



Grumman Road Private Industrial Landfill

Port Wentworth, Georgia

PERMIT #: 025-061D(LI)

Chatham County

2022 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

The logo for Atlantic Coast Consulting, Inc. (ACC) features the letters 'ACC' in a white, stylized, cursive script font.

**ATLANTIC COAST
CONSULTING, INC.**

PROFESSIONAL CERTIFICATION

This *2022 Semiannual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company – Grumman Road Private Industrial Landfill has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management and 40 Code of Federal Regulations (CFR) Part 258.50(g).

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SUMMARY

This summary of the 2022 Semiannual Groundwater Monitoring and Corrective Action Report provides the groundwater monitoring and corrective action program status from July through December 2022 for Georgia Power Company (Georgia Power) Grumman Road Private Industrial Landfill (GRL). This summary was prepared by Atlantic Coast Consulting, Inc. (ACC) on behalf of Georgia Power.

GRL (the Site) is located on Gulfstream Road, in Chatham County, Georgia, approximately 0.8 miles east of Savannah/Hilton Head International Airport and 1.3 miles west of the city of Port Wentworth. GRL received coal combustion residuals (CCR) from Georgia Power – Plant Kraft and operated under Georgia Environmental Protection Division (GA EPD) solid waste handling permit number 025-061D(LI). GRL is comprised of four cells or parcels: Parcel A [originally operated under permit number 025-034D(LI)], B1, B2, and B3.



Grumman Road Private Industrial Landfill

Groundwater at the Site is monitored using a comprehensive monitoring system of wells installed to meet state monitoring requirements. Routine sampling and reporting began after background groundwater conditions were established in accordance with the Solid Waste Permit requirements specified in the Design and Operation (D&O) Plan. The monitoring program has been modified to include Appendix III and IV parameters to meet the requirements of the GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a) and 40 Code of Federal Regulations (CFR) § 257.95. Background groundwater conditions for Appendix III and IV parameters were established between September 2016 and July 2018.

Based on Site groundwater conditions, Georgia Power submitted a notification for the implementation of assessment monitoring under GA EPD Rule 391-3-4-.10(6)(a) on November 13, 2019. An Assessment of Corrective Measures (ACM) was initiated on July 9, 2020 based on the requirements of GA EPD Rule 391-3-4-.10(6)(a) which incorporates United States Environmental Protection Agency (USEPA) CCR Rule (40 CFR Part 257, Subpart D) by reference. Georgia Power submitted an ACM report on December 4, 2020 pursuant to GA EPD Rule 391-3-4-.10(6)(a) (Anchor 2020). The 2020 ACM supersedes previous documents submitted for the Site under the existing GA EPD Permit No. 025-061D(LI) (SCS 2013; ACC 2017, 2019).

During the 2022 semiannual reporting period, ACC completed a groundwater sampling event in August 2022. Groundwater samples were submitted to GEL Laboratories, LLC (GEL) for analysis. Per the CCR Rule, groundwater results for August 2022 were evaluated in

accordance with the certified statistical methods. That evaluation identified statistically significant values of Appendix III¹ constituents above background and statistically significant levels (SSLs) of Appendix IV² parameters above groundwater protection standards (GWPS), as summarized below.

Appendix III Parameter	August 2022
Calcium	GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21
Chloride	GWC-17
Fluoride	GWC-17
pH	GWC-12, GWC-15
Sulfate	GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, GWC-21
Appendix IV Parameter ³	August 2022
Arsenic	GWC-15, GWC-16, GWC-20
Molybdenum	GWC-16, GWC-20

Based on review of the statistical results completed for the groundwater monitoring and corrective action program from July through December 2022, the Site will continue assessment monitoring and groundwater remedy selection. Georgia Power will continue routine groundwater monitoring and reporting at the Site, and reports will be posted to the website and provided to the GA EPD.

¹ Appendix III: Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS).

² Appendix IV: Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium 226+228, selenium, and thallium.

³ An SSL parameter is determined by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available, the USEPA Rule Specified Level, if no MCL is available, or the calculated background interwell prediction limit.

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1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c) and 391-3-4-.14, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2022 Semiannual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted during the second half of 2022 at Georgia Power Company's Grumman Road Private Industrial Landfill (GRL). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

To comply with GA EPD's Rule 391-3-4-.10, a permit application package for GRL was submitted to GA EPD in November 2018 and is currently under review. To meet the requirements of 391-3-4-.10(6), Appendix III and IV parameters listed in 40 CFR § 257 were incorporated into the routine groundwater monitoring program through a minor modification in August 2017. Semiannual reporting is completed pursuant to GA EPD Rule 391-3-4-.10(6)(c). This report documents groundwater activities conducted from July 2022 through December 2022.

Georgia Power submitted an Assessment of Corrective Measures (ACM) report in December 2020 pursuant to GA EPD Rule 391-3-4-.10(6)(a) (Anchor 2020). The 2020 ACM supersedes previous documents submitted for the Site under the existing GA EPD Permit No. 025-061D(LI) [Southern Company Services (SCS) 2013; ACC 2017, 2019]. The ACM was prepared to evaluate potential groundwater corrective measures for the occurrence of arsenic and molybdenum in groundwater at statistically significant levels (SSLs) at GRL.

1.1 Site Description and Background

GRL is located on Gulfstream Road, in Chatham County, Georgia, approximately 0.8 miles east of Savannah/Hilton Head International Airport and 1.3 miles west of the city of Port Wentworth. GRL occupies approximately 36 acres. The Site ceased accepting CCR prior to October 19, 2015 and is therefore not subject to Federal monitoring requirements. GRL received CCR from Georgia Power – Plant Kraft and operated under GA EPD solid waste handling permit number 025-061D(LI). GRL is comprised of four cells or parcels: Parcel A [originally operated under permit number 025-034D(LI)], B1, B2, and B3. Closure of parcels B1, B2, and B3 was completed after CCR disposal ceased. Capping of the last remaining uncapped portion of Parcel A has been completed and was documented to GA EPD in a submittal dated November 27, 2019.

GRL is adjacent to two other permitted solid-waste disposal facilities. The closed Clifton Rental Company, Inc., Landfill (Clifton Landfill; Permit No. 025-030D(L)) is located east of the Site, hydraulically upgradient and cross gradient of the Site. The active Savannah Regional Industrial Landfill (SRIL; Permit No. 025-072D(L)), operated by Republic Services, Inc., is located south of the Site and hydraulically downgradient of both Clifton Landfill and GRL. Figure 1, Site Location Map, depicts the location of GRL relative to the surrounding area. Figure 2, Well Location Map, depicts the general configuration of GRL and the location of the monitoring wells.

1.2 Regional Geology and Hydrogeologic Setting

GRL is underlain by Atlantic Coastal Plain Physiographic Province strata consisting of unconsolidated to consolidated layers of sand, silt, and clay and semi-consolidated to dense layers of limestone and dolomite (Clarke et al, 2010). These sediments constitute three major aquifer systems, which are, from shallow to deep, the surficial aquifer system, the Brunswick

aquifer system, and the Floridan aquifer system. In the Atlantic Coastal Plain, the surficial aquifer system consists of Miocene and younger interlayered sand, silt, clay, and thin limestone beds (Clarke et al, 2010). The surficial aquifer system is unconfined and generally at a depth less than 80 feet below ground surface.

The surficial aquifer is underlain by a confining unit that separates it from the Brunswick aquifer. The confining unit consists of silty clay and dense thin, phosphatic Miocene limestone. The Oligocene to Miocene Brunswick aquifer consists of two water-bearing zones. The upper Brunswick and lower Brunswick aquifers are separated by a low permeability, sandy phosphatic clay confining unit. The Brunswick aquifer is separated from the Upper Floridan aquifer with the Upper Confining unit and a non-water bearing limestone (NWBL) layer. The Floridan aquifer is confined by the overlying clay and NWBL layers.

1.3 Site Geology and Hydrogeologic Setting

The sediments immediately underlying the Site are part of the regional surficial aquifer system described previously and consist of variable interbedded sands, silts, and clay comprising a near-surface aquifer system (SCS, 1998). Though complex with subtle distinctions, approximately 50 feet of the near-surface aquifer system (soil) can be divided into four units as described below:

- Upper Sands and Topsoil
- Unit 1 Uppermost Aquifer: Silty Fine Sand
- Unit 2 Low Permeability Zone: Interbedded Sand, Silt, and Clay
- Unit 3 Lower Sand Aquifer: Silty and/or Clayey Fine to Medium Sand

Unit 1 comprises the water-bearing soil unit monitored at the Site and has a thickness ranging from approximately 22 to 28 feet across GRL. Although Units 1 through 3 are classified as the surficial aquifer system, layers of lower permeability may be present in the surficial aquifer system (Clarke, Hacke, and Peck 1990; SCS 1998). Generally, groundwater in the near-surface aquifer system flows from north to south at GRL but is influenced by topography. Groundwater elevations observed across the Site and adjacent landfills suggest that hydraulic communication exists between Units 1, 2, and 3. Unit 2 has a lower permeability than Units 1 and 3 and locally may act as an impediment to downward migration, creating perched water within Unit 1 or impeding migration within the near-surface aquifer system. Unit 2 does not appear to be continuous across the Site such that it creates distinct groundwater flow systems. The geologic and hydrogeologic conditions at GRL were described in detail in the ACM report (Anchor 2020).

1.4 Groundwater Monitoring System

A groundwater monitoring plan was submitted in November 1999 and approved by GA EPD in January 2000. Pursuant to GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.91, a comprehensive monitoring system was designed to monitor groundwater passing the waste boundary of GRL within the uppermost aquifer. Wells were located to serve as upgradient, sidegradient, and downgradient monitoring points based on groundwater flow direction (Table 1A, Detection Monitoring Well Summary). Additional existing locations are presented in Table 1B, Assessment Well and Piezometer Summary.

As part of the assessment monitoring program, assessment wells (formerly known as “delineation monitoring wells”) were installed in December 2020 and January 2021. Pursuant to GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.95(g)(1)(iv), the wells, classified as “assessment wells”, will be sampled in addition to the compliance monitoring wells as part of the ongoing assessment groundwater monitoring program.

2.0 GROUNDWATER MONITORING ACTIVITIES

The following describes monitoring-related activities performed at the Site from July through December 2022 (the reporting period) and discusses any change in status of the monitoring program.

2.1 Monitoring Well Installation/Maintenance

There were no changes to the groundwater monitoring system during the current semiannual reporting period; the detection monitoring system remained the same as in the previous reporting year and is shown in Figure 2.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). Well inspection checklists completed during the August 2022 semiannual sampling event are included in Appendix A, Laboratory Analytical and Field Sampling Reports. The August 2022 documentation was performed under the direction of a professional geologist registered in the State of Georgia.

2.2 Assessment Monitoring Program

Georgia Power has initiated an assessment monitoring program for CCR Appendix IV constituents. A notification for the implementation of assessment monitoring under GA EPD Rule 391-3-4-.10(6) was submitted on November 13, 2019. The facility had previously implemented an assessment monitoring program for an Appendix II metal (arsenic) included in its state permit. Currently identified SSLs of Appendix IV constituents exceeding their respective groundwater protection standards (GWPS) at AP-1 are arsenic at GWC-15, GWC-16, and GWC-20 and molybdenum in GWC-16 and GWC-20.

Table 2, Groundwater Sampling Event Summary, presents a summary of the groundwater sampling event completed at the Site during the reporting period. A semiannual assessment monitoring event was completed in August 2022. Groundwater samples were collected for the state-specific list of Appendix I/II metals specified in the permit and all Appendix III and Appendix IV constituents. A summary of the analytes required by Appendix III, Appendix IV, and the existing permit is provided in Table 3, Summary of Groundwater Monitoring Parameters. Samples were collected from each well in the detection monitoring system, as well as three of the five delineation wells, shown on Figure 2.

Details of this event and analytical results are discussed in Section 3, while the statistical results are discussed in Section 4. Results of sampling activities conducted during the reporting period are presented in Appendix A.

2.3 Assessment of Corrective Measures

Based on statistical analysis of assessment monitoring results presented in the 2020 Annual Groundwater Monitoring and Corrective Action Report, a Notice of Assessment of Corrective Measures was placed in the operating record on July 9, 2020 for the State CCR Rule. An ACM for arsenic was previously established under GA EPD Rule 391-3-4-.14. An ACM completed by Anchor QEA, LLC in December 2020 (Anchor, 2020) under GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.96 supersedes the previous ACM and incorporates arsenic and an additional Appendix IV constituent, molybdenum. A *Semiannual Remedy Selection and Design Progress*

Report (Semiannual Progress Report) has been updated to include recent activities and is provided as Appendix B.

2.4 Additional Sampling

As summarized in the Semiannual Progress Report, an active above-ground leachate seep has been observed on aerial imagery on the north side of the Clifton Landfill since approximately 2009. The seepage flows onto the Site near GWA-7. An attempt was made to sample the leachate seepage on the Site near GWA-7 during the August 2022 sampling event, but no flow was observed.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

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

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater elevations are recorded from the certified detection well system, assessment wells, and piezometers at GRL. Groundwater elevations recorded during the monitoring events are summarized in Table 4, Summary of Groundwater Elevations – August 2022. Groundwater elevation data were used to develop Figure 3, Potentiometric Surface Map – August 2022. A potentiometric high exists near well GWA-7 in the northern portion of the Site and groundwater flows semi-radially from this high. In the southern portion of the Site, groundwater flows to the south and southeast. The groundwater flow pattern observed during the monitoring event is consistent with historical patterns.

