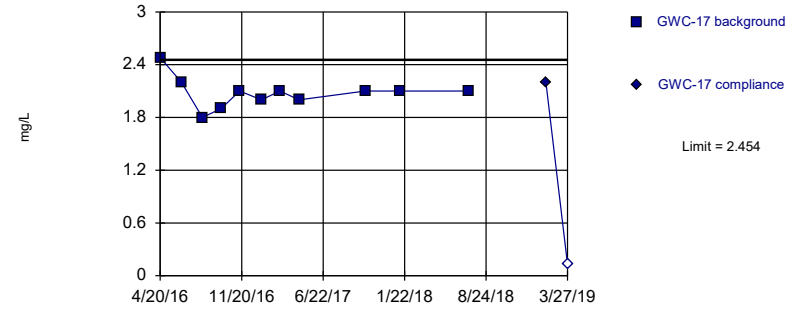


Background Data Summary: Mean=0.4315, Std. Dev.=0.1327, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9363, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

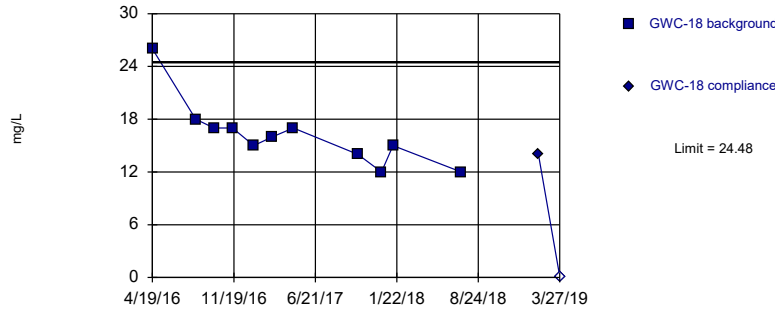


Background Data Summary: Mean=2.08, Std. Dev.=0.1732, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8917, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

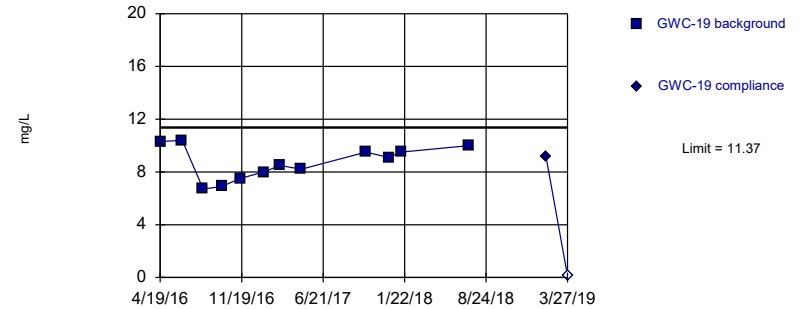


Background Data Summary: Mean=16.27, Std. Dev.=3.797, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8291, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

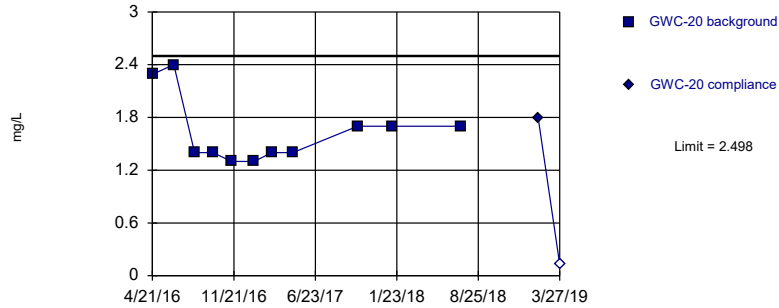


Background Data Summary: Mean=8.717, Std. Dev.=1.281, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9406, critical = 0.805. Kappa = 2.073 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

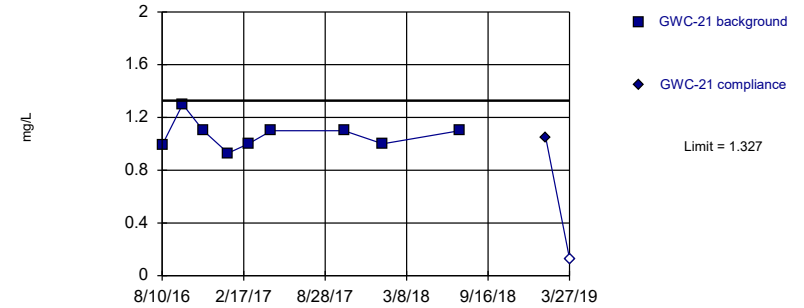


Background Data Summary (based on square root transformation): Mean=1.272, Std. Dev.=0.143, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8052, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

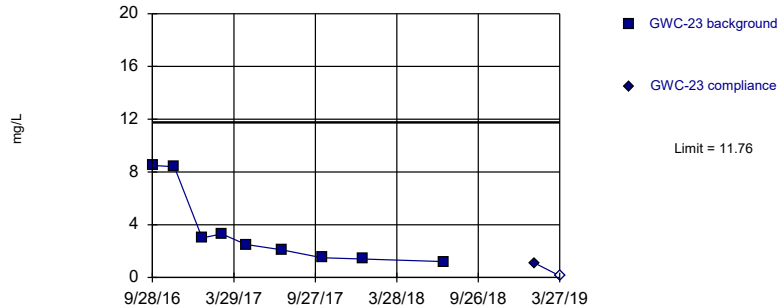


Background Data Summary: Mean=1.069, Std. Dev.=0.1074, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8664, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

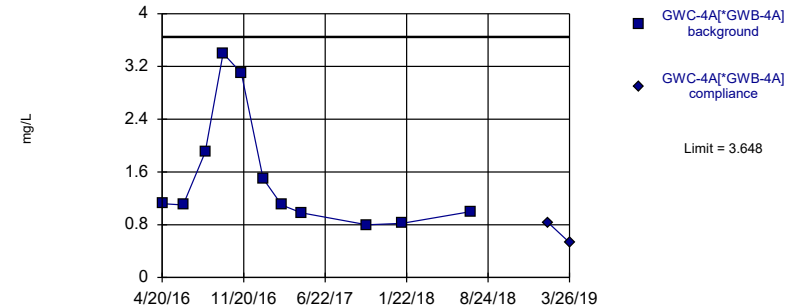


Background Data Summary (based on square root transformation): Mean=1.766, Std. Dev.=0.6914, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8209, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

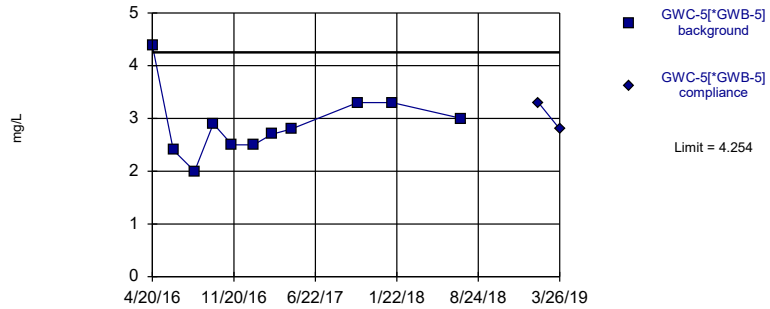


Background Data Summary (based on square root transformation): Mean=1.196, Std. Dev.=0.3303, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8026, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

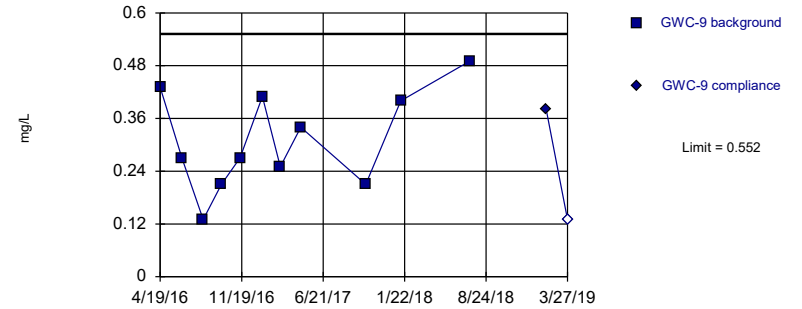


Background Data Summary: Mean=2.89, Std. Dev.=0.6308, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9103, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric



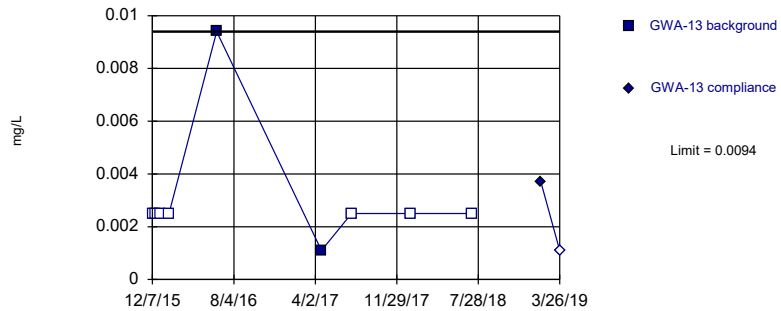
Background Data Summary: Mean=0.3101, Std. Dev.=0.1119, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9581, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Calcium Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



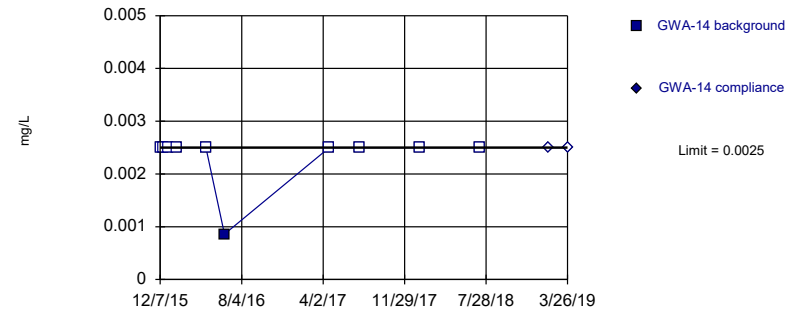
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric

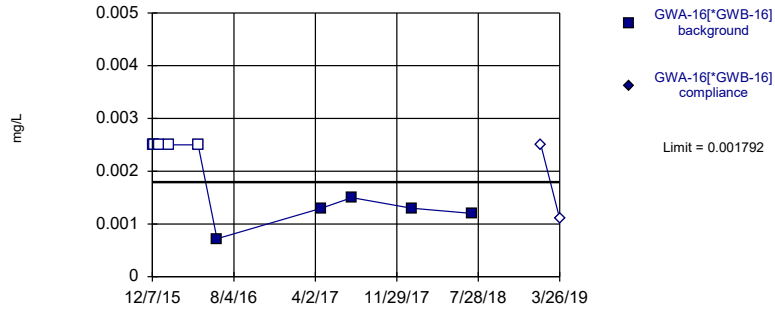


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 90% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

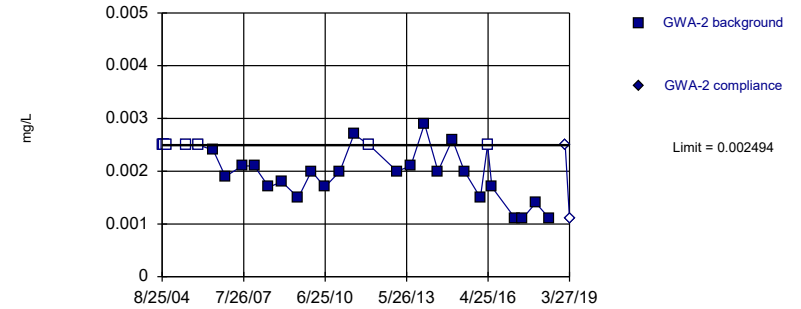


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001136, Std. Dev.=0.0002916, n=10, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7895, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

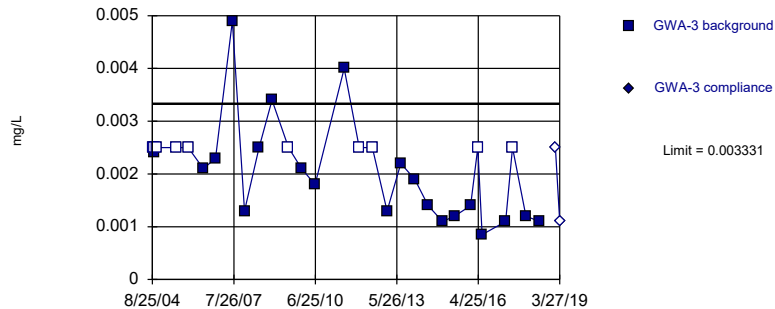


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001625, Std. Dev.=0.0005247, n=31, 25.81% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9311, critical = 0.902. Kappa = 1.656 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

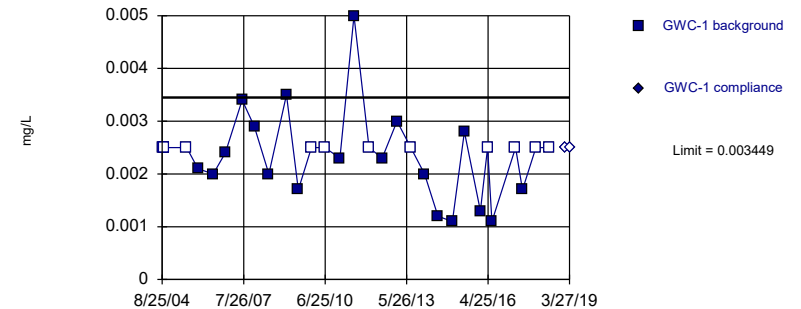


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.04012, Std. Dev.=0.01063, n=31, 32.26% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9119, critical = 0.902. Kappa = 1.656 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

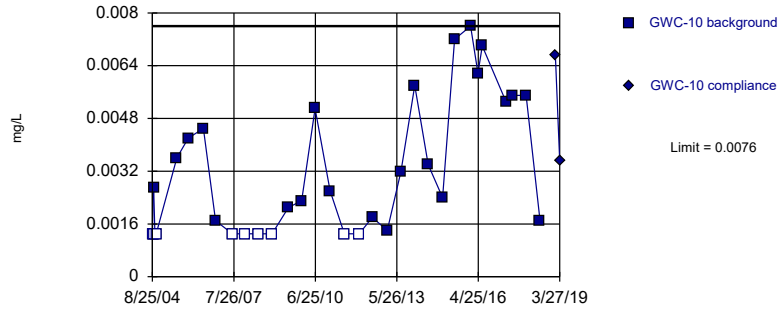


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.04281, Std. Dev.=0.009611, n=31, 38.71% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9061, critical = 0.902. Kappa = 1.656 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

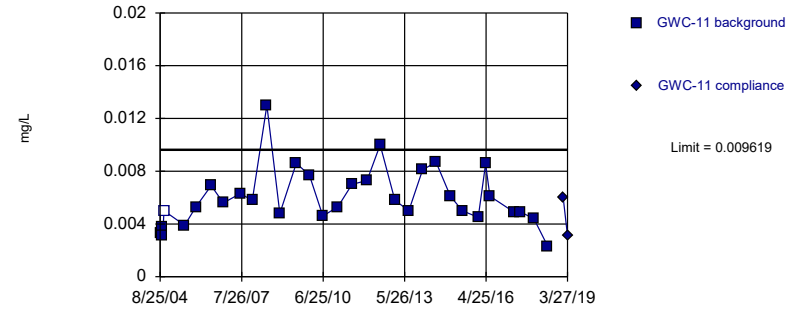


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 28.13% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

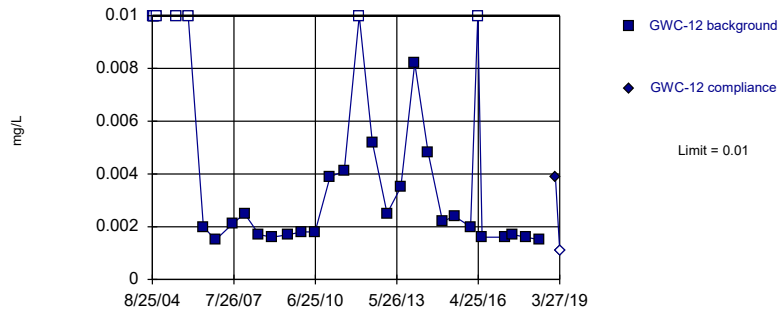


Background Data Summary: Mean=0.005989, Std. Dev.=0.0022, n=32, 3.125% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9325, critical = 0.904. Kappa = 1.65 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

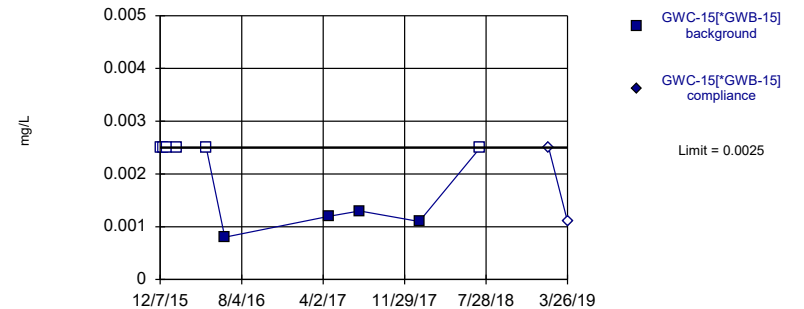


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. 25% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

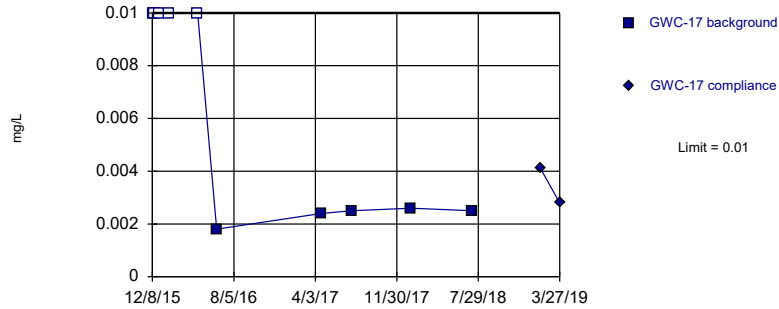


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 60% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

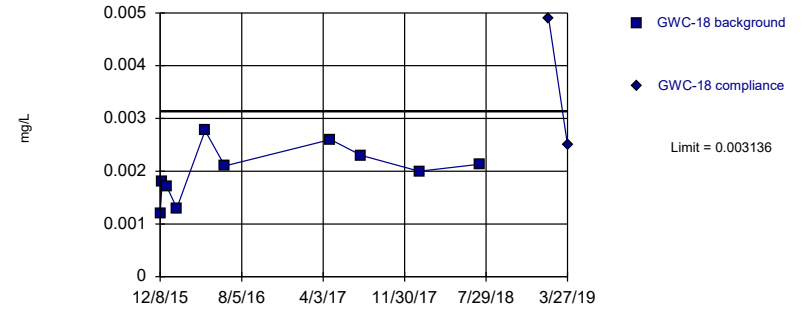


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 10 background values. 50% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Parametric

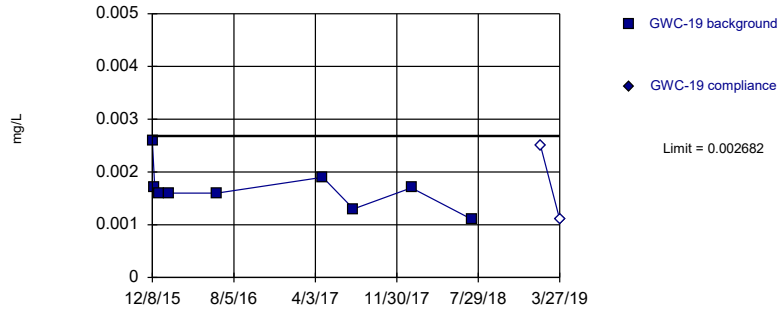


Background Data Summary: Mean=0.00199, Std. Dev.=0.0005088, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9685, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Parametric

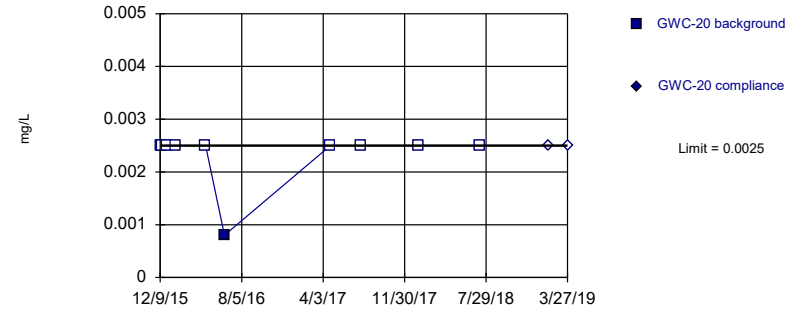


Background Data Summary: Mean=0.001678, Std. Dev.=0.0004177, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8782, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

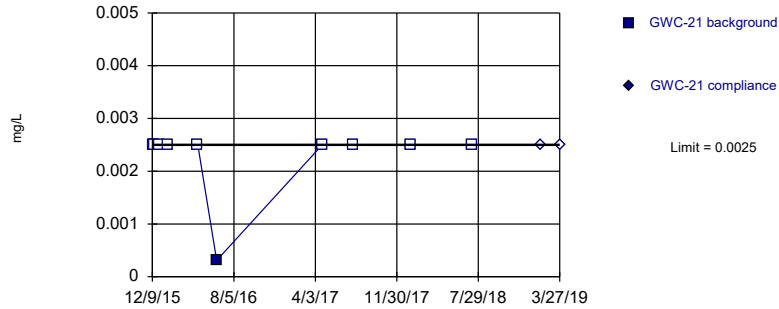


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 90% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

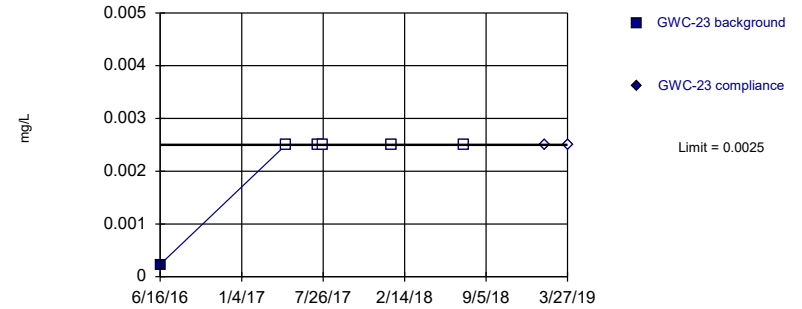


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 90% NDs. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

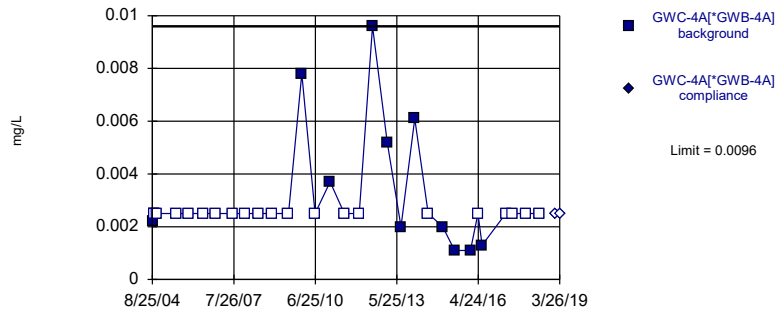


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 6 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

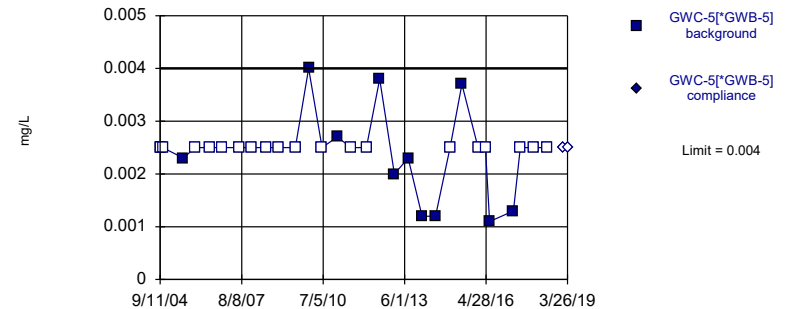


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 65.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

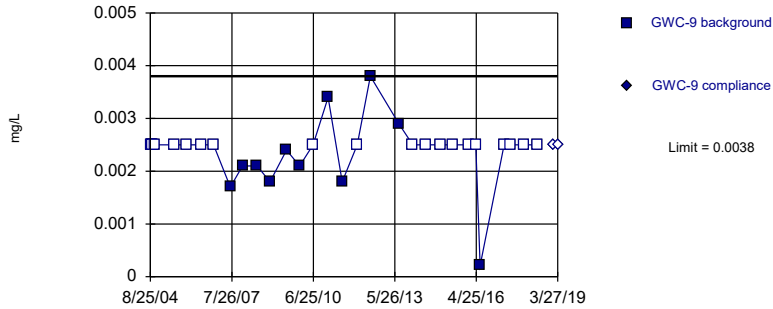


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 64.52% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

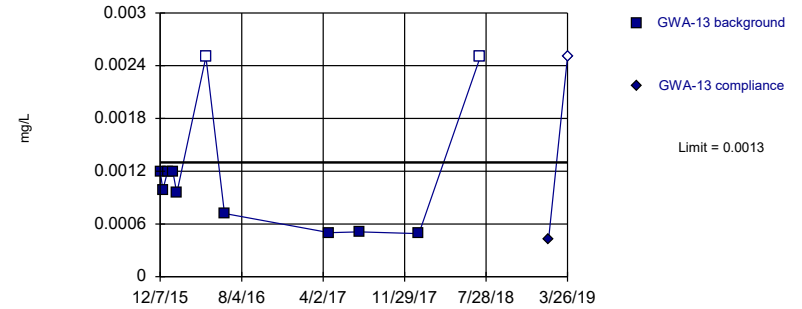


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 64.52% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Chromium, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

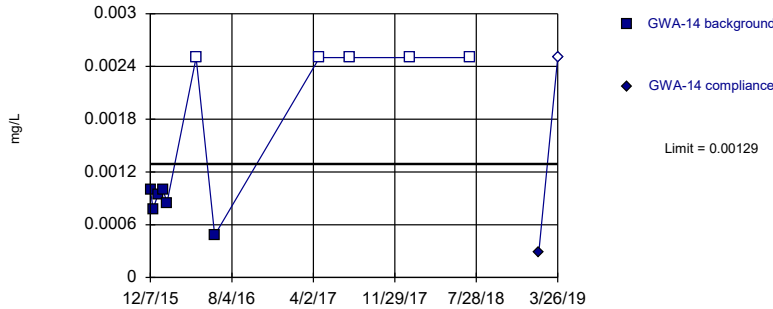


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0007496, Std. Dev.=0.0002548, n=11, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7977, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

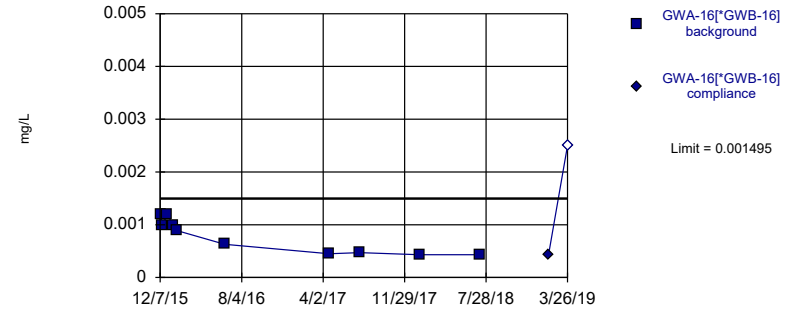


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.0923, Std. Dev.=0.007658, n=11, 45.45% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7942, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

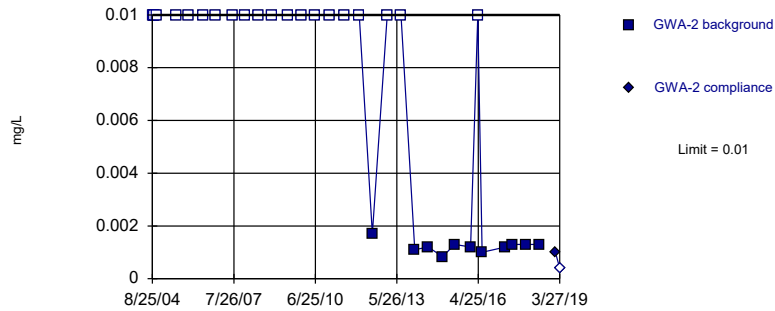


Background Data Summary: Mean=0.00077, Std. Dev.=0.000322, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8456, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

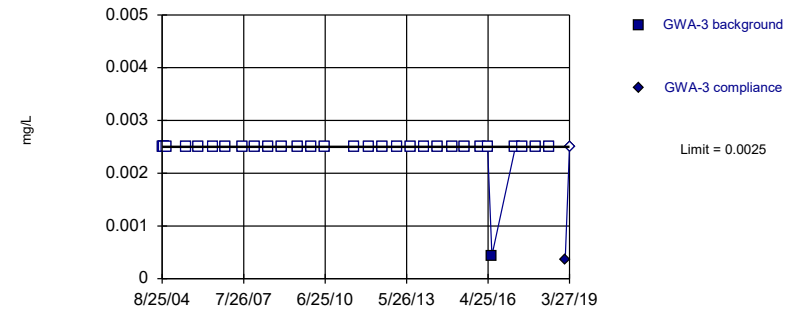


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 65.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

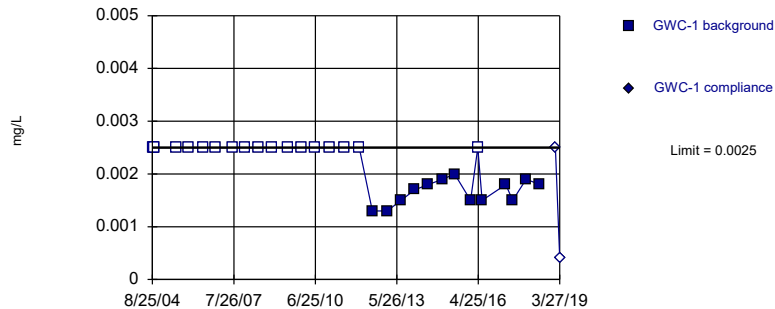


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 96.77% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

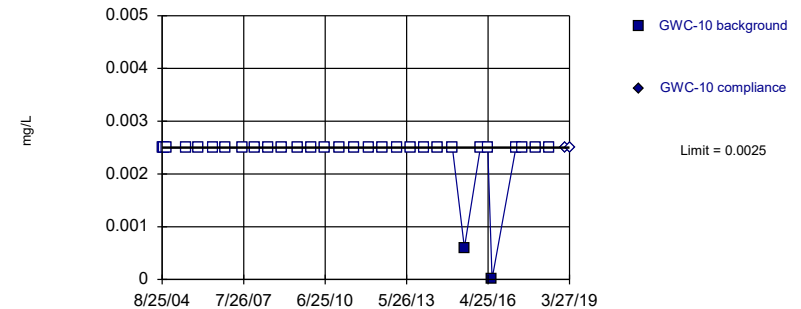


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 58.06% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

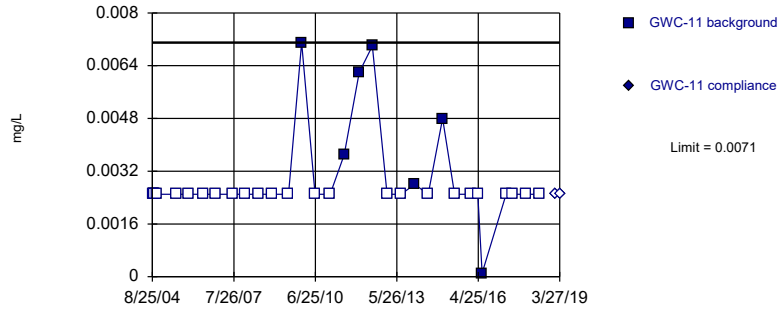


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

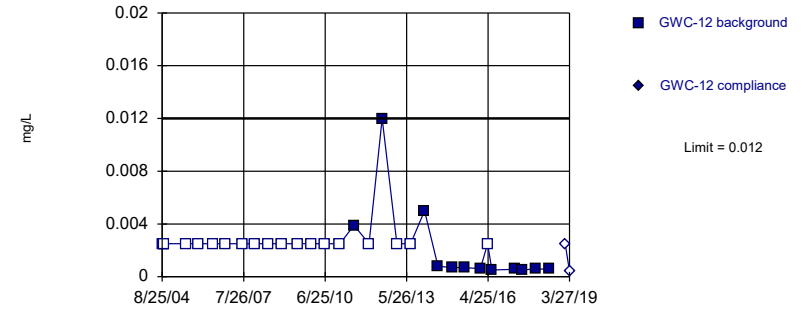


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 78.13% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

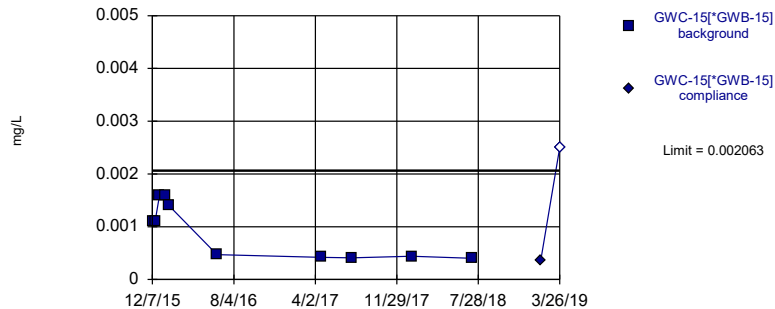


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 61.29% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

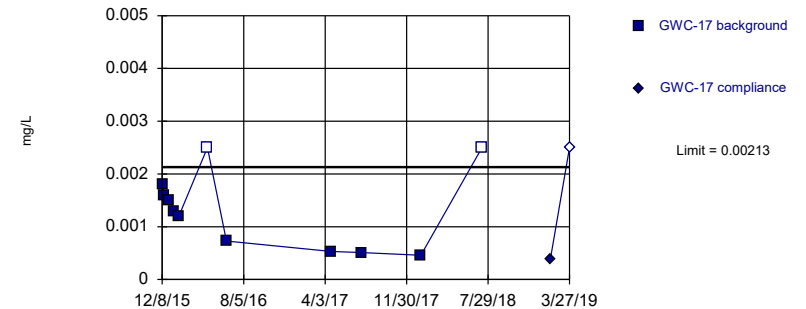


Background Data Summary: Mean=0.000894, Std. Dev.=0.0005193, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8031, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

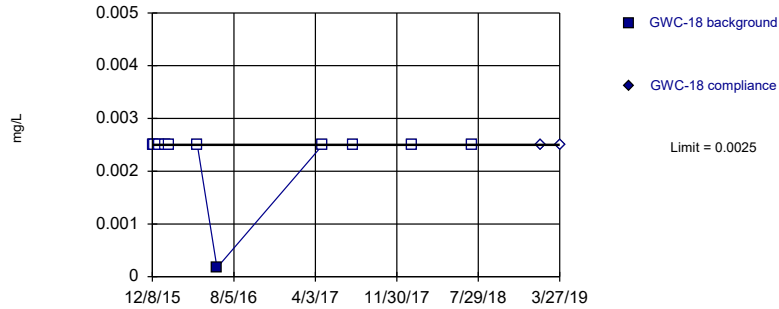


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.00107, Std. Dev.=0.0004901, n=11, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9065, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:43 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

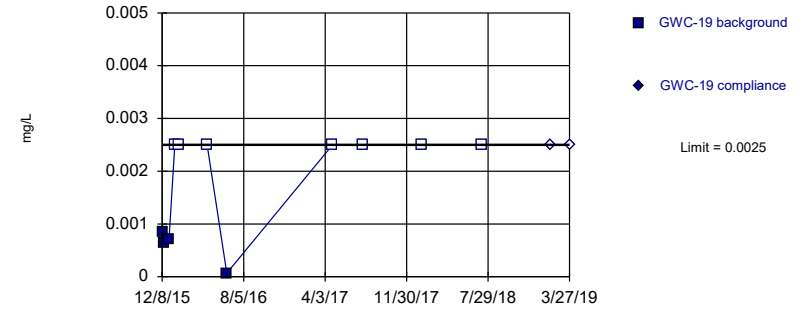


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

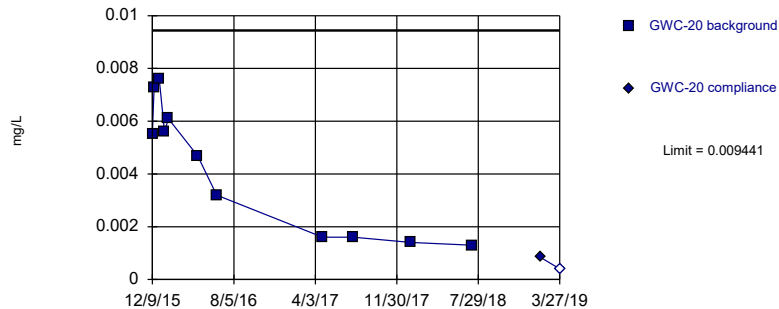


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 63.64% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

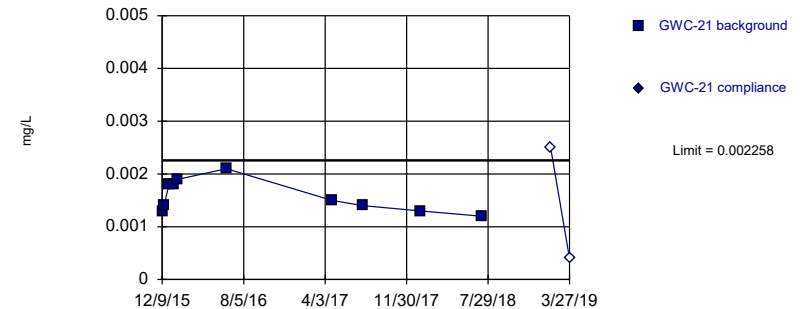


Background Data Summary: Mean=0.004171, Std. Dev.=0.002438, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8804, critical = 0.792. Kappa = 2.162 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

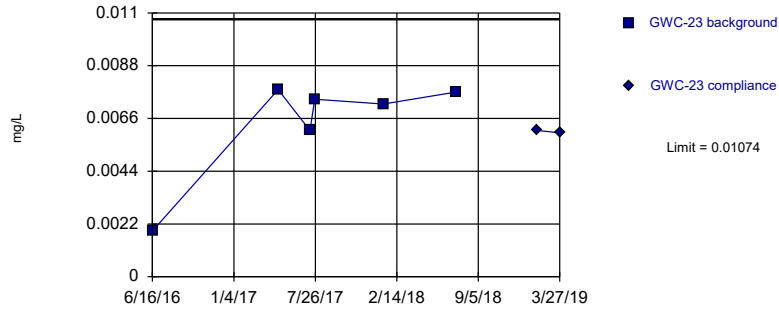


Background Data Summary: Mean=0.00157, Std. Dev.=0.0003057, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9082, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

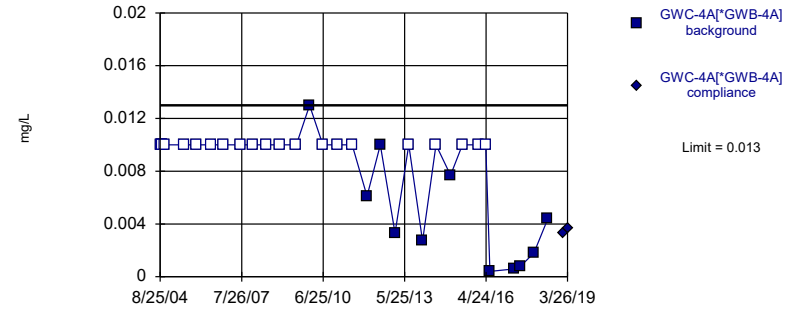


Background Data Summary (based on square transformation): Mean=0.00004459, Std. Dev.=0.00002177, n=6. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7895, critical = 0.713. Kappa = 3.249 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric



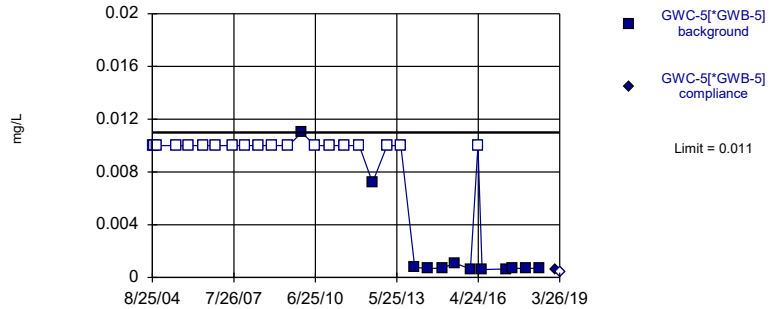
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 65.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



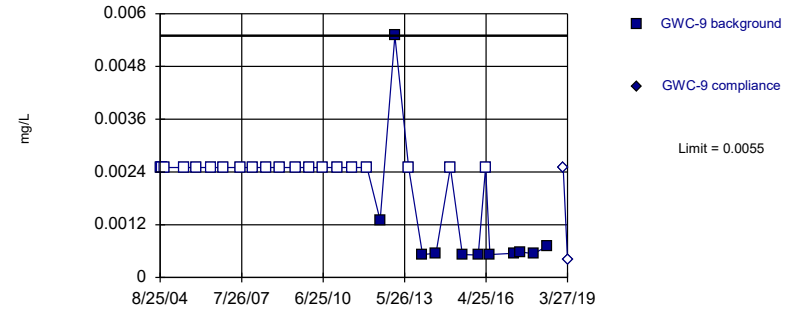
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric

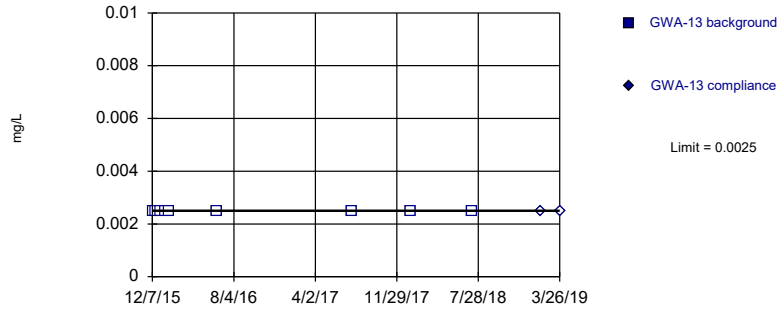


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 65.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Cobalt, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

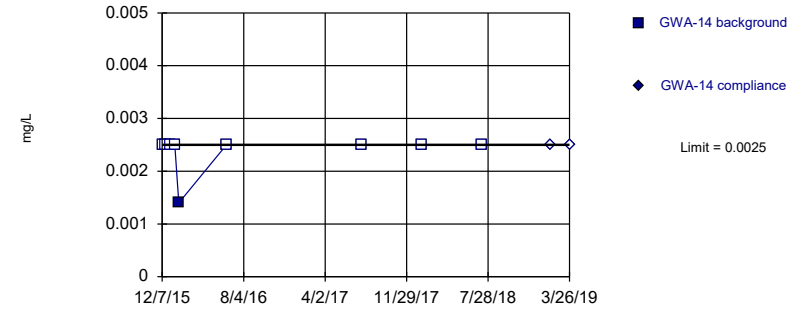


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

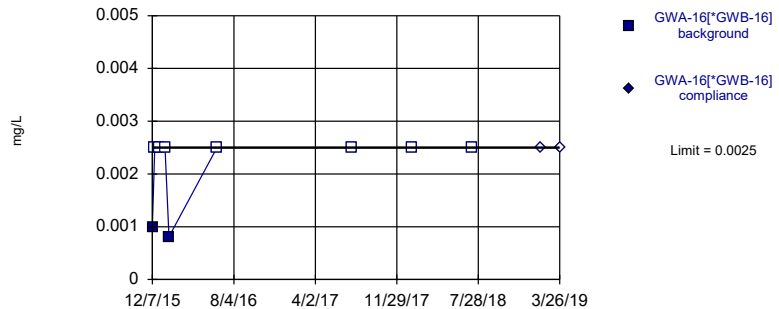


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

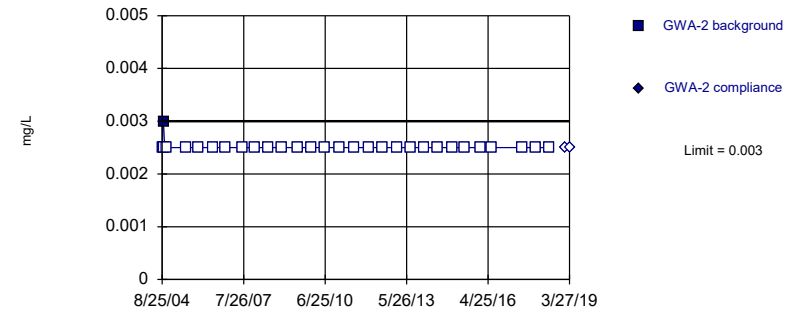


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

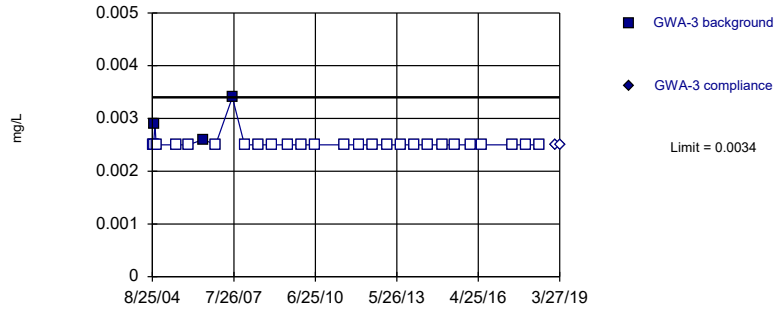


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

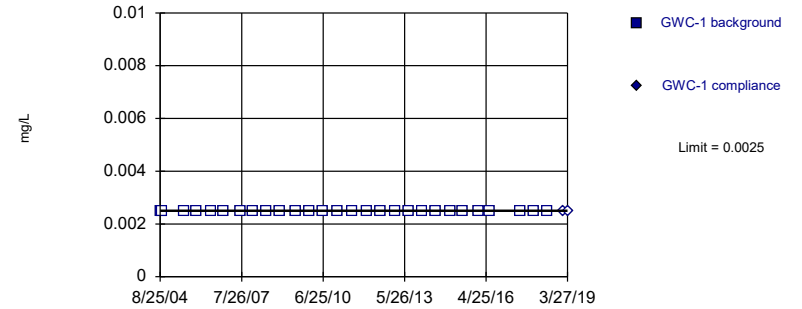


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 89.66% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

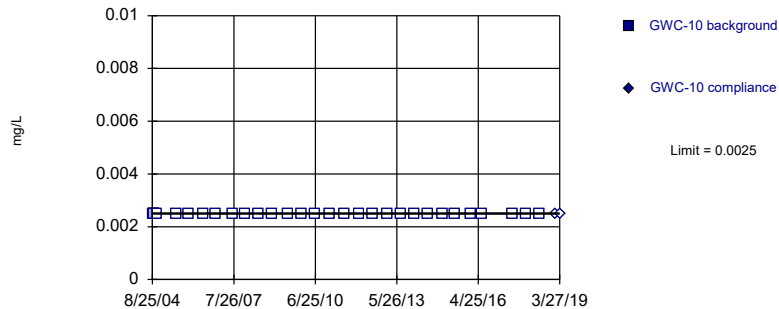


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 29) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

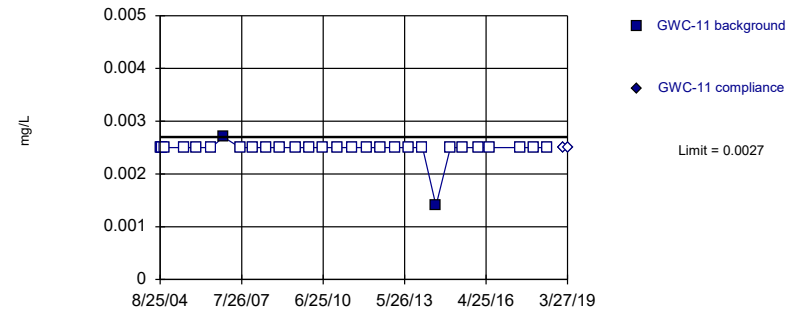


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

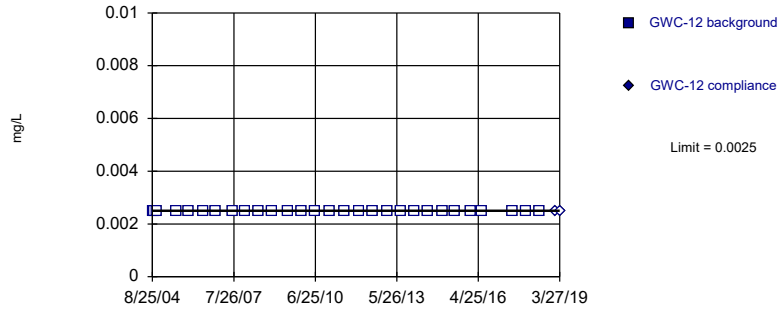


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

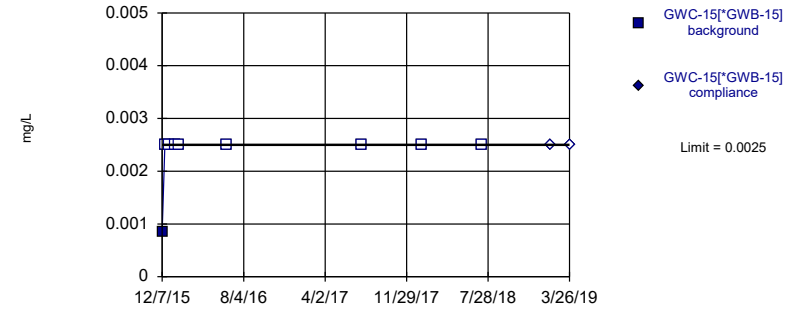


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

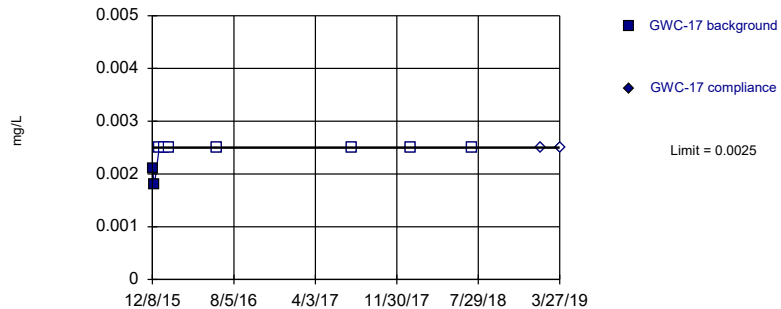


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

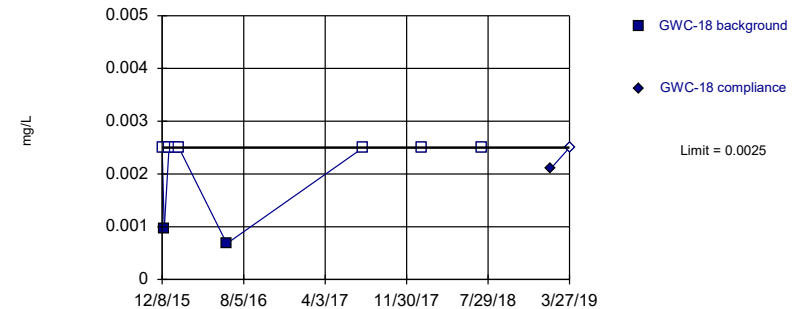


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

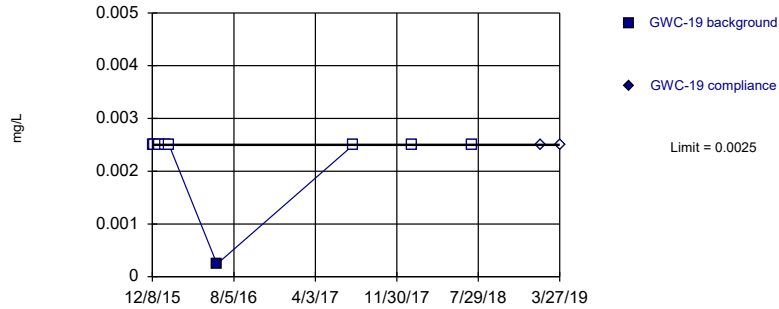


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

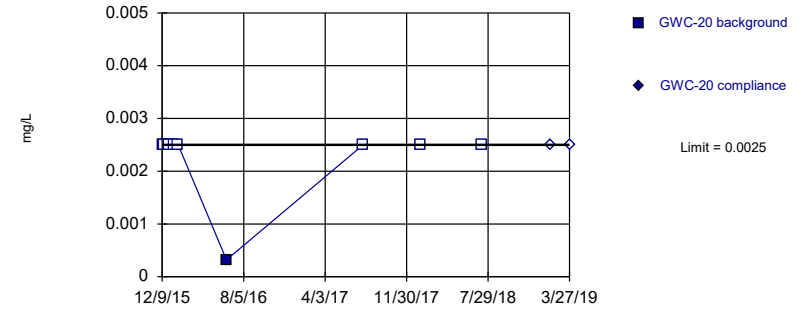


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

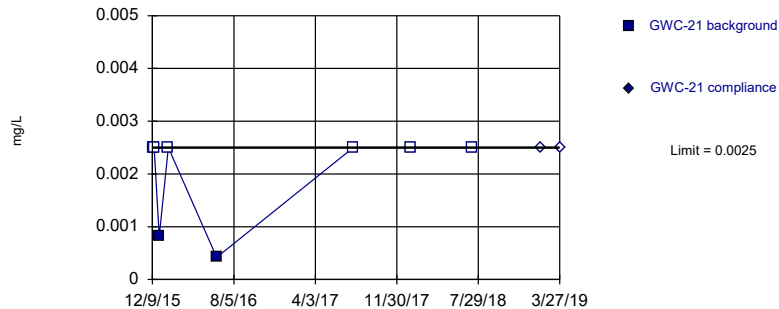


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

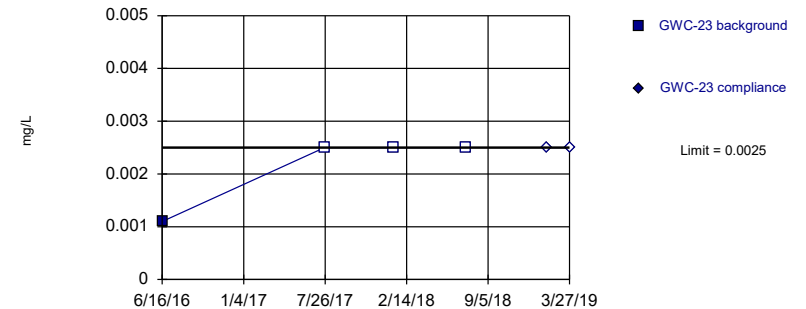


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

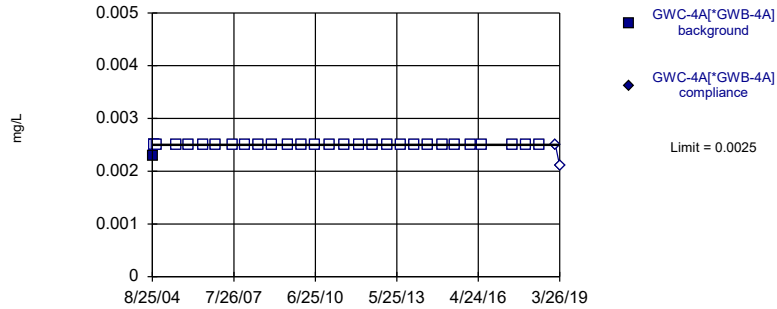


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 4 background values. 75% NDs. Well-constituent pair annual alpha = 0.05238. Individual comparison alpha = 0.02654 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

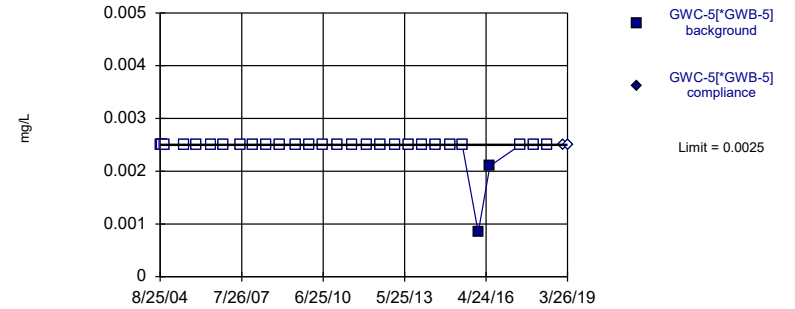


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

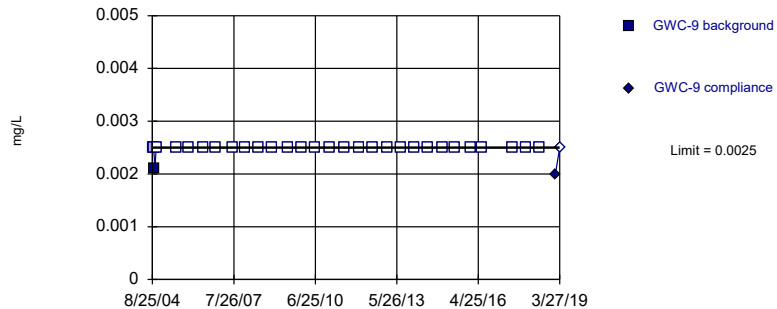


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

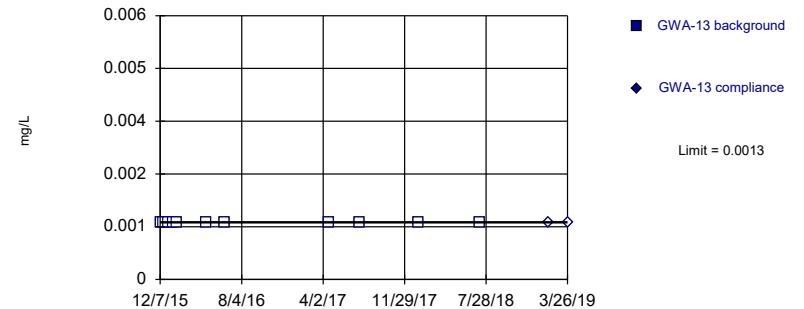


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Copper, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

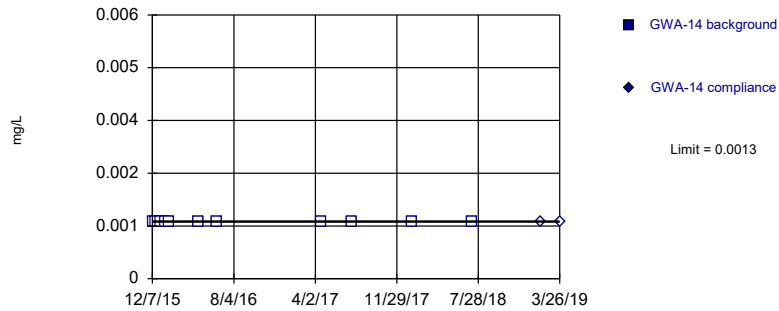


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

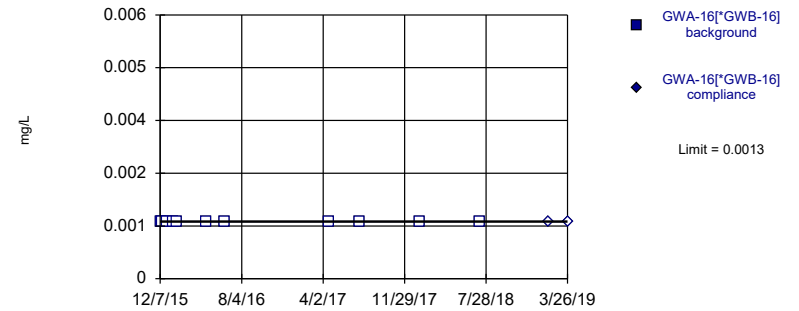


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

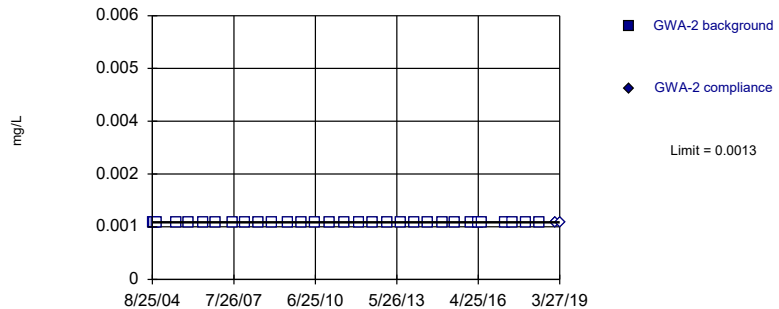


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

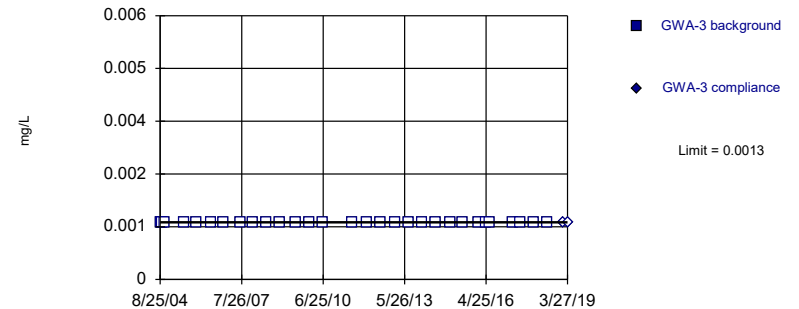


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

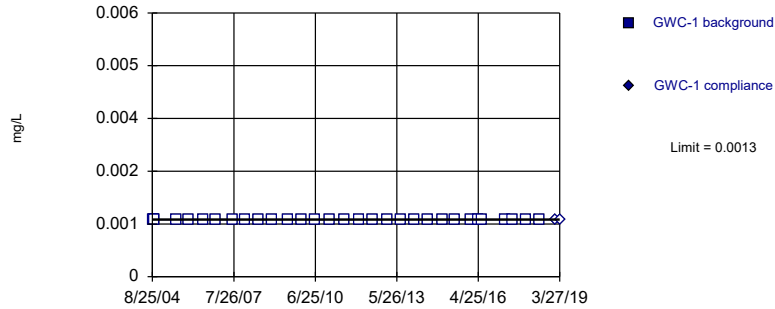


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

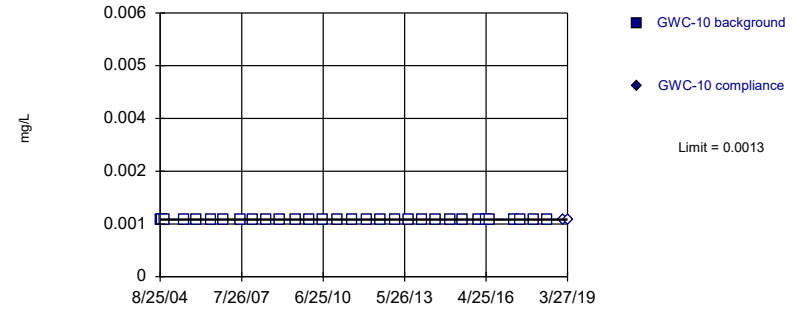


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

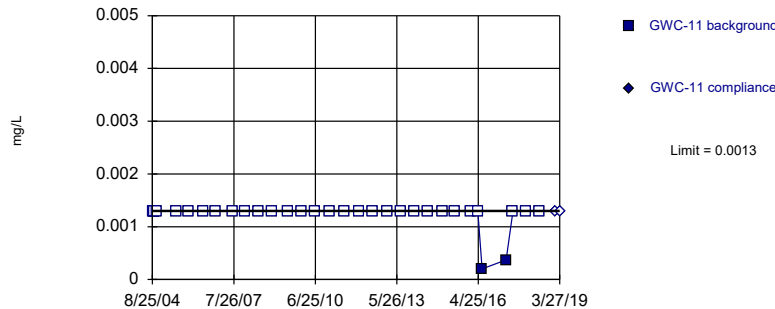


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

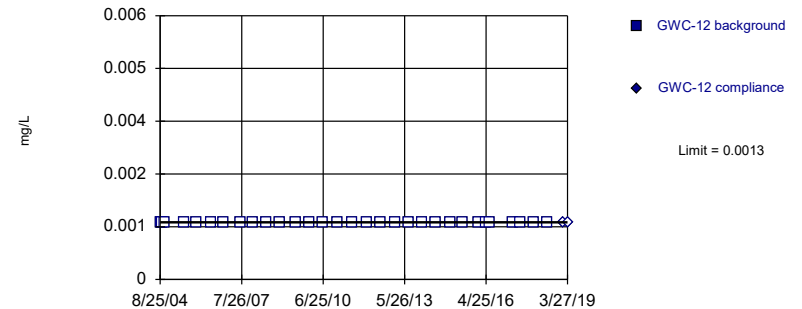


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

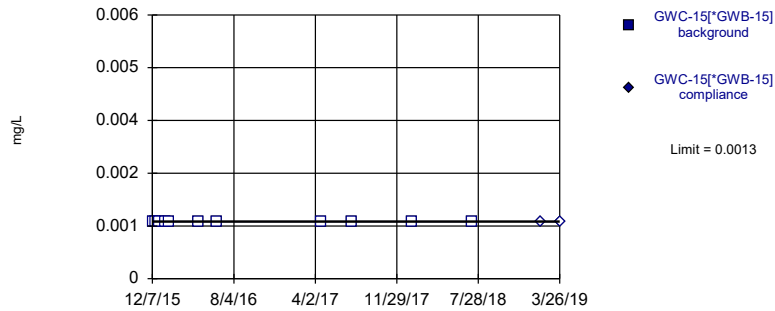


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

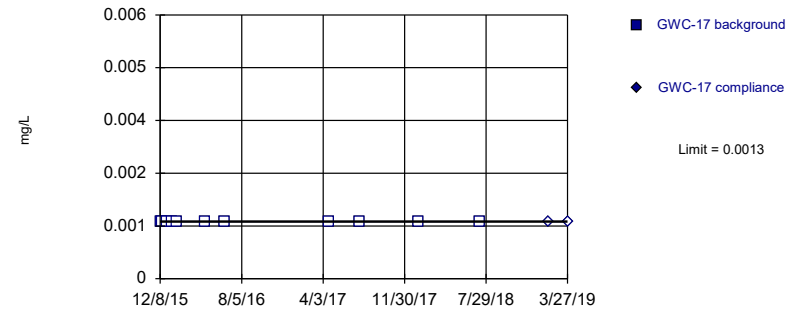


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

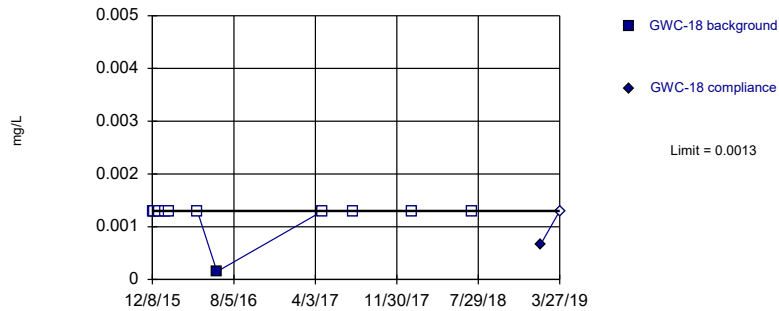


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

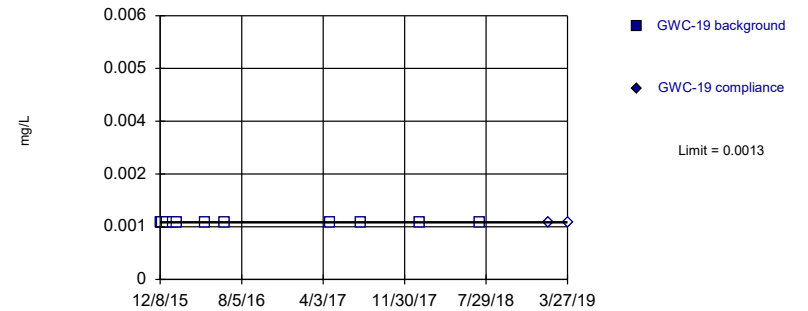


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

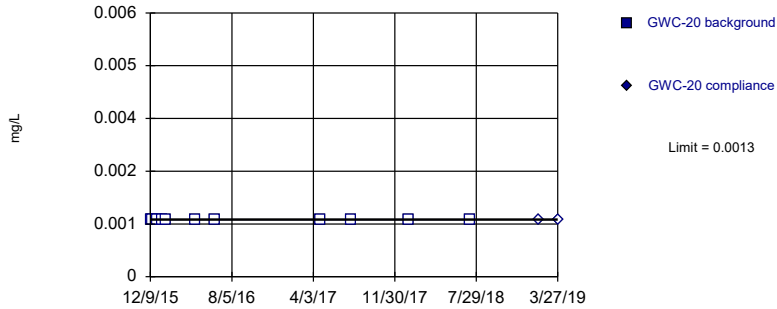


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:44 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

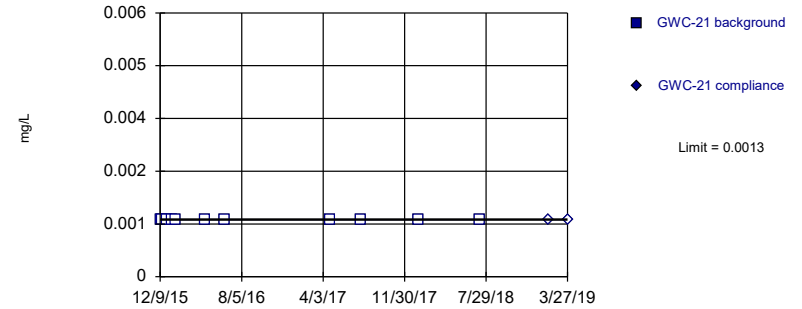


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

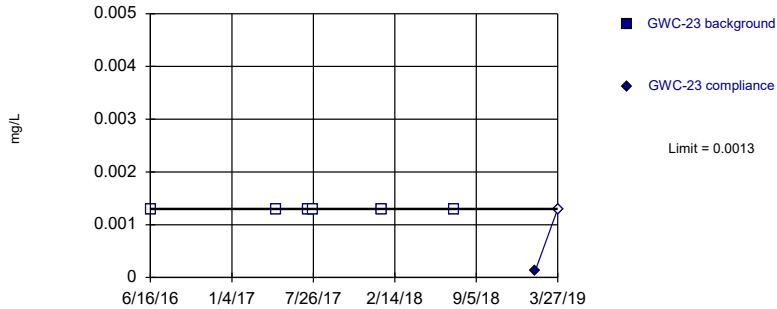


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

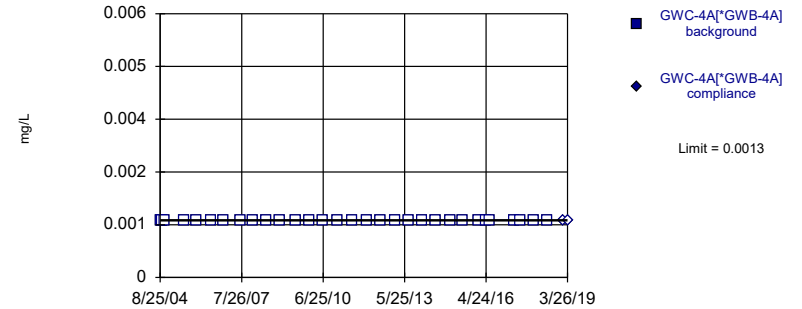


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 6) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

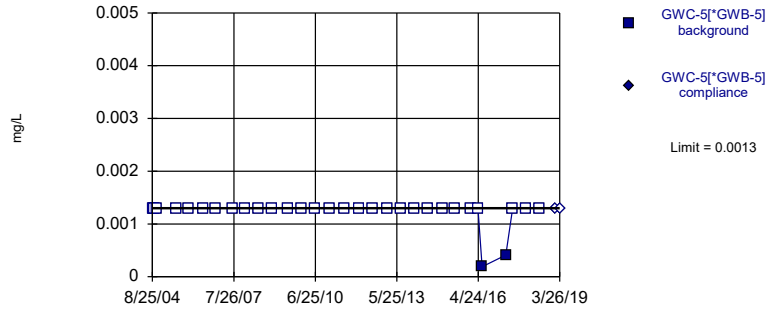


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

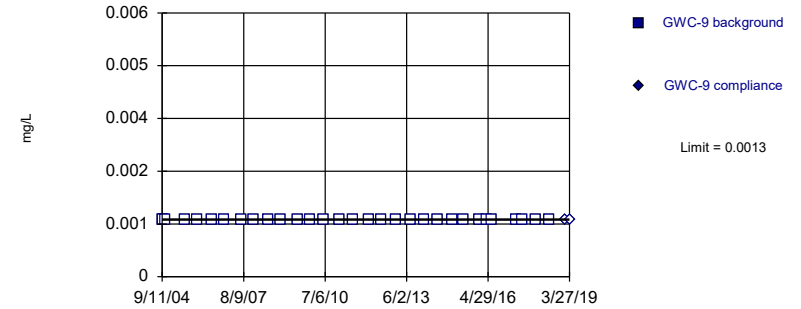


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

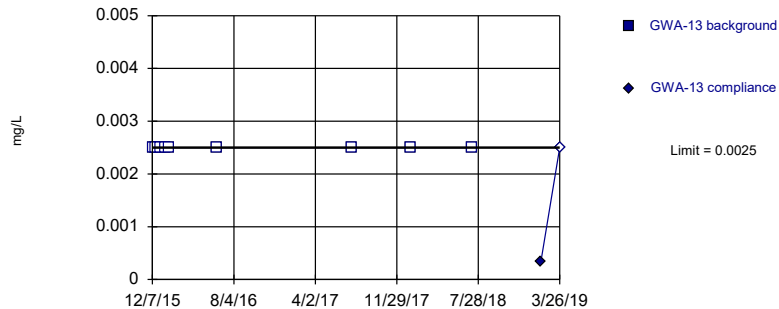


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Lead, Total Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