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

Specifically:

Equation

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

The groundwater flow velocity was calculated for the Site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; USEPA, 1989; Freeze and Cherry, 1979). The groundwater flow velocity has been calculated and is tabulated on Table 5, Groundwater Flow Velocity Calculations – August 2022. The calculated maximum flow velocity was 0.31 feet per day for August 2022.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Purging and sampling was performed using a peristaltic pump. Tubing was lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). Peristaltic pump samples were collected using new disposable polyethylene tubing. All non-disposable equipment was decontaminated before use and between well locations.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll or Aqua Troll (In-Situ field instruments) was used to monitor and record field water quality parameters (pH, specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) during well purging prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH.
- $\pm 10\%$ for specific conductance.
- $\pm 10\%$ for dissolved oxygen or 0.2 milligrams per liter (mg/L), whichever is greater where $DO > 0.5$ mg/L. No criterion applies if $DO < 0.5$ mg/L.
- Turbidity measurements less than 5 nephelometric turbidity units (NTU), or measured between 5 and 10 NTU following three additional hours of purging.

Once stabilization was achieved, samples were collected directly into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to GEL Laboratories, LLC (GEL) of Charleston, South Carolina following chain-of-custody protocol. Stabilization logs and equipment calibration forms for each well during the reporting period are included in Appendix A.

3.3 Laboratory Analyses

Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix A. Analytical data collected in the monitoring event during the reporting period are summarized in Table 6, Summary of Groundwater Analytical Data – August 2022, respectively.

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

3.4 Quality Assurance and Quality Control

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one QA/QC sample per every 10 groundwater monitoring samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicate samples were collected during each sampling event. QA/QC sample data were evaluated during data validation and are included in Appendix A.

Groundwater quality data in this report were validated in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spike/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). The data are considered usable for meeting project objectives and the results are considered valid.

4.0 STATISTICAL ANALYSIS

The statistical method used at GRL was developed by Groundwater Stats Consulting, LLC (GSC), using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, USEPA 530/ R-09-007 (USEPA, 2009).

Statistical analysis of the reporting period groundwater monitoring data was performed by GSC following the appropriate certified statistical methodology for GRL. Sanitas groundwater statistical software was used to screen the data and perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations.

Appendix I and Appendix III statistical analysis was performed to determine if groundwater has returned to background levels. Appendix II and Appendix IV constituents were evaluated to determine if concentrations statistically exceeded the established GWPS.

A summary of the statistical methodology used at GRL for routine groundwater monitoring is provided in Table 7, Statistical Method Summary. Statistical analysis methods and results are provided in Appendix C, Statistical Analyses, and summarized in the following sections.

4.1 Appendix I and III Statistical Methods

Based on guidance from GA EPD, statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix I and III parameters. Interwell PLs are constructed using pooled data from upgradient wells GWA-7 and GWA-8 to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). An "initial exceedance" occurs when an Appendix I or III constituent reported in a downgradient groundwater compliance monitoring well exceeds the constituent's associated PL. The 1-of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample verifies the initial exceedance. If the resample result is less than its relevant PL, the initial exceedance is not verified.

4.2 Appendix II and IV Statistical Methods

Appendix II constituents and Appendix IV constituents were sampled during the semiannual assessment sampling event. To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix II and IV parameters in each downgradient well. Those confidence intervals are compared to the respective GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If there is an exceedance of the established standard, an SSL exceedance is identified. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. Due to non-routine (or ACM investigation) sampling, some Appendix IV constituents at a well location have differing numbers of analytical data points.

USEPA revised the federal CCR Rule on July 30, 2018, updating the GWPS for cobalt, lead, lithium, and molybdenum. USEPA's updated GWPS were incorporated by reference into GA EPD's CCR Rule 391-3-4-.10(6)(a) on February 22, 2022. As described in 40 CFR § 257.95(h)(1-3), GWPS are established as follows:

- (1) The maximum contaminant level (MCL) established under 40 CFR § 141.62 and 141.66.

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

Following the above requirements, GWPS have been established for statistical comparison of Appendix II and Appendix IV constituents and are presented in Table 8, Summary of Background Levels and Groundwater Protection Standards.

4.3 Statistical Analyses Results

Based on review of the Appendix I and III statistical analyses presented in Appendix C, constituents have not returned to background levels and assessment monitoring should continue pursuant to GA EPD Rule 391-3-4-.10(6)(a).

Based on a review of the statistical analysis presented in Appendix C, the following parameters were found to statistically exceed the GWPS for the semiannual reporting period:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWC-16 and GWC-20

These results are consistent with those presented in the 2022 Annual Groundwater Monitoring and Corrective Action Report (ACC, 2022). An ACM report was submitted in December 2020 for arsenic and molybdenum, per GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.96, and potential corrective measures are under evaluation.

5.0 NATURE AND EXTENT

Wells MW-23D, MW-24D, and MW-25D were installed for vertical delineation of arsenic and molybdenum at wells GWC-20, GWC-16, and GWC-15, respectively, and wells MW-26D and MW-27D were installed for vertical delineation of molybdenum at GWC-1 and GWC-2, respectively, in December 2020 and January 2021. The locations of these delineation wells are shown on Figure 2.

Data from the August 2022 semiannual monitoring event at SRIL show that arsenic concentrations in groundwater samples collected from monitoring wells GWA-6 and GWA-12B located along the northern boundary of SRIL, due south of the Site, are less than the analytical method reporting limit (0.01 mg/L; CEC, 2022). This data supports the findings from the Transport Modeling Report submitted to GA EPD in November 2021 and suggests the arsenic impacts have not migrated far off-site (Anchor QEA, 2021). Molybdenum, however, is not a routine parameter analyzed at SRIL.

Horizontal delineation of molybdenum to the south is dependent on securing access from adjacent property owners. Per GA EPD guidance, where “denial of access prevents the installation of off-site assessment wells, a USEPA approved fate and transport model analysis may be used to delineate the limit of the contaminant plume” (GA EPD, 2018). Because off-site access has not been secured, a transport model was developed to complete horizontal delineation (Anchor QEA, 2021). Based on the Transport Modeling Report, molybdenum concentrations in groundwater above the GWPS that originate from the Site have likely migrated a short distance beneath SRIL but have not

reached the southern boundary of SRIL. SRIL representatives were notified of the arsenic and molybdenum detections in neighbor notification correspondence dated September 25, 2020.

6.0 MONITORING PROGRAM STATUS

Pursuant to 40 CFR § 257.96(b), Georgia Power will continue to monitor the groundwater at the Site in accordance with the assessment monitoring program regulations of 40 CFR § 257.95 while ACM efforts are implemented to evaluate SSL concentrations of arsenic and molybdenum. Pursuant to 40 CFR § 257.94(e)(1), Georgia Power will continue assessment monitoring in accordance with 40 CFR § 257.95. Pursuant to 40 CFR § 257.95(g)(1)(iv), the assessment wells will continue to be sampled as part of the ongoing semiannual assessment groundwater monitoring program.

6.1 Assessment of Corrective Measures

An ACM report was implemented on July 9, 2020 and submitted to GA EPD on December 4, 2020. The ACM efforts completed during the reporting period covered by this groundwater monitoring and corrective action report are presented in Appendix B. The Semiannual Progress Report summarizes:

- (i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Anchor, 2020).
- (ii) the analytical data obtained during supplemental ACM-specific field investigations.
- (iii) the status of applicable corrective measures evaluation; and
- (iv) the planned activities and anticipated schedule for the following semiannual reporting period.

Georgia Power will include a Semiannual Progress Report with each future groundwater monitoring and corrective action report.

7.0 CONCLUSIONS AND FUTURE ACTIONS

This 2022 Semiannual Groundwater Monitoring and Corrective Action Report was prepared to fulfill the requirements of GA EPD Rule 391-3-4-.10(6)(c). Statistical evaluations of the groundwater monitoring data identified the presence of SSLs of arsenic in three wells (GWC-15, GWC-16, and GWC-20) and molybdenum in two wells (GWC-16 and GWC-20) for the August 2022 event. The arsenic and molybdenum SSLs are vertically delineated below the GWPS by MW-23D through MW-25D. Arsenic is horizontally delineated below the GWPS by upgradient SRIL wells GWA-6 and GWA-12B, just south of the Site. Based on the Transport Modeling Report, molybdenum is horizontally delineated to below the GWPS a short distance beneath SRIL but has not reached the southern boundary of SRIL. Georgia Power will continue to monitor groundwater under the assessment monitoring program and evaluate potential corrective measures presented in the Semiannual Progress Report provided in Appendix B.

The next semiannual assessment sampling event is planned to begin January 2023. The semiannual assessment monitoring event will include sampling and analysis of all Appendix III and IV constituents along with the state-specific list of Appendix I/II metals specified in the permit.

8.0 REFERENCES

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TABLES

**Grumman Road Private Industrial Landfill
Chatham County, Georgia
2022 Semiannual Groundwater Monitoring and Corrective Action Report**

Table 1A
Detection Monitoring Well Summary
Grumman Road Landfill
Chatham County, Georgia

Well ID	Installation Date (mm/dd/yyyy)	Northing (SD)	Easting (SD)	Top of Casing Elevation (SD)	Bottom Depth (ft BTOC)	Bottom Elevation (SD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (SD)	Hydraulic Location
GWA-7	07/29/1998	780887.99	960553.30	47.10	21.20	25.90	16.20	30.90	Upgradient
GWA-8	07/29/1998	781167.66	960453.78	46.84	20.80	26.04	15.80	31.04	Upgradient
GWB-4R	10/09/2018	779975.87	960770.83	49.58	27.00	22.58	16.76	32.82	Sidegradient
GWB-5R	10/09/2018	780294.37	960686.46	47.82	26.50	21.32	16.51	31.31	Sidegradient
GWB-6R	10/08/2018	780573.41	960610.31	47.40	22.70	24.70	12.69	34.71	Sidegradient
GWC-1	03/10/1997	779574.06	960864.07	50.30	28.20	22.10	21.93	28.37	Downgradient
GWC-2	03/11/1997	779433.81	960353.99	51.84	32.73	19.11	26.73	25.11	Downgradient
GWC-9	07/24/1998	781007.52	959954.35	47.11	27.40	19.71	22.40	24.71	Downgradient
GWC-11	07/23/1998	780352.70	960115.63	49.38	22.60	26.78	17.60	31.78	Downgradient
GWC-12	07/22/1998	780099.06	960175.37	47.48	26.70	20.78	21.70	25.78	Downgradient
GWC-13	07/22/1998	779738.03	960269.62	48.21	23.80	24.41	18.80	29.41	Downgradient
GWC-14	07/22/1998	779112.64	960423.84	50.70	27.00	23.70	22.00	28.70	Downgradient
GWC-15	07/22/1998	778948.31	960660.49	48.12	26.80	21.32	21.80	26.32	Downgradient
GWC-16	07/21/1998	779034.61	960956.85	47.79	28.20	19.59	23.20	24.59	Downgradient
GWC-17	1998	781420.05	960041.65	44.09	23.50	20.59	18.20	25.89	Downgradient
GWC-20	05/07/2010	779294.68	960950.04	50.03	25.59	24.44	20.29	29.74	Downgradient
GWC-21	05/07/2010	779031.11	960941.58	47.94	24.54	23.40	19.24	28.70	Downgradient
GWC-22	05/07/2010	780712.60	960057.05	46.72	19.21	27.51	13.91	32.81	Downgradient

Notes:

1. SD indicates feet relative to Site Datum.
2. ft BTOC indicates feet below top of casing.

**Table 1B
Assessment Well and Piezometer Summary
Grumman Road Landfill
Chatham County, Georgia**

Well ID	Installation Date (mm/dd/yyyy)	Northing (SD)	Easting (SD)	Top of Casing Elevation (SD)	Bottom Depth (ft BTOC)	Bottom Elevation (SD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (SD)	Purpose
GWC-10	07/24/1998	780703.64	960030.15	47.43	20.60	26.79	15.60	31.79	Piezometer
MW-23D	12/17/2020	779280.61	960949.37	50.20	63.30	-13.10	58.00	-7.80	Assessment
MW-24D	01/04/2021	779043.12	960964.95	48.54	66.30	-17.76	61.00	-12.46	Assessment
MW-25D	01/06/2021	778944.95	960648.33	48.33	70.20	-21.87	64.90	-16.57	Assessment
MW-26D	01/10/2021	779994.12	960768.25	49.39	69.90	-20.51	64.60	-15.21	Piezometer
MW-27D	01/08/2021	779559.74	960868.15	50.53	72.43	-21.90	67.13	-16.60	Piezometer

Notes:

1. SD indicates feet relative to Site Datum.
2. ft BTOC indicates feet below top of casing.

Table 2
Groundwater Sampling Event Summary
Grumman Road Landfill
Chatham County, Georgia

Well	Hydraulic Location	Aug 30-Sep. 1, 2022
Purpose of Sampling Event		Assessment
GWA-7	Upgradient	X
GWA-8	Upgradient	X
GWB-4R	Sidegradient	X
GWB-5R	Sidegradient	X
GWB-6R	Sidegradient	X
GWC-1	Downgradient	X
GWC-2	Downgradient	X
GWC-9	Downgradient	X
GWC-11	Downgradient	X
GWC-12	Downgradient	X
GWC-13	Downgradient	X
GWC-14	Downgradient	X
GWC-15	Downgradient	X
GWC-16	Downgradient	X
GWC-17	Downgradient	X
GWC-20	Downgradient	X
GWC-21	Downgradient	X
GWC-22	Downgradient	X
MW-23D	Assessment	X
MW-24D	Assessment	X
MW-25D	Assessment	X

Notes:

1. X indicates sample was collected.
2. Assessment Events included Appendix III and Appendix IV analytes.

Table 3
Summary of Groundwater Monitoring Parameters
Grumman Road Landfill
Chatham County, Georgia

Appendix III (40 CFR 257)	Appendix IV (40 CFR 257)	State Permit Appendix I and II Metals
Boron	Antimony	Antimony
Calcium	Arsenic	Arsenic
Chloride	Barium	Barium
Fluoride	Beryllium	Chromium
pH	Cadmium	Lead
Sulfate	Chromium	Selenium
TDS	Cobalt	Vanadium
	Fluoride	Zinc
	Lead	
	Lithium	
	Mercury	
	Molybdenum	
	Radium 226 and 228 combined	
	Selenium	
	Thallium	

Table 4
Summary of Groundwater Elevations
August 2022
Grumman Road Landfill
Chatham County, Georgia

Well ID	TOC Elevation (SD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
GWA-7	47.10	5.94	41.16
GWA-8	46.84	6.91	39.93
GWB-4R	49.58	14.58	35.00
GWB-5R	47.82	9.52	38.30
GWB-6R	47.40	7.10	40.30
GWC-1	50.30	18.86	31.44
GWC-2	51.84	19.44	32.40
GWC-9	47.11	8.93	38.18
GWC-11	49.38	13.14	36.24
GWC-12	47.48	12.67	34.81
GWC-13	47.82	14.43	33.78
GWC-14	50.70	19.52	31.18
GWC-15	48.12	19.28	28.84
GWC-16	47.79	20.51	27.28
GWC-17	44.09	5.26	38.83
GWC-20	50.03	20.95	29.08
GWC-21	47.94	20.27	27.67
GWC-22	46.72	9.13	37.59
MW-23D	50.20	22.84	27.36
MW-24D	48.54	22.65	25.89
MW-25D	48.33	20.90	27.43
MW-26D	49.39	19.87	29.52
MW-27D	50.53	21.55	28.98

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. SD indicates feet relative to Site Datum.
4. Depths to water measured on August 29, 2022.

Table 5
Groundwater Flow Velocity Calculations
August 2022
Grumman Road Landfill
Chatham County, Georgia

Equation

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

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

Values Used in Calculation

Value	Source
K = 2.7E-03 cm/sec 7.60 ft/day	See note 1.
dh/dl _{max} = 13.02/1576 ft/ft 0.008 unitless	hydraulic gradient from GWB-6R to GWC-16
dh/dl _{min} = 2.33/737 ft/ft 0.003 unitless	hydraulic gradient from GWA-7 to GWC-17
P _e = 0.20	See note 2.

$$v_{\max} = \frac{(7.60)(0.008)}{0.20} \quad v_{\max} = 0.31 \text{ ft/day}$$

$$v_{\min} = \frac{(7.60)(0.003)}{0.20} \quad v_{\min} = 0.12 \text{ ft/day}$$

Notes

- (1) Grumman Road Monofill Groundwater Monitoring Plan (SCS, 1999)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 6
Summary of Groundwater Analytical Data - August 2022
Grumman Road Landfill
Chatham County, Georgia

Substance		Well ID							
		GWA-7	GWA-8	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-2	GWC-9
		8/30/2022	8/30/2022	8/30/2022	8/30/2022	8/30/2022	9/1/2022	9/1/2022	9/1/2022
APPENDIX III	Boron	5.72	0.152	4.95	4.66	7.13	0.728	0.0204	0.0187
	Calcium	3.56	15.0	79.3	70.3	81.8	46.9	0.236	5.00
	Chloride	74.4	9.93	65.0	76.8	52.0	9.17	6.59	17.6
	Fluoride	0.0391 J	0.0759 J	<0.0330	0.0428 J	<0.0330	<0.0330	<0.0330	0.0783 J
	pH	5.98	4.58	5.67	5.22	5.55	5.80	4.73	4.60
	Sulfate	10.6	77.4	379	403	978	44.0	10.3	28.7
	TDS	1340	154	882	886	1810	228	9.00 J	85.0
APPENDIX IV	Antimony	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	Arsenic	0.00321 J	<0.00200	0.00490 J	0.00253 J	0.00716	0.00568	<0.00200	<0.00200
	Barium	0.133	0.0512	0.134	0.0510	0.0266	0.0583	0.0508	0.151
	Beryllium	0.000219 J	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
	Cadmium	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300
	Chromium	0.0129	<0.00300	<0.00300	<0.00300	0.00356 J	<0.00300	<0.00300	<0.00300
	Cobalt	0.00134	0.000420 J	0.00198	0.00401	0.0476	<0.000300	<0.000300	0.000930 J
	Lead	0.00220	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
	Lithium	<0.00300	<0.00300	0.0175	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
	Mercury	<0.0000670	<0.0000670	<0.0000670	0.0000870 J	<0.0000670	<0.0000670	<0.0000670	<0.0000670
	Molybdenum	0.000453 J	<0.000200	0.154	<0.000200	0.000649 J	0.0343	<0.000200	<0.000200
	Radium	2.75	1.97	5.57	3.36	3.20	0.911 U	2.09	2.35
	Selenium	0.00630	<0.00150	0.00265 J	<0.00150	0.00277 J	0.00252 J	<0.00150	<0.00150
	Thallium	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600
See Note 8	Vanadium	0.110	0.00372 J	0.00943 J	0.0138 J	0.0192 J	0.00748 J	0.00450 J	0.00514 J
	Zinc	0.0110 J	<0.00330	<0.00330	<0.00330	0.0132 J	0.00578 J	0.0125 J	0.0163 J

Notes:

- Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
- Radium data are for Radium 226 & Radium 228 (combined).
- < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
- J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
- Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
- Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.

Table 6
Summary of Groundwater Analytical Data - August 2022
Grumman Road Landfill
Chatham County, Georgia

Substance		Well ID							
		GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-20
		8/31/2022	8/30/2022	8/31/2022	8/30/2022	8/31/2022	9/1/2022	8/31/2022	8/30/2022
APPENDIX III	Boron	1.65	8.21	0.231	0.0460	0.719	15.9	2.51	8.14
	Calcium	115	70.8	2.54	144	135	255	102	193
	Chloride	110	58.4	6.69	26.7	4.83	57.2	694	24.4
	Fluoride	<0.0330	0.273	0.0510 J	<0.0330	<0.0330	0.0374 J	0.442	<0.0330
	pH	4.85	3.92	4.76	5.86	6.57	5.37	4.33	6.01
	Sulfate	653	415	29.0	410	88.5	1140	721	606
	TDS	1240	713	55.0	720	530	1720	2050	1210
APPENDIX IV	Antimony	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	Arsenic	<0.00200	<0.00200	<0.00200	<0.00200	0.259	0.0987	<0.00200	0.465
	Barium	0.115	0.0275	0.0379	0.0773	0.0550	0.165	0.0375	0.210
	Beryllium	<0.000200	0.000663	<0.000200	<0.000200	<0.000200	<0.000200	0.00258	<0.000200
	Cadmium	0.000431 J	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300
	Chromium	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
	Cobalt	0.000646 J	0.000786 J	<0.000300	<0.000300	<0.000300	<0.000300	0.00358	<0.000300
	Lead	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
	Lithium	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	0.00688 J	<0.00300
	Mercury	<0.0000670	<0.0000670	<0.0000670	<0.0000670	<0.0000670	<0.0000670	<0.0000670	<0.0000670
	Molybdenum	0.000512 J	0.000205 J	<0.000200	0.0133	0.0786	0.154	0.00252	0.309
	Radium	6.34	3.37	1.90	2.62	2.88	1.64 U	2.72	4.95
	Selenium	0.00344 J	<0.00150	<0.00150	0.00544	0.00192 J	0.00334 J	<0.00150	0.00192 J
	Thallium	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600
See Note 8	Vanadium	0.00481 J	0.00949 J	<0.00330	0.00933 J	0.00476 J	0.00650 J	0.00599 J	0.00647 J
	Zinc	<0.00330	0.0262	0.0266	<0.00330	0.00395 J	0.0119 J	0.00680 J	0.0171 J

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
8. Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.

Table 6
Summary of Groundwater Analytical Data - August 2022
Grumman Road Landfill
Chatham County, Georgia

Substance		Well ID				
		GWC-21	GWC-22	MW-23D	MW-24D	MW-25D
		8/30/2022	8/31/2022	8/31/2022	9/1/2022	8/31/2022
APPENDIX III	Boron	5.08	0.271	0.0283	0.0303	0.0166
	Calcium	131	23.2	10.3	2.75	3.38
	Chloride	29.4	51.2	7.84	6.30	6.60
	Fluoride	<0.0330	<0.0330	0.0791 J	<0.0330	0.187
	pH	5.76	4.68	6.06	6.08	6.29
	Sulfate	451	45.3	54.6	0.682	1.12
	TDS	807	163	143	20.0	44.0
APPENDIX IV	Antimony	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
	Arsenic	0.0271	<0.00200	<0.00200	<0.00200	<0.00200
	Barium	0.191	0.0741	0.0765	0.0267	0.0216
	Beryllium	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
	Cadmium	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300
	Chromium	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
	Cobalt	<0.000300	<0.000300	<0.000300	<0.000300	<0.000300
	Lead	<0.000500	<0.000500	<0.000500	<0.000500	<0.000500
	Lithium	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
	Mercury	<0.0000670	<0.0000670	<0.0000670	<0.0000670	<0.0000670
	Molybdenum	0.0490	<0.000200	<0.000200	0.00174	0.000863 J
	Radium	2.56	3.07	1.79	3.54	0.645 U
	Selenium	0.00648	<0.00150	<0.00150	<0.00150	<0.00150
	Thallium	<0.000600	<0.000600	<0.000600	<0.000600	<0.000600
See Note 8	Vanadium	0.00715 J	0.00396 J	<0.00330	0.00414 J	<0.00330
	Zinc	0.00814 J	<0.00330	0.0106 J	0.0102 J	0.0161 J

Notes:

- Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
- Radium data are for Radium 226 & Radium 228 (combined).
- < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
- J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
- Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
- Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.

**Table 7
Statistical Method Summary
Grumman Road Landfill
Chatham County, Georgia**

Statistical Method Summary		
Monitoring Well System	Upgradient Wells	GWA-7 and GWA-8
	Sidegradient Wells	GWB-4R, GWB-5R, and GWB-6R
	Downgradient Wells	GWC-1, GWC-2, GWC-9, GWC-11, GWC-12, GWC-13, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21, and GWC-22
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
GA EPD Permit Metals	Appendix I (Detection Monitoring)	Antimony, Arsenic, Barium, Chromium, Lead, Selenium, Vanadium, and Zinc
	Appendix II (Assessment Monitoring)	Antimony, Arsenic, Barium, Chromium, Lead, Selenium, Vanadium, and Zinc
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits.

Table 8
Summary of Background Levels and Groundwater Protection Standards
Grumman Road Landfill
Chatham County, Georgia

Constituent	Site Background	MCL	CCR-Rule Specified	GWPS
Antimony	0.003	0.006	N/A	0.006
Arsenic	0.029	0.01	N/A	0.029
Barium	0.22	2	N/A	2
Beryllium	0.0025	0.004	N/A	0.004
Cadmium	0.0007	0.005	N/A	0.005
Chromium	0.068	0.1	N/A	0.1
Cobalt	0.0102	N/A	0.006	0.0102
Fluoride	0.42	4	N/A	4
Lead	0.013	N/A	0.015	0.015
Lithium	0.03	N/A	0.04	0.04
Mercury	0.0002	0.002	N/A	0.002
Molybdenum	0.01	N/A	0.1	0.1
Radium	12.22	5	N/A	12.22
Selenium	0.044	0.05	N/A	0.05
Thallium	0.001	0.002	N/A	0.002
Vanadium	0.43	N/A	N/A	0.43
Zinc	0.16	N/A	N/A	0.16

Notes:

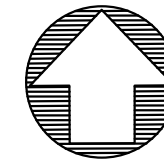
1. Site Background = Tolerance limits calculated from pooled upgradient well data through present.
2. MCL = Maximum Contaminant Level, per GA EPD Rule 391-3-5-.18(1)(a).
3. GWPS = Groundwater protection standard, per GA EPD Rule 391-3-4-.10(6)(a).
4. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter (pCi/L).
5. CCR-Rule specified GWPS as stipulated in 40 CFR § 257.95(h)(1-3) and incorporated into GA EPD's CCR Rule 391-3-4-.10(6)(a) on February 22, 2022.
6. N/A = There is no established MCL, per GA EPD Rule 391-3-5-.18(1)(a).