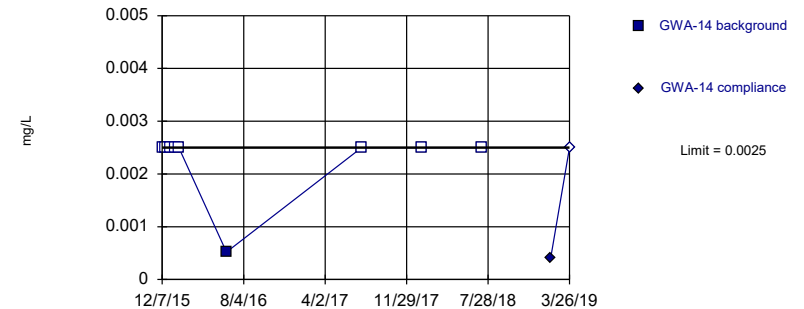


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

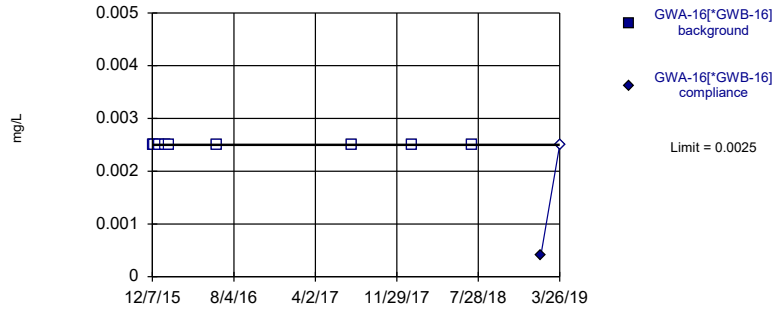


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

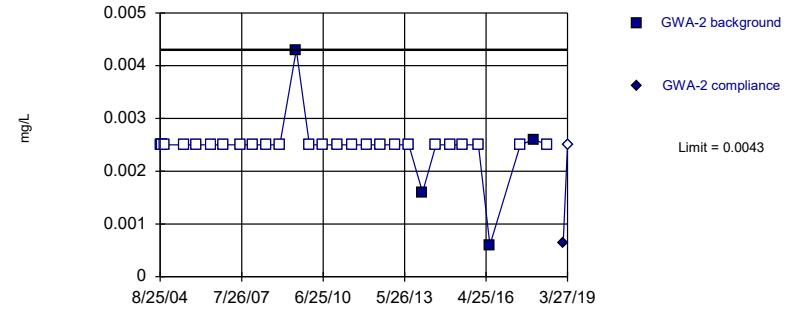


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

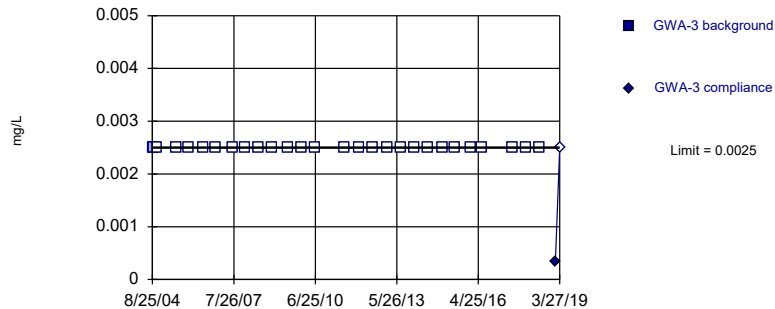


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 86.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

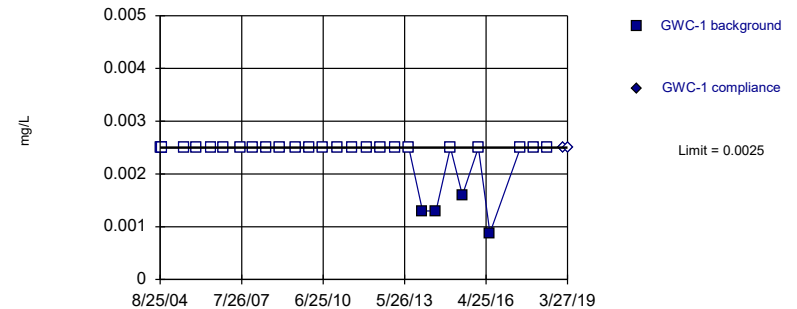


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 28) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0004633. Individual comparison alpha = 0.0002317 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

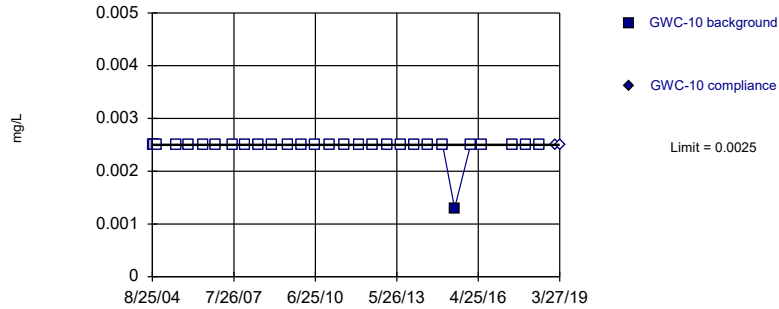


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 86.21% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

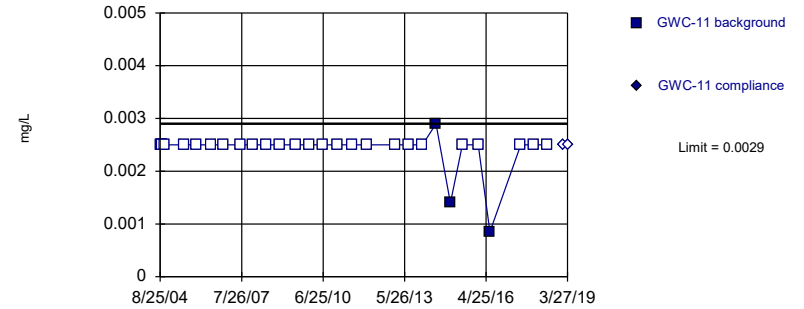


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

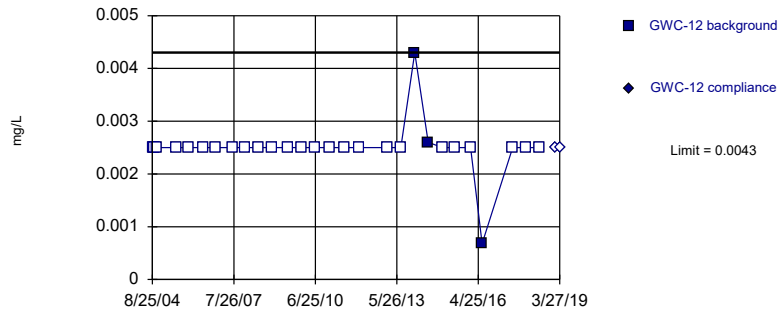


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 89.66% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

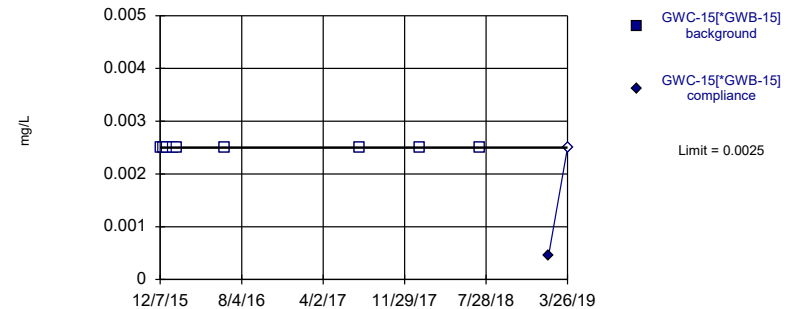


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 89.66% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

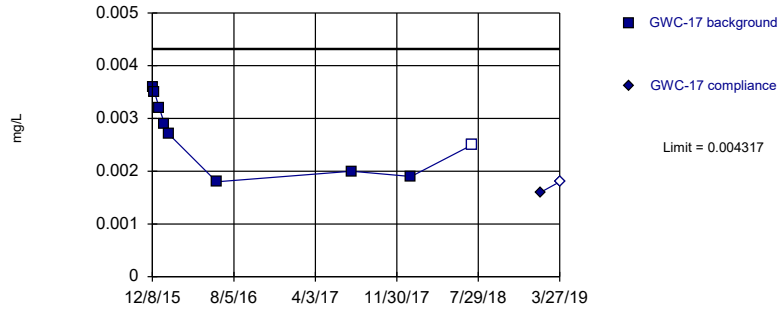


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

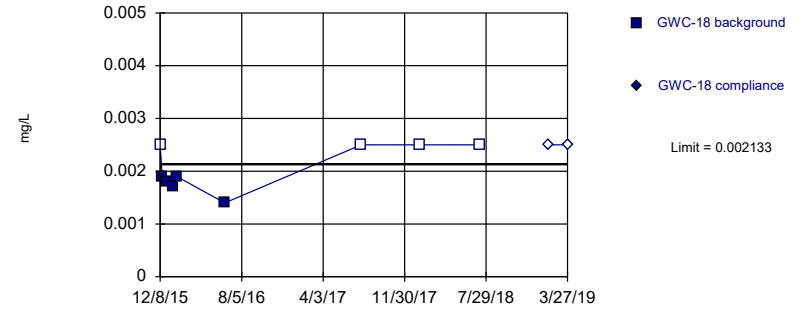


Background Data Summary: Mean=0.002678, Std. Dev.=0.0006815, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

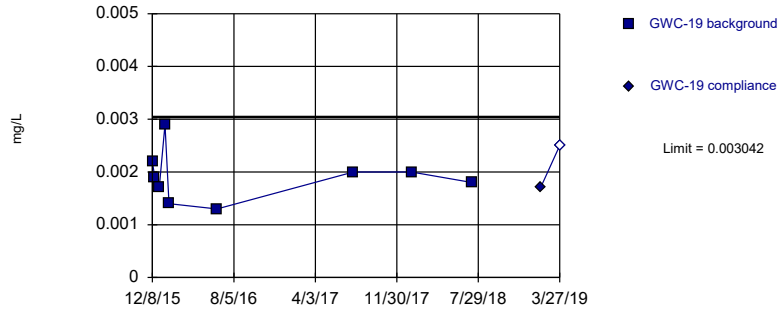


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001687, Std. Dev.=0.0001857, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8348, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

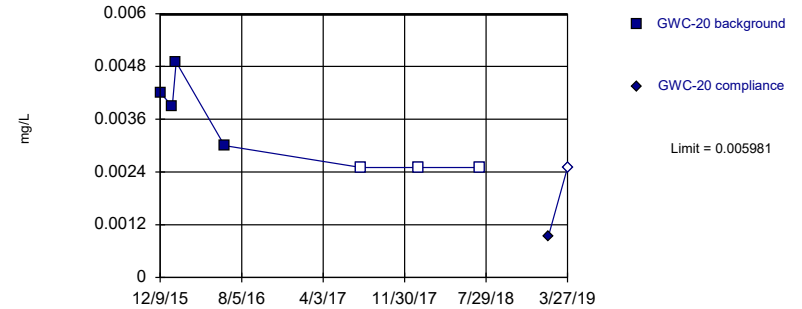


Background Data Summary: Mean=0.001911, Std. Dev.=0.0004702, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

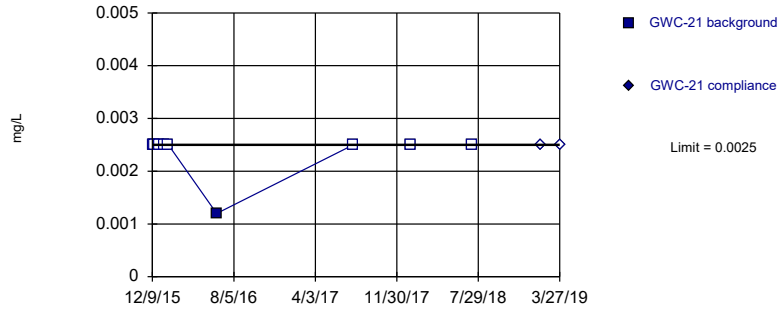


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.003357, Std. Dev.=0.0009037, n=7, 42.86% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8522, critical = 0.73. Kappa = 2.904 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

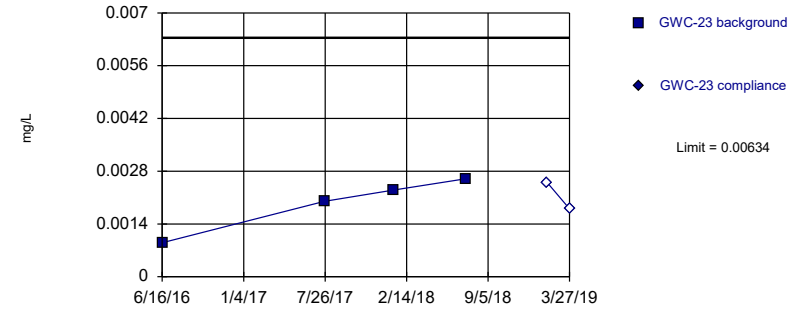


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

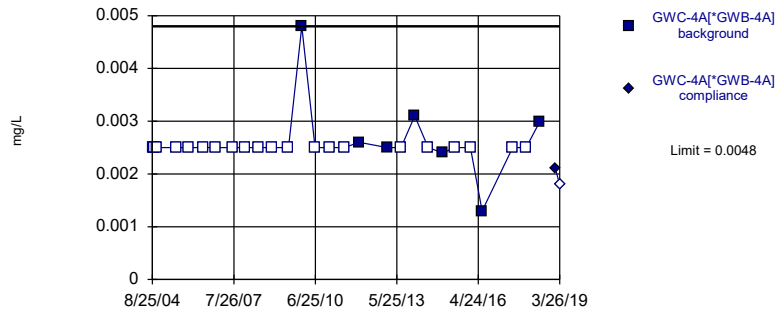


Background Data Summary: Mean=0.00195, Std. Dev.=0.0007416, n=4. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8999, critical = 0.687. Kappa = 5.92 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

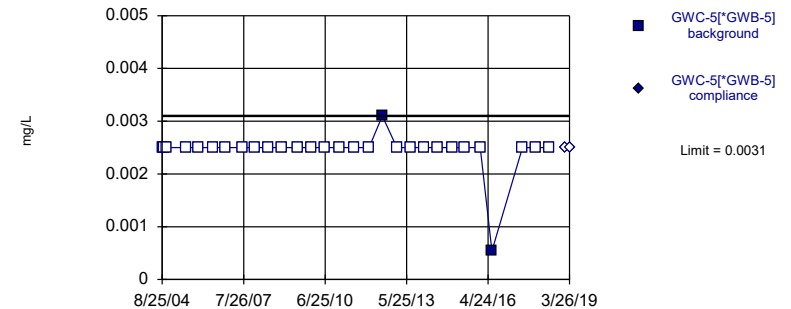


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 75.86% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

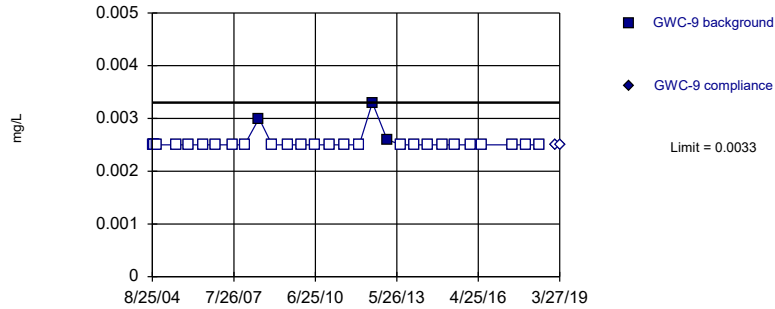


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

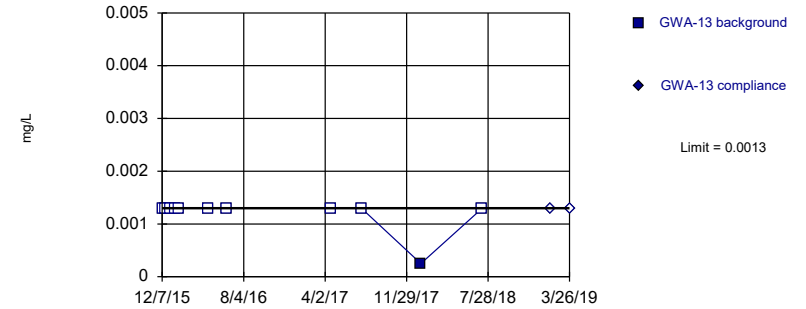


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 90% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Nickel, Total Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

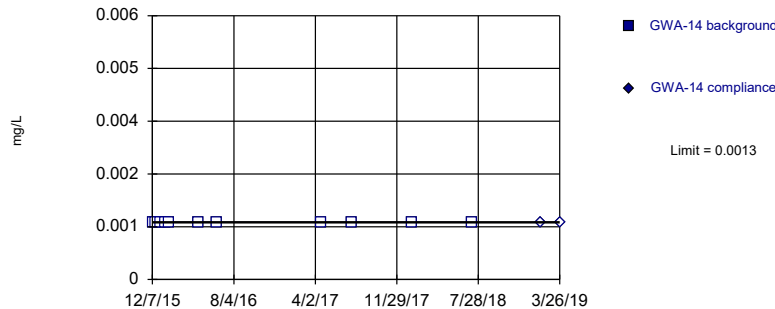


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

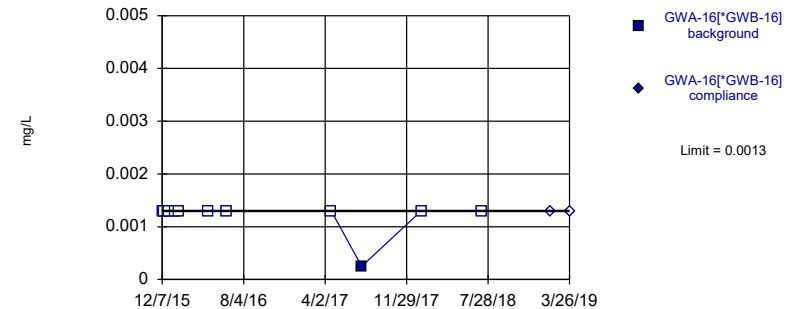


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

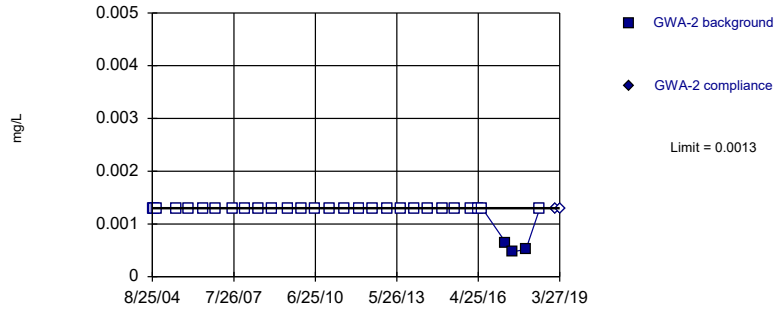


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

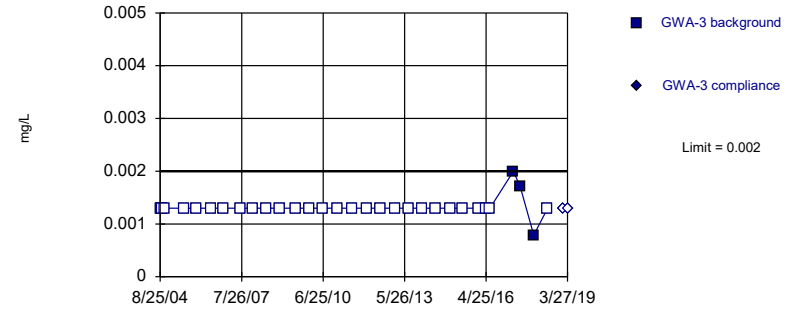


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 90.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

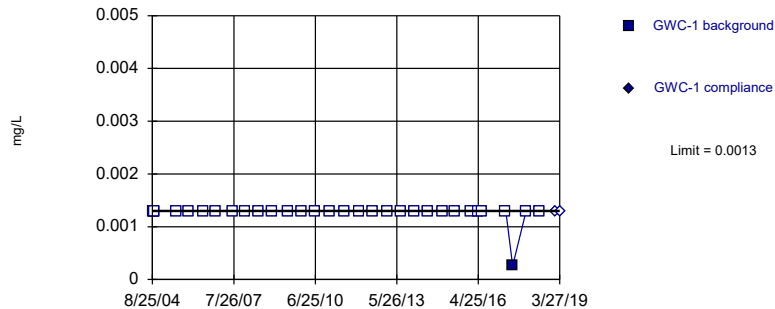


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 90.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

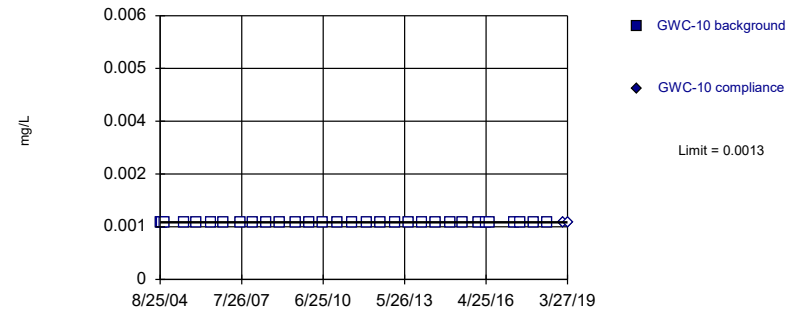


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 31 background values. 96.77% NDs. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

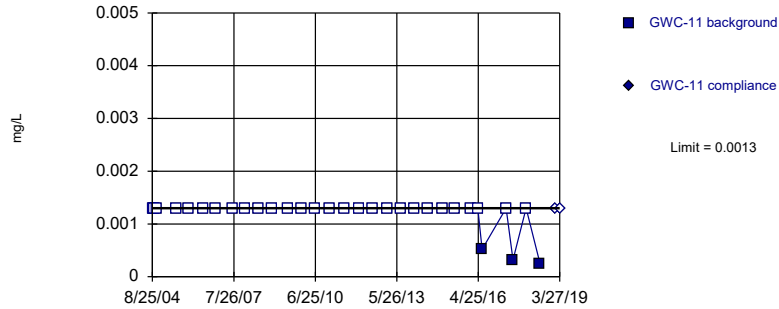


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

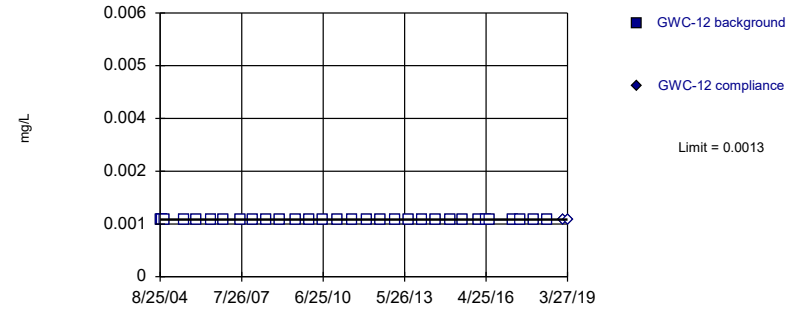


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 90.63% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

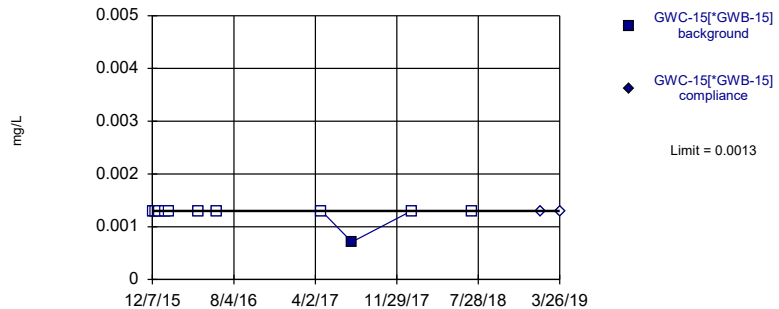


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

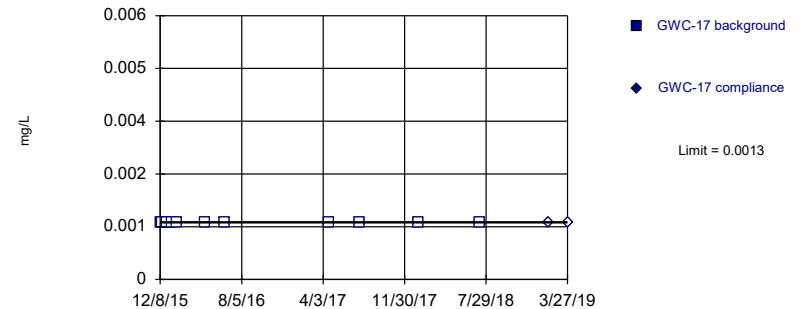


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

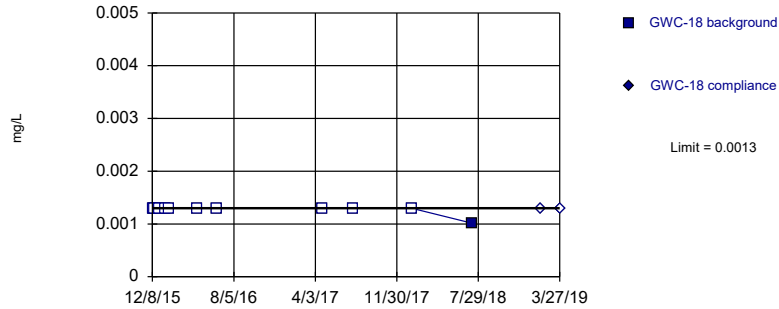


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

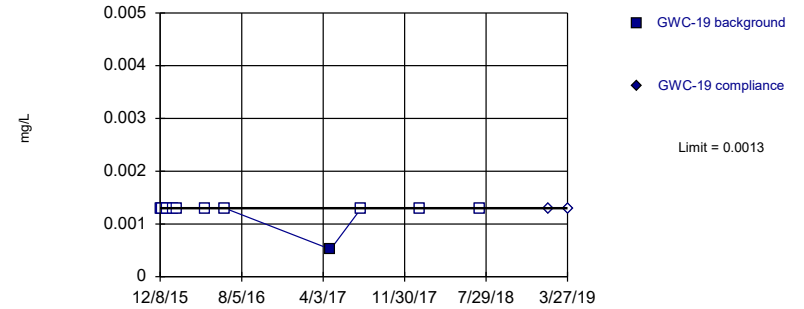


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

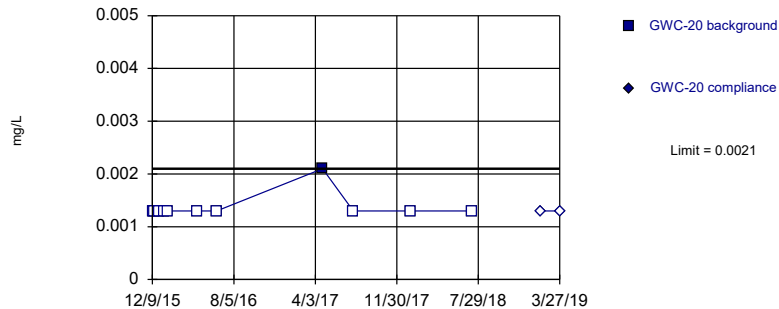


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

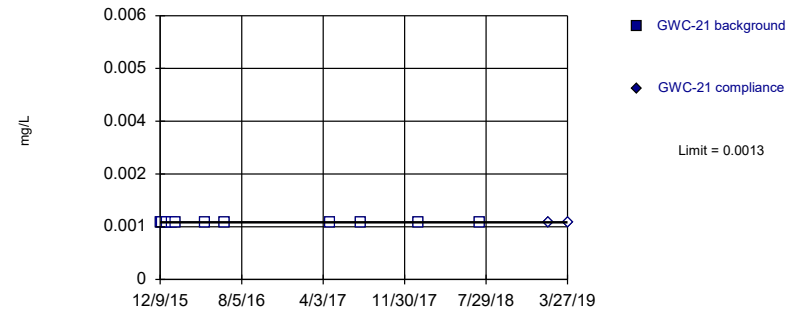


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

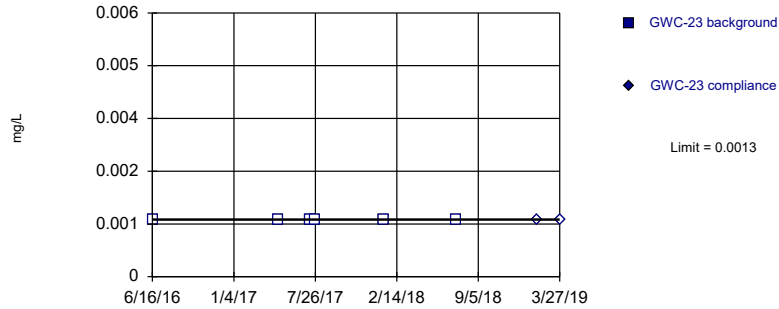


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

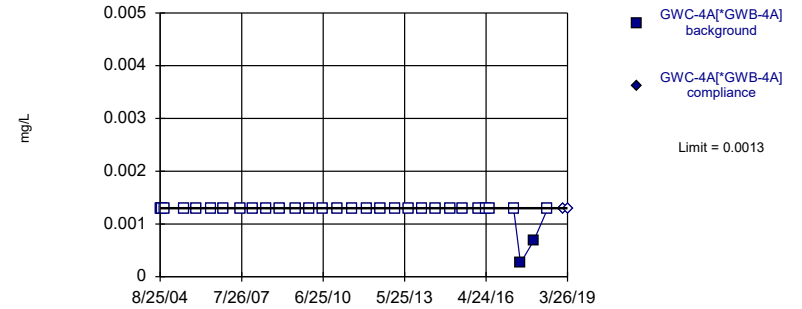


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 6) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02273. Individual comparison alpha = 0.01143 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

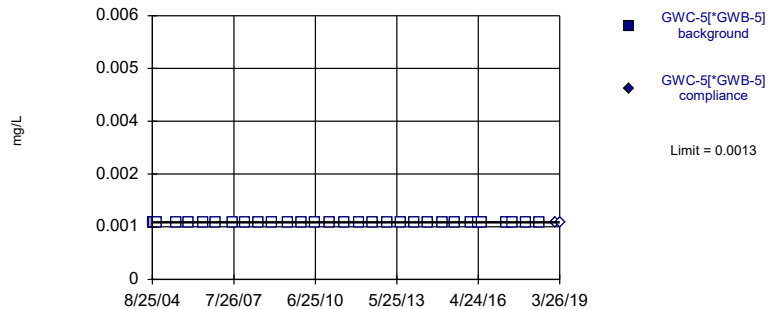


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 93.75% NDs. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

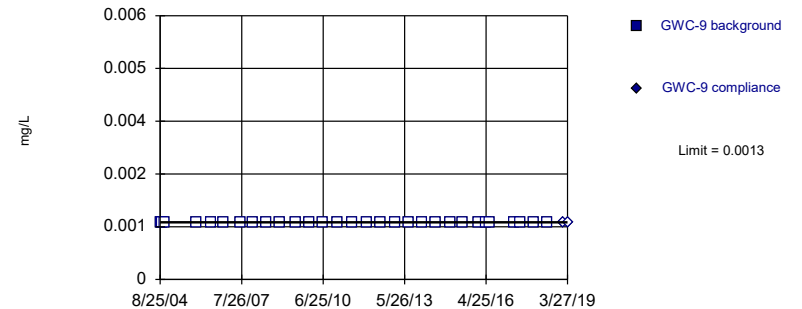


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 32) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003144. Individual comparison alpha = 0.0001572 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

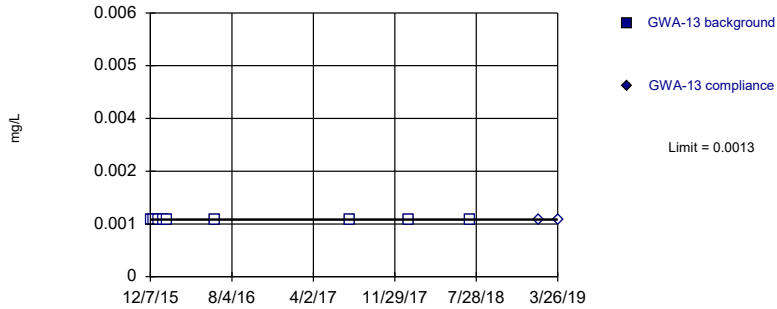


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 31) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003403. Individual comparison alpha = 0.0001701 (1 of 3).