FIGURES

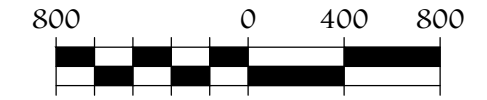
Grumman Road Private Industrial Landfill
Chatham County, Georgia
2022 Semiannual Groundwater Monitoring and Corrective Action Report



LOCATION IN THE STATE OF GEORGIA (NOT TO SCALE)



ATLANTIC COAST
CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY

NOTES:

1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
2. AERIAL PHOTOGRAPHY DATED 2022 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL

2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

SITE LOCATION MAP

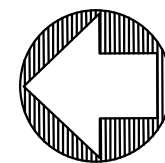
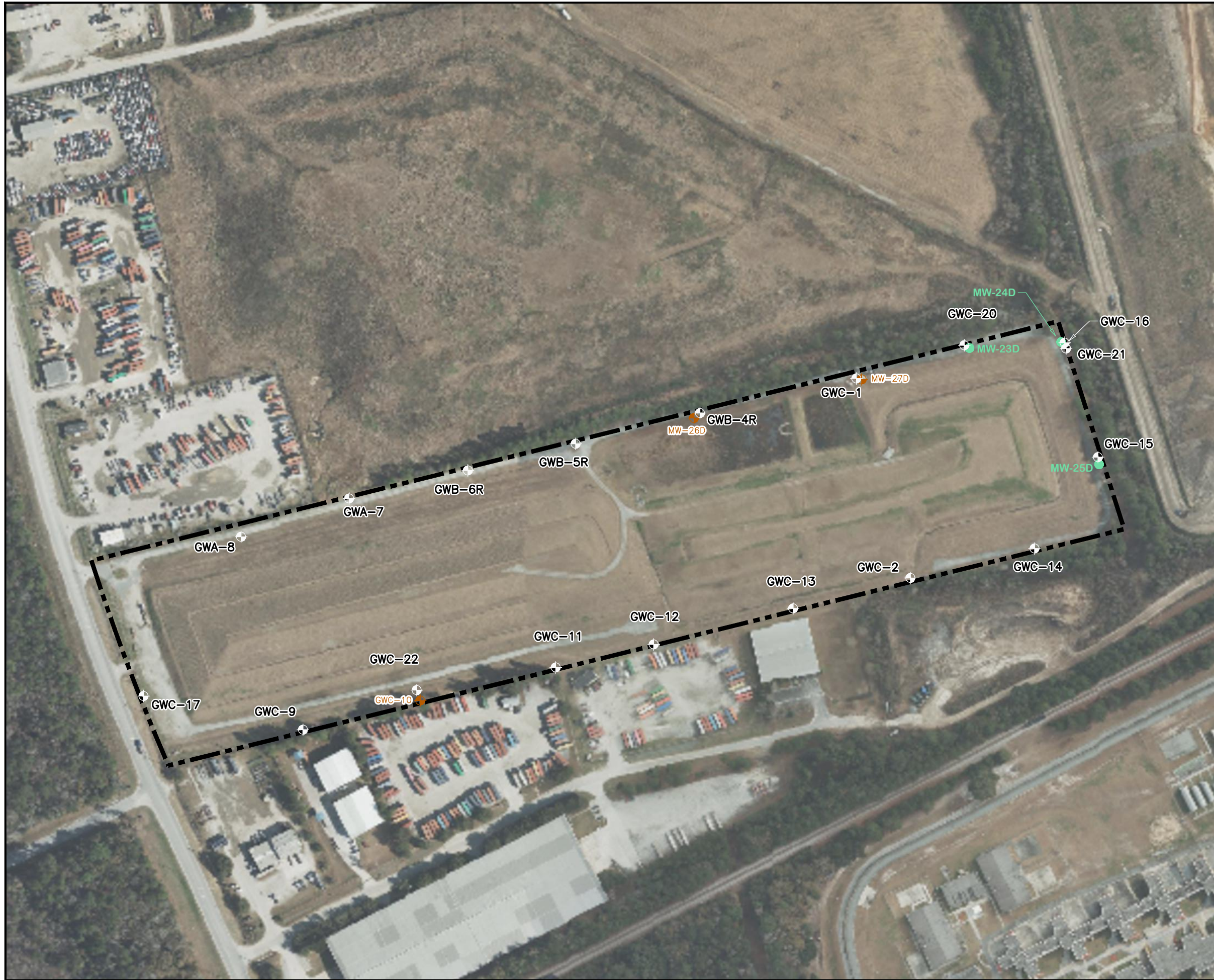
PROJECT NO. I054-116

February 2023

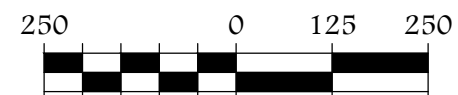
DRAWN BY: MM

FIGURE:

CHECKED BY: RW



ATLANTIC COAST
CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	PROPERTY BOUNDARY
	DETECTION MONITORING WELL
	PIEZOMETER
	ASSESSMENT MONITORING WELL

- NOTES:
1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
 2. VERTICAL DELINEATION WELLS MW-23D, MW-24D, MW-25D, MW-26D, AND MW-27D WERE INSTALLED IN DECEMBER 2020 AND JANUARY 2021.
 3. GWC-13 RESURVEYED BY GUNNIN LAND SURVEYING ON NOVEMBER 10, 2021.
 4. AERIAL PHOTOGRAPHY DATED 2022 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL
2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

WELL LOCATION MAP

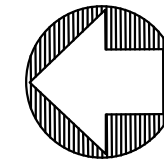
PROJECT NO. I054-116 February 2023

DRAWN BY:	MM	FIGURE:	2
CHECKED BY:	RW		

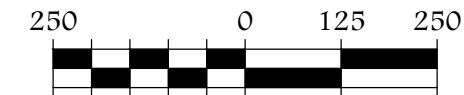
Groundwater Elevations and Well Depths
Grumman Road Landfill August 2022

Monitoring Well ID	Well Depth (ft btoc)	Top of Casing (SD)	Depth to Water (ft btoc)	Groundwater Elevation (SD)
GWA-7	21.20	47.10	5.94	41.16
GWA-8	20.80	46.84	6.91	39.93
GWB-4R	27.00	49.58	14.58	35.00
GWB-5R	26.50	47.82	9.52	38.30
GWB-6R	22.70	47.40	7.10	40.30
GWC-1	28.20	50.30	18.86	31.44
GWC-2	32.73	51.84	19.44	32.40
GWC-9	27.40	47.11	8.93	38.18
GWC-11	22.60	49.38	13.14	36.24
GWC-12	26.70	47.48	12.67	34.81
GWC-13	24.53	48.21	14.43	33.78
GWC-14	27.00	50.70	19.52	31.18
GWC-15	26.80	48.12	19.28	28.84
GWC-16	28.20	47.79	20.51	27.28
GWC-17	23.50	44.09	5.26	38.83
GWC-20	25.59	50.03	20.95	29.08
GWC-21	25.54	47.94	20.27	27.67
GWC-22	19.21	46.72	9.13	37.59
MW-23D	63.30	50.20	22.84	27.36
MW-24D	66.30	48.54	22.65	25.89
MW-25D	70.20	48.33	20.90	27.43
MW-26D	69.90	49.39	19.87	29.52
MW-27D	72.43	50.53	21.55	28.98

- Notes:
1. ft btoc - feet below top of casing.
 2. SD indicates feet relative to Site Datum.
 3. Depths to water measured on August 29, 2022.



ATLANTIC COAST
CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	PROPERTY BOUNDARY
	DETECTION MONITORING WELL GROUNDWATER ELEVATION
	PIEZOMETER
	ASSESSMENT MONITORING WELL
	GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

NOTES:

1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
2. VERTICAL DELINEATION WELLS MW-23D, MW-24D, MW-25D, MW-26D, AND MW-27D WERE INSTALLED IN DECEMBER 2020 AND JANUARY 2021.
3. GWC-13 RESURVEYED BY GUNNIN LAND SURVEYING ON NOVEMBER 10, 2021.
4. AERIAL PHOTOGRAPHY DATED 2022 FROM MICROSOFT CORPORATION, MAXAR, CNES, DISTRIBUTION AIRBUS DS.

PROJECT



GEORGIA POWER COMPANY
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL

2022 SEMIANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT

AUGUST 2022 POTENTIOMETRIC
SURFACE MAP

PROJECT NO. I054-116

February 2023

DRAWN BY: RW

FIGURE:

CHECKED BY: MM

3



APPENDICES

**Grumman Road Private Industrial Landfill
Chatham County, Georgia
2022 Semiannual Groundwater Monitoring and Corrective Action Report**

APPENDIX A

Laboratory Analytical and Field Sampling Reports

Grumman Road Private Industrial Landfill
Chatham County, Georgia
2022 Semiannual Groundwater Monitoring and Corrective Action Report

APPENDIX A

*Laboratory Analytical Reports
August 2022 Monitoring Event*

September 19, 2022

Kristen Jurinko
Georgia Power Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Kraft - Grumman Road Landfill CCR Groundwater Compliance
Work Orders: 591891 and 591783


Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 01, 2022 and September 02, 2022. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,


Adrian Melendrez for
Erin Trent
Project Manager

Purchase Order: GPC82177-0001
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 591891 GEL Work Order: 591891

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by _____



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 591783 GEL Work Order: 591783

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.

Reviewed by _____



GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-1	Project: GPCC00102
Sample ID: 591891001	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 13:19	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.80			SU			EOS1	09/01/22	1319	2312056	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		9.17	0.0670	0.200	mg/L		1	JLD1	09/03/22	2310	2312366	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		44.0	1.33	4.00	mg/L		10	JLD1	09/06/22	1437	2312366	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1123	2312733	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0046	2312380	5
Arsenic		0.00568	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0583	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		46.9	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	J	0.00252	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00748	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.00578	0.00330	0.0200	mg/L	1.00	1					
Boron		0.728	0.0520	0.150	mg/L	1.00	10	PRB	09/14/22	1744	2312380	6
Molybdenum		0.0343	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2240	2312380	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		228	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-1 Project: GPCC00102
Sample ID: 591891001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1255		2312730		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-2	Project: GPCC00102
Sample ID: 591891002	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 14:25	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.73			SU			EOS1	09/01/22	1425	2312056	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.59	0.0670	0.200	mg/L		1	JLD1	09/03/22	2340	2312366	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		10.3	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1125	2312733	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0050	2312380	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0508	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		0.236	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00450	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0125	0.00330	0.0200	mg/L	1.00	1					
Boron		0.0204	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1750	2312380	5
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2243	2312380	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	J	9.00	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-2 Project: GPCC00102
Sample ID: 591891002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1255		2312730		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-9	Project: GPCC00102
Sample ID: 591891003	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 09:24	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.60			SU			EOS1	09/01/22	0924	2312056	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0783	0.0330	0.100	mg/L	1		JLD1	09/04/22	0010	2312366	2
Chloride		17.6	0.335	1.00	mg/L	5		JLD1	09/06/22	1507	2312366	3
Sulfate		28.7	0.665	2.00	mg/L	5						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1126	2312733	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0053	2312380	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.151	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		5.00	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000930	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00514	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0163	0.00330	0.0200	mg/L	1.00	1					
Boron		0.0187	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1752	2312380	6
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2247	2312380	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		85.0	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
 Contact: Kristen Jurinko
 Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-9	Project: GPCC00102
Sample ID: 591891003	Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1255		2312730		

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SM 4500-H B/SW846 9040C, SM 2550B	
2	EPA 300.0	
3	EPA 300.0	
4	SW846 7470A	
5	SW846 3005A/6020B	
6	SW846 3005A/6020B	
7	SW846 3005A/6020B	
8	SM 2540C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-16	Project: GPCC00102
Sample ID: 591891004	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 10:46	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.37			SU			EOS1	09/01/22	1046	2312056	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0374	0.0330	0.100	mg/L		1	JLD1	09/04/22	0040	2312366	2
Chloride		57.2	6.70	20.0	mg/L		100	JLD1	09/06/22	1636	2312366	3
Sulfate		1140	13.3	40.0	mg/L		100					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1131	2312733	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0057	2312380	5
Arsenic		0.0987	0.00200	0.00500	mg/L	1.00	1					
Barium		0.165	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	J	0.00334	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00650	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0119	0.00330	0.0200	mg/L	1.00	1					
Calcium		255	0.800	2.00	mg/L	1.00	10	PRB	09/14/22	1754	2312380	6
Boron		15.9	0.520	1.50	mg/L	1.00	100	PRB	09/14/22	1756	2312380	7
Molybdenum		0.154	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2250	2312380	8
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1720	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-16 Project: GPCC00102
Sample ID: 591891004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1255		2312730		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SW846 3005A/6020B		
9	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-24D	Project: GPCC00102
Sample ID: 591891005	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 11:59	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.08			SU			EOS1	09/01/22	1159	2312056	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.30	0.0670	0.200	mg/L		1	JLD1	09/04/22	0109	2312366	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		0.682	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1133	2312733	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0100	2312380	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0267	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		2.75	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00414	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0102	0.00330	0.0200	mg/L	1.00	1					
Boron		0.0303	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1759	2312380	5
Molybdenum		0.00174	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2254	2312380	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		20.0	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-24D Project: GPCC00102
Sample ID: 591891005 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1255		2312730		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-03	Project: GPCC00102
Sample ID: 591891006	Client ID: GPCC001
Matrix: WG	
Collect Date: 01-SEP-22 12:00	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.46	0.0670	0.200	mg/L		1	JLD1	09/04/22	0139	2312366	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	J	0.309	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1135	2312733	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0104	2312380	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0256	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		2.75	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00412	0.00330	0.0200	mg/L	1.00	1					
Zinc		0.0318	0.00330	0.0200	mg/L	1.00	1					
Boron		0.0210	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1803	2312380	4
Molybdenum		0.00132	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2258	2312380	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		28.0	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1255	2312730

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID:	FD-03	Project:	GPCC00102
Sample ID:	591891006	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	
6	SM 2540C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: EB-03	Project: GPCC00102
Sample ID: 591891007	Client ID: GPCC001
Matrix: WQ	
Collect Date: 01-SEP-22 14:00	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.423	0.0670	0.200	mg/L		1	JLD1	09/04/22	0209	2312366	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1137	2312733	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0108	2312380	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	J	0.150	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00408	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1805	2312380	4
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2301	2312380	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1255	2312730

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-06	Project: GPCC00102
Sample ID: 591891008	Client ID: GPCC001
Matrix: WQ	
Collect Date: 01-SEP-22 10:30	
Receive Date: 02-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.148	0.0670	0.200	mg/L		1	JLD1	09/04/22	0239	2312366	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1138	2312733	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/14/22	0111	2312380	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00418	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/14/22	1807	2312380	4
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1	PRB	09/13/22	2305	2312380	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/08/22	1457	2313724	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	PC1	09/06/22	0910	2312379
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1255	2312730

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-06 Project: GPCC00102
Sample ID: 591891008 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	SW846 7470A		
3	SW846 3005A/6020B		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-12	Project: GPCC00102
Sample ID: 591783001	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 15:03	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		3.92			SU			EOS1	08/30/22	1503	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.273	0.0330	0.100	mg/L	1		JLD1	09/02/22	2142	2311815	2
Chloride		58.4	2.68	8.00	mg/L	40		JLD1	09/03/22	1414	2311815	3
Sulfate		415	5.32	16.0	mg/L	40						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	0952	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/12/22	2335	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0275	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.000663	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000786	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000205	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00949	0.00330	0.0200	mg/L	1.00	1					
Zinc		0.0262	0.00330	0.0200	mg/L	1.00	1					
Boron		8.21	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1308	2311609	6
Calcium		70.8	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		713	2.38	10.0	mg/L			CH6	09/02/22	1143	2311939	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-12 Project: GPCC00102
Sample ID: 591783001 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-13	Project: GPCC00102
Sample ID: 591783002	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 10:11	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.76			SU			EOS1	08/31/22	1011	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.69	0.0670	0.200	mg/L		1	JLD1	09/02/22	2314	2311815	2
Fluoride	J	0.0510	0.0330	0.100	mg/L		1					
Sulfate		29.0	0.266	0.800	mg/L		2	JLD1	09/03/22	1546	2311815	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1001	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0000	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0379	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		2.54	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc		0.0266	0.00330	0.0200	mg/L	1.00	1					
Boron		0.231	0.0260	0.0750	mg/L	1.00	5	PRB	09/13/22	1316	2311609	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		55.0	2.38	10.0	mg/L			CH6	09/02/22	1143	2311939	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-13 Project: GPCC00102
Sample ID: 591783002 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-14	Project: GPCC00102
Sample ID: 591783003	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 11:57	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.86			SU			EOS1	08/30/22	1157	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	09/02/22	2345	2311815	2
Chloride		26.7	2.68	8.00	mg/L		40	JLD1	09/03/22	1617	2311815	3
Sulfate		410	5.32	16.0	mg/L		40					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1002	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0004	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0773	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.0133	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.00544	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00933	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Calcium		144	0.800	2.00	mg/L	1.00	10	PRB	09/13/22	1320	2311609	6
Boron		0.0460	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1318	2311609	7
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		720	2.38	10.0	mg/L			CH6	09/02/22	1143	2311939	8

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-14 Project: GPCC00102
Sample ID: 591783003 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SW846 3005A/6020B		
8	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-20	Project: GPCC00102
Sample ID: 591783004	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 13:23	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.01			SU			EOS1	08/30/22	1323	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L	1		JLD1	09/03/22	0016	2311815	2
Chloride		24.4	3.35	10.0	mg/L	50		JLD1	09/03/22	1648	2311815	3
Sulfate		606	6.65	20.0	mg/L	50						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1004	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0007	2311609	5
Arsenic		0.465	0.00200	0.00500	mg/L	1.00	1					
Barium		0.210	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.309	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00192	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00647	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0171	0.00330	0.0200	mg/L	1.00	1					
Boron		8.14	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1326	2311609	6
Calcium		193	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1210	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-20 Project: GPCC00102
Sample ID: 591783004 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-21	Project: GPCC00102
Sample ID: 591783005	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 17:25	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.76			SU			EOS1	08/30/22	1725	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	09/03/22	0047	2311815	2
Chloride		29.4	2.68	8.00	mg/L		40	JLD1	09/03/22	1718	2311815	3
Sulfate		451	5.32	16.0	mg/L		40					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1010	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0011	2311609	5
Arsenic		0.0271	0.00200	0.00500	mg/L	1.00	1					
Barium		0.191	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.0490	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.00648	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00715	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.00814	0.00330	0.0200	mg/L	1.00	1					
Boron		5.08	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1328	2311609	6
Calcium		131	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		807	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-25D	Project: GPCC00102
Sample ID: 591783006	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 11:58	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.29			SU			EOS1	08/31/22	1158	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.60	0.0670	0.200	mg/L		1	JLD1	09/03/22	0118	2311815	2
Fluoride		0.187	0.0330	0.100	mg/L		1					
Sulfate		1.12	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1012	2312729	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0015	2311609	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0216	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.38	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000863	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0161	0.00330	0.0200	mg/L	1.00	1					
Boron		0.0166	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1330	2311609	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		44.0	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-25D Project: GPCC00102
Sample ID: 591783006 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-02	Project: GPCC00102
Sample ID: 591783007	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 12:00	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		6.69	0.0670	0.200	mg/L		1	JLD1	09/03/22	0250	2311815	1
Fluoride	J	0.0406	0.0330	0.100	mg/L		1					
Sulfate		29.3	0.266	0.800	mg/L		2	JLD1	09/03/22	1749	2311815	2
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1013	2312729	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0018	2311609	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0380	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		2.61	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc		0.0284	0.00330	0.0200	mg/L	1.00	1					
Boron		0.153	0.0260	0.0750	mg/L	1.00	5	PRB	09/13/22	1331	2311609	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		53.0	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1254	2312726

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-02 Project: GPCC00102
Sample ID: 591783007 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: EB-01	Project: GPCC00102
Sample ID: 591783008	Client ID: GPCC001
Matrix: WQ	
Collect Date: 30-AUG-22 16:30	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		0.299	0.0670	0.200	mg/L		1	JLD1	09/03/22	0321	2311815	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1015	2312729	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0022	2311609	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1333	2311609	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1254	2312726

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID:	EB-01	Project:	GPCC00102
Sample ID:	591783008	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
The following Analytical Methods were performed:											
Method	Description		Analyst Comments								
1	EPA 300.0										
2	SW846 7470A										
3	SW846 3005A/6020B										
4	SW846 3005A/6020B										
5	SM 2540C										

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-11	Project: GPCC00102
Sample ID: 591783009	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 15:45	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.85			SU			EOS1	08/31/22	1545	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L	1		JLD1	09/03/22	0352	2311815	2
Chloride		110	3.35	10.0	mg/L		50	JLD1	09/03/22	1820	2311815	3
Sulfate		653	6.65	20.0	mg/L		50					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1017	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0025	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.115	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	J	0.000431	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000646	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000512	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00344	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00481	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron		1.65	0.104	0.300	mg/L	1.00	20	PRB	09/13/22	1335	2311609	6
Calcium		115	1.60	4.00	mg/L	1.00	20					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1240	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-11 Project: GPCC00102
Sample ID: 591783009 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-23D	Project: GPCC00102
Sample ID: 591783010	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 16:18	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.06			SU			EOS1	08/31/22	1618	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		7.84	0.0670	0.200	mg/L		1	JLD1	09/03/22	0423	2311815	2
Fluoride	J	0.0791	0.0330	0.100	mg/L		1					
Sulfate		54.6	0.665	2.00	mg/L		5	JLD1	09/03/22	1851	2311815	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1018	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0029	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0765	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		10.3	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0106	0.00330	0.0200	mg/L	1.00	1					
Boron		0.0283	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1337	2311609	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		143	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-23D Project: GPCC00102
Sample ID: 591783010 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-8	Project: GPCC00102
Sample ID: 591783011	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 11:56	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.58			SU			EOS1	08/30/22	1156	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0759	0.0330	0.100	mg/L	1		JLD1	09/03/22	0454	2311815	2
Chloride		9.93	0.335	1.00	mg/L	5		JLD1	09/03/22	2024	2311815	3
Sulfate		77.4	0.665	2.00	mg/L	5						
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1020	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0033	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0512	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		15.0	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000420	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00372	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron		0.152	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1339	2311609	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		154	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-8 Project: GPCC00102
Sample ID: 591783011 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-7	Project: GPCC00102
Sample ID: 591783012	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 09:35	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.98			SU			EOS1	08/30/22	0935	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0391	0.0330	0.100	mg/L	1		JLD1	09/03/22	0525	2311815	2
Sulfate		10.6	0.133	0.400	mg/L		1					
Chloride		74.4	1.34	4.00	mg/L		20	JLD1	09/03/22	2055	2311815	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1022	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0044	2311609	5
Arsenic	J	0.00321	0.00200	0.00500	mg/L	1.00	1					
Barium		0.133	0.000670	0.00400	mg/L	1.00	1					
Beryllium	J	0.000219	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		3.56	0.0800	0.200	mg/L	1.00	1					
Chromium		0.0129	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00134	0.000300	0.00100	mg/L	1.00	1					
Lead		0.00220	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000453	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.00630	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium		0.110	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0110	0.00330	0.0200	mg/L	1.00	1					
Boron		5.72	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1341	2311609	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1340	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-7 Project: GPCC00102
Sample ID: 591783012 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-6R	Project: GPCC00102
Sample ID: 591783013	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 10:51	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.55			SU			EOS1	08/30/22	1051	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	09/03/22	0556	2311815	2
Chloride		52.0	6.70	20.0	mg/L		100	JLD1	09/03/22	2125	2311815	3
Sulfate		978	13.3	40.0	mg/L		100					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1024	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0047	2311609	5
Arsenic		0.00716	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0266	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	J	0.00356	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.0476	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	J	0.000649	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00277	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.0192	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.0132	0.00330	0.0200	mg/L	1.00	1					
Boron		7.13	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1347	2311609	6
Calcium		81.8	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		1810	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-6R Project: GPCC00102
Sample ID: 591783013 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-01	Project: GPCC00102
Sample ID: 591783014	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 12:00	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0806	0.0330	0.100	mg/L		1	JLD1	09/03/22	0728	2311815	1
Chloride		10.0	0.335	1.00	mg/L		5	JLD1	09/03/22	2258	2311815	2
Sulfate		78.4	0.665	2.00	mg/L		5					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1025	2312729	3
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0051	2311609	4
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0512	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		15.4	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	J	0.000445	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00381	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron		0.169	0.0260	0.0750	mg/L	1.00	5	PRB	09/13/22	1349	2311609	5
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		171	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1254	2312726

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-01 Project: GPCC00102
Sample ID: 591783014 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	EPA 300.0		
2	EPA 300.0		
3	SW846 7470A		
4	SW846 3005A/6020B		
5	SW846 3005A/6020B		
6	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-5R	Project: GPCC00102
Sample ID: 591783015	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 14:20	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.22			SU			EOS1	08/30/22	1420	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	J	0.0428	0.0330	0.100	mg/L		1	JLD1	09/02/22	1050	2311967	2
Chloride		76.8	6.70	20.0	mg/L		100	JLD1	09/02/22	2247	2311967	3
Sulfate		403	13.3	40.0	mg/L		100					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	J	0.0000870	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1030	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0054	2311609	5
Arsenic	J	0.00253	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0510	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00401	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.0138	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron		4.66	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1351	2311609	6
Calcium		70.3	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		886	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-5R Project: GPCC00102
Sample ID: 591783015 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-04	Project: GPCC00102
Sample ID: 591783016	Client ID: GPCC001
Matrix: WQ	
Collect Date: 30-AUG-22 14:00	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	09/02/22	1220	2311967	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	J	0.213	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1032	2312729	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0058	2311609	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1353	2311609	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1254	2312726

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID:	FB-04	Project:	GPCC00102
Sample ID:	591783016	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	EPA 300.0	
2	SW846 7470A	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SM 2540C	