Constituent: Selenium Analysis Run 8/8/2019 3:45 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

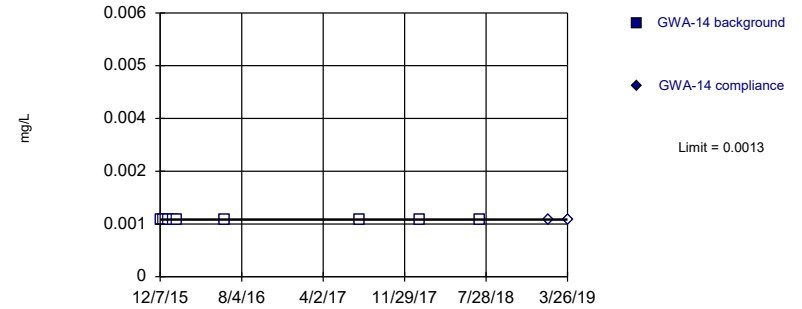


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

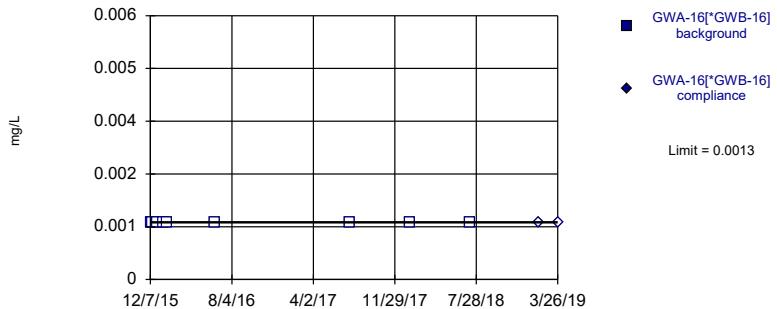


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

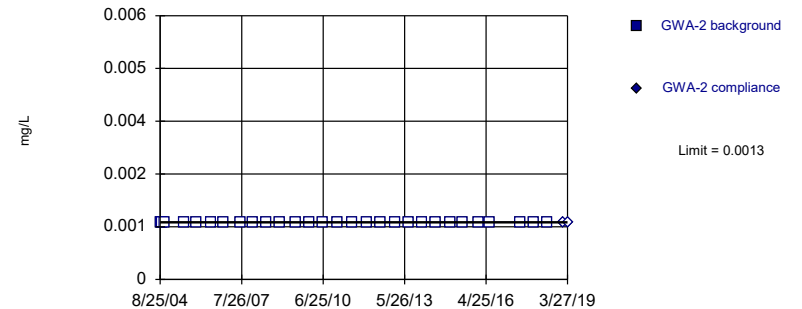


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

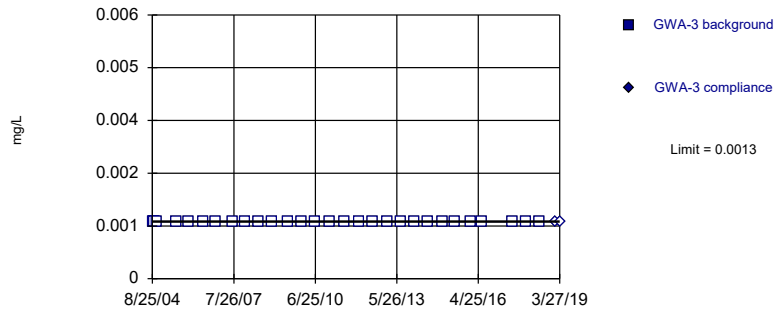


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

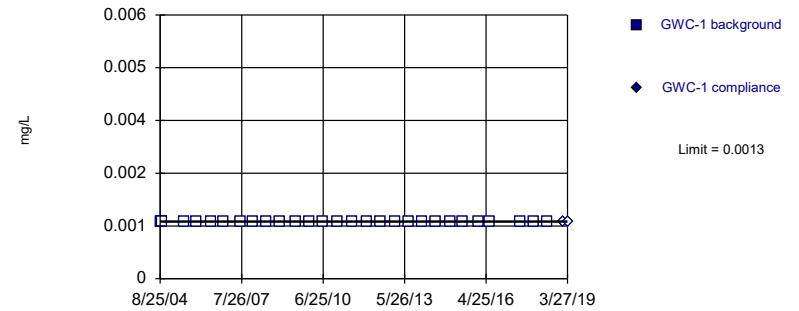


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

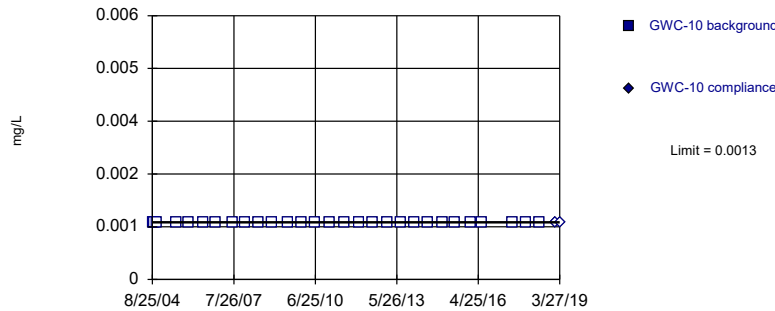


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 29) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

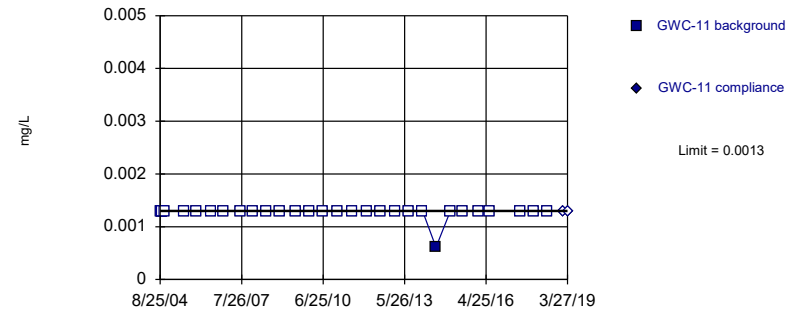


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

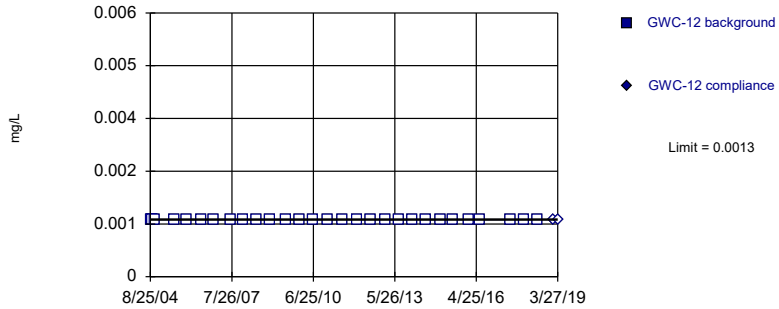


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

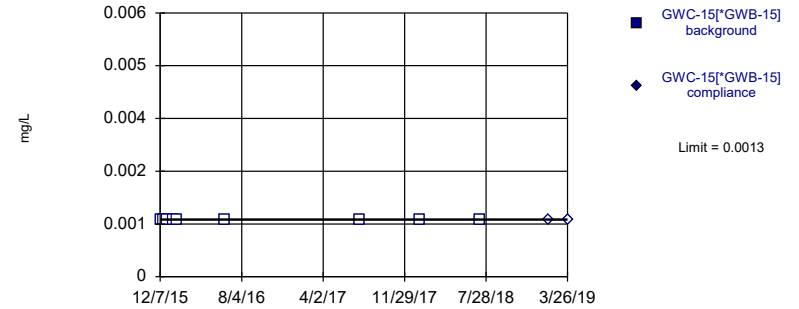


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

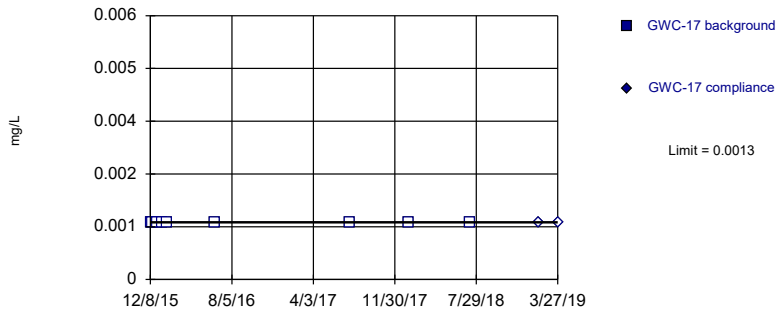


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

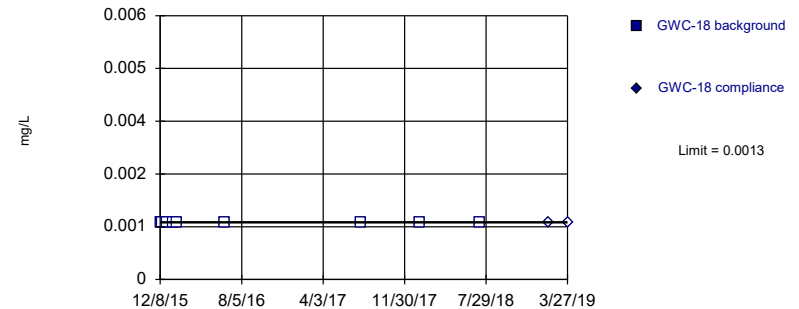


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

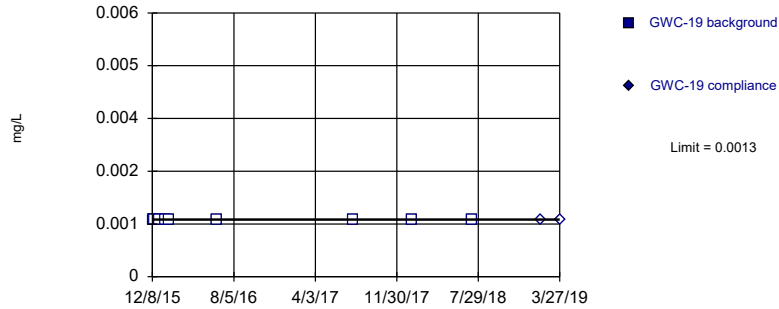


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

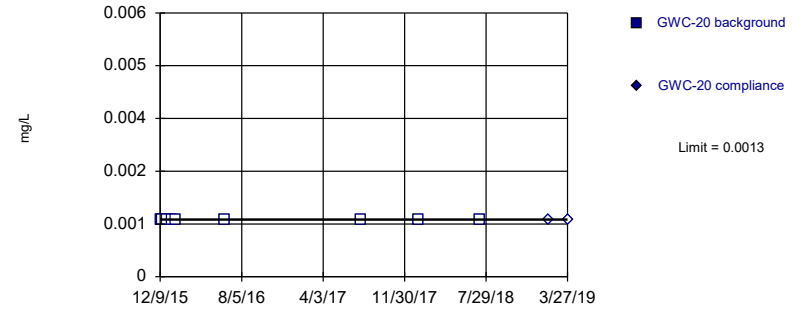


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

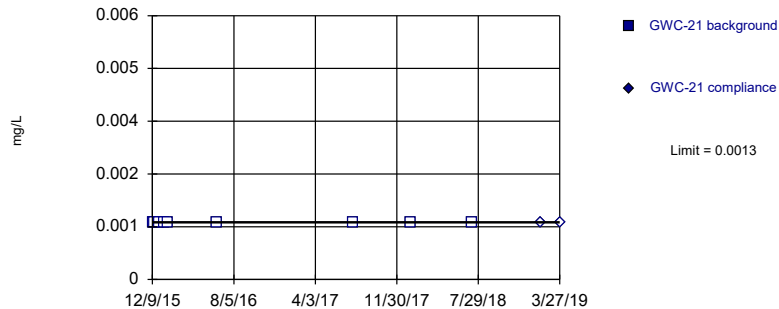


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

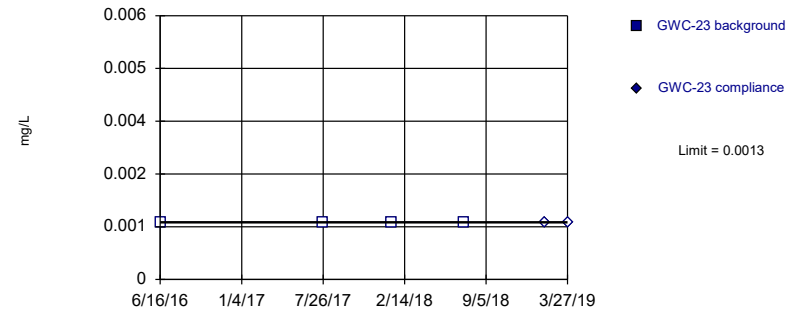


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit Intrawell Non-parametric

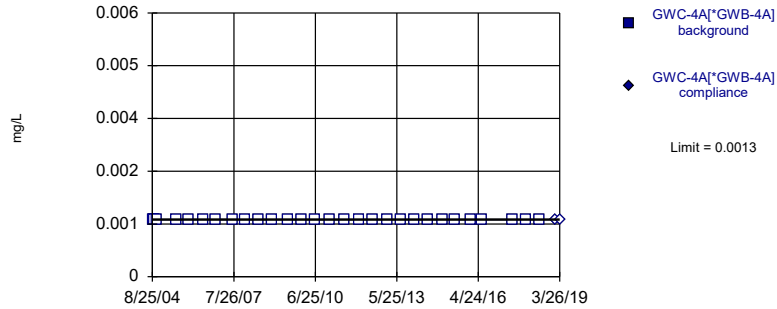


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 4) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05238. Individual comparison alpha = 0.02654 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

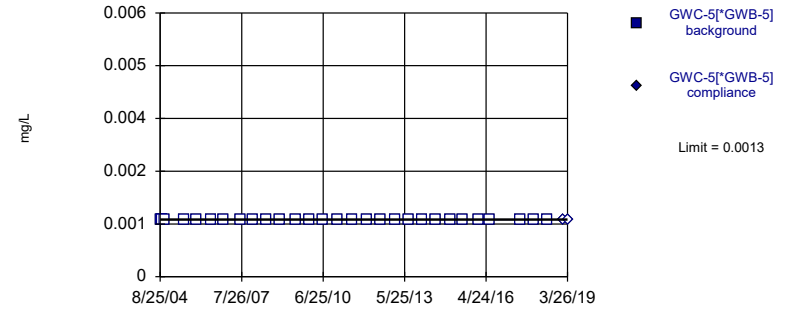


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

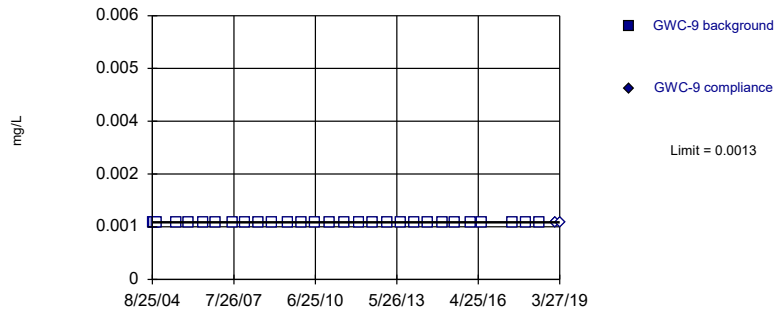


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

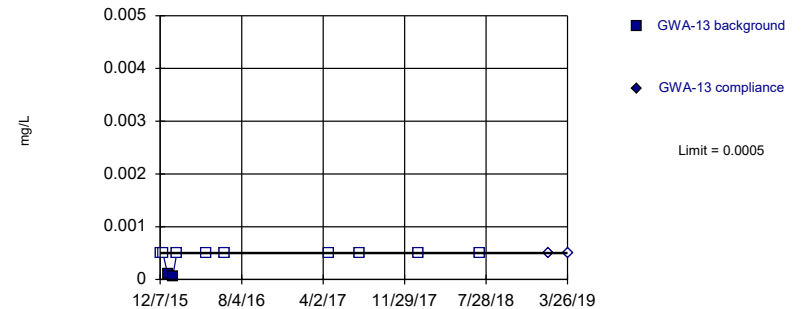


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Silver, Total Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

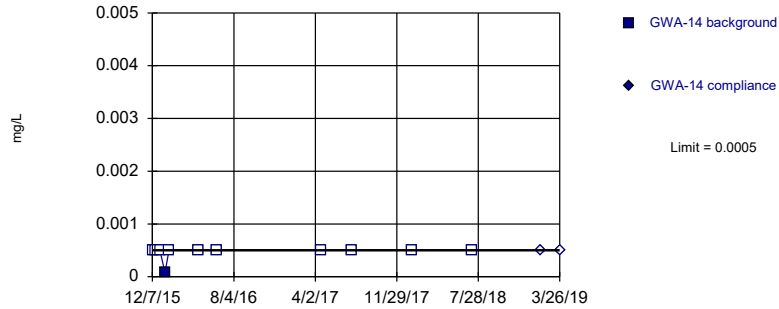


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

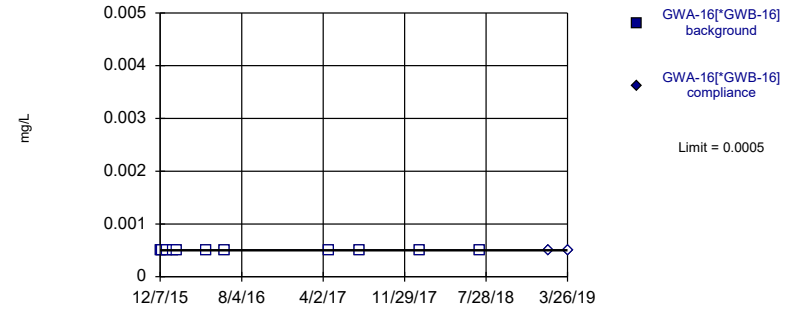


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

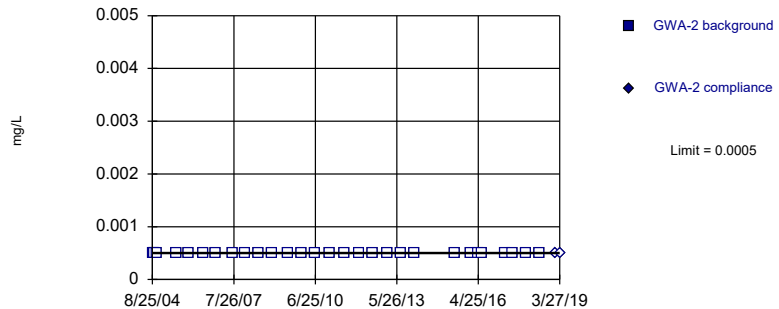


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

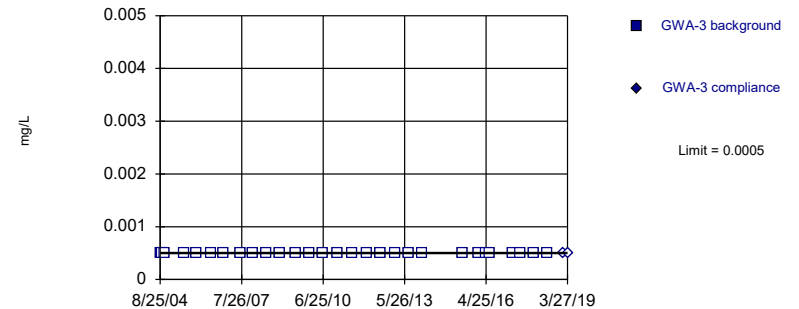


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

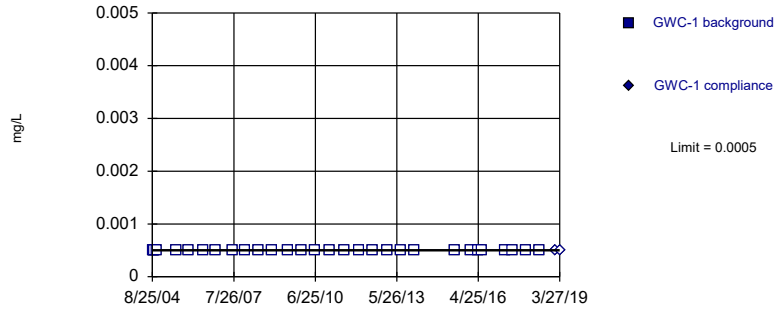


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

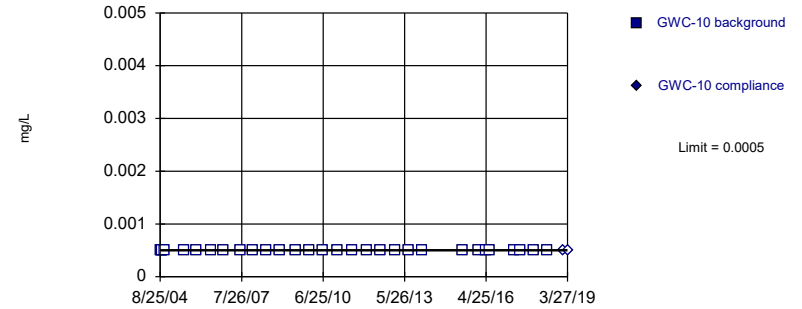


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

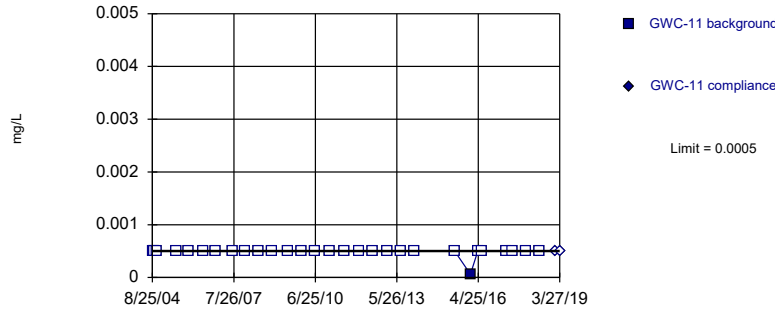


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

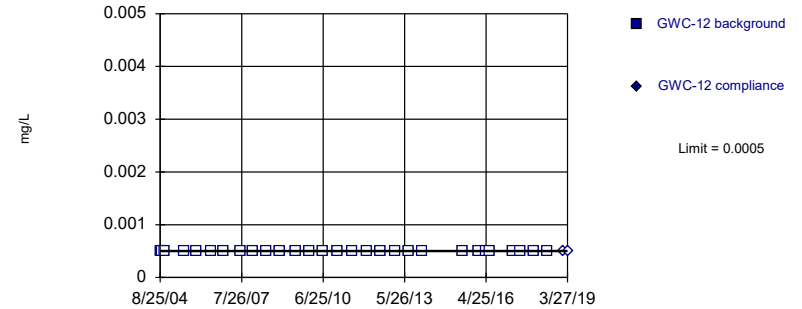


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

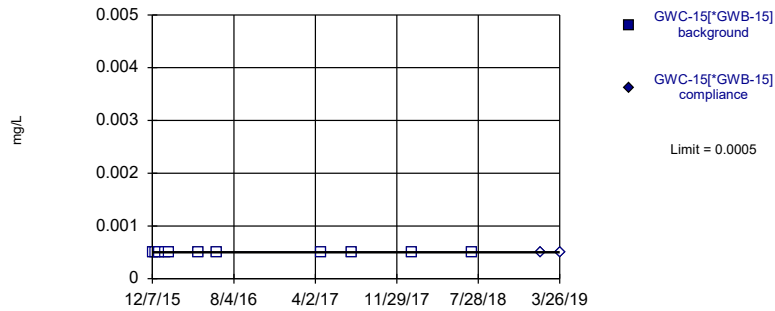


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

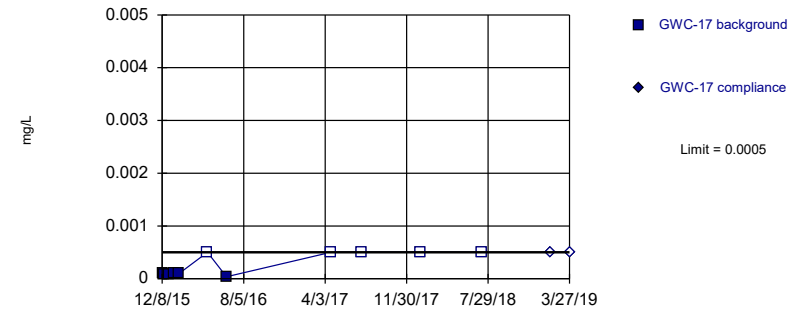


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 11) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

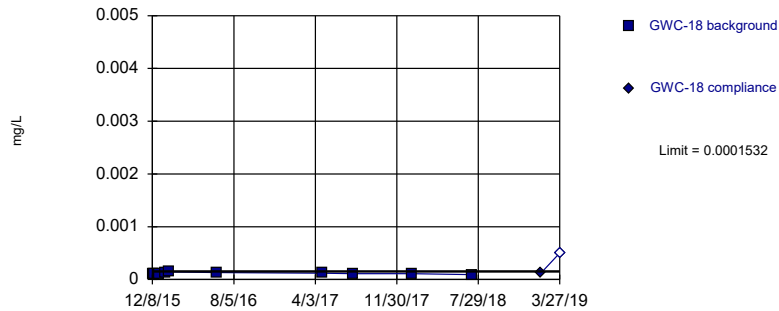


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. 45.45% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

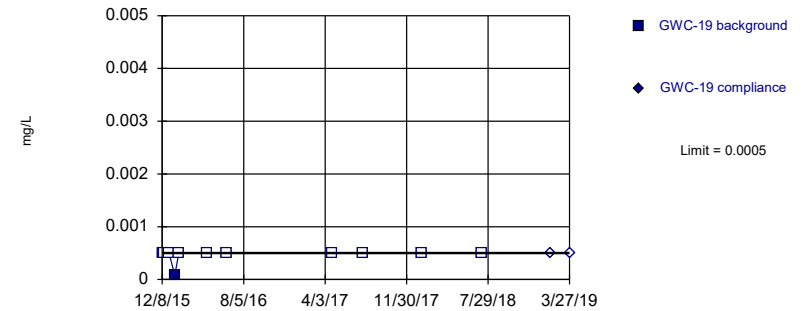


Background Data Summary: Mean=0.0001141, Std. Dev.=0.0000174, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9154, critical = 0.781. Kappa = 2.251 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

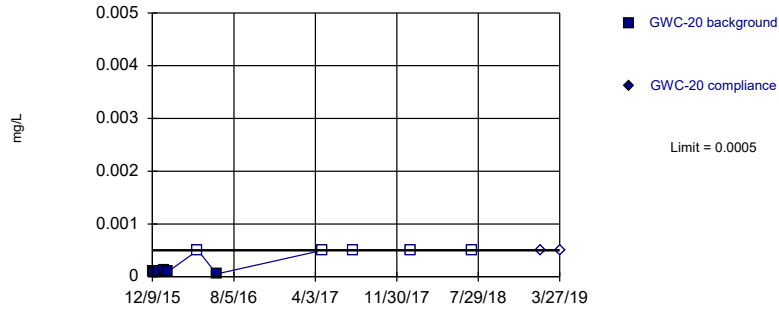


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

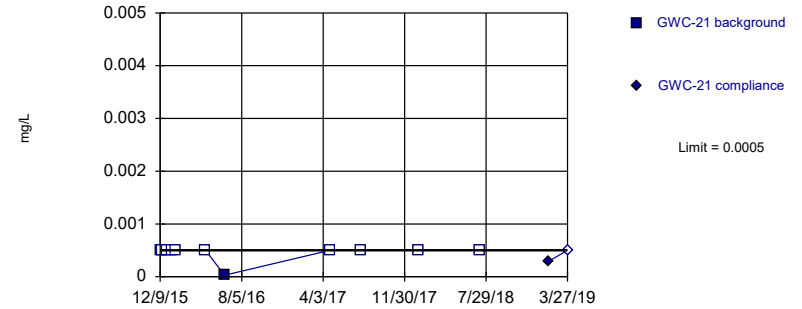


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. 45.45% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

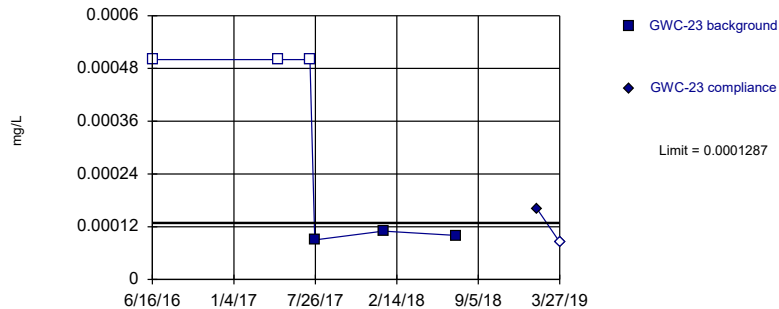


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

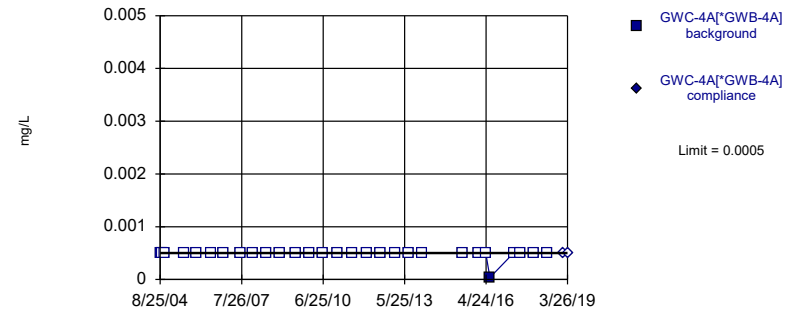


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.04638, Std. Dev.=0.001266, n=6, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7154, critical = 0.713. Kappa = 3.249 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

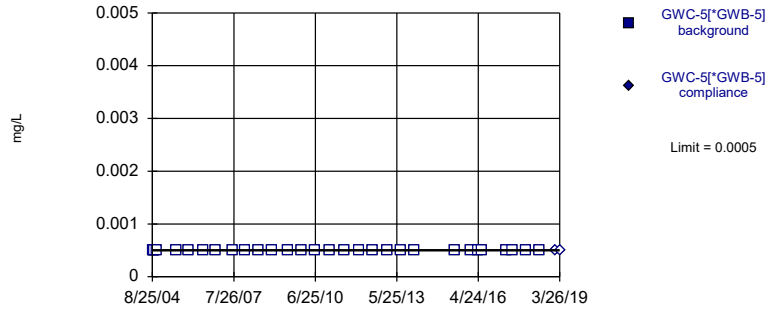


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 96.67% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:46 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

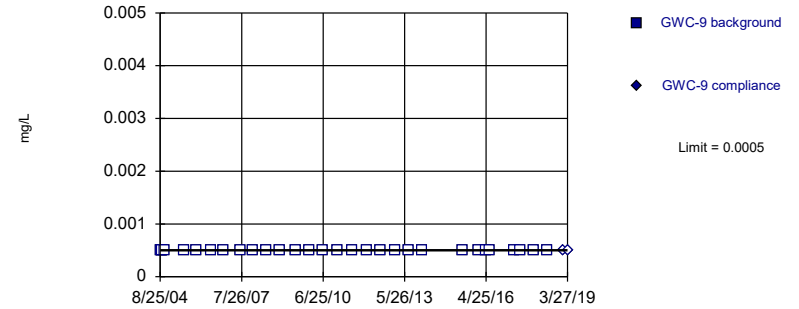


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

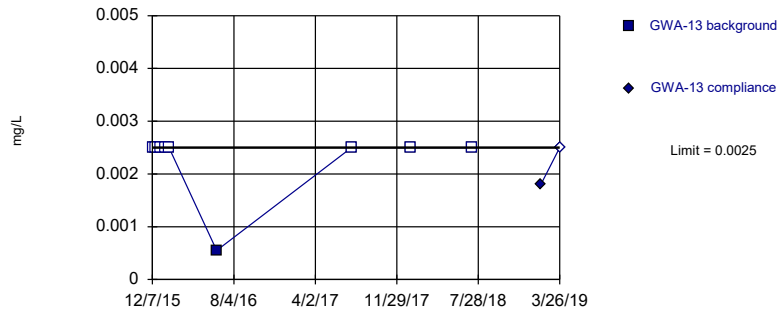


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 30) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Thallium Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

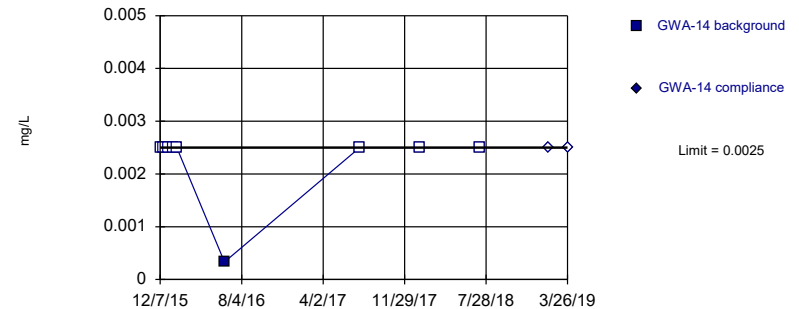


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

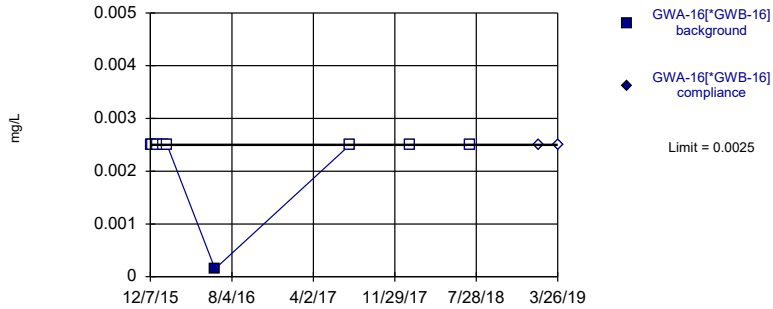


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

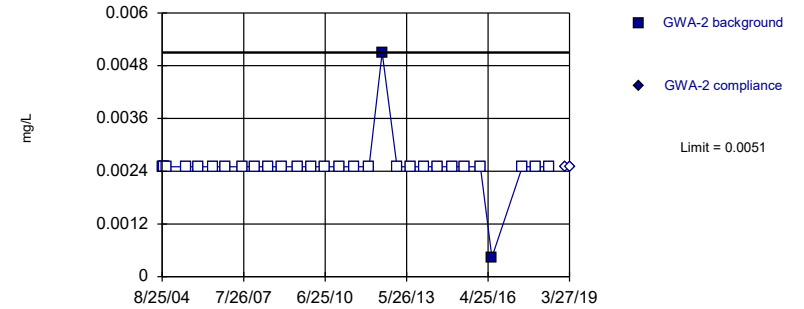


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

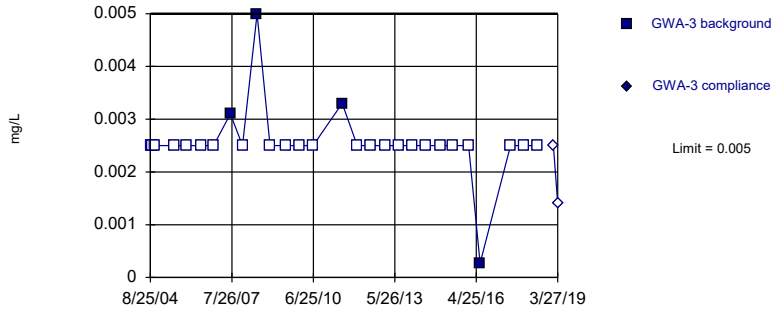


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

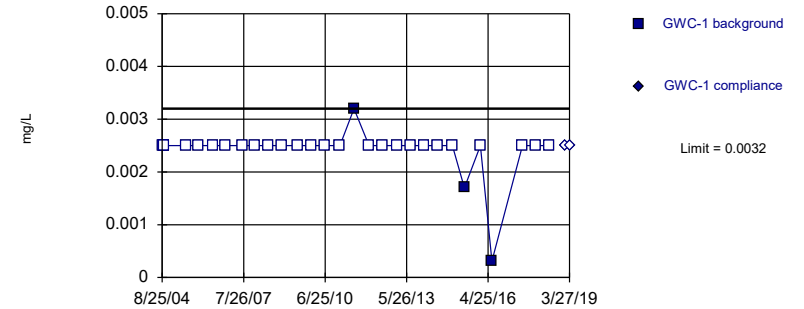


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 86.21% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

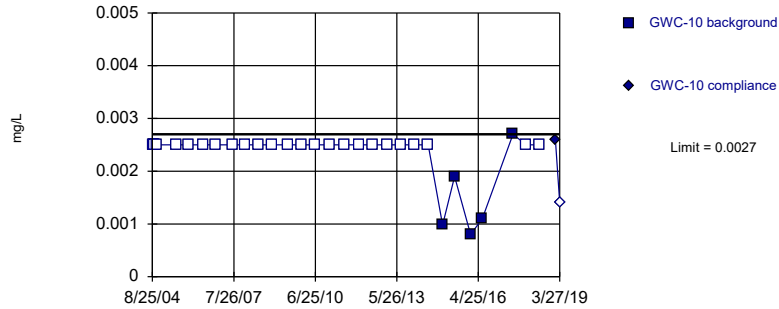


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 89.66% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

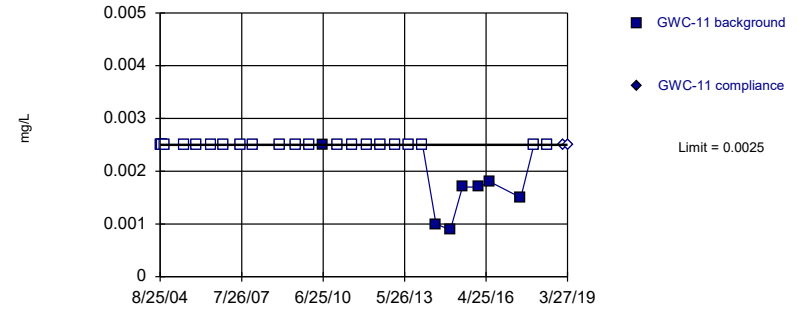


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

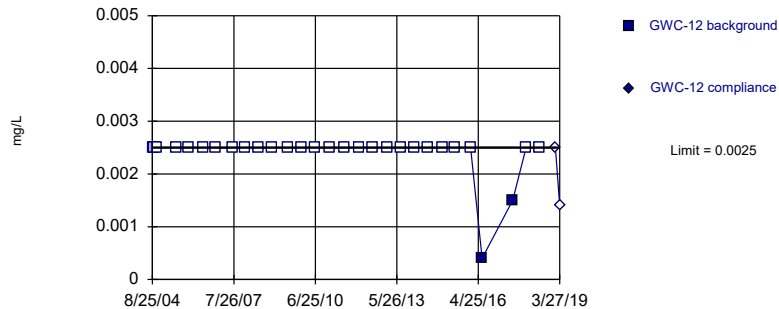


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 75.86% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