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-4R	Project: GPCC00102
Sample ID: 591783017	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 15:30	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		5.67			SU			EOS1	08/30/22	1530	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	09/02/22	1249	2311967	2
Chloride		65.0	6.70	20.0	mg/L		100	JLD1	09/03/22	0017	2311967	3
Sulfate		379	13.3	40.0	mg/L		100					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1034	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0102	2311609	5
Arsenic	J	0.00490	0.00200	0.00500	mg/L	1.00	1					
Barium		0.134	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00198	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium		0.0175	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.154	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00265	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00943	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron		4.95	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1355	2311609	6
Calcium		79.3	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		882	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-4R Project: GPCC00102
Sample ID: 591783017 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-17	Project: GPCC00102
Sample ID: 591783018	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 11:35	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.33			SU			EOS1	08/31/22	1135	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride		0.442	0.0330	0.100	mg/L	1		JLD1	09/02/22	1319	2311967	2
Chloride		694	13.4	40.0	mg/L		200	JLD1	09/03/22	0047	2311967	3
Sulfate		721	26.6	80.0	mg/L		200					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1035	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0105	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0375	0.000670	0.00400	mg/L	1.00	1					
Beryllium		0.00258	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00358	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	J	0.00688	0.00300	0.0100	mg/L	1.00	1					
Molybdenum		0.00252	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00599	0.00330	0.0200	mg/L	1.00	1					
Zinc	J	0.00680	0.00330	0.0200	mg/L	1.00	1					
Boron		2.51	0.260	0.750	mg/L	1.00	50	PRB	09/13/22	1356	2311609	6
Calcium		102	4.00	10.0	mg/L	1.00	50					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		2050	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-17 Project: GPCC00102
Sample ID: 591783018 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-22	Project: GPCC00102
Sample ID: 591783019	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 13:50	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		4.68			SU			EOS1	08/30/22	1350	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Fluoride	U	ND	0.0330	0.100	mg/L		1	JLD1	09/02/22	1349	2311967	2
Chloride		51.2	0.670	2.00	mg/L		10	JLD1	09/03/22	0117	2311967	3
Sulfate		45.3	1.33	4.00	mg/L		10					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1037	2312729	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0109	2311609	5
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium		0.0741	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium		23.2	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	J	0.00396	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron		0.271	0.0260	0.0750	mg/L	1.00	5	PRB	09/13/22	1358	2311609	6
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		163	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-22 Project: GPCC00102
Sample ID: 591783019 Client ID: GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 7470A Prep	EPA 7470A	Mercury Prep Liquid		RM4	09/06/22		1254		2312726		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SM 4500-H B/SW846 9040C, SM 2550B		
2	EPA 300.0		
3	EPA 300.0		
4	SW846 7470A		
5	SW846 3005A/6020B		
6	SW846 3005A/6020B		
7	SM 2540C		

Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: EB-02	Project: GPCC00102
Sample ID: 591783020	Client ID: GPCC001
Matrix: WQ	
Collect Date: 31-AUG-22 14:05	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	U	ND	0.0670	0.200	mg/L		1	JLD1	09/02/22	1419	2311967	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1039	2312729	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/13/22	0112	2311609	3
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1					
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1	PRB	09/13/22	1400	2311609	4
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311608
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1254	2312726

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-05	Project: GPCC00102
Sample ID: 591783021	Client ID: GPCC001
Matrix: WQ	
Collect Date: 31-AUG-22 15:30	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride	J	0.172	0.0670	0.200	mg/L		1	JLD1	09/02/22	1549	2311967	1
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate	U	ND	0.133	0.400	mg/L		1					
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1103	2312733	2
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic	U	ND	0.00200	0.00500	mg/L	1.00	1	BAJ	09/06/22	1840	2311611	3
Barium	U	ND	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium	U	ND	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Zinc	U	ND	0.00330	0.0200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/07/22	1531	2311611	4
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	1349	2311611	5
Boron	U	ND	0.00520	0.0150	mg/L	1.00	1					
Calcium	U	ND	0.0800	0.200	mg/L	1.00	1					
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Vanadium	U	ND	0.00330	0.0200	mg/L	1.00	1					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids	U	ND	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311610
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1255	2312730

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-15	Project: GPCC00102
Sample ID: 591783022	Client ID: GPCC001
Matrix: WG	
Collect Date: 31-AUG-22 13:54	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Field Data												
Client collected Field pH "As Received"												
Field pH		6.57			SU			EOS1	08/31/22	1354	2311613	1
Ion Chromatography												
EPA 300.0 Anions Liquid "As Received"												
Chloride		4.83	0.0670	0.200	mg/L		1	JLD1	09/02/22	1619	2311967	2
Fluoride	U	ND	0.0330	0.100	mg/L		1					
Sulfate		88.5	1.33	4.00	mg/L		10	JLD1	09/03/22	0146	2311967	3
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1104	2312733	4
Metals Analysis-ICP-MS												
SW846 3005A/6020B "As Received"												
Arsenic		0.259	0.00200	0.00500	mg/L	1.00	1	BAJ	09/06/22	1844	2311611	5
Barium		0.0550	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum		0.0786	0.000200	0.00100	mg/L	1.00	1					
Selenium	J	0.00192	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Zinc	J	0.00395	0.00330	0.0200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/07/22	1533	2311611	6
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	1409	2311611	7
Chromium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Cobalt	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Vanadium	J	0.00476	0.00330	0.0200	mg/L	1.00	1					
Boron		0.719	0.0520	0.150	mg/L	1.00	10	BAJ	09/07/22	1352	2311611	8
Calcium		135	0.800	2.00	mg/L	1.00	10					
Solids Analysis												
SM2540C Dissolved Solids "As Received"												
Total Dissolved Solids		530	2.38	10.0	mg/L			CH6	09/02/22	1422	2311940	9

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311610

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-7	Project: GPCC00102
Sample ID: 591783023	Client ID: GPCC001
Matrix: WG	
Collect Date: 30-AUG-22 09:35	
Receive Date: 01-SEP-22	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Dissolved Mercury, Liquid "As Received"												
Mercury	U	ND	0.0000670	0.000200	mg/L	1.00	1	JP2	09/07/22	1106	2312733	1
Metals Analysis-ICP-MS												
SW846 3005A/6020B Dissolved Metals "As Received"												
Arsenic	J	0.00319	0.00200	0.00500	mg/L	1.00	1	BAJ	09/06/22	1902	2311611	2
Barium		0.118	0.000670	0.00400	mg/L	1.00	1					
Cadmium	U	ND	0.000300	0.00100	mg/L	1.00	1					
Lead	U	ND	0.000500	0.00200	mg/L	1.00	1					
Molybdenum	U	ND	0.000200	0.00100	mg/L	1.00	1					
Selenium		0.00552	0.00150	0.00500	mg/L	1.00	1					
Thallium	U	ND	0.000600	0.00200	mg/L	1.00	1					
Zinc		0.0217	0.00330	0.0200	mg/L	1.00	1					
Antimony	U	ND	0.00100	0.00300	mg/L	1.00	1	PRB	09/07/22	1543	2311611	3
Beryllium	U	ND	0.000200	0.000500	mg/L	1.00	1	BAJ	09/07/22	1420	2311611	4
Calcium		3.75	0.0800	0.200	mg/L	1.00	1					
Chromium	J	0.00991	0.00300	0.0100	mg/L	1.00	1					
Cobalt		0.00117	0.000300	0.00100	mg/L	1.00	1					
Lithium	U	ND	0.00300	0.0100	mg/L	1.00	1					
Vanadium		0.107	0.00330	0.0200	mg/L	1.00	1					
Boron		5.54	0.520	1.50	mg/L	1.00	100	BAJ	09/07/22	1403	2311611	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005A PREP	LG2	09/02/22	0905	2311610
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	RM4	09/06/22	1255	2312730

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6020B	
3	SW846 3005A/6020B	
4	SW846 3005A/6020B	
5	SW846 3005A/6020B	

Notes:

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: September 19, 2022

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308
Contact: Kristen Jurinko
Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID:	GWA-7	Project:	GPCC00102
Sample ID:	591783023	Client ID:	GPCC001

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: September 19, 2022

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Georgia Power Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 591891

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2312366										
QC1205182663	591867001	DUP									
Chloride		19.9		19.9	mg/L	0.191		(0%-20%)	JLD1	09/06/22	12:07
Fluoride		0.367		0.242	mg/L	41.2*^		(+/-0.100)		09/03/22	19:41
Sulfate	U	ND	U	ND	mg/L	N/A					
QC1205182662	LCS										
Chloride	5.00			4.95	mg/L		99	(90%-110%)		09/03/22	16:42
Fluoride	2.50			2.40	mg/L		95.9	(90%-110%)			
Sulfate	10.0			10.2	mg/L		102	(90%-110%)			
QC1205182661	MB										
Chloride			U	ND	mg/L					09/03/22	16:12
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205182664	591867001	PS									
Chloride	5.00	3.99		10.4	mg/L		129*	(90%-110%)		09/06/22	12:37
Fluoride	2.50	0.367		3.83	mg/L		139*	(90%-110%)		09/03/22	20:11
Sulfate	10.0	U	ND	15.5	mg/L		155*	(90%-110%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
QC1205182699	LCS										
Antimony	0.0500			0.0483	mg/L		96.6	(80%-120%)	PRB	09/14/22	00:14
Arsenic	0.0500			0.0477	mg/L		95.3	(80%-120%)			
Barium	0.0500			0.0501	mg/L		100	(80%-120%)			
Beryllium	0.0500			0.0506	mg/L		101	(80%-120%)			
Boron	0.100			0.112	mg/L		112	(80%-120%)		09/14/22	17:27
Cadmium	0.0500			0.0490	mg/L		98	(80%-120%)		09/14/22	00:14
Calcium	2.00			1.95	mg/L		97.7	(80%-120%)			
Chromium	0.0500			0.0489	mg/L		97.8	(80%-120%)			
Cobalt	0.0500			0.0480	mg/L		96	(80%-120%)			
Lead	0.0500			0.0494	mg/L		98.7	(80%-120%)			
Lithium	0.0500			0.0471	mg/L		94.1	(80%-120%)			
Molybdenum	0.0500			0.0489	mg/L		97.7	(80%-120%)		09/13/22	22:07
Selenium	0.0500			0.0487	mg/L		97.3	(80%-120%)		09/14/22	00:14
Thallium	0.0500			0.0467	mg/L		93.5	(80%-120%)			
Vanadium	0.0500			0.0529	mg/L		106	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Zinc	0.0500			0.0472	mg/L		94.5	(80%-120%)	PRB	09/14/22	00:14
QC1205182698	MB										
Antimony			U	ND	mg/L					09/14/22	00:10
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L						
Boron			U	ND	mg/L					09/14/22	17:25
Cadmium			U	ND	mg/L					09/14/22	00:10
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Molybdenum			J	0.000271	mg/L					09/13/22	22:04
Selenium			U	ND	mg/L					09/14/22	00:10
Thallium			U	ND	mg/L						

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QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Vanadium			J	0.00388	mg/L				PRB	09/14/22	00:10
Zinc			U	ND	mg/L						
QC1205182700 591881001 MS											
Antimony	0.0500	U	ND	0.0509	mg/L		101	(75%-125%)		09/14/22	00:21
Arsenic	0.0500	U	ND	0.0496	mg/L		96.2	(75%-125%)			
Barium	0.0500			0.0444	0.0934	mg/L	97.9	(75%-125%)			
Beryllium	0.0500	U	ND	0.0516	mg/L		103	(75%-125%)			
Boron	0.100			1.20	1.24	mg/L	N/A	(75%-125%)		09/14/22	17:31
Cadmium	0.0500	U	ND	0.0496	mg/L		99.2	(75%-125%)		09/14/22	00:21
Calcium	2.00			42.6	43.0	mg/L	N/A	(75%-125%)			
Chromium	0.0500	U	ND	0.0498	mg/L		97.6	(75%-125%)			
Cobalt	0.0500			0.00560	0.0534	mg/L	95.6	(75%-125%)			
Lead	0.0500	U	ND	0.0492	mg/L		98	(75%-125%)			
Lithium	0.0500	J		0.00615	0.0535	mg/L	94.6	(75%-125%)			
Molybdenum	0.0500			0.00142	0.0528	mg/L	103	(75%-125%)		09/13/22	22:14
Selenium	0.0500			0.00625	0.0546	mg/L	96.8	(75%-125%)		09/14/22	00:21

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Thallium	0.0500	U	ND	0.0475	mg/L		94.8	(75%-125%)	PRB	09/14/22	00:21
Vanadium	0.0500	J	0.00495	0.0554	mg/L		101	(75%-125%)			
Zinc	0.0500	J	0.00671	0.0534	mg/L		93.4	(75%-125%)			
QC1205182701 591881001 MSD											
Antimony	0.0500	U	ND	0.0507	mg/L	0.395	101	(0%-20%)		09/14/22	00:24
Arsenic	0.0500	U	ND	0.0499	mg/L	0.49	96.7	(0%-20%)			
Barium	0.0500		0.0444	0.0937	mg/L	0.405	98.6	(0%-20%)			
Beryllium	0.0500	U	ND	0.0501	mg/L	3.13	99.9	(0%-20%)			
Boron	0.100		1.20	1.27	mg/L	2.04	N/A	(0%-20%)		09/14/22	17:33
Cadmium	0.0500	U	ND	0.0490	mg/L	1.29	97.9	(0%-20%)		09/14/22	00:24
Calcium	2.00		42.6	42.9	mg/L	0.254	N/A	(0%-20%)			
Chromium	0.0500	U	ND	0.0494	mg/L	0.805	96.8	(0%-20%)			
Cobalt	0.0500		0.00560	0.0545	mg/L	2.08	97.8	(0%-20%)			
Lead	0.0500	U	ND	0.0495	mg/L	0.699	98.7	(0%-20%)			
Lithium	0.0500	J	0.00615	0.0534	mg/L	0.187	94.4	(0%-20%)			
Molybdenum	0.0500		0.00142	0.0541	mg/L	2.51	105	(0%-20%)		09/13/22	22:18