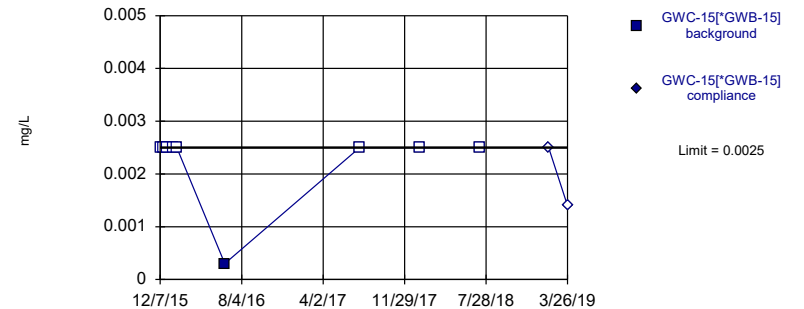


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

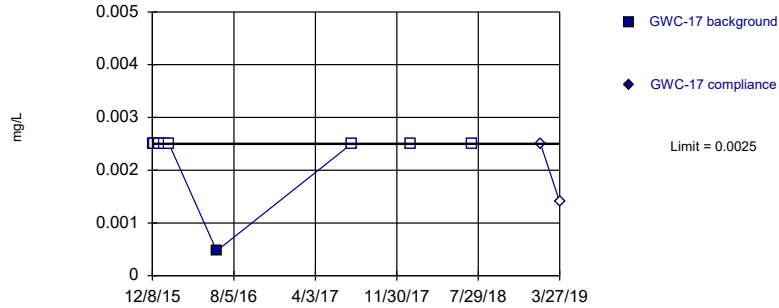


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

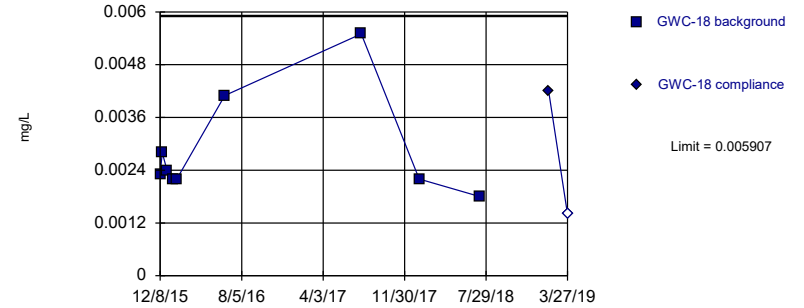


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

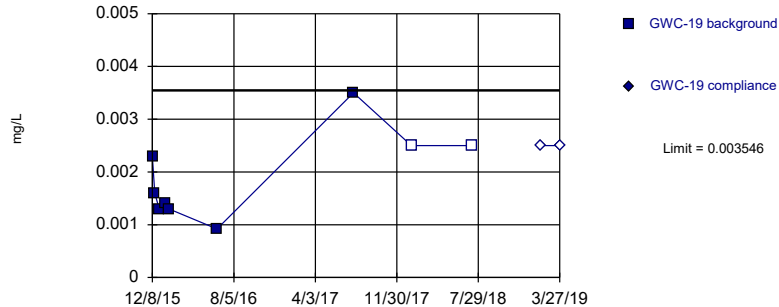


Background Data Summary (based on square root transformation): Mean=0.05236, Std. Dev.=0.01019, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7907, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

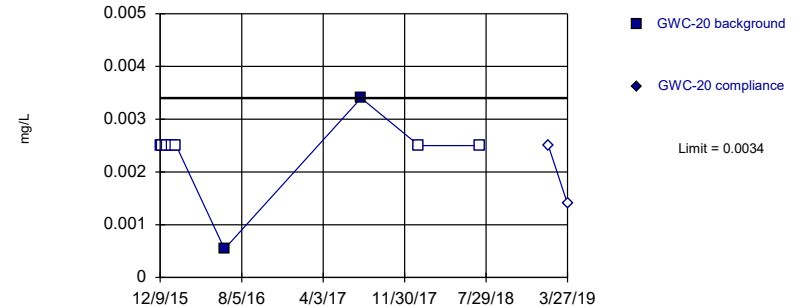


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001639, Std. Dev.=0.0007927, n=9, 22.22% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

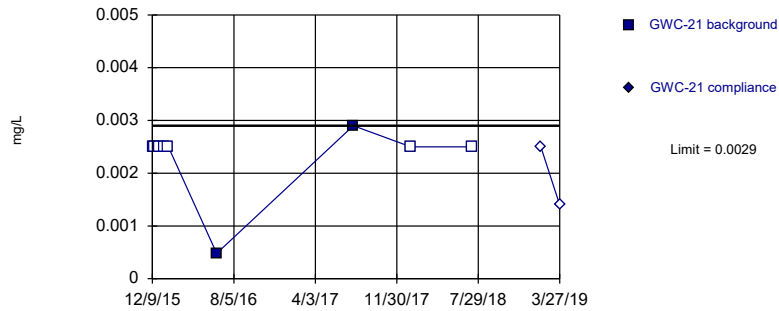


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

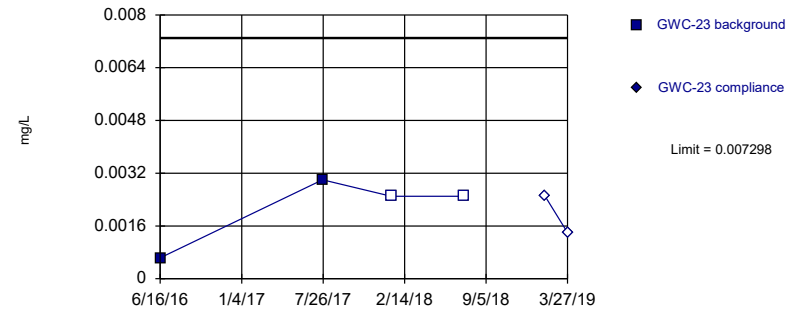


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

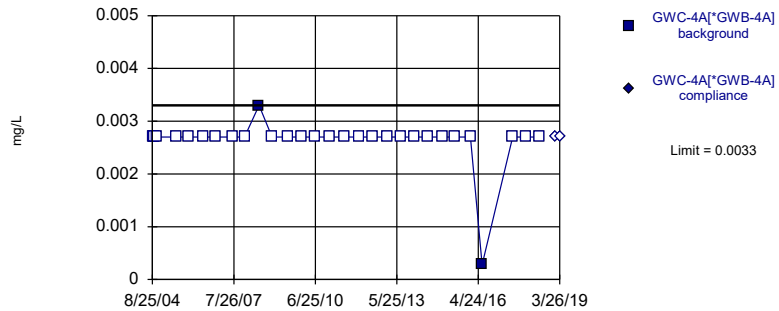


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001223, Std. Dev.=0.001026, n=4, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8093, critical = 0.687. Kappa = 5.92 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

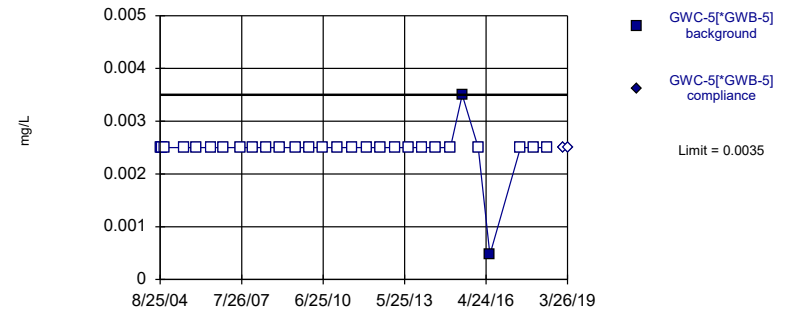


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

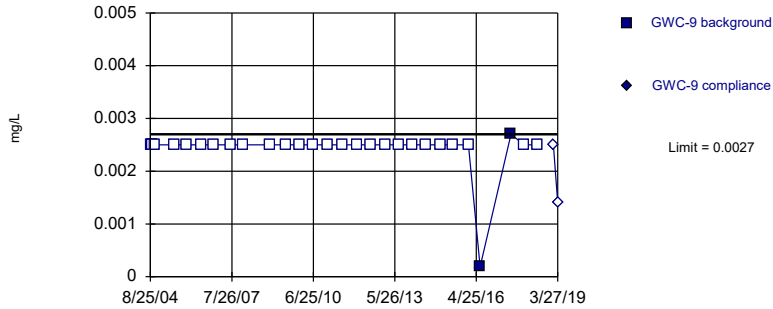


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 93.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

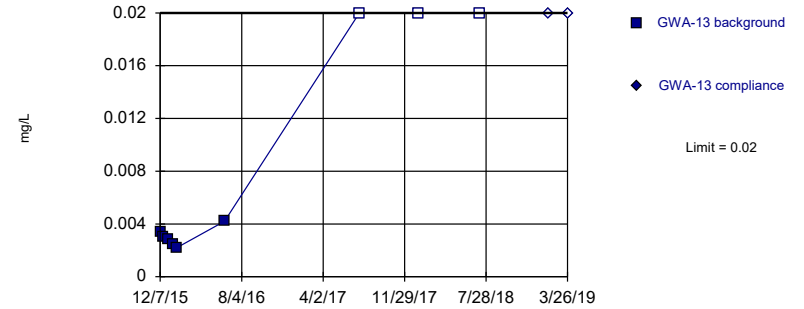


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 93.1% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Vanadium, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

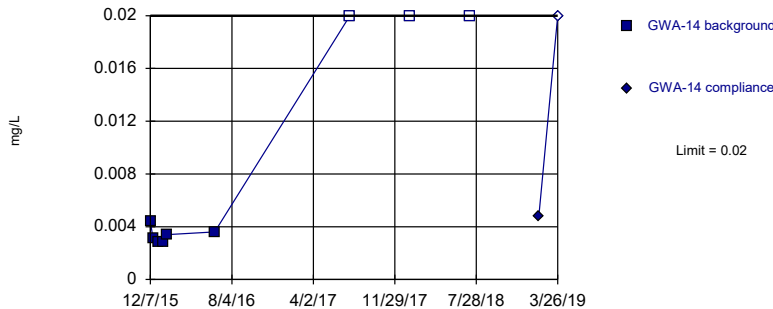


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

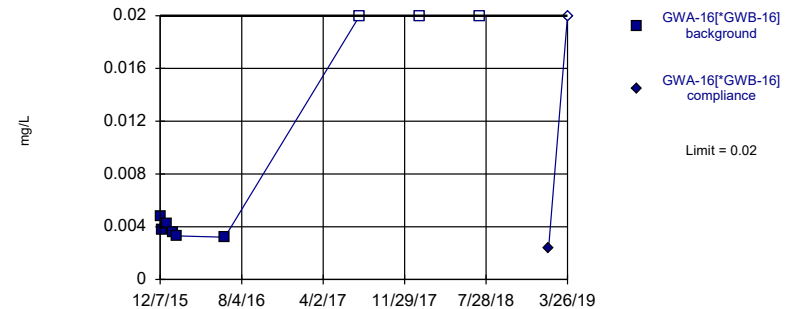


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

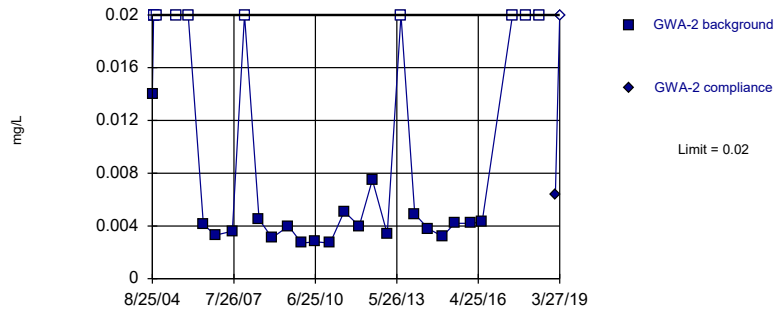


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

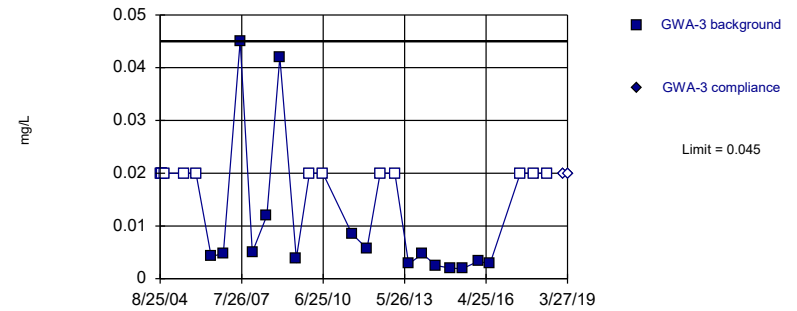


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

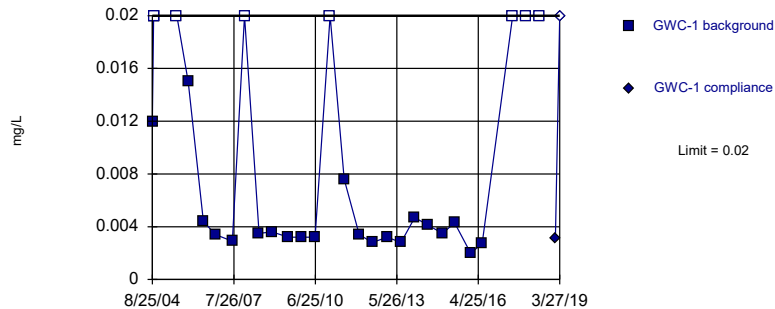


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 29 background values. 44.83% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

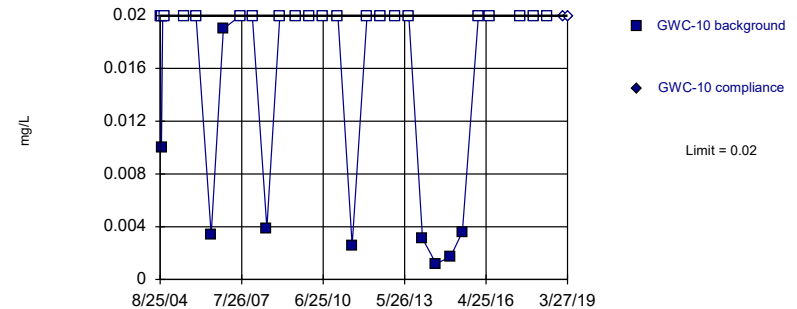


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 29 background values. 27.59% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
 Intrawell Non-parametric

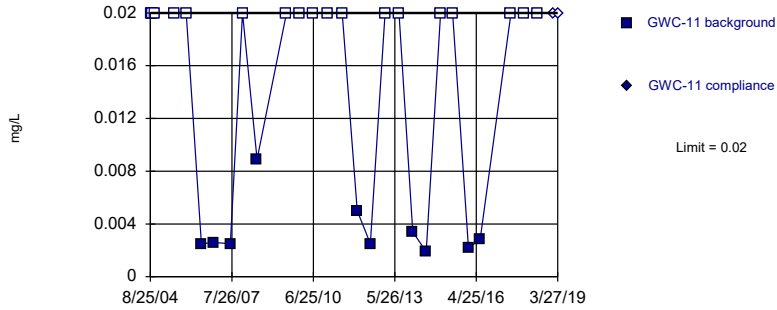


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 70% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

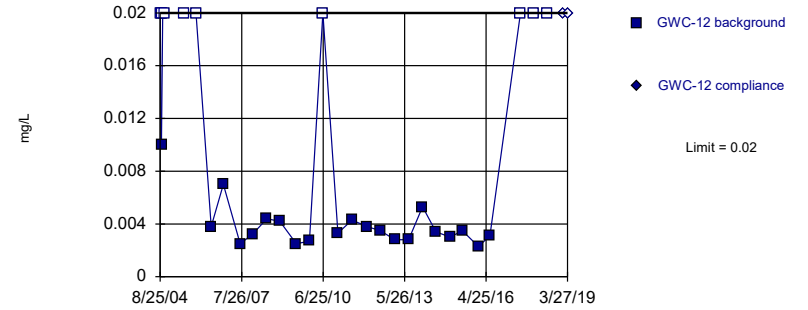


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 65.52% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

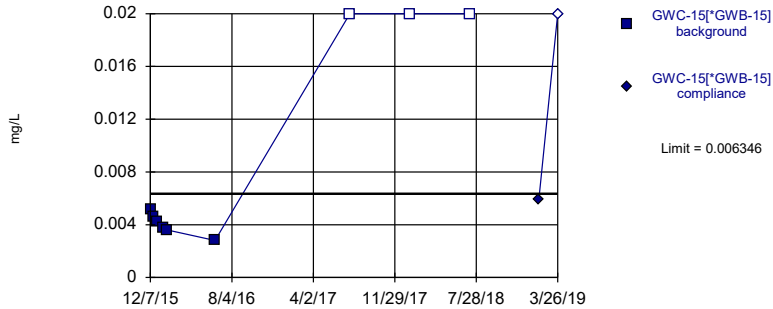


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. 30% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

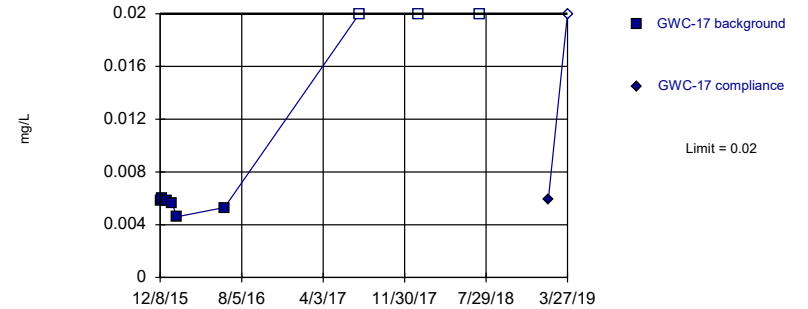


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-5.532, Std. Dev.=0.1962, n=9, 33.33% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7763, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

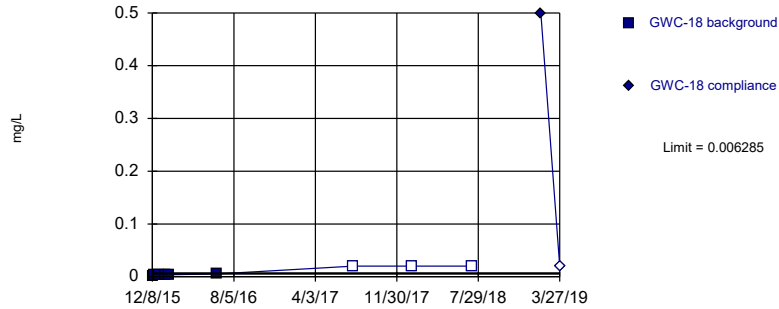


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

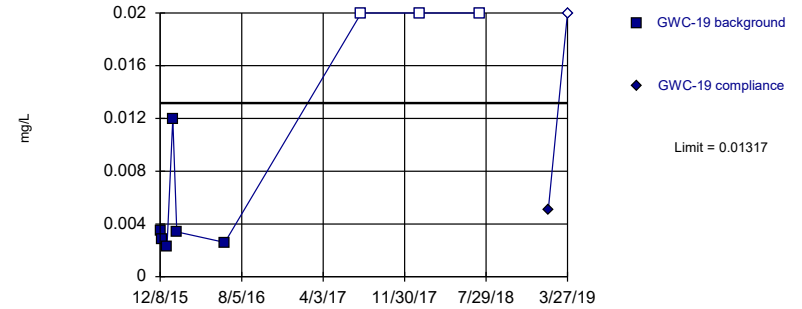


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.142, Std. Dev.=0.01769, n=9, 33.33% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.785, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

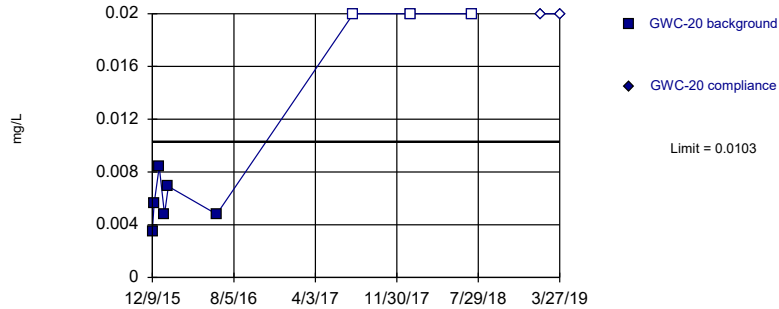


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.1569, Std. Dev.=0.03294, n=9, 33.33% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7702, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

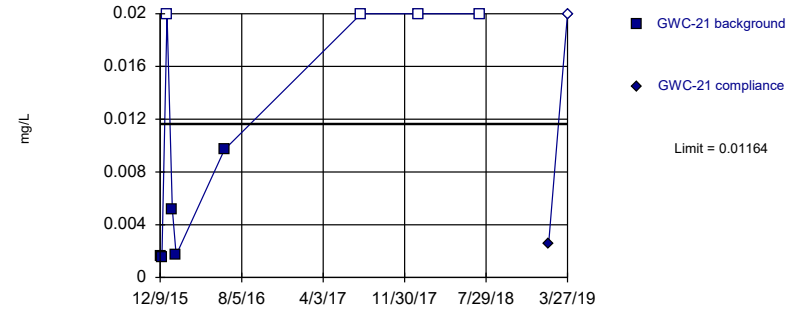


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.07286, Std. Dev.=0.0119, n=9, 33.33% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8007, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

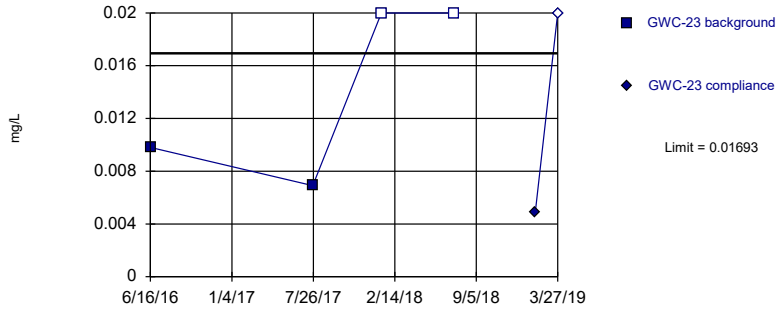


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.00394, Std. Dev.=0.0032, n=9, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7667, critical = 0.764. Kappa = 2.405 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Parametric

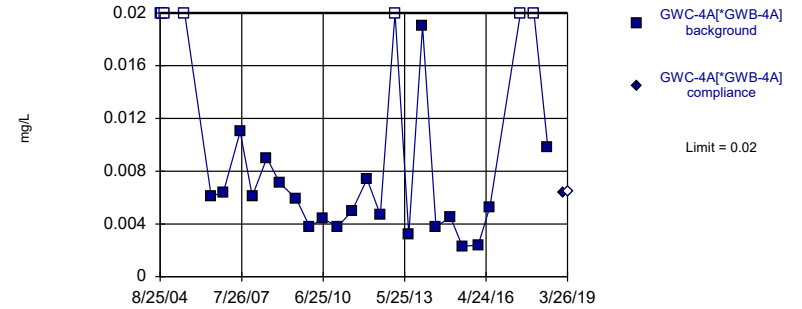


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.00835, Std. Dev.=0.00145, n=4, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8202, critical = 0.687. Kappa = 5.92 (c=16, w=9, 1 of 3, event alpha = 0.05132). Report alpha = 0.0003658.

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

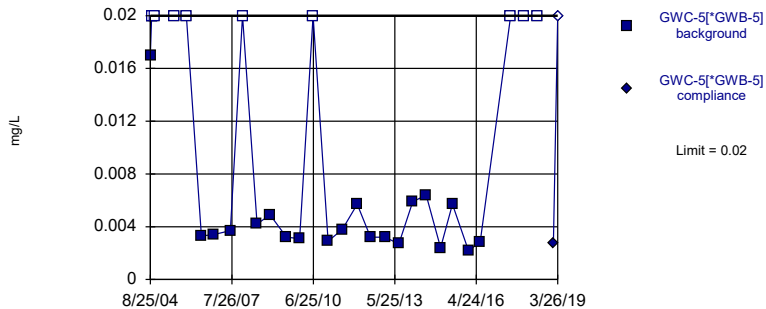


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 29 background values. 27.59% NDs. Well-constituent pair annual alpha = 0.0004147. Individual comparison alpha = 0.0002074 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

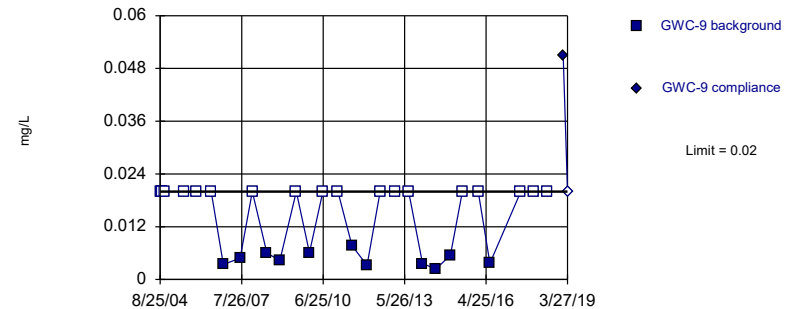


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Within Limit

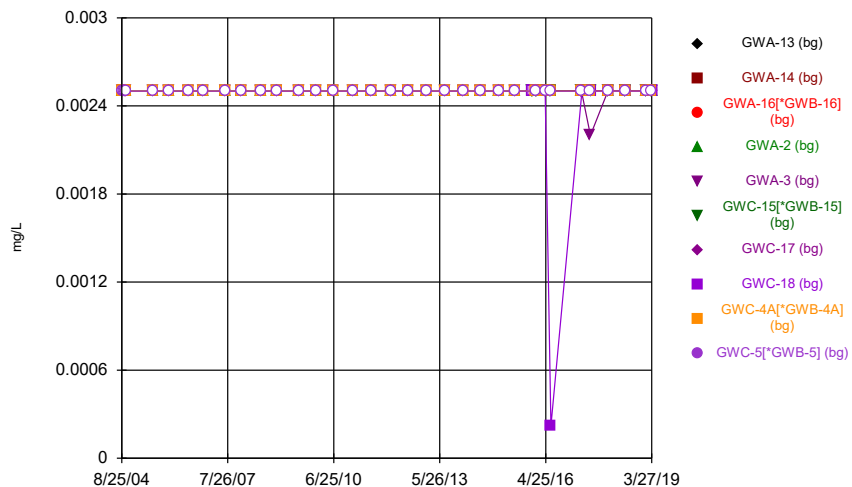
Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 30 background values. 63.33% NDs. Well-constituent pair annual alpha = 0.0003661. Individual comparison alpha = 0.0001831 (1 of 3).

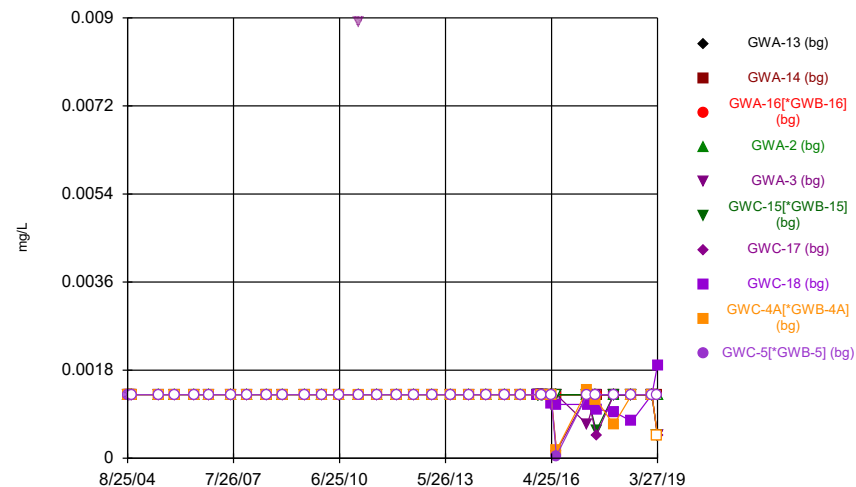
Constituent: Zinc, Total Analysis Run 8/8/2019 3:47 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



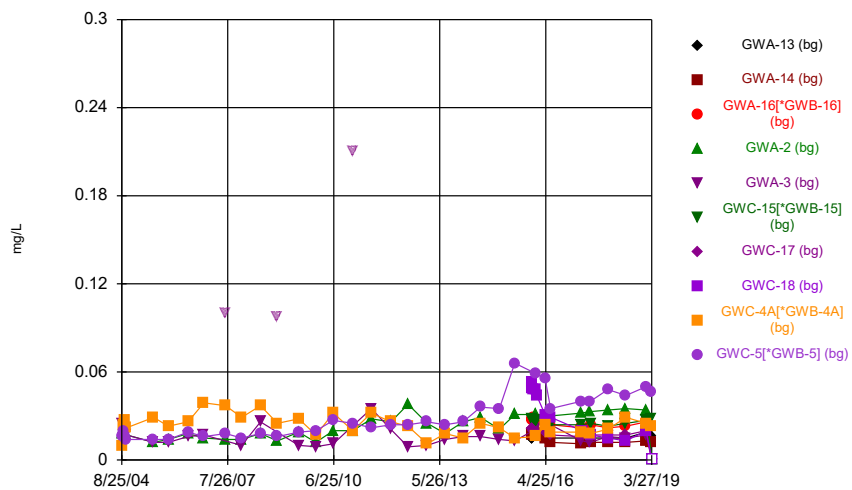
Constituent: Antimony Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



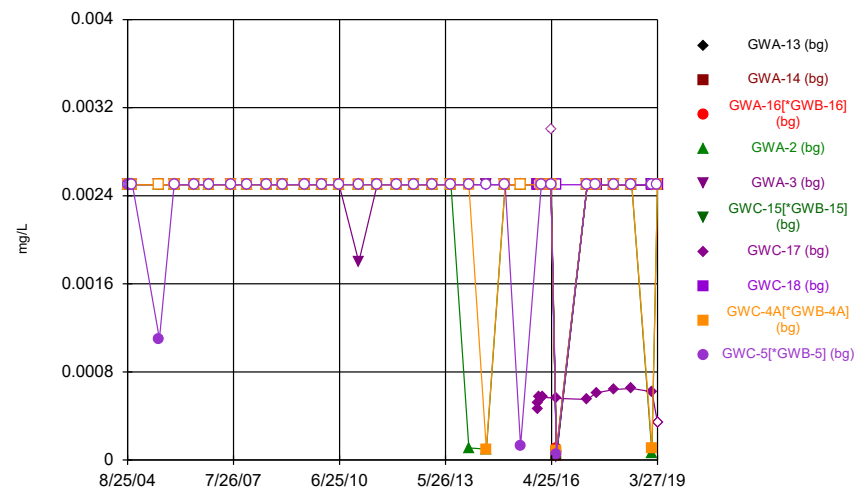
Constituent: Arsenic, Total Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



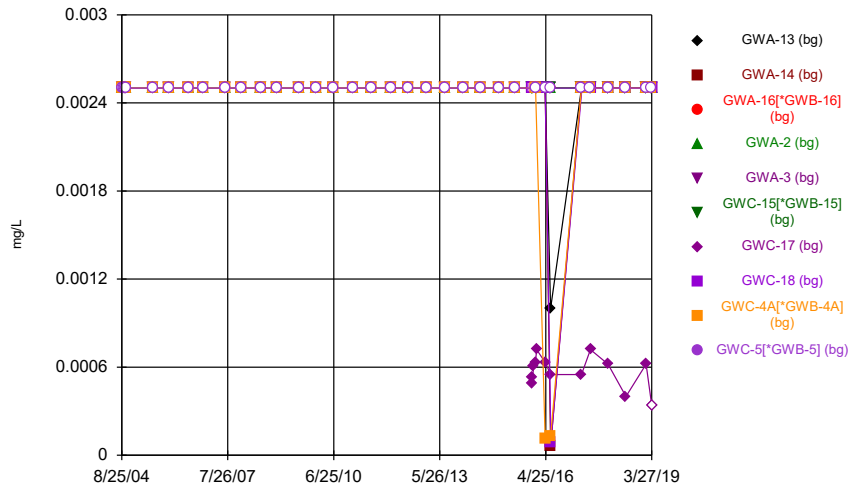
Constituent: Barium, Total Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



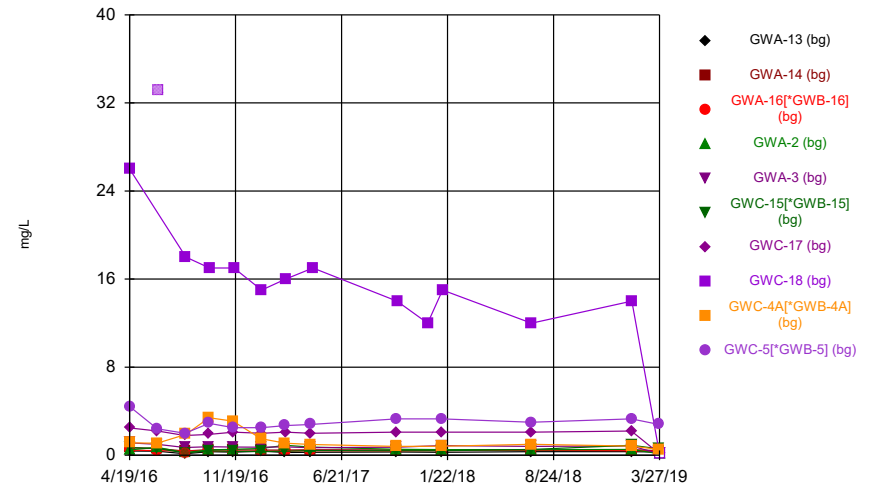
Constituent: Beryllium, Total Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



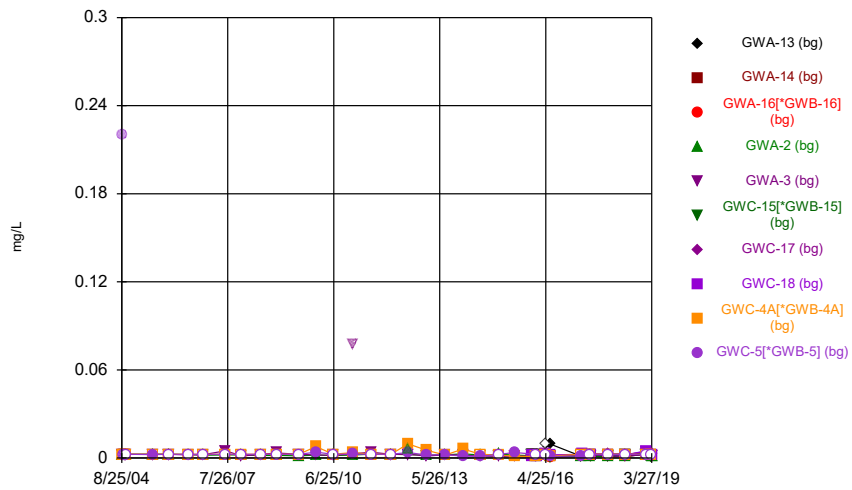
Constituent: Cadmium, Total Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



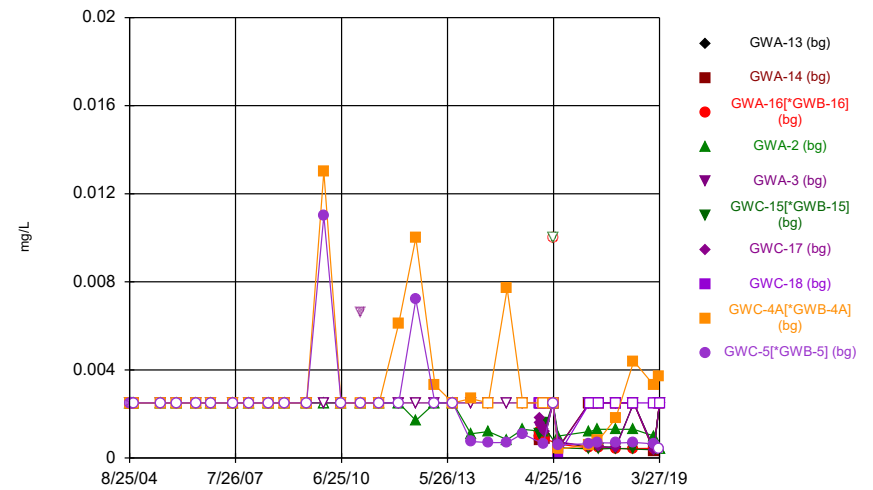
Constituent: Calcium Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