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Selenium	0.0500	0.00625		0.0553	mg/L	1.29	98.2	(0%-20%)	PRB	09/14/22	00:24
Thallium	0.0500	U	ND	0.0475	mg/L	0.137	94.7	(0%-20%)			
Vanadium	0.0500	J	0.00495	0.0544	mg/L	1.83	98.9	(0%-20%)			
Zinc	0.0500	J	0.00671	0.0534	mg/L	0.0337	93.5	(0%-20%)			
QC1205182702 591881001 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/14/22	00:32
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			44.4		8.34	ug/L	6.1	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Boron			120		26.6	ug/L	11.2	(0%-20%)		09/14/22	17:37
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/14/22	00:32
Calcium			42600		8140	ug/L	4.58	(0%-20%)			
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Cobalt			5.60		1.10	ug/L	1.7	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Lithium		J	6.15	U	ND	ug/L	N/A	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2312380										
Molybdenum		1.42	J	0.372	ug/L	31.3		(0%-20%)	PRB	09/13/22	22:25
Selenium		6.25	U	ND	ug/L	N/A		(0%-20%)		09/14/22	00:32
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Vanadium	J	4.95	U	ND	ug/L	N/A		(0%-20%)			
Zinc	J	6.71	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury											
Batch	2312733										
QC1205183555	591729001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	09/07/22	10:51
QC1205183554	LCS										
Mercury	0.00200			0.00203	mg/L		102	(80%-120%)		09/07/22	10:42
QC1205183553	MB										
Mercury			U	ND	mg/L					09/07/22	10:40
QC1205183556	591729001	MS									
Mercury	0.00200	U	ND	0.00203	mg/L		102	(75%-125%)		09/07/22	10:52
QC1205183557	591729001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		09/07/22	10:54
Solids Analysis											
Batch	2313724										
QC1205185481	591879005	DUP									
Total Dissolved Solids		388		432	mg/L	10.7*		(0%-5%)	CH6	09/08/22	14:57

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch		2313724									
QC1205185480		LCS									
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)	CH6	09/08/22	14:57
QC1205185479		MB									
Total Dissolved Solids			U	ND	mg/L					09/08/22	14:57

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- h Preparation or preservation holding time was exceeded

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<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	--------------------	-----------	--------------	-------------	-------------	--------------	--------------	-------------	-------------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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QC Summary

Report Date: September 19, 2022

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Georgia Power Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 591783

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2311815										
QC1205181700	591783001	DUP									
Chloride		58.4		58.2	mg/L	0.309		(0%-20%)	JLD1	09/03/22	14:44
Fluoride		0.273		0.292	mg/L	6.68 ^		(+/-0.100)		09/02/22	22:13
Sulfate		415		418	mg/L	0.774		(0%-20%)		09/03/22	14:44
QC1205181702	591783013	DUP									
Chloride		52.0		52.7	mg/L	1.2 ^		(+/-20.0)		09/03/22	21:56
Fluoride	U	ND	U	ND	mg/L	N/A				09/03/22	06:27
Sulfate		978		990	mg/L	1.21		(0%-20%)		09/03/22	21:56
QC1205181699	LCS										
Chloride	5.00			4.74	mg/L		94.8	(90%-110%)		09/03/22	09:32
Fluoride	2.50			2.57	mg/L		103	(90%-110%)			
Sulfate	10.0			9.81	mg/L		98.1	(90%-110%)			
QC1205181698	MB										
Chloride			U	ND	mg/L					09/03/22	09:01
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205181701	591783001	PS									
Chloride	5.00	1.46		6.44	mg/L		99.6	(90%-110%)		09/03/22	15:15

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch	2311815										
Fluoride	2.50	0.273		2.87	mg/L		104	(90%-110%)	JLD1	09/02/22	22:43
Sulfate	10.0	10.4		20.0	mg/L		96.6	(90%-110%)		09/03/22	15:15
QC1205181703	591783013 PS										
Chloride	5.00	0.520		5.32	mg/L		95.9	(90%-110%)		09/03/22	22:27
Fluoride	2.50	U	ND	2.59	mg/L		103	(90%-110%)		09/03/22	06:57
Sulfate	10.0	9.78		20.5	mg/L		107	(90%-110%)		09/03/22	22:27
Batch	2311967										
QC1205181988	591783015 DUP										
Chloride		76.8		77.1	mg/L	0.39 ^		(+/-20.0)	JLD1	09/02/22	23:17
Fluoride		J	0.0428	U	ND	mg/L	200			09/02/22	11:20
Sulfate			403		407	mg/L	1.1	(0%-20%)		09/02/22	23:17
QC1205181990	591798017 DUP										
Chloride			5.59		5.46	mg/L	2.29	(0%-20%)		09/02/22	20:18
Fluoride			0.127		0.122	mg/L	3.38 ^	(+/-0.100)			
Sulfate			53.0		53.1	mg/L	0.0471	(0%-20%)		09/03/22	05:16
QC1205181987	LCS										
Chloride	5.00			4.81	mg/L		96.3	(90%-110%)		09/02/22	10:20
Fluoride	2.50			2.34	mg/L		93.6	(90%-110%)			
Sulfate	10.0			9.96	mg/L		99.6	(90%-110%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Ion Chromatography											
Batch 2311967											
QC1205181986 MB											
Chloride			U	ND	mg/L				JLD1	09/02/22	09:51
Fluoride			U	ND	mg/L						
Sulfate			U	ND	mg/L						
QC1205181989 591783015 PS											
Chloride	5.00	0.768		5.68	mg/L		98.2	(90%-110%)		09/02/22	23:47
Fluoride	2.50	J 0.0428		2.43	mg/L		95.6	(90%-110%)		09/02/22	11:50
Sulfate	10.0	4.03		14.3	mg/L		103	(90%-110%)		09/02/22	23:47
QC1205181991 591798017 PS											
Chloride	5.00	5.59		11.1	mg/L		109	(90%-110%)		09/02/22	21:47
Fluoride	2.50	0.127		2.42	mg/L		91.6	(90%-110%)			
Sulfate	10.0	10.6		21.6	mg/L		110	(90%-110%)		09/03/22	05:46
Metals Analysis - ICPMS											
Batch 2311609											
QC1205181382 LCS											
Antimony	0.0500			0.0482	mg/L		96.4	(80%-120%)	PRB	09/12/22	23:31
Arsenic	0.0500			0.0476	mg/L		95.2	(80%-120%)			
Barium	0.0500			0.0506	mg/L		101	(80%-120%)			
Beryllium	0.0500			0.0543	mg/L		109	(80%-120%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311609										
Boron	0.100			0.101	mg/L		101	(80%-120%)	PRB	09/13/22	13:07
Cadmium	0.0500			0.0510	mg/L		102	(80%-120%)		09/12/22	23:31
Calcium	2.00			2.09	mg/L		104	(80%-120%)			
Chromium	0.0500			0.0499	mg/L		99.8	(80%-120%)			
Cobalt	0.0500			0.0493	mg/L		98.6	(80%-120%)			
Lead	0.0500			0.0503	mg/L		101	(80%-120%)			
Lithium	0.0500			0.0504	mg/L		101	(80%-120%)			
Molybdenum	0.0500			0.0497	mg/L		99.4	(80%-120%)			
Selenium	0.0500			0.0472	mg/L		94.4	(80%-120%)			
Thallium	0.0500			0.0490	mg/L		98	(80%-120%)			
Vanadium	0.0500			0.0508	mg/L		102	(80%-120%)			
Zinc	0.0500			0.0475	mg/L		95.1	(80%-120%)			
QC1205181381	MB										
Antimony			U	ND	mg/L					09/12/22	23:28
Arsenic			U	ND	mg/L						
Barium			U	ND	mg/L						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311609										
Beryllium			U	ND	mg/L				PRB	09/12/22	23:28
Boron			U	ND	mg/L					09/13/22	13:05
Cadmium			U	ND	mg/L					09/12/22	23:28
Calcium			U	ND	mg/L						
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L						
Lithium			U	ND	mg/L						
Molybdenum			U	ND	mg/L						
Selenium			U	ND	mg/L						
Thallium			U	ND	mg/L						
Vanadium			U	ND	mg/L						
Zinc			U	ND	mg/L						
QC1205181383 591783001 MS											
Antimony	0.0500	U	ND	0.0515	mg/L		103	(75%-125%)		09/12/22	23:38
Arsenic	0.0500	U	ND	0.0506	mg/L		99.5	(75%-125%)			

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311609										
Barium	0.0500	0.0275		0.0775	mg/L		99.9	(75%-125%)	PRB	09/12/22	23:38
Beryllium	0.0500	0.000663		0.0535	mg/L		106	(75%-125%)			
Boron	0.100	8.21		8.07	mg/L		N/A	(75%-125%)		09/13/22	13:10
Cadmium	0.0500	U	ND	0.0509	mg/L		102	(75%-125%)		09/12/22	23:38
Calcium	2.00	70.8		67.6	mg/L		N/A	(75%-125%)		09/13/22	13:10
Chromium	0.0500	U	ND	0.0502	mg/L		98.6	(75%-125%)		09/12/22	23:38
Cobalt	0.0500	J	0.000786	0.0494	mg/L		97.3	(75%-125%)			
Lead	0.0500	U	ND	0.0482	mg/L		96.3	(75%-125%)			
Lithium	0.0500	U	ND	0.0505	mg/L		98.7	(75%-125%)			
Molybdenum	0.0500	J	0.000205	0.0541	mg/L		108	(75%-125%)			
Selenium	0.0500	U	ND	0.0445	mg/L		88.4	(75%-125%)			
Thallium	0.0500	U	ND	0.0477	mg/L		94.9	(75%-125%)			
Vanadium	0.0500	J	0.00949	0.0597	mg/L		100	(75%-125%)			
Zinc	0.0500		0.0262	0.0710	mg/L		89.5	(75%-125%)			
QC1205181384 591783001 MSD											
Antimony	0.0500	U	ND	0.0505	mg/L	2.03	101	(0%-20%)		09/12/22	23:42

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311609										
Arsenic	0.0500	U	ND	0.0501	mg/L	1.14	98.3	(0%-20%)	PRB	09/12/22	23:42
Barium	0.0500		0.0275	0.0783	mg/L	1.1	102	(0%-20%)			
Beryllium	0.0500		0.000663	0.0545	mg/L	1.78	108	(0%-20%)			
Boron	0.100		8.21	8.57	mg/L	6.04	N/A	(0%-20%)		09/13/22	13:12
Cadmium	0.0500	U	ND	0.0516	mg/L	1.37	103	(0%-20%)		09/12/22	23:42
Calcium	2.00		70.8	70.6	mg/L	4.33	N/A	(0%-20%)		09/13/22	13:12
Chromium	0.0500	U	ND	0.0500	mg/L	0.479	98.1	(0%-20%)		09/12/22	23:42
Cobalt	0.0500	J	0.000786	0.0491	mg/L	0.666	96.6	(0%-20%)			
Lead	0.0500	U	ND	0.0488	mg/L	1.19	97.4	(0%-20%)			
Lithium	0.0500	U	ND	0.0523	mg/L	3.51	102	(0%-20%)			
Molybdenum	0.0500	J	0.000205	0.0528	mg/L	2.31	105	(0%-20%)			
Selenium	0.0500	U	ND	0.0462	mg/L	3.75	91.8	(0%-20%)			
Thallium	0.0500	U	ND	0.0480	mg/L	0.692	95.6	(0%-20%)			
Vanadium	0.0500	J	0.00949	0.0586	mg/L	2	98.1	(0%-20%)			
Zinc	0.0500		0.0262	0.0706	mg/L	0.592	88.7	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311609										
	QC1205181385 591783001 SDILT										
Antimony	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	09/12/22	23:49
Arsenic	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Barium		27.5		5.07	ug/L	7.82		(0%-20%)			
Beryllium		0.663	U	ND	ug/L	N/A		(0%-20%)			
Boron		164		36.1	ug/L	9.9		(0%-20%)		09/13/22	13:14
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/12/22	23:49
Calcium		1420		265	ug/L	6.35		(0%-20%)		09/13/22	13:14
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/12/22	23:49
Cobalt	J	0.786	U	ND	ug/L	N/A		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Molybdenum	J	0.205	J	0.238	ug/L	480		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Vanadium	J	9.49	U	ND	ug/L	N/A		(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311609										
Zinc		26.2	J	5.78	ug/L	10.1		(0%-20%)	PRB	09/12/22	23:49
<hr/>											
Batch	2311611										
	QC1205181387 LCS										
Antimony	0.0500			0.0506	mg/L		101	(80%-120%)	PRB	09/07/22	15:29
Arsenic	0.0500			0.0504	mg/L		101	(80%-120%)	BAJ	09/06/22	18:37
Barium	0.0500			0.0511	mg/L		102	(80%-120%)			
Beryllium	0.0500			0.0539	mg/L		108	(80%-120%)		09/07/22	13:42
Boron	0.100			0.103	mg/L		103	(80%-120%)			
Cadmium	0.0500			0.0513	mg/L		103	(80%-120%)		09/06/22	18:37
Calcium	2.00			2.15	mg/L		107	(80%-120%)		09/07/22	13:42
Chromium	0.0500			0.0513	mg/L		103	(80%-120%)			
Cobalt	0.0500			0.0519	mg/L		104	(80%-120%)			
Lead	0.0500			0.0503	mg/L		101	(80%-120%)		09/06/22	18:37
Lithium	0.0500			0.0509	mg/L		102	(80%-120%)		09/07/22	13:42
Molybdenum	0.0500			0.0525	mg/L		105	(80%-120%)		09/06/22	18:37
Selenium	0.0500			0.0494	mg/L		98.8	(80%-120%)			