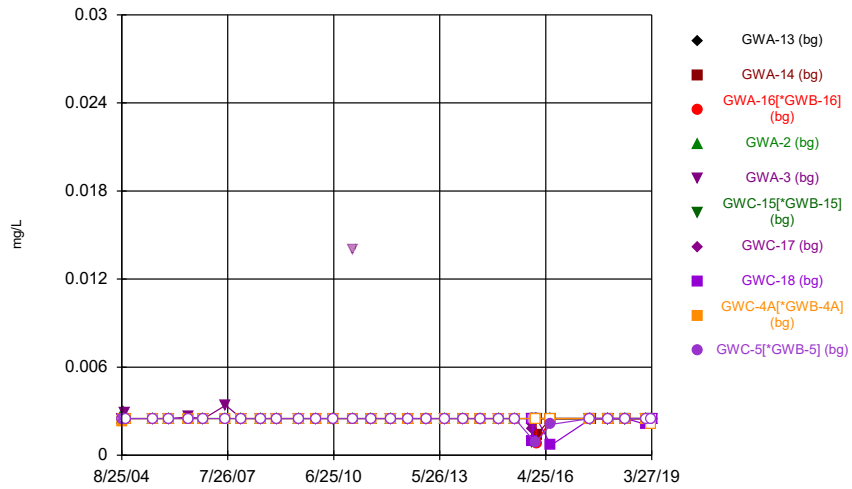
Constituent: Chromium, Total Analysis Run 8/8/2019 4:06 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



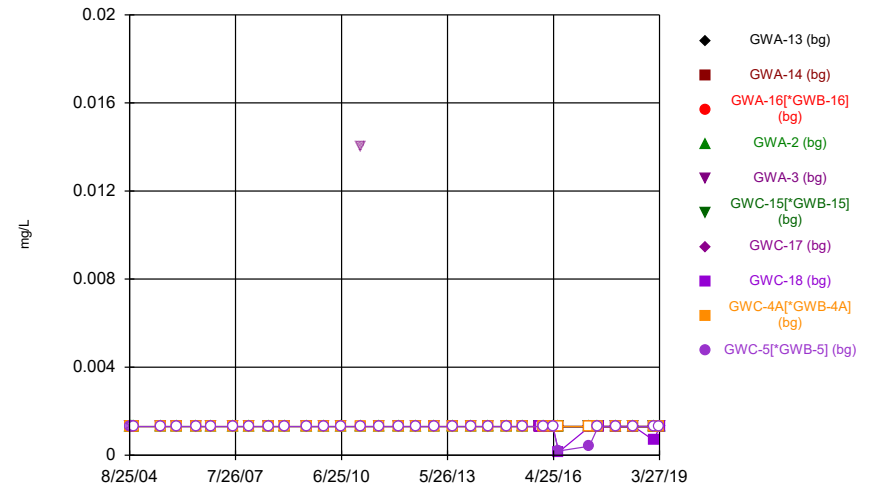
Constituent: Cobalt, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



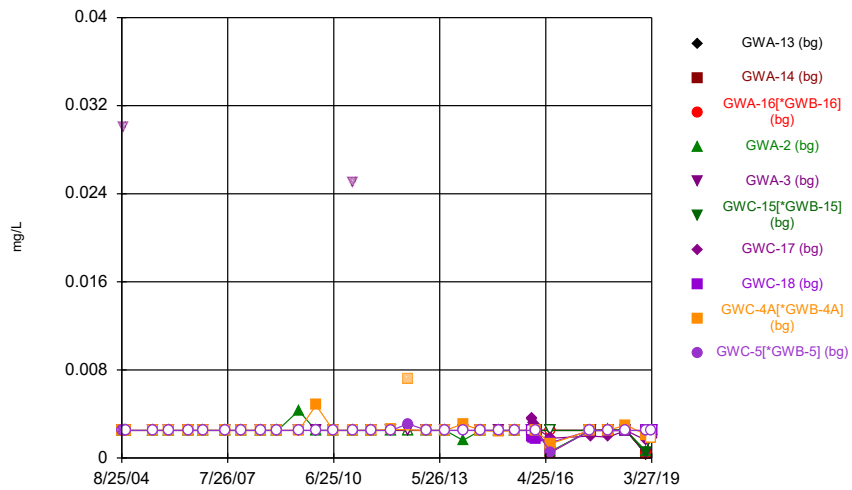
Constituent: Copper, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



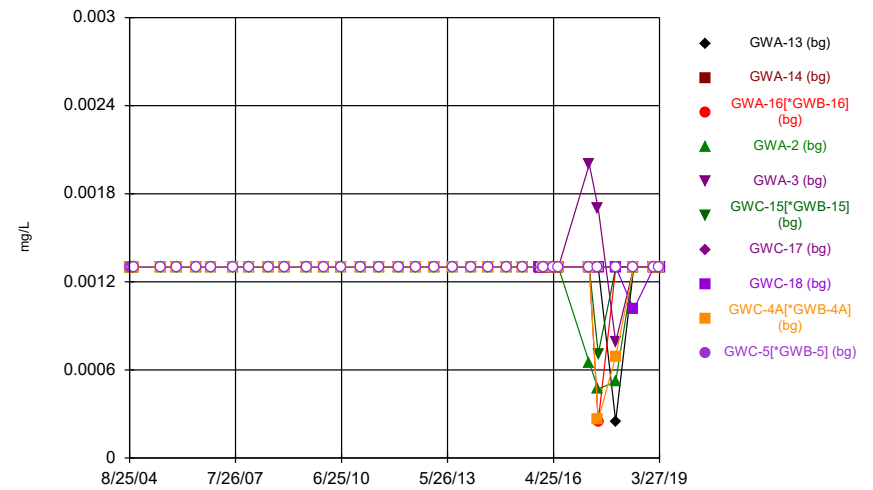
Constituent: Lead, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



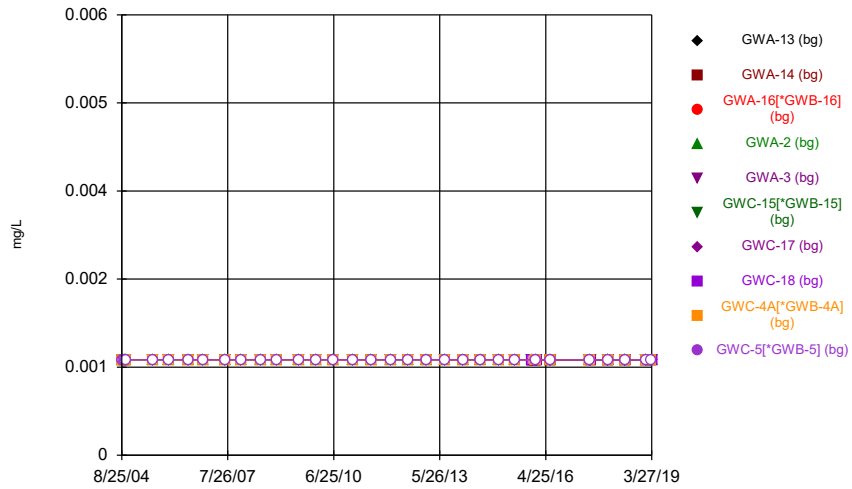
Constituent: Nickel, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



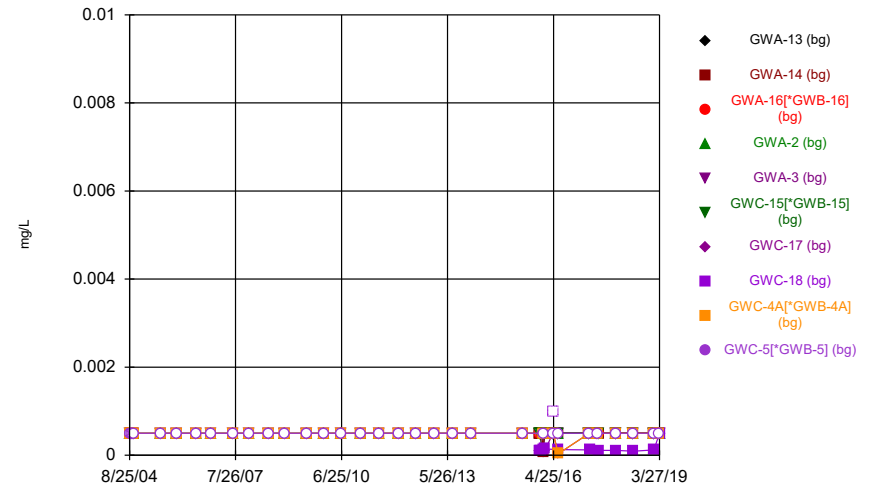
Constituent: Selenium Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



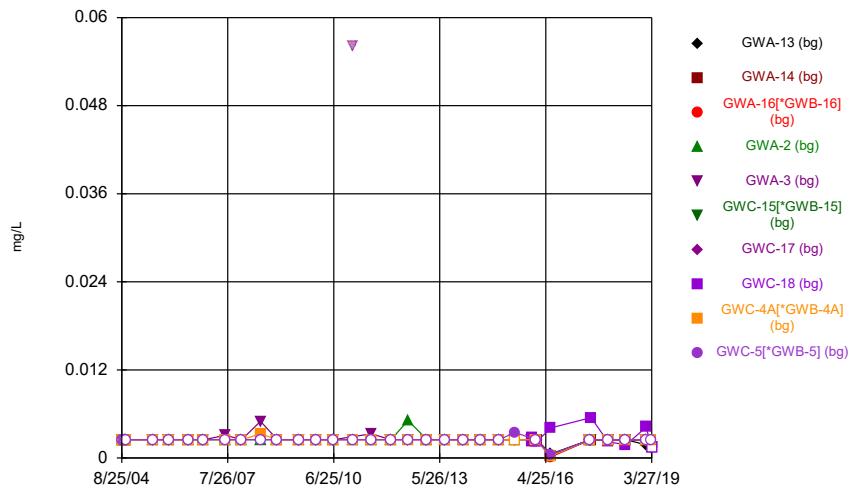
Constituent: Silver, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



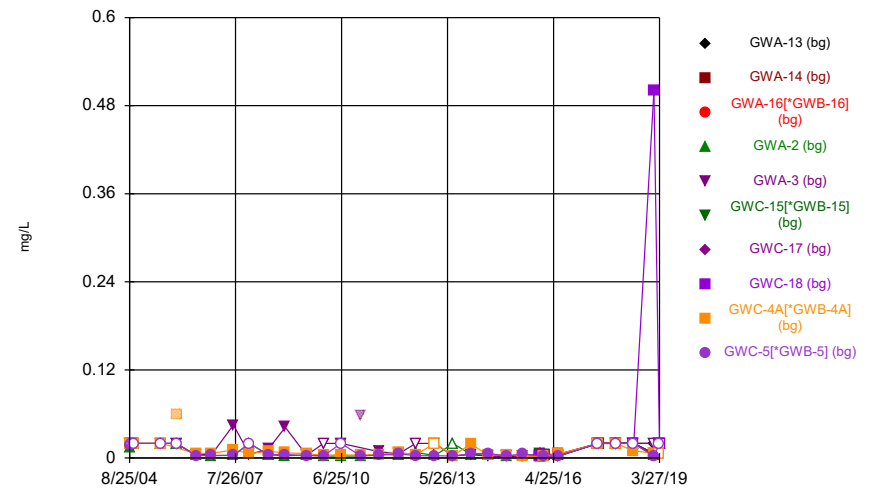
Constituent: Thallium Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



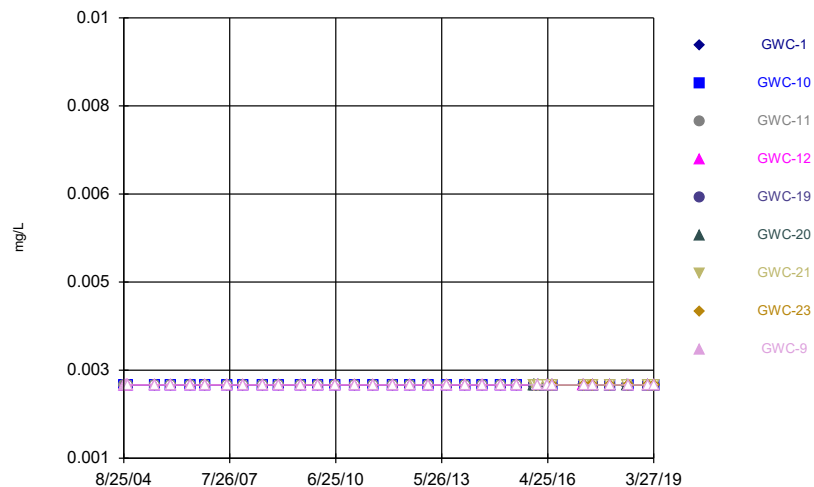
Constituent: Vanadium, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



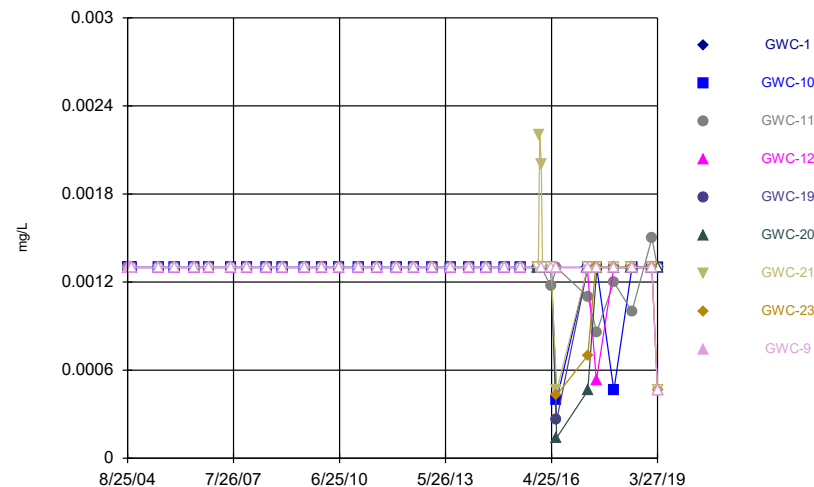
Constituent: Zinc, Total Analysis Run 8/8/2019 4:07 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



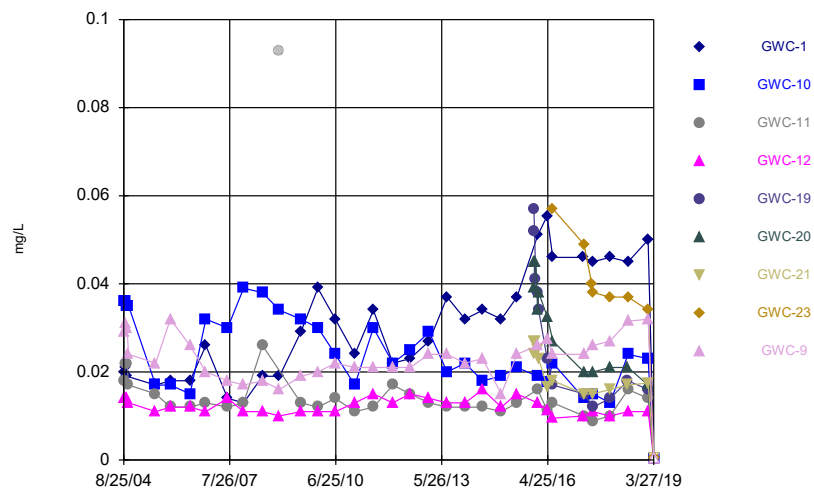
Constituent: Antimony Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



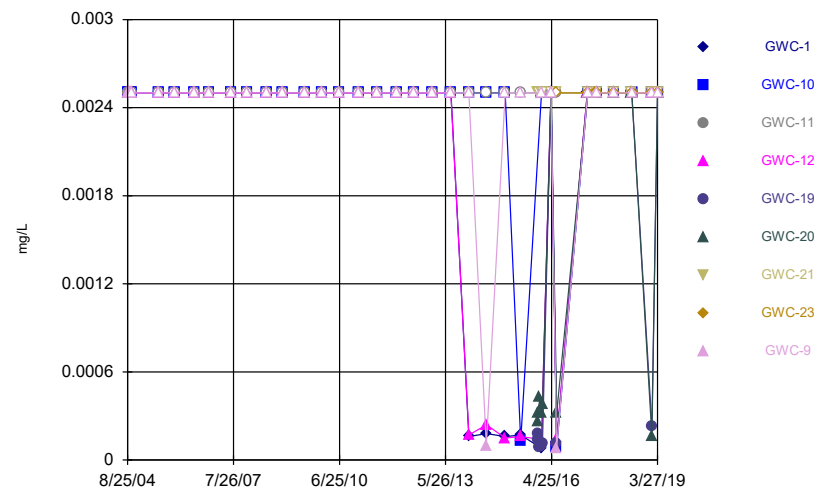
Constituent: Arsenic, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



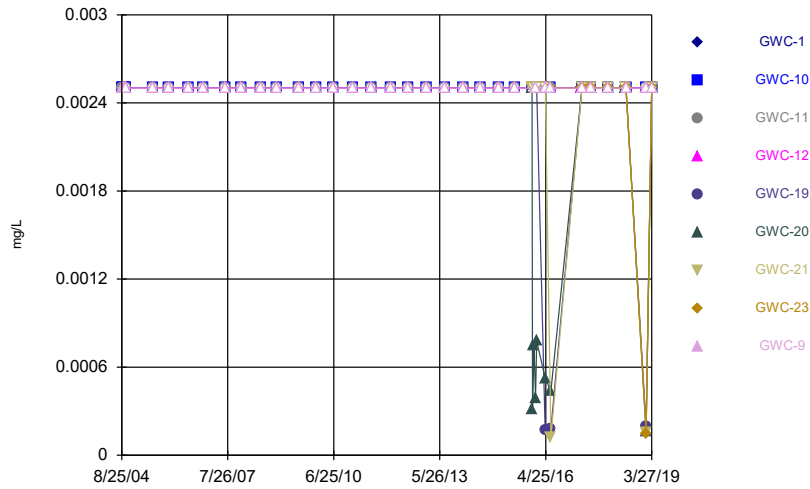
Constituent: Barium, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



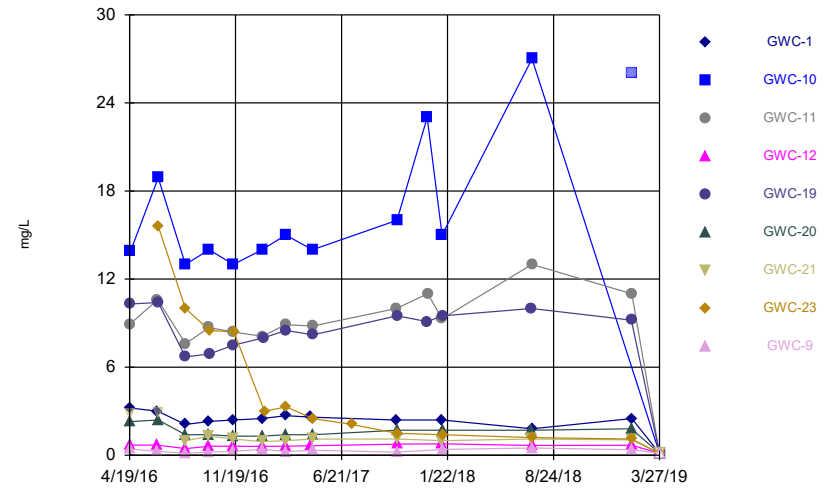
Constituent: Beryllium, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



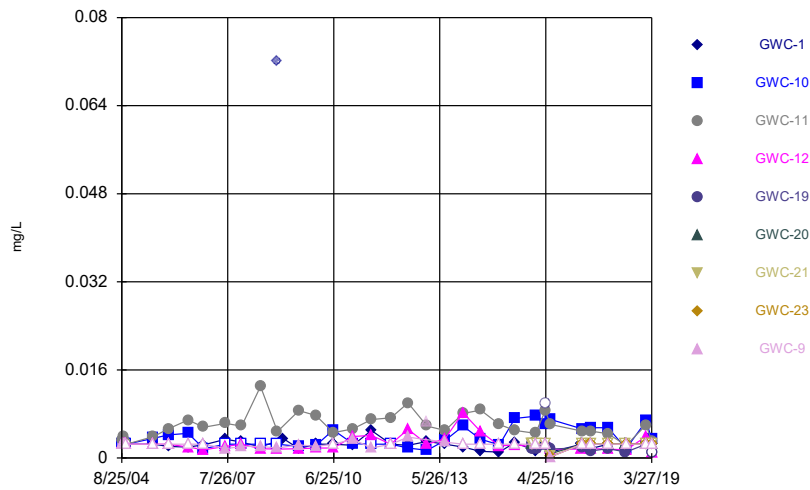
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



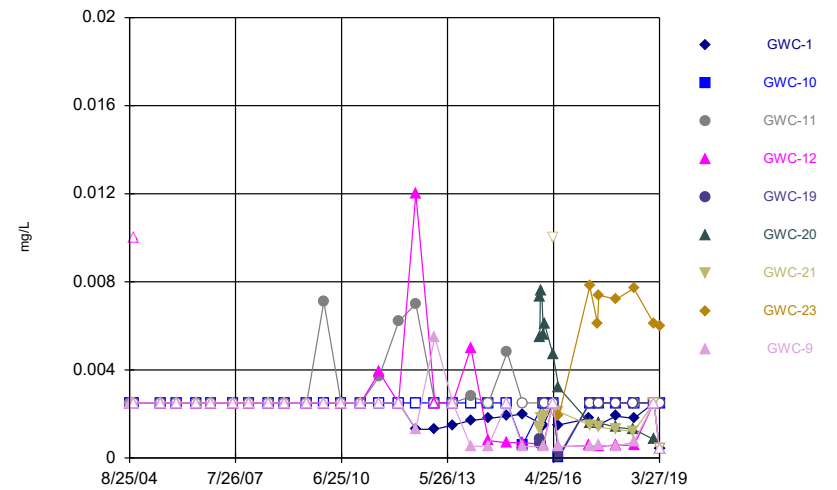
Constituent: Calcium Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



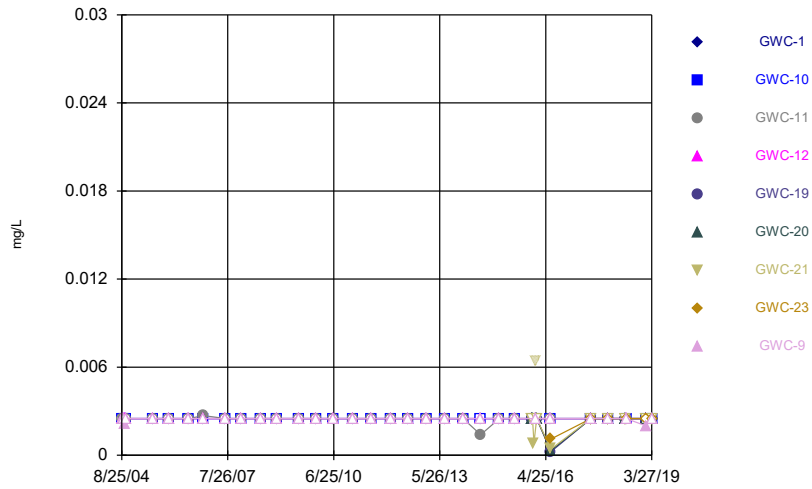
Constituent: Chromium, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



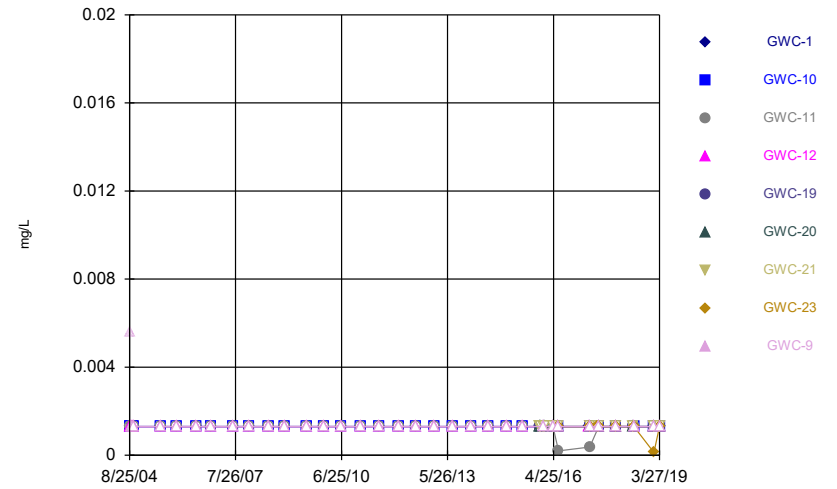
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



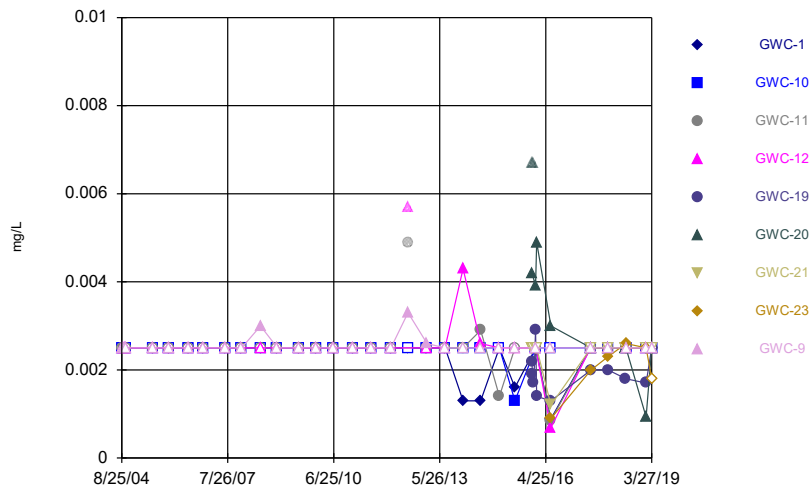
Constituent: Copper, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



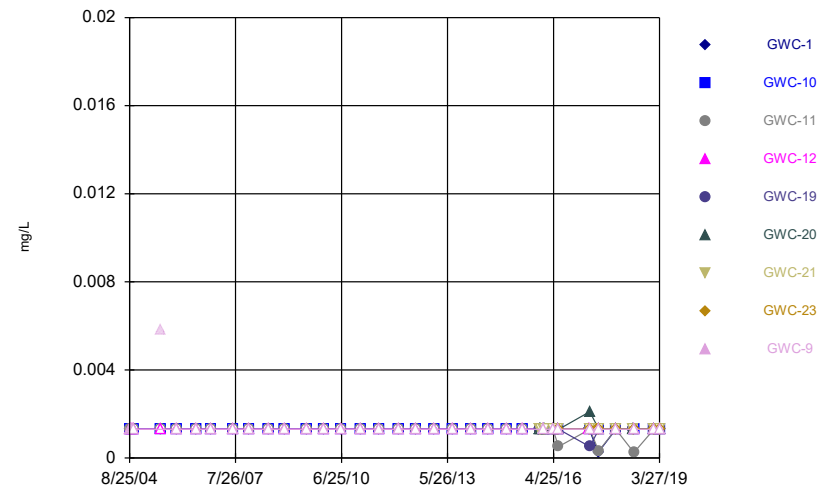
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



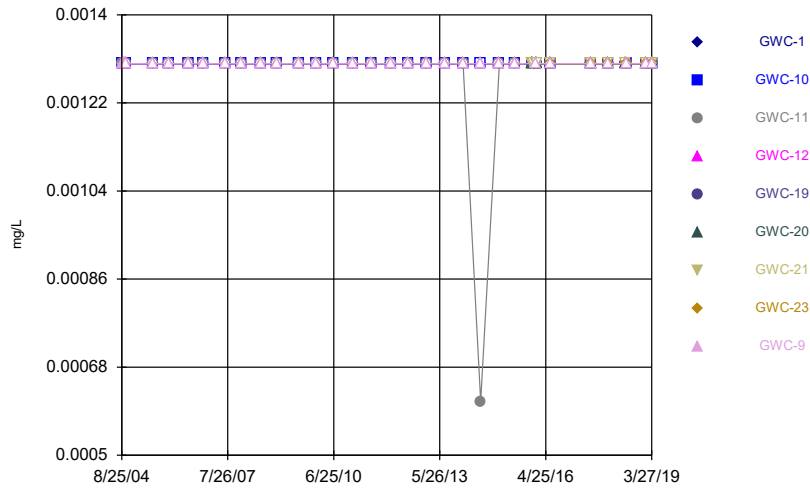
Constituent: Nickel, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



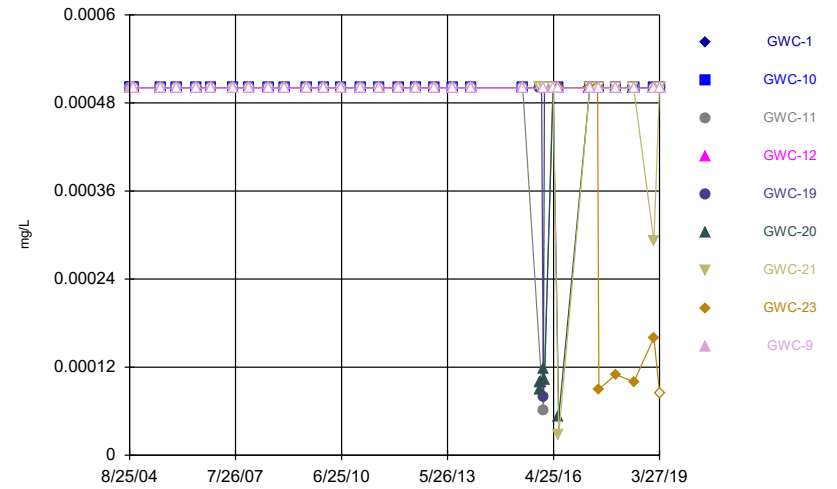
Constituent: Selenium Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



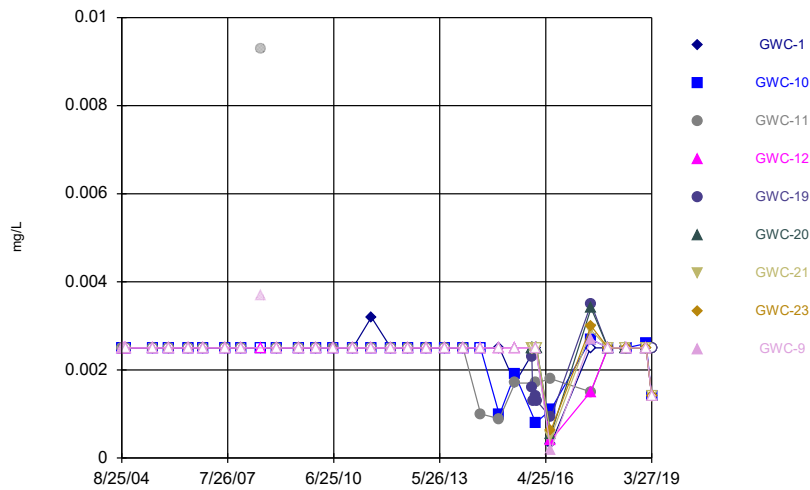
Constituent: Silver, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



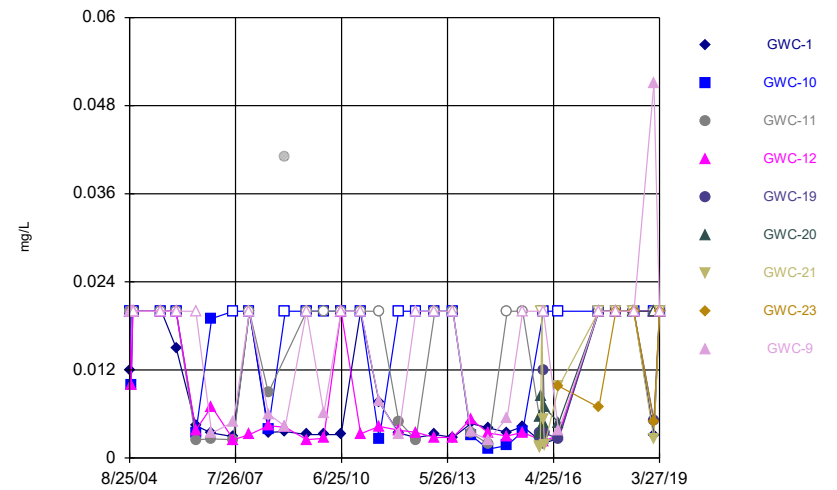
Constituent: Thallium Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



Constituent: Vanadium, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Time Series



Constituent: Zinc, Total Analysis Run 8/8/2019 4:11 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:08 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Antimony (mg/L)	GWA-13 (bg)	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWA-14 (bg)	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWA-16[*G...	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWA-2 (bg)	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWA-3 (bg)	34	0.002491	0.0000...	0.0000...	0.0025	0.0022	0.0025	97.06
Antimony (mg/L)	GWC-15[*G...	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-17 (bg)	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-18 (bg)	13	0.002325	0.0006324	0.0001754	0.0025	0.00022	0.0025	92.31
Antimony (mg/L)	GWC-4A[*G...	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-5[*GW...	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Arsenic, Total (mg/L)	GWA-13 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Arsenic, Total (mg/L)	GWA-14 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Arsenic, Total (mg/L)	GWA-16[*G...	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Arsenic, Total (mg/L)	GWA-2 (bg)	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Arsenic, Total (mg/L)	GWA-3 (bg)	33	0.001256	0.000178	0.0000...	0.0013	0.00046	0.0013	96.97
Arsenic, Total (mg/L)	GWC-15[*G...	13	0.001178	0.0002974	0.0000...	0.0013	0.00046	0.0013	92.31
Arsenic, Total (mg/L)	GWC-17 (bg)	13	0.001083	0.0004189	0.0001162	0.0013	0.00015	0.0013	84.62
Arsenic, Total (mg/L)	GWC-18 (bg)	13	0.001209	0.0002704	0.0000...	0.0013	0.000...	0.0019	46.15
Arsenic, Total (mg/L)	GWC-4A[*G...	34	0.001224	0.0002588	0.0000...	0.0013	0.00016	0.0014	88.24
Arsenic, Total (mg/L)	GWC-5[*GW...	34	0.001263	0.0002144	0.0000...	0.0013	0.00005	0.0013	97.06
Barium, Total (mg/L)	GWA-13 (bg)	13	0.01572	0.001277	0.0003541	0.015	0.0144	0.019	0
Barium, Total (mg/L)	GWA-14 (bg)	13	0.01441	0.0029	0.0008044	0.013	0.011	0.018	0
Barium, Total (mg/L)	GWA-16[*G...	13	0.0253	0.002426	0.0006729	0.0259	0.022	0.029	0
Barium, Total (mg/L)	GWA-2 (bg)	34	0.0225	0.008624	0.001479	0.02	0.00049	0.038	2.941
Barium, Total (mg/L)	GWA-3 (bg)	31	0.01565	0.006416	0.001152	0.015	0.00049	0.035	3.226
Barium, Total (mg/L)	GWC-15[*G...	13	0.02586	0.001576	0.000437	0.026	0.023	0.028	0
Barium, Total (mg/L)	GWC-17 (bg)	13	0.01718	0.005279	0.001464	0.0188	0.00049	0.021	7.692
Barium, Total (mg/L)	GWC-18 (bg)	13	0.02979	0.01705	0.004729	0.029	0.00049	0.053	7.692
Barium, Total (mg/L)	GWC-4A[*G...	34	0.02368	0.006981	0.001197	0.0232	0.0096	0.039	0
Barium, Total (mg/L)	GWC-5[*GW...	34	0.02904	0.01452	0.002489	0.024	0.014	0.066	0
Beryllium, Total (mg/L)	GWA-13 (bg)	12	0.002298	0.0007012	0.0002024	0.0025	0.000071	0.0025	91.67
Beryllium, Total (mg/L)	GWA-14 (bg)	13	0.002311	0.0006812	0.0001889	0.0025	0.000044	0.0025	92.31
Beryllium, Total (mg/L)	GWA-16[*G...	13	0.002316	0.0006629	0.0001838	0.0025	0.00011	0.0025	92.31
Beryllium, Total (mg/L)	GWA-2 (bg)	34	0.002216	0.00079	0.0001355	0.0025	0.000063	0.0025	88.24
Beryllium, Total (mg/L)	GWA-3 (bg)	34	0.002407	0.0004364	0.0000...	0.0025	0.000032	0.0025	94.12
Beryllium, Total (mg/L)	GWC-15[*G...	13	0.002311	0.0006828	0.0001894	0.0025	0.000038	0.0025	92.31
Beryllium, Total (mg/L)	GWC-17 (bg)	12	0.000...	0.0000...	0.0000...	0.000565	0.00034	0.00065	8.333
Beryllium, Total (mg/L)	GWC-18 (bg)	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Beryllium, Total (mg/L)	GWC-4A[*G...	34	0.002288	0.0006913	0.0001185	0.0025	0.000087	0.0025	91.18
Beryllium, Total (mg/L)	GWC-5[*GW...	34	0.002317	0.0006136	0.0001052	0.0025	0.000054	0.0025	91.18
Cadmium, Total (mg/L)	GWA-13 (bg)	13	0.002385	0.000416	0.0001154	0.0025	0.001	0.0025	92.31
Cadmium, Total (mg/L)	GWA-14 (bg)	13	0.002312	0.0006762	0.0001875	0.0025	0.000062	0.0025	92.31
Cadmium, Total (mg/L)	GWA-16[*G...	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWA-2 (bg)	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWA-3 (bg)	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWC-15[*G...	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWC-17 (bg)	13	0.000...	0.0001117	0.0000...	0.00061	0.00034	0.00072	7.692
Cadmium, Total (mg/L)	GWC-18 (bg)	13	0.002314	0.0006698	0.0001858	0.0025	0.000085	0.0025	92.31
Cadmium, Total (mg/L)	GWC-4A[*G...	34	0.00236	0.0005683	0.0000...	0.0025	0.000111	0.0025	94.12
Cadmium, Total (mg/L)	GWC-5[*GW...	34	0.0025	0	0	0.0025	0.0025	0.0025	100

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:08 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Calcium (mg/L)	GWA-13 (bg)	13	0.3022	0.06407	0.01777	0.3	0.14	0.389	0
Calcium (mg/L)	GWA-14 (bg)	13	0.5043	0.07673	0.02128	0.5	0.39	0.686	0
Calcium (mg/L)	GWA-16[*G...	12	0.4068	0.03265	0.009424	0.405	0.36	0.472	0
Calcium (mg/L)	GWA-2 (bg)	13	0.5358	0.2013	0.05584	0.53	0.13	0.91	7.692
Calcium (mg/L)	GWA-3 (bg)	13	0.7646	0.2283	0.06332	0.76	0.13	1.13	7.692
Calcium (mg/L)	GWC-15[*G...	13	0.4797	0.1819	0.05044	0.41	0.21	0.91	0
Calcium (mg/L)	GWC-17 (bg)	13	1.939	0.5671	0.1573	2.1	0.13	2.48	7.692
Calcium (mg/L)	GWC-18 (bg)	13	14.86	5.656	1.569	15	0.13	26	7.692
Calcium (mg/L)	GWC-4A[*G...	13	1.398	0.8908	0.2471	1.1	0.53	3.4	0
Calcium (mg/L)	GWC-5[*GW...	13	2.915	0.5879	0.1631	2.8	2	4.39	0
Chromium, Total (mg/L)	GWA-13 (bg)	11	0.002982	0.002245	0.000677	0.0025	0.0011	0.0094	72.73
Chromium, Total (mg/L)	GWA-14 (bg)	12	0.002363	0.0004734	0.0001367	0.0025	0.00086	0.0025	91.67
Chromium, Total (mg/L)	GWA-16[*G...	12	0.001843	0.0007086	0.0002046	0.002	0.00072	0.0025	58.33
Chromium, Total (mg/L)	GWA-2 (bg)	33	0.00203	0.0005151	0.0000...	0.002	0.0011	0.0029	30.3
Chromium, Total (mg/L)	GWA-3 (bg)	33	0.002126	0.0008795	0.0001531	0.0023	0.00085	0.0049	36.36
Chromium, Total (mg/L)	GWC-15[*G...	12	0.001917	0.0007297	0.0002106	0.0025	0.0008	0.0025	66.67
Chromium, Total (mg/L)	GWC-17 (bg)	12	0.0026	0.0005257	0.0001518	0.0025	0.0018	0.0041	41.67
Chromium, Total (mg/L)	GWC-18 (bg)	12	0.002275	0.0009573	0.0002764	0.002117	0.0012	0.0049	0
Chromium, Total (mg/L)	GWC-4A[*G...	34	0.002929	0.00174	0.0002983	0.0025	0.0011	0.0096	67.65
Chromium, Total (mg/L)	GWC-5[*GW...	33	0.002442	0.000623	0.0001085	0.0025	0.0011	0.004	66.67
Cobalt, Total (mg/L)	GWA-13 (bg)	13	0.001207	0.000789	0.0002188	0.00099	0.00043	0.0025	23.08
Cobalt, Total (mg/L)	GWA-14 (bg)	13	0.001565	0.0009222	0.0002558	0.001	0.00029	0.0025	46.15
Cobalt, Total (mg/L)	GWA-16[*G...	12	0.000...	0.0005933	0.0001713	0.00076	0.00043	0.0025	8.333
Cobalt, Total (mg/L)	GWA-2 (bg)	34	0.00198	0.0006951	0.0001192	0.0025	0.0004	0.0025	64.71
Cobalt, Total (mg/L)	GWA-3 (bg)	33	0.002372	0.0005102	0.0000...	0.0025	0.00035	0.0025	93.94
Cobalt, Total (mg/L)	GWC-15[*G...	12	0.000...	0.0006864	0.0001982	0.000785	0.00037	0.0025	8.333
Cobalt, Total (mg/L)	GWC-17 (bg)	13	0.001347	0.0008049	0.0002233	0.0013	0.00038	0.0025	23.08
Cobalt, Total (mg/L)	GWC-18 (bg)	13	0.002321	0.0006462	0.0001792	0.0025	0.00017	0.0025	92.31
Cobalt, Total (mg/L)	GWC-4A[*G...	34	0.003244	0.002496	0.000428	0.0025	0.0004	0.013	61.76
Cobalt, Total (mg/L)	GWC-5[*GW...	34	0.002249	0.001999	0.0003428	0.0025	0.0004	0.011	61.76
Copper, Total (mg/L)	GWA-13 (bg)	11	0.0025	0	0	0.0025	0.0025	0.0025	100
Copper, Total (mg/L)	GWA-14 (bg)	11	0.0024	0.0003317	0.0001	0.0025	0.0014	0.0025	90.91
Copper, Total (mg/L)	GWA-16[*G...	11	0.00221	0.0006466	0.000195	0.0025	0.00081	0.0025	81.82
Copper, Total (mg/L)	GWA-2 (bg)	32	0.002516	0.0000...	0.0000...	0.0025	0.0025	0.003	96.88
Copper, Total (mg/L)	GWA-3 (bg)	31	0.002545	0.0001748	0.0000314	0.0025	0.0025	0.0034	90.32
Copper, Total (mg/L)	GWC-15[*G...	11	0.002349	0.0005005	0.0001509	0.0025	0.00084	0.0025	90.91
Copper, Total (mg/L)	GWC-17 (bg)	11	0.0024	0.0002324	0.0000...	0.0025	0.0018	0.0025	81.82
Copper, Total (mg/L)	GWC-18 (bg)	11	0.002158	0.0006752	0.0002036	0.0025	0.00068	0.0025	72.73
Copper, Total (mg/L)	GWC-4A[*G...	32	0.002481	0.0000...	0.0000...	0.0025	0.0021	0.0025	96.88
Copper, Total (mg/L)	GWC-5[*GW...	32	0.002436	0.0002996	0.0000...	0.0025	0.00084	0.0025	93.75
Lead, Total (mg/L)	GWA-13 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWA-14 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWA-16[*G...	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWA-2 (bg)	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWA-3 (bg)	33	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-15[*G...	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-17 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-18 (bg)	13	0.001163	0.0003507	0.0000...	0.0013	0.00015	0.0013	84.62
Lead, Total (mg/L)	GWC-4A[*G...	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-5[*GW...	34	0.001241	0.0002404	0.0000...	0.0013	0.00019	0.0013	94.12

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:08 PM

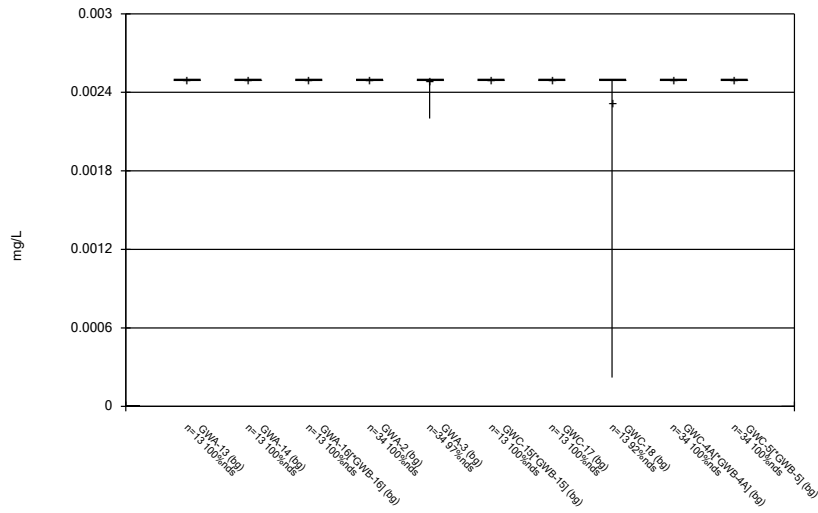
Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Nickel, Total (mg/L)	GWA-13 (bg)	11	0.002303	0.0006543	0.0001973	0.0025	0.00033	0.0025	90.91
Nickel, Total (mg/L)	GWA-14 (bg)	11	0.002129	0.0008257	0.0002489	0.0025	0.0004	0.0025	81.82
Nickel, Total (mg/L)	GWA-16[*G...	11	0.002309	0.0006332	0.0001909	0.0025	0.0004	0.0025	90.91
Nickel, Total (mg/L)	GWA-2 (bg)	32	0.002413	0.0005937	0.000105	0.0025	0.0006	0.0043	84.38
Nickel, Total (mg/L)	GWA-3 (bg)	30	0.002428	0.0003944	0.000072	0.0025	0.00034	0.0025	96.67
Nickel, Total (mg/L)	GWC-15[*G...	11	0.002315	0.0006151	0.0001855	0.0025	0.00046	0.0025	90.91
Nickel, Total (mg/L)	GWC-17 (bg)	11	0.0025	0.000728	0.0002195	0.0025	0.0016	0.0036	18.18
Nickel, Total (mg/L)	GWC-18 (bg)	11	0.002155	0.000418	0.000126	0.0025	0.0014	0.0025	54.55
Nickel, Total (mg/L)	GWC-4A[*G...	31	0.002535	0.0005155	0.0000...	0.0025	0.0013	0.0048	74.19
Nickel, Total (mg/L)	GWC-5[*GW...	32	0.002457	0.0003656	0.0000...	0.0025	0.00054	0.0031	93.75
Selenium (mg/L)	GWA-13 (bg)	13	0.001219	0.0002912	0.0000...	0.0013	0.00025	0.0013	92.31
Selenium (mg/L)	GWA-14 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Selenium (mg/L)	GWA-16[*G...	13	0.001219	0.0002912	0.0000...	0.0013	0.00025	0.0013	92.31
Selenium (mg/L)	GWA-2 (bg)	34	0.001234	0.0002181	0.0000374	0.0013	0.00047	0.0013	91.18
Selenium (mg/L)	GWA-3 (bg)	34	0.001317	0.0001651	0.0000...	0.0013	0.00079	0.002	91.18
Selenium (mg/L)	GWC-15[*G...	13	0.001255	0.0001636	0.0000...	0.0013	0.00071	0.0013	92.31
Selenium (mg/L)	GWC-17 (bg)	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Selenium (mg/L)	GWC-18 (bg)	13	0.001278	0.0000...	0.0000...	0.0013	0.001013	0.0013	92.31
Selenium (mg/L)	GWC-4A[*G...	34	0.001251	0.000204	0.0000...	0.0013	0.00026	0.0013	94.12
Selenium (mg/L)	GWC-5[*GW...	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWA-13 (bg)	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWA-14 (bg)	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWA-16[*G...	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWA-2 (bg)	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWA-3 (bg)	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-15[*G...	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-17 (bg)	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-18 (bg)	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-4A[*G...	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-5[*GW...	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Thallium (mg/L)	GWA-13 (bg)	13	0.000...	0.0001579	0.0000438	0.0005	0.00006	0.0005	84.62
Thallium (mg/L)	GWA-14 (bg)	13	0.000...	0.0001168	0.0000...	0.0005	0.000079	0.0005	92.31
Thallium (mg/L)	GWA-16[*G...	13	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWA-2 (bg)	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWA-3 (bg)	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWC-15[*G...	13	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWC-17 (bg)	13	0.000...	0.0002156	0.0000598	0.0005	0.000038	0.0005	53.85
Thallium (mg/L)	GWC-18 (bg)	12	0.000...	0.0001124	0.0000...	0.000115	0.000...	0.0005	8.333
Thallium (mg/L)	GWC-4A[*G...	32	0.000...	0.0000...	0.0000145	0.0005	0.000036	0.0005	96.88
Thallium (mg/L)	GWC-5[*GW...	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Vanadium, Total (mg/L)	GWA-13 (bg)	11	0.002259	0.0006045	0.0001823	0.0025	0.00055	0.0025	81.82
Vanadium, Total (mg/L)	GWA-14 (bg)	11	0.002303	0.0006543	0.0001973	0.0025	0.00033	0.0025	90.91
Vanadium, Total (mg/L)	GWA-16[*G...	11	0.002286	0.0007086	0.0002136	0.0025	0.00015	0.0025	90.91
Vanadium, Total (mg/L)	GWA-2 (bg)	32	0.002517	0.0005955	0.0001053	0.0025	0.00044	0.0051	93.75
Vanadium, Total (mg/L)	GWA-3 (bg)	31	0.002518	0.0006689	0.0001201	0.0025	0.00027	0.005	87.1
Vanadium, Total (mg/L)	GWC-15[*G...	11	0.0022	0.0007113	0.0002145	0.0025	0.0003	0.0025	90.91
Vanadium, Total (mg/L)	GWC-17 (bg)	11	0.002215	0.0006664	0.0002009	0.0025	0.00047	0.0025	90.91
Vanadium, Total (mg/L)	GWC-18 (bg)	11	0.002827	0.00124	0.0003739	0.0023	0.0014	0.0055	9.091
Vanadium, Total (mg/L)	GWC-4A[*G...	32	0.002456	0.0004214	0.0000745	0.0025	0.00028	0.0033	93.75
Vanadium, Total (mg/L)	GWC-5[*GW...	32	0.002468	0.0004051	0.0000...	0.0025	0.00047	0.0035	93.75

Box & Whiskers Plot - Upgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:08 PM

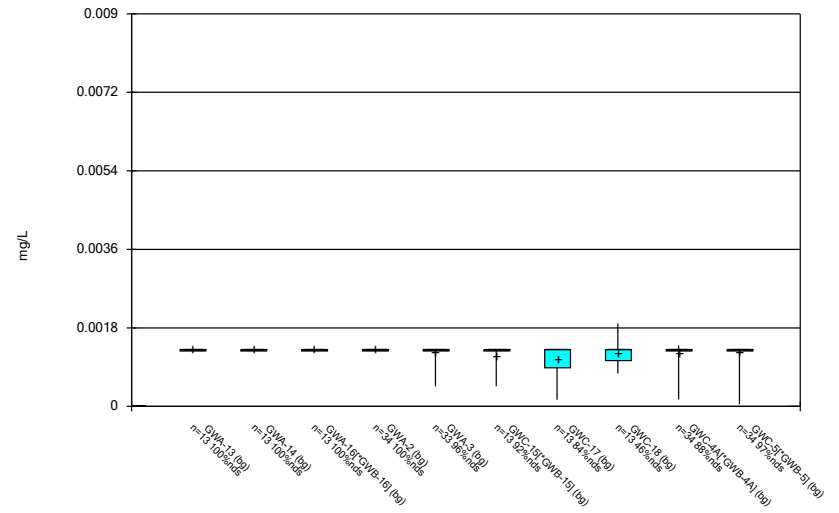
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Zinc, Total (mg/L)	GWA-13 (bg)	11	0.01074	0.008883	0.002678	0.0042	0.0022	0.02	45.45
Zinc, Total (mg/L)	GWA-14 (bg)	11	0.009536	0.008318	0.002508	0.0044	0.0028	0.02	36.36
Zinc, Total (mg/L)	GWA-16[*G...	11	0.009573	0.008288	0.002499	0.0042	0.0024	0.02	36.36
Zinc, Total (mg/L)	GWA-2 (bg)	32	0.009869	0.007708	0.001363	0.0047	0.0027	0.02	34.38
Zinc, Total (mg/L)	GWA-3 (bg)	31	0.01455	0.01098	0.001973	0.02	0.0019	0.045	48.39
Zinc, Total (mg/L)	GWC-15[*G...	11	0.01001	0.007962	0.002401	0.0052	0.0028	0.02	36.36
Zinc, Total (mg/L)	GWC-17 (bg)	11	0.01082	0.007289	0.002198	0.0059	0.0046	0.02	36.36
Zinc, Total (mg/L)	GWC-18 (bg)	11	0.05448	0.148	0.04462	0.0052	0.0017	0.5	36.36
Zinc, Total (mg/L)	GWC-4A[*G...	31	0.009803	0.006826	0.001226	0.0064	0.0023	0.02	29.03
Zinc, Total (mg/L)	GWC-5[*GW...	32	0.009762	0.007939	0.001403	0.0053	0.0022	0.02	34.38

Box & Whiskers Plot



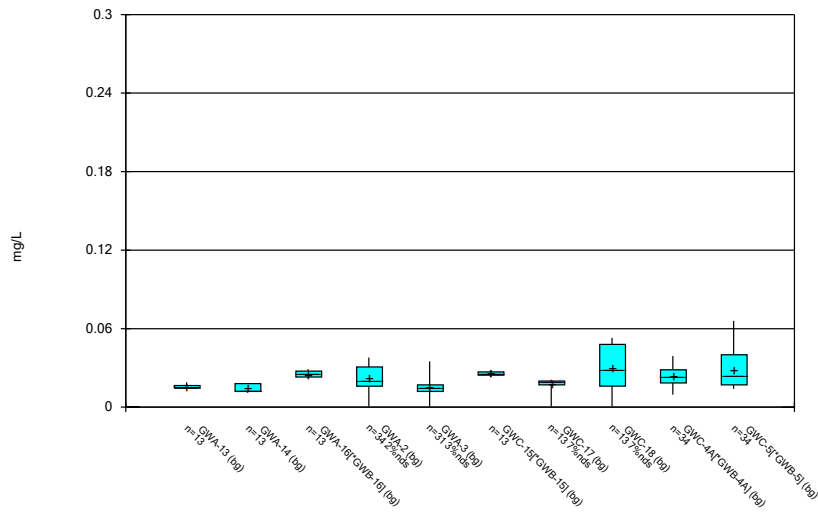
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Box & Whiskers Plot



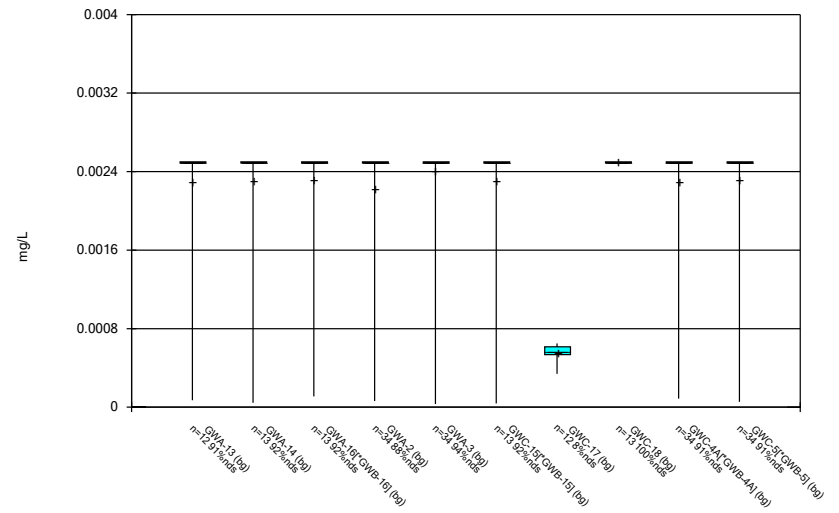
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Box & Whiskers Plot



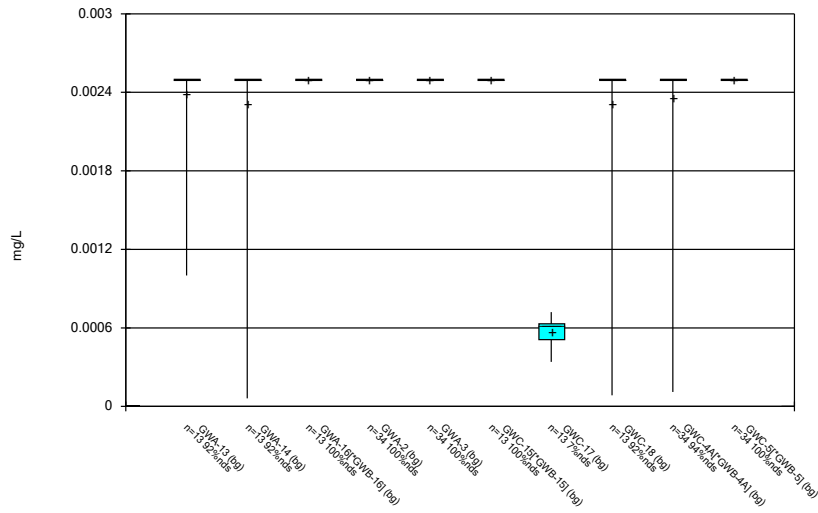
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Box & Whiskers Plot



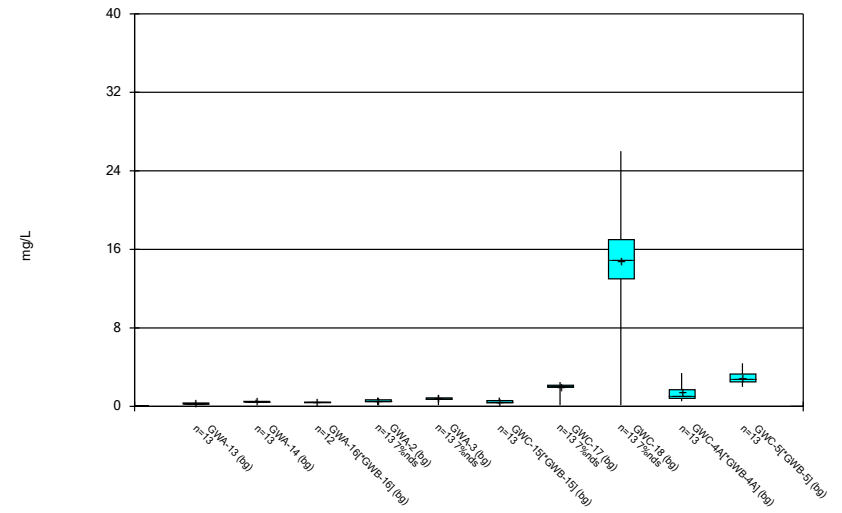
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Box & Whiskers Plot



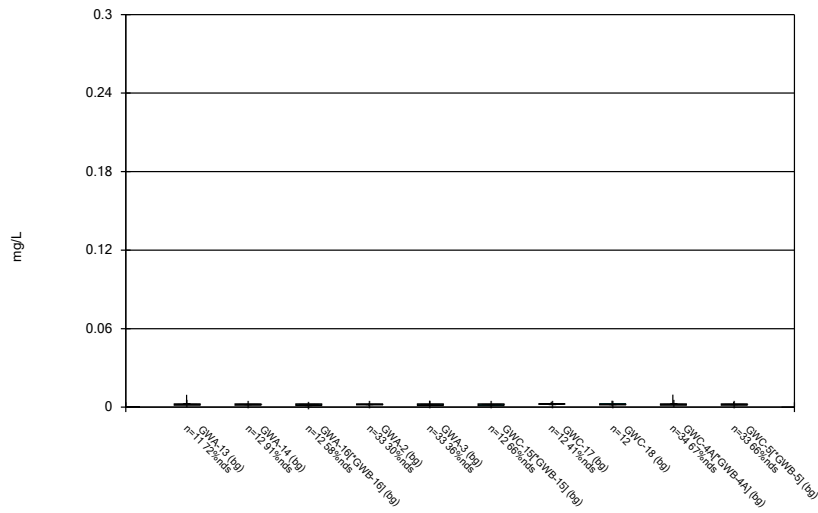
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



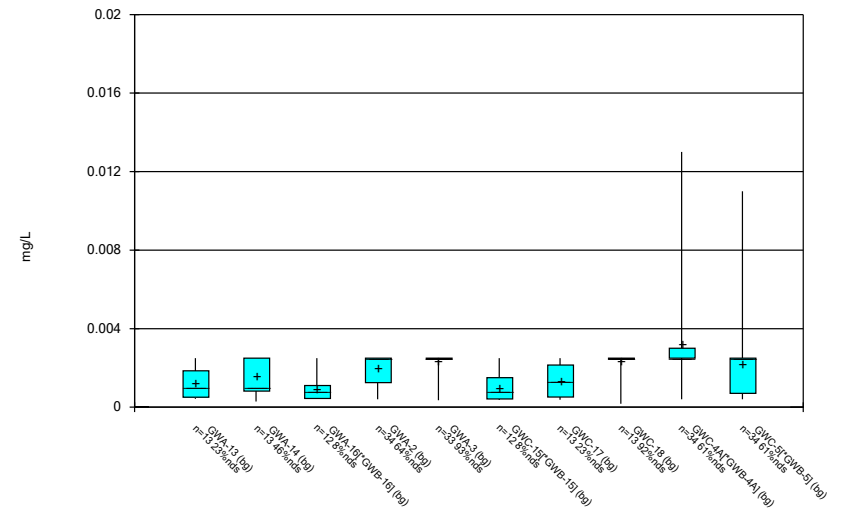
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Box & Whiskers Plot



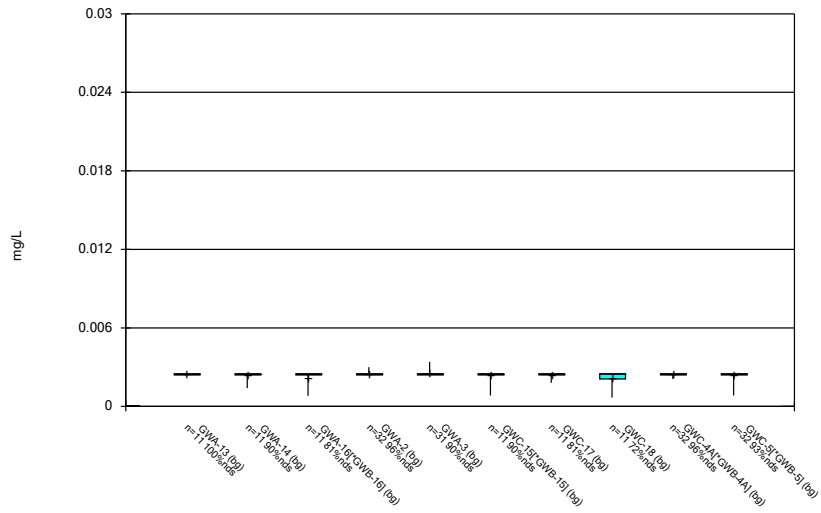
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Box & Whiskers Plot



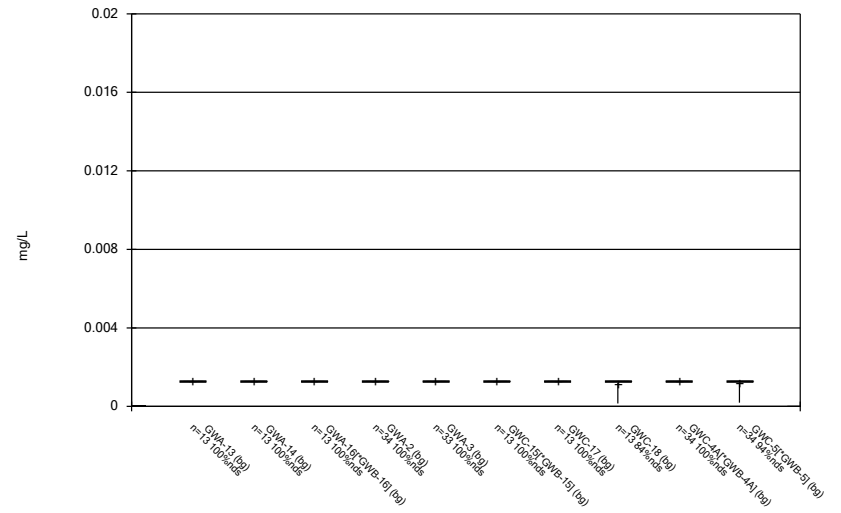
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



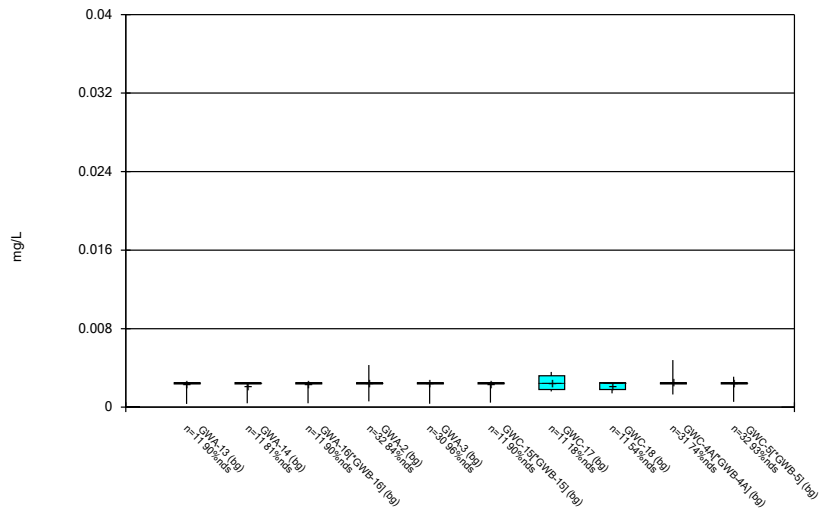
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



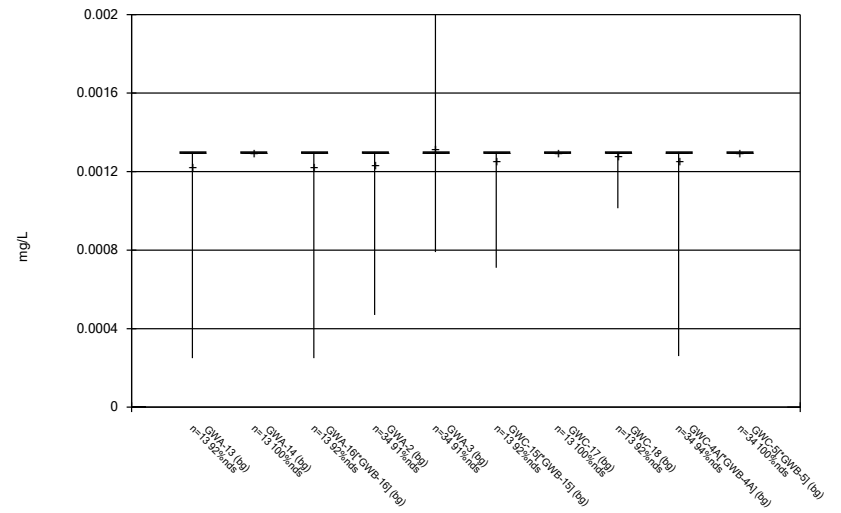
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



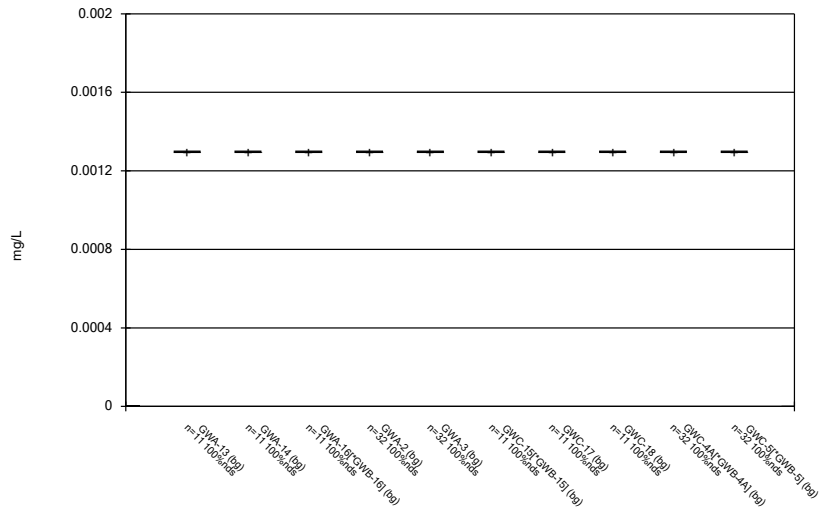
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



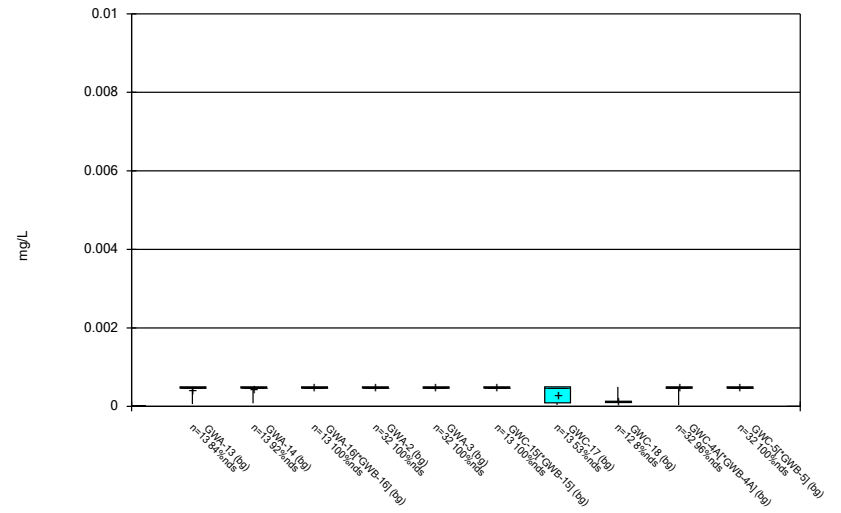
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



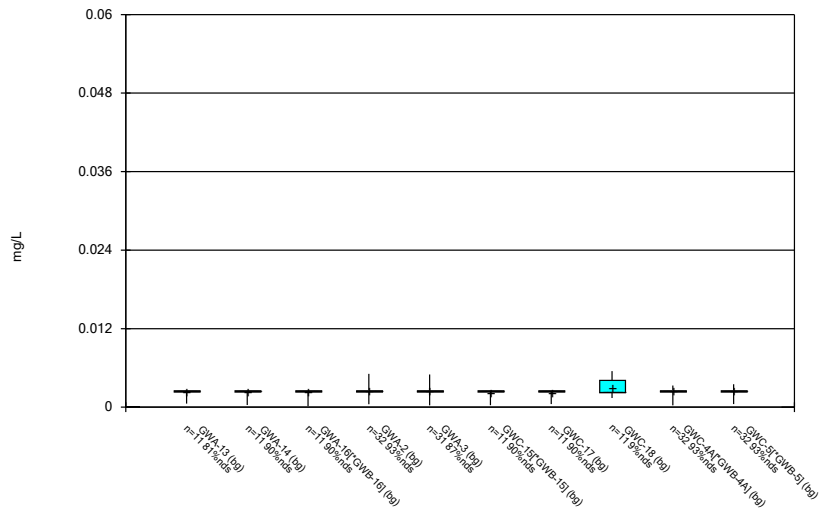
Constituent: Silver, Total Analysis Run 8/8/2019 4:08 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



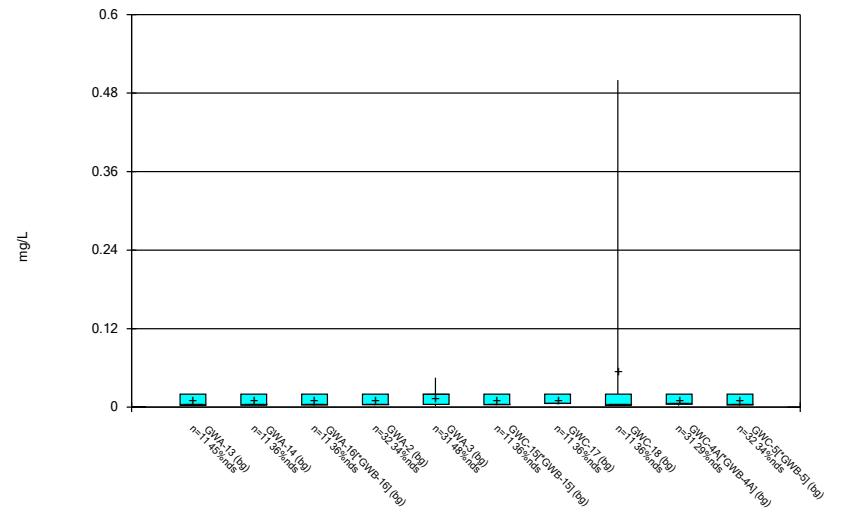
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



Constituent: Vanadium, Total Analysis Run 8/8/2019 4:08 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



Constituent: Zinc, Total Analysis Run 8/8/2019 4:08 PM
Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot - Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:13 PM

Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Antimony (mg/L)	GWC-1	33	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-10	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-11	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-12	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-19	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-20	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-21	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-23	8	0.0025	0	0	0.0025	0.0025	0.0025	100
Antimony (mg/L)	GWC-9	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Arsenic, Total (mg/L)	GWC-1	33	0.0013	0	0	0.0013	0.0013	0.0013	100
Arsenic, Total (mg/L)	GWC-10	34	0.001249	0.0002079	0.0000...	0.0013	0.0004	0.0013	91.18
Arsenic, Total (mg/L)	GWC-11	34	0.001271	0.0001049	0.0000...	0.0013	0.00086	0.0015	76.47
Arsenic, Total (mg/L)	GWC-12	34	0.001253	0.0001925	0.0000...	0.0013	0.00046	0.0013	97.06
Arsenic, Total (mg/L)	GWC-19	13	0.00122	0.0002884	0.00008	0.0013	0.00026	0.0013	92.31
Arsenic, Total (mg/L)	GWC-20	13	0.001146	0.0003812	0.0001057	0.0013	0.00014	0.0013	84.62
Arsenic, Total (mg/L)	GWC-21	13	0.001294	0.0004753	0.0001318	0.0013	0.00046	0.0022	76.92
Arsenic, Total (mg/L)	GWC-23	8	0.001011	0.0004063	0.0001436	0.0013	0.00043	0.0013	75
Arsenic, Total (mg/L)	GWC-9	34	0.001275	0.0001441	0.0000...	0.0013	0.00046	0.0013	100
Barium, Total (mg/L)	GWC-1	33	0.03003	0.01313	0.002286	0.029	0.00049	0.0554	3.03
Barium, Total (mg/L)	GWC-10	34	0.02416	0.008803	0.00151	0.0225	0.00049	0.039	2.941
Barium, Total (mg/L)	GWC-11	33	0.0136	0.004382	0.0007628	0.013	0.00049	0.026	3.03
Barium, Total (mg/L)	GWC-12	34	0.01195	0.00264	0.0004528	0.012	0.00049	0.016	2.941
Barium, Total (mg/L)	GWC-19	13	0.02596	0.01692	0.004693	0.018	0.00049	0.057	7.692
Barium, Total (mg/L)	GWC-20	13	0.02769	0.01278	0.003544	0.027	0.00049	0.045	7.692
Barium, Total (mg/L)	GWC-21	13	0.01858	0.00707	0.001961	0.0175	0.00049	0.027	7.692
Barium, Total (mg/L)	GWC-23	8	0.03656	0.01645	0.005816	0.0375	0.00049	0.057	12.5
Barium, Total (mg/L)	GWC-9	34	0.02289	0.006055	0.001038	0.0235	0.00049	0.032	2.941
Beryllium, Total (mg/L)	GWC-1	33	0.002072	0.0009225	0.0001606	0.0025	0.00008	0.0025	81.82
Beryllium, Total (mg/L)	GWC-10	34	0.002359	0.0005714	0.000098	0.0025	0.000085	0.0025	94.12
Beryllium, Total (mg/L)	GWC-11	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Beryllium, Total (mg/L)	GWC-12	34	0.002088	0.000903	0.0001549	0.0025	0.00014	0.0025	82.35
Beryllium, Total (mg/L)	GWC-19	13	0.001228	0.001227	0.0003402	0.00023	0.00009	0.0025	46.15
Beryllium, Total (mg/L)	GWC-20	13	0.001322	0.001136	0.0003152	0.00043	0.00016	0.0025	46.15
Beryllium, Total (mg/L)	GWC-21	13	0.0025	0	0	0.0025	0.0025	0.0025	100
Beryllium, Total (mg/L)	GWC-23	8	0.0025	0	0	0.0025	0.0025	0.0025	100
Beryllium, Total (mg/L)	GWC-9	34	0.002358	0.000576	0.0000...	0.0025	0.000077	0.0025	94.12
Cadmium, Total (mg/L)	GWC-1	33	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWC-10	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWC-11	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWC-12	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Cadmium, Total (mg/L)	GWC-19	13	0.001965	0.001016	0.0002818	0.0025	0.00017	0.0025	76.92
Cadmium, Total (mg/L)	GWC-20	13	0.001412	0.001061	0.0002943	0.00078	0.00016	0.0025	46.15
Cadmium, Total (mg/L)	GWC-21	13	0.002137	0.0008872	0.0002461	0.0025	0.00012	0.0025	84.62
Cadmium, Total (mg/L)	GWC-23	8	0.002206	0.0008309	0.0002937	0.0025	0.00015	0.0025	87.5
Cadmium, Total (mg/L)	GWC-9	34	0.0025	0	0	0.0025	0.0025	0.0025	100
Calcium (mg/L)	GWC-1	13	2.312	0.7469	0.2071	2.4	0.13	3.22	7.692
Calcium (mg/L)	GWC-10	13	15.15	6.173	1.712	14	0.13	27	7.692
Calcium (mg/L)	GWC-11	14	8.891	2.901	0.7754	8.92	0.13	13	7.143
Calcium (mg/L)	GWC-12	13	0.61	0.1659	0.04602	0.65	0.13	0.78	7.692
Calcium (mg/L)	GWC-19	14	8.138	2.592	0.6926	8.8	0.13	10.4	7.143

Box & Whiskers Plot - Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:13 PM

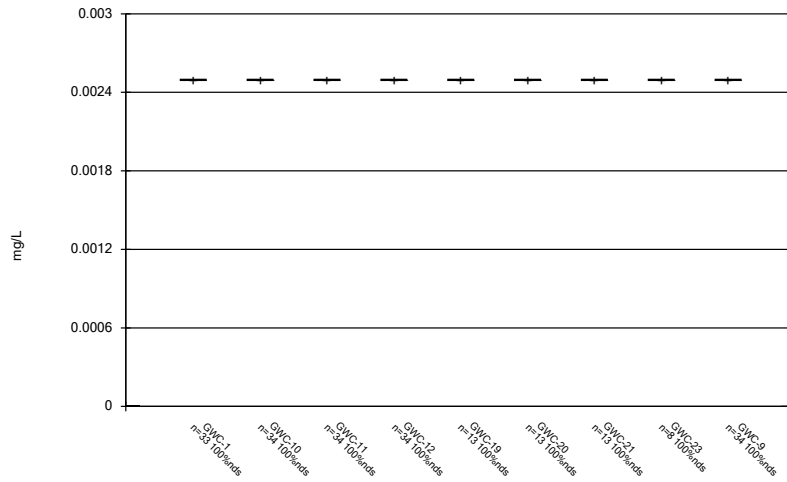
Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Calcium (mg/L)	GWC-20	13	1.532	0.5498	0.1525	1.4	0.13	2.4	7.692
Calcium (mg/L)	GWC-21	11	0.9818	0.2985	0.08999	1.05	0.13	1.3	9.091
Calcium (mg/L)	GWC-23	13	4.518	4.639	1.287	2.5	0.13	15.6	7.692
Calcium (mg/L)	GWC-9	13	0.3016	0.1161	0.03219	0.27	0.13	0.49	7.692
Chromium, Total (mg/L)	GWC-1	33	0.002388	0.000739	0.0001286	0.0025	0.0011	0.005	42.42
Chromium, Total (mg/L)	GWC-10	34	0.00369	0.001813	0.0003109	0.00265	0.0014	0.0076	26.47
Chromium, Total (mg/L)	GWC-11	34	0.005831	0.002261	0.0003878	0.00545	0.0023	0.013	2.941
Chromium, Total (mg/L)	GWC-12	34	0.002603	0.001382	0.0002371	0.00245	0.0011	0.0082	26.47
Chromium, Total (mg/L)	GWC-19	11	0.0017	0.0004899	0.0001477	0.0016	0.0011	0.0026	18.18
Chromium, Total (mg/L)	GWC-20	12	0.002358	0.0004907	0.0001417	0.0025	0.0008	0.0025	91.67
Chromium, Total (mg/L)	GWC-21	12	0.002317	0.0006322	0.0001825	0.0025	0.00031	0.0025	91.67
Chromium, Total (mg/L)	GWC-23	8	0.002216	0.0008026	0.0002837	0.0025	0.00023	0.0025	87.5
Chromium, Total (mg/L)	GWC-9	33	0.002403	0.0005507	0.0000...	0.0025	0.00021	0.0038	66.67
Cobalt, Total (mg/L)	GWC-1	33	0.002103	0.0005353	0.0000...	0.0025	0.0004	0.0025	60.61
Cobalt, Total (mg/L)	GWC-10	34	0.002371	0.0005292	0.0000...	0.0025	0.00001	0.0025	94.12
Cobalt, Total (mg/L)	GWC-11	34	0.002918	0.001367	0.0002345	0.0025	0.00011	0.0071	79.41
Cobalt, Total (mg/L)	GWC-12	33	0.002328	0.002046	0.0003562	0.0025	0.0004	0.012	63.64
Cobalt, Total (mg/L)	GWC-19	13	0.001904	0.0009466	0.0002625	0.0025	0.000067	0.0025	69.23
Cobalt, Total (mg/L)	GWC-20	13	0.003625	0.002596	0.0007199	0.0032	0.0004	0.0076	7.692
Cobalt, Total (mg/L)	GWC-21	12	0.00155	0.0005283	0.0001525	0.00145	0.0004	0.0025	16.67
Cobalt, Total (mg/L)	GWC-23	8	0.006275	0.001918	0.0006782	0.00665	0.0019	0.0078	0
Cobalt, Total (mg/L)	GWC-9	34	0.001977	0.001095	0.0001878	0.0025	0.0004	0.0055	67.65
Copper, Total (mg/L)	GWC-1	31	0.0025	0	0	0.0025	0.0025	0.0025	100
Copper, Total (mg/L)	GWC-10	32	0.0025	0	0	0.0025	0.0025	0.0025	100
Copper, Total (mg/L)	GWC-11	32	0.002472	0.0001988	0.0000...	0.0025	0.0014	0.0027	93.75
Copper, Total (mg/L)	GWC-12	32	0.0025	0	0	0.0025	0.0025	0.0025	100
Copper, Total (mg/L)	GWC-19	11	0.002295	0.0006814	0.0002055	0.0025	0.00024	0.0025	90.91
Copper, Total (mg/L)	GWC-20	11	0.002302	0.0006573	0.0001982	0.0025	0.00032	0.0025	90.91
Copper, Total (mg/L)	GWC-21	10	0.002124	0.0007983	0.0002524	0.0025	0.00042	0.0025	80
Copper, Total (mg/L)	GWC-23	6	0.002267	0.0005715	0.0002333	0.0025	0.0011	0.0025	83.33
Copper, Total (mg/L)	GWC-9	32	0.002472	0.0001114	0.0000...	0.0025	0.002	0.0025	93.75
Lead, Total (mg/L)	GWC-1	33	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-10	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-11	34	0.00124	0.0002433	0.0000...	0.0013	0.0002	0.0013	94.12
Lead, Total (mg/L)	GWC-12	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-19	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-20	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-21	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Lead, Total (mg/L)	GWC-23	8	0.001154	0.0004137	0.0001463	0.0013	0.00013	0.0013	87.5
Lead, Total (mg/L)	GWC-9	33	0.0013	0	0	0.0013	0.0013	0.0013	100
Nickel, Total (mg/L)	GWC-1	31	0.002341	0.0004295	0.0000...	0.0025	0.00088	0.0025	87.1
Nickel, Total (mg/L)	GWC-10	32	0.002462	0.0002121	0.0000375	0.0025	0.0013	0.0025	96.88
Nickel, Total (mg/L)	GWC-11	31	0.002424	0.0003612	0.0000...	0.0025	0.00085	0.0029	90.32
Nickel, Total (mg/L)	GWC-12	31	0.002503	0.0004677	0.000084	0.0025	0.00068	0.0043	90.32
Nickel, Total (mg/L)	GWC-19	11	0.001945	0.0004634	0.0001397	0.0019	0.0013	0.0029	9.091
Nickel, Total (mg/L)	GWC-20	9	0.002992	0.00118	0.0003934	0.0025	0.00093	0.0049	44.44
Nickel, Total (mg/L)	GWC-21	11	0.002382	0.000392	0.0001182	0.0025	0.0012	0.0025	90.91
Nickel, Total (mg/L)	GWC-23	6	0.002017	0.0006242	0.0002548	0.00215	0.0009	0.0026	33.33
Nickel, Total (mg/L)	GWC-9	32	0.002544	0.0001645	0.0000...	0.0025	0.0025	0.0033	90.63
Selenium (mg/L)	GWC-1	33	0.001268	0.000181	0.0000...	0.0013	0.00026	0.0013	96.97

Box & Whiskers Plot - Downgradient Wells

Plant McIntosh Client: GEI Data: McIntosh LF4 CCR Printed 8/8/2019, 4:13 PM

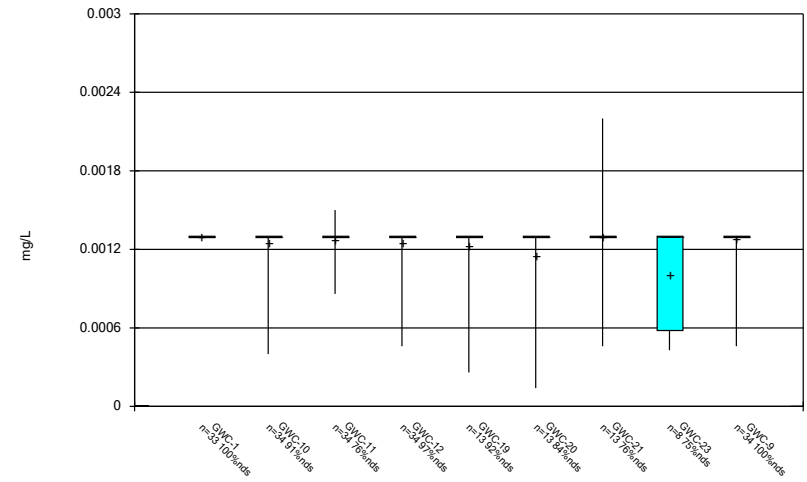
Constituent	Well	N	Mean	Std. Dev.	Std. Err.	Median	Min.	Max.	%NDs
Selenium (mg/L)	GWC-10	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Selenium (mg/L)	GWC-11	34	0.001217	0.0002719	0.0000...	0.0013	0.00025	0.0013	91.18
Selenium (mg/L)	GWC-12	34	0.0013	0	0	0.0013	0.0013	0.0013	100
Selenium (mg/L)	GWC-19	13	0.00124	0.0002163	0.00006	0.0013	0.00052	0.0013	92.31
Selenium (mg/L)	GWC-20	13	0.001362	0.0002219	0.0000...	0.0013	0.0013	0.0021	92.31
Selenium (mg/L)	GWC-21	13	0.0013	0	0	0.0013	0.0013	0.0013	100
Selenium (mg/L)	GWC-23	8	0.0013	0	0	0.0013	0.0013	0.0013	100
Selenium (mg/L)	GWC-9	33	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-1	31	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-10	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-11	32	0.001278	0.000122	0.0000...	0.0013	0.00061	0.0013	96.88
Silver, Total (mg/L)	GWC-12	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-19	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-20	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-21	11	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-23	6	0.0013	0	0	0.0013	0.0013	0.0013	100
Silver, Total (mg/L)	GWC-9	32	0.0013	0	0	0.0013	0.0013	0.0013	100
Thallium (mg/L)	GWC-1	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWC-10	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWC-11	32	0.000...	0.0000776	0.0000...	0.0005	0.000061	0.0005	96.88
Thallium (mg/L)	GWC-12	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Thallium (mg/L)	GWC-19	13	0.000...	0.0001168	0.0000...	0.0005	0.000079	0.0005	92.31
Thallium (mg/L)	GWC-20	13	0.000...	0.0002113	0.0000...	0.0005	0.000052	0.0005	53.85
Thallium (mg/L)	GWC-21	13	0.000...	0.0001389	0.0000...	0.0005	0.000027	0.0005	84.62
Thallium (mg/L)	GWC-23	8	0.000...	0.0002036	0.000072	0.000135	0.000085	0.0005	50
Thallium (mg/L)	GWC-9	32	0.0005	0	0	0.0005	0.0005	0.0005	100
Vanadium, Total (mg/L)	GWC-1	31	0.002426	0.0004381	0.0000...	0.0025	0.00031	0.0032	90.32
Vanadium, Total (mg/L)	GWC-10	32	0.002312	0.0004967	0.0000878	0.0025	0.0008	0.0027	81.25
Vanadium, Total (mg/L)	GWC-11	31	0.002293	0.0004578	0.0000...	0.0025	0.00089	0.0025	77.42
Vanadium, Total (mg/L)	GWC-12	32	0.002369	0.0004425	0.0000...	0.0025	0.0004	0.0025	93.75
Vanadium, Total (mg/L)	GWC-19	11	0.002029	0.0007744	0.0002335	0.0023	0.00092	0.0035	36.36
Vanadium, Total (mg/L)	GWC-20	11	0.002304	0.0007374	0.0002223	0.0025	0.00054	0.0034	81.82
Vanadium, Total (mg/L)	GWC-21	11	0.002253	0.0006912	0.0002084	0.0025	0.00048	0.0029	81.82
Vanadium, Total (mg/L)	GWC-23	6	0.002088	0.0008877	0.0003624	0.0025	0.00063	0.003	66.67
Vanadium, Total (mg/L)	GWC-9	31	0.002396	0.0004566	0.000082	0.0025	0.00019	0.0027	93.55
Zinc, Total (mg/L)	GWC-1	31	0.008987	0.007629	0.00137	0.0041	0.002	0.02	29.03
Zinc, Total (mg/L)	GWC-10	32	0.01589	0.007276	0.001286	0.02	0.0012	0.02	71.88
Zinc, Total (mg/L)	GWC-11	31	0.01465	0.007958	0.001429	0.02	0.0019	0.02	67.74
Zinc, Total (mg/L)	GWC-12	32	0.009419	0.007909	0.001398	0.00425	0.0023	0.02	34.38
Zinc, Total (mg/L)	GWC-19	11	0.01015	0.008243	0.002485	0.0051	0.0023	0.02	36.36
Zinc, Total (mg/L)	GWC-20	11	0.01218	0.007586	0.002287	0.0084	0.0035	0.02	45.45
Zinc, Total (mg/L)	GWC-21	11	0.01111	0.008813	0.002657	0.0097	0.0015	0.02	45.45
Zinc, Total (mg/L)	GWC-23	6	0.0136	0.007182	0.002932	0.0149	0.0049	0.02	50
Zinc, Total (mg/L)	GWC-9	32	0.01568	0.009824	0.001737	0.02	0.0024	0.051	62.5

Box & Whiskers Plot



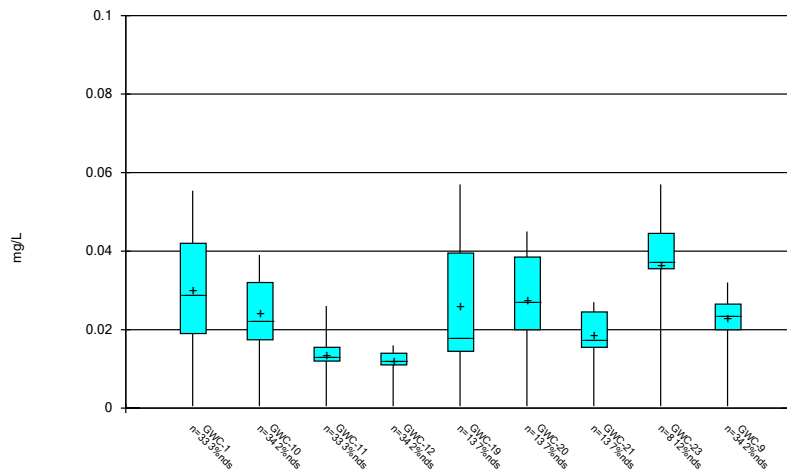
Constituent: Antimony Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



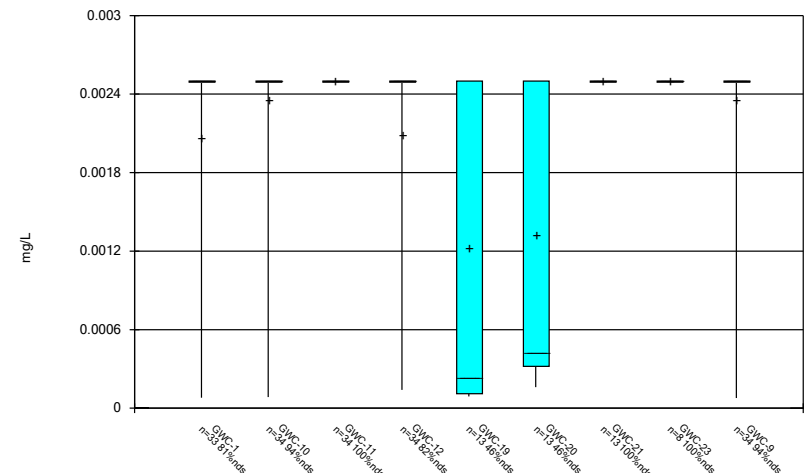
Constituent: Arsenic, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



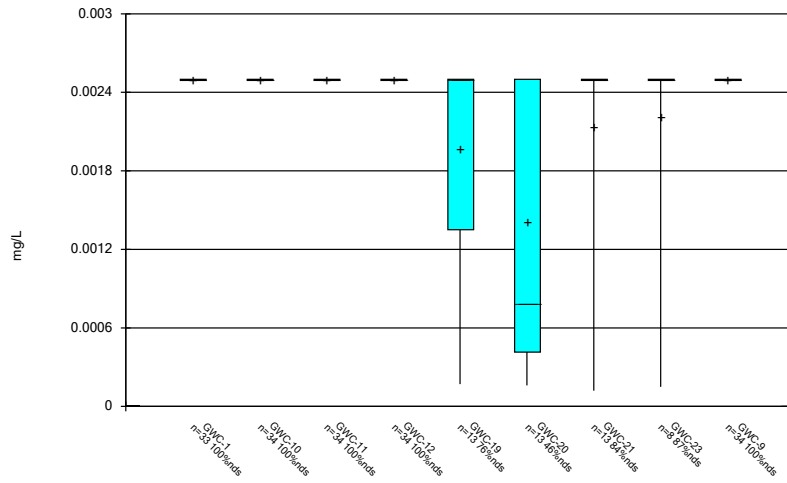
Constituent: Barium, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



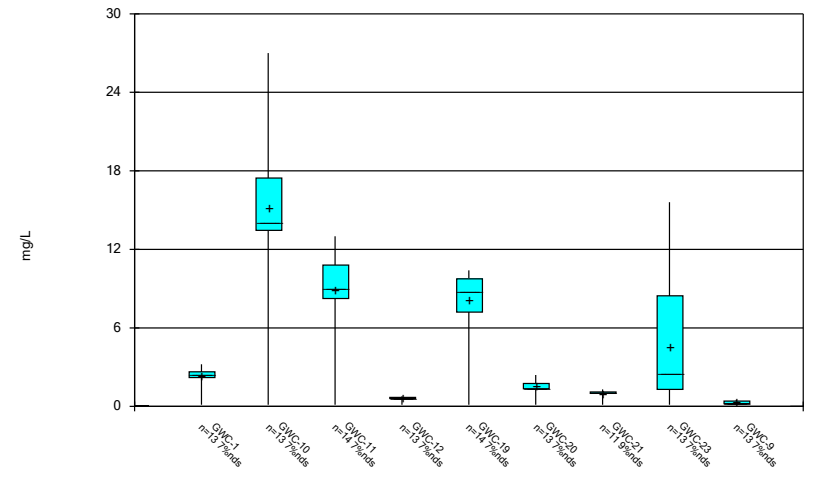
Constituent: Beryllium, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



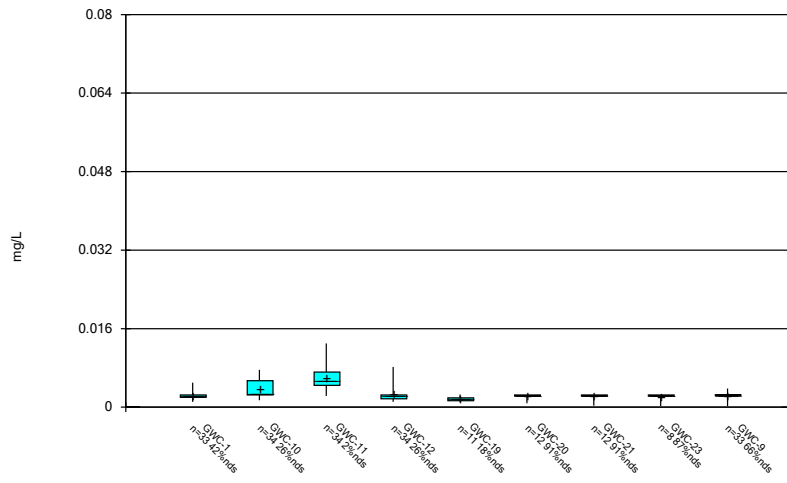
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 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



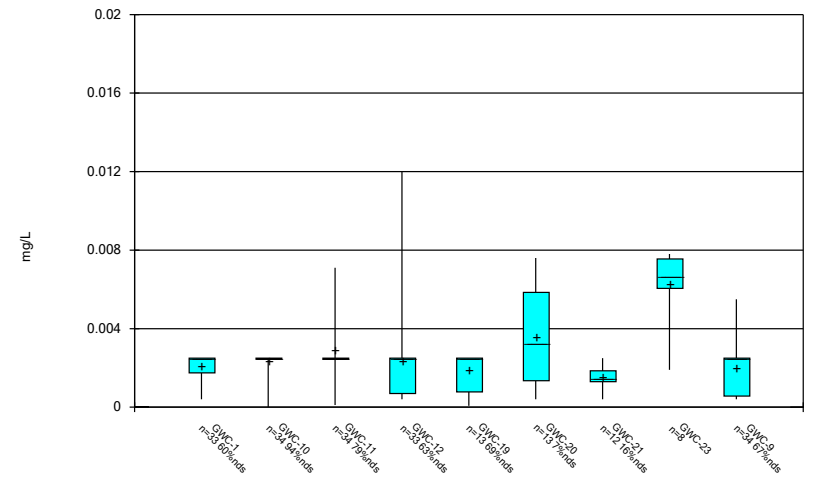
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Box & Whiskers Plot



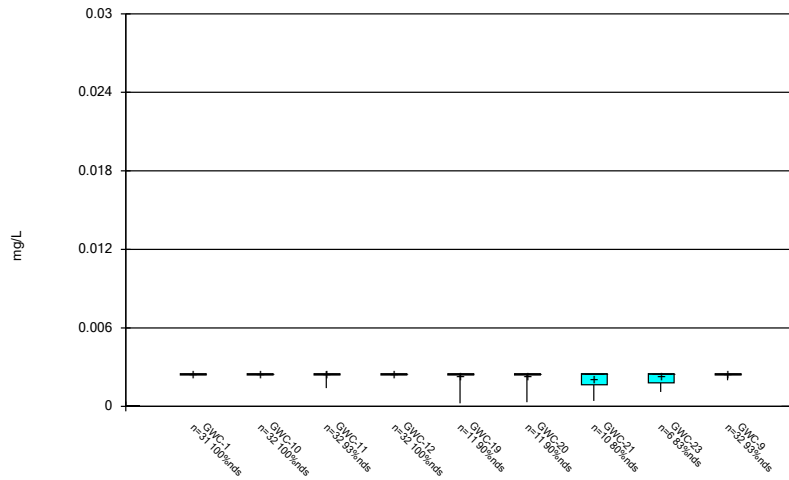
Constituent: Chromium, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



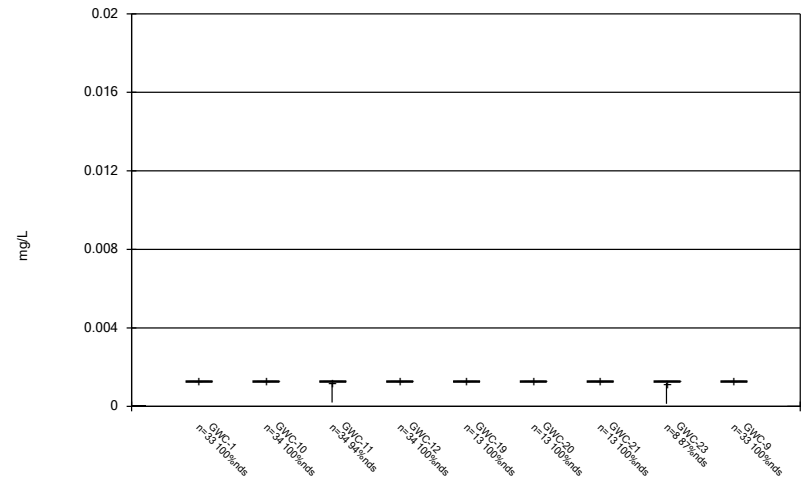
Constituent: Cobalt, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



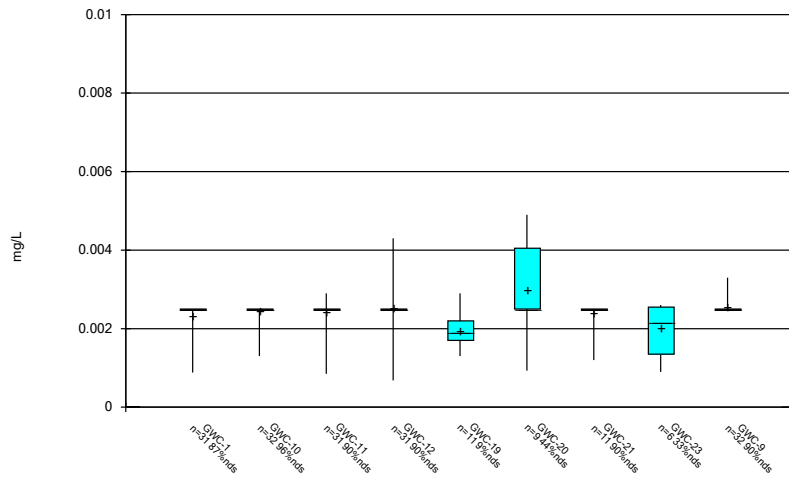
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



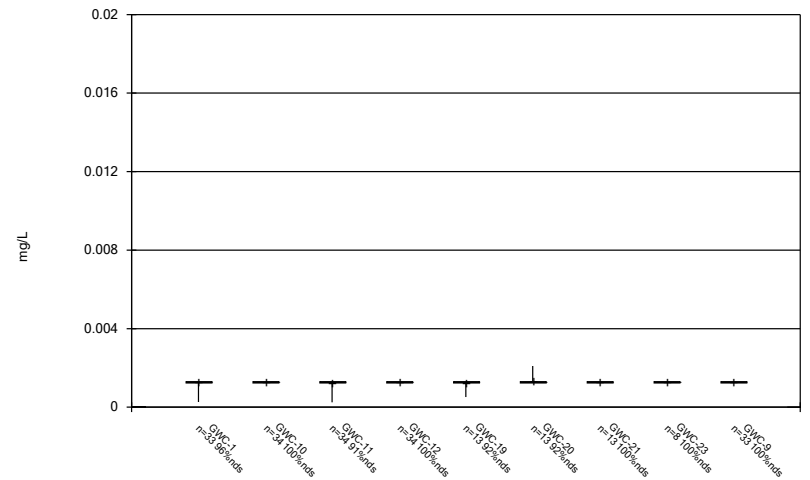
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Box & Whiskers Plot



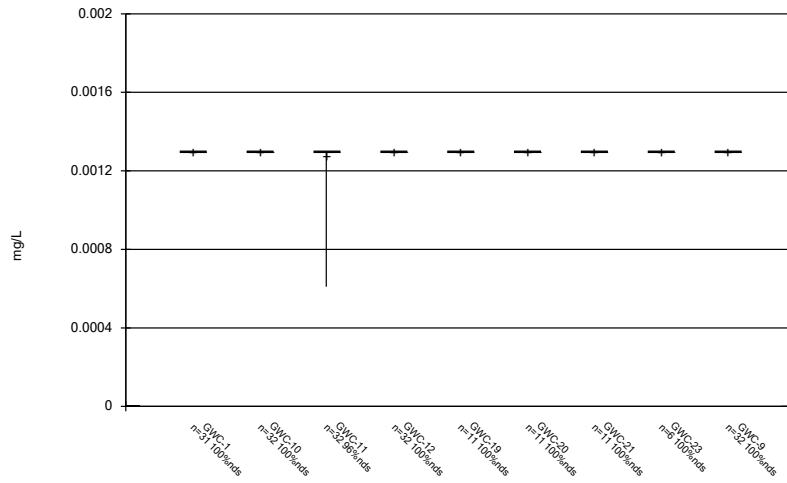
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Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



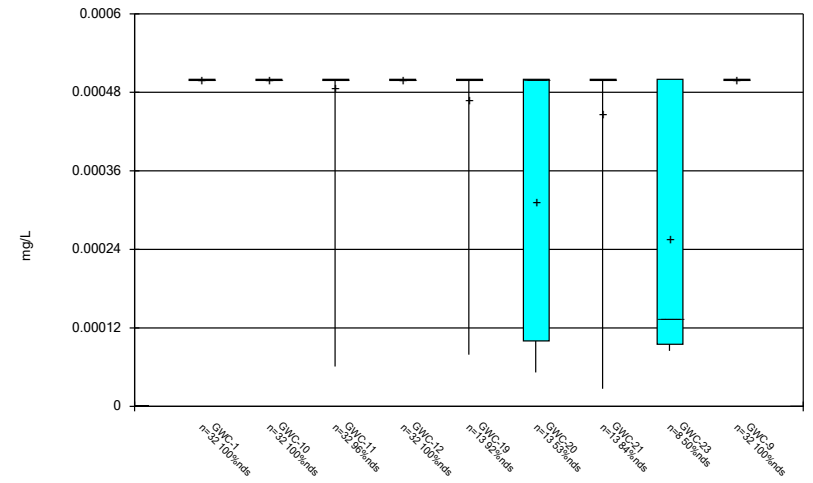
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Box & Whiskers Plot



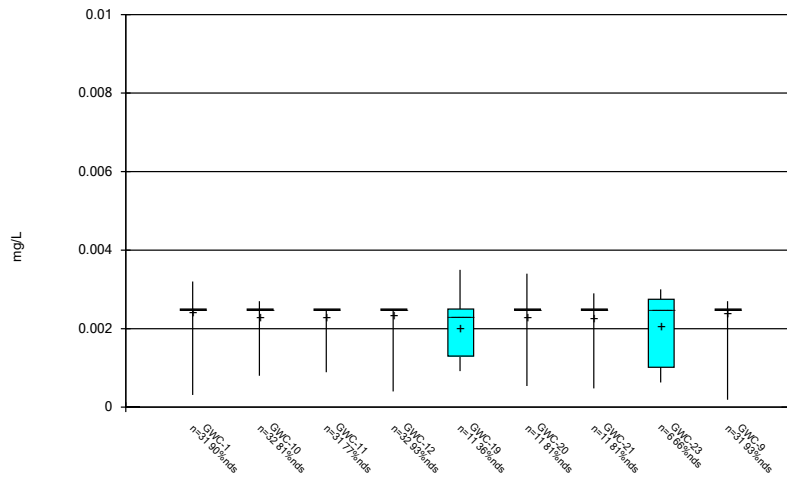
Constituent: Silver, Total Analysis Run 8/8/2019 4:12 PM
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Box & Whiskers Plot



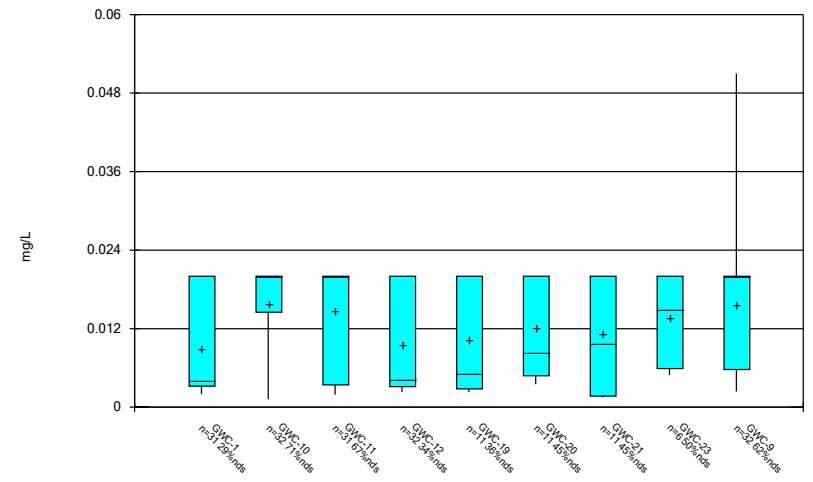
Constituent: Thallium Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



Constituent: Vanadium, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR

Box & Whiskers Plot



Constituent: Zinc, Total Analysis Run 8/8/2019 4:12 PM
 Plant McIntosh Client: GEI Data: McIntosh LF4 CCR