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311611										
Thallium	0.0500			0.0461	mg/L		92.3	(80%-120%)	BAJ	09/06/22	18:37
Vanadium	0.0500			0.0524	mg/L		105	(80%-120%)		09/07/22	13:42
Zinc	0.0500			0.0516	mg/L		103	(80%-120%)		09/06/22	18:37
QC1205181386	MB										
Antimony			U	ND	mg/L				PRB	09/07/22	15:27
Arsenic			U	ND	mg/L				BAJ	09/06/22	18:33
Barium			U	ND	mg/L						
Beryllium			U	ND	mg/L					09/07/22	13:39
Boron			U	ND	mg/L						
Cadmium			U	ND	mg/L					09/06/22	18:33
Calcium			U	ND	mg/L					09/07/22	13:39
Chromium			U	ND	mg/L						
Cobalt			U	ND	mg/L						
Lead			U	ND	mg/L					09/06/22	18:33
Lithium			U	ND	mg/L					09/07/22	13:39
Molybdenum			U	ND	mg/L					09/06/22	18:33

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311611										
Selenium			U	ND	mg/L				BAJ	09/06/22	18:33
Thallium			U	ND	mg/L						
Vanadium			U	ND	mg/L					09/07/22	13:39
Zinc			U	ND	mg/L					09/06/22	18:33
QC1205181388 591783022 MS											
Antimony	0.0500	U	ND	0.0508	mg/L		101	(75%-125%)	PRB	09/07/22	15:35
Arsenic	0.0500		0.259	0.321	mg/L		N/A	(75%-125%)	BAJ	09/06/22	18:48
Barium	0.0500		0.0550	0.106	mg/L		101	(75%-125%)			
Beryllium	0.0500	U	ND	0.0554	mg/L		111	(75%-125%)		09/07/22	14:12
Boron	0.100		0.719	0.820	mg/L		N/A	(75%-125%)		09/07/22	13:54
Cadmium	0.0500	U	ND	0.0504	mg/L		101	(75%-125%)		09/06/22	18:48
Calcium	2.00		135	144	mg/L		N/A	(75%-125%)		09/07/22	13:54
Chromium	0.0500	U	ND	0.0519	mg/L		101	(75%-125%)		09/07/22	14:12
Cobalt	0.0500	U	ND	0.0509	mg/L		102	(75%-125%)			
Lead	0.0500	U	ND	0.0479	mg/L		95.5	(75%-125%)		09/06/22	18:48
Lithium	0.0500	U	ND	0.0497	mg/L		99.4	(75%-125%)		09/07/22	14:12

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311611										
Molybdenum	0.0500	0.0786		0.138	mg/L		118	(75%-125%)	BAJ	09/06/22	18:48
Selenium	0.0500	J	0.00192	0.0521	mg/L		100	(75%-125%)			
Thallium	0.0500	U	ND	0.0459	mg/L		91.7	(75%-125%)			
Vanadium	0.0500	J	0.00476	0.0574	mg/L		105	(75%-125%)		09/07/22	14:12
Zinc	0.0500	J	0.00395	0.0535	mg/L		99.2	(75%-125%)		09/06/22	18:48
QC1205181389 591783022 MSD											
Antimony	0.0500	U	ND	0.0517	mg/L	1.69	103	(0%-20%)	PRB	09/07/22	15:37
Arsenic	0.0500		0.259	0.311	mg/L	3.32	N/A	(0%-20%)	BAJ	09/06/22	18:51
Barium	0.0500		0.0550	0.105	mg/L	1.01	99.3	(0%-20%)			
Beryllium	0.0500	U	ND	0.0547	mg/L	1.22	109	(0%-20%)		09/07/22	14:14
Boron	0.100		0.719	0.832	mg/L	1.38	N/A	(0%-20%)		09/07/22	13:56
Cadmium	0.0500	U	ND	0.0503	mg/L	0.264	101	(0%-20%)		09/06/22	18:51
Calcium	2.00		135	148	mg/L	2.36	N/A	(0%-20%)		09/07/22	13:56
Chromium	0.0500	U	ND	0.0521	mg/L	0.421	101	(0%-20%)		09/07/22	14:14
Cobalt	0.0500	U	ND	0.0510	mg/L	0.186	102	(0%-20%)			
Lead	0.0500	U	ND	0.0480	mg/L	0.231	95.8	(0%-20%)		09/06/22	18:51

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311611										
Lithium	0.0500	U	ND	0.0501	mg/L	0.653	100	(0%-20%)	BAJ	09/07/22	14:14
Molybdenum	0.0500		0.0786	0.137	mg/L	0.517	117	(0%-20%)		09/06/22	18:51
Selenium	0.0500	J	0.00192	0.0517	mg/L	0.735	99.7	(0%-20%)			
Thallium	0.0500	U	ND	0.0461	mg/L	0.48	92.2	(0%-20%)			
Vanadium	0.0500	J	0.00476	0.0579	mg/L	0.918	106	(0%-20%)		09/07/22	14:14
Zinc	0.0500	J	0.00395	0.0525	mg/L	1.93	97.1	(0%-20%)		09/06/22	18:51
QC1205181390 591783022 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)	PRB	09/07/22	15:41
Arsenic			259		50.2	ug/L	3.21	(0%-20%)	BAJ	09/06/22	18:58
Barium			55.0		10.5	ug/L	4.8	(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/07/22	14:18
Boron			71.9		17.9	ug/L	24.3	(0%-20%)		09/07/22	14:01
Cadmium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/06/22	18:58
Calcium			13500		2810	ug/L	4.29	(0%-20%)		09/07/22	14:01
Chromium		U	ND	U	ND	ug/L	N/A	(0%-20%)		09/07/22	14:18
Cobalt		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	2311611										
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	09/06/22	18:58
Lithium	U	ND	U	ND	ug/L	N/A		(0%-20%)		09/07/22	14:18
Molybdenum		78.6		14.9	ug/L	5.3		(0%-20%)		09/06/22	18:58
Selenium	J	1.92	U	ND	ug/L	N/A		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Vanadium	J	4.76	U	ND	ug/L	N/A		(0%-20%)		09/07/22	14:18
Zinc	J	3.95	U	ND	ug/L	N/A		(0%-20%)		09/06/22	18:58
Metals Analysis-Mercury											
Batch	2312729										
QC1205183534	591783001	DUP									
Mercury	U	ND	U	ND	mg/L	N/A			JP2	09/07/22	09:54
QC1205183533	LCS										
Mercury	0.00200			0.00203	mg/L		101	(80%-120%)		09/07/22	09:51
QC1205183532	MB										
Mercury			U	ND	mg/L					09/07/22	09:49
QC1205183535	591783001	MS									
Mercury	0.00200	U	ND	0.00158	mg/L		79.2	(75%-125%)		09/07/22	09:56
QC1205183536	591783001	SDILT									
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		09/07/22	09:57

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 2312733											
QC1205183555	591729001	DUP									
Mercury		U	ND	U	ND	mg/L	N/A		JP2	09/07/22	10:51
QC1205183554	LCS										
Mercury	0.00200			0.00203	mg/L		102	(80%-120%)		09/07/22	10:42
QC1205183553	MB										
Mercury			U	ND	mg/L					09/07/22	10:40
QC1205183556	591729001	MS									
Mercury	0.00200	U	ND	0.00203	mg/L		102	(75%-125%)		09/07/22	10:52
QC1205183557	591729001	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		09/07/22	10:54
Solids Analysis											
Batch 2311939											
QC1205181929	591692001	DUP									
Total Dissolved Solids			2660	2700	mg/L	1.42		(0%-5%)	CH6	09/02/22	11:43
QC1205181926	LCS										
Total Dissolved Solids	300			301	mg/L		100	(95%-105%)		09/02/22	11:43
QC1205181925	MB										
Total Dissolved Solids			U	ND	mg/L					09/02/22	11:43
Batch 2311940											
QC1205181932	591783004	DUP									
Total Dissolved Solids			1210	1210	mg/L	0.744		(0%-5%)	CH6	09/02/22	14:22
QC1205181933	591783018	DUP									
Total Dissolved Solids			2050	2090	mg/L	2.18		(0%-5%)		09/02/22	14:22

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Solids Analysis											
Batch		2311940									
QC1205181931		LCS									
Total Dissolved Solids	300			303	mg/L		101	(95%-105%)	CH6	09/02/22	14:22
QC1205181930		MB									
Total Dissolved Solids			U	ND	mg/L					09/02/22	14:22

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- B The target analyte was detected in the associated blank.
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- h Preparation or preservation holding time was exceeded

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<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where the duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Technical Case Narrative
Georgia Power Company
SDG #: 591891**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2312380

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2312379

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591891001	GWC-1
591891002	GWC-2
591891003	GWC-9
591891004	GWC-16
591891005	MW-24D
591891006	FD-03
591891007	EB-03
591891008	FB-06
1205182698	Method Blank (MB)ICP-MS
1205182699	Laboratory Control Sample (LCS)
1205182702	591881001(NonSDGL) Serial Dilution (SD)
1205182700	591881001(NonSDGS) Matrix Spike (MS)
1205182701	591881001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 591891001 (GWC-1) and 591891004

(GWC-16) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	591891	
	001	004
Boron	10X	100X
Calcium	1X	10X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2312733

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2312730

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591891001	GWC-1
591891002	GWC-2
591891003	GWC-9
591891004	GWC-16
591891005	MW-24D
591891006	FD-03
591891007	EB-03
591891008	FB-06
1205183553	Method Blank (MB)CVAA
1205183554	Laboratory Control Sample (LCS)
1205183557	591729001(NonSDGL) Serial Dilution (SD)
1205183555	591729001(NonSDGD) Sample Duplicate (DUP)
1205183556	591729001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2312366

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591891001	GWC-1
591891002	GWC-2
591891003	GWC-9
591891004	GWC-16
591891005	MW-24D
591891006	FD-03
591891007	EB-03
591891008	FB-06
1205182661	Method Blank (MB)
1205182662	Laboratory Control Sample (LCS)
1205182663	591867001(NonSDG) Sample Duplicate (DUP)
1205182664	591867001(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Chloride	1205182664 (Non SDG 591867001PS)	129* (90%-110%)
Fluoride	1205182664 (Non SDG 591867001PS)	139* (90%-110%)
Sulfate	1205182664 (Non SDG 591867001PS)	155* (90%-110%)

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Fluoride	1205182663 (Non SDG 591867001DUP)	abs(.242 - .367)* (+/- .1 mg/L)

Technical Information

Sample Dilutions

The following samples 1205182663 (Non SDG 591867001DUP), 1205182664 (Non SDG 591867001PS), 591891001 (GWC-1), 591891003 (GWC-9) and 591891004 (GWC-16) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	591891		
	001	003	004
Chloride	1X	5X	100X
Sulfate	10X	5X	100X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2313724

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591891001	GWC-1
591891002	GWC-2
591891003	GWC-9
591891004	GWC-16
591891005	MW-24D
591891006	FD-03
591891007	EB-03
591891008	FB-06
1205185479	Method Blank (MB)
1205185480	Laboratory Control Sample (LCS)
1205185481	591879005(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Total Dissolved Solids	1205185481 (Non SDG 591879005DUP)	10.7* (0%-5%)

Miscellaneous Information

Additional Comments

Sample filtration took > 10 minutes; therefore as prescribed in the method, a reduced aliquot was used. 1205185481 (Non SDG 591879005DUP).

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the

requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Technical Case Narrative
Georgia Power Company
SDG #: 591783**

Metals

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2311609

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2311608

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783001	GWC-12
591783002	GWC-13
591783003	GWC-14
591783004	GWC-20
591783005	GWC-21
591783006	MW-25D
591783007	FD-02
591783008	EB-01
591783009	GWC-11
591783010	MW-23D
591783011	GWA-8
591783012	GWA-7
591783013	GWB-6R
591783014	FD-01
591783015	GWB-5R
591783016	FB-04
591783017	GWB-4R
591783018	GWC-17
591783019	GWC-22
591783020	EB-02
1205181381	Method Blank (MB)ICP-MS
1205181382	Laboratory Control Sample (LCS)
1205181385	591783001(GWC-12L) Serial Dilution (SD)
1205181383	591783001(GWC-12S) Matrix Spike (MS)
1205181384	591783001(GWC-12SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 591783001 (GWC-12), 591783002 (GWC-13), 591783003 (GWC-14), 591783004 (GWC-20), 591783005 (GWC-21), 591783007 (FD-02), 591783009 (GWC-11), 591783012 (GWA-7), 591783013 (GWB-6R), 591783014 (FD-01), 591783015 (GWB-5R), 591783017 (GWB-4R), 591783018 (GWC-17) and 591783019 (GWC-22) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	591783									
	001	002	003	004	005	007	009	012	013	014
Boron	50X	5X	1X	50X	50X	5X	20X	50X	50X	5X
Calcium	50X	1X	10X	50X	50X	1X	20X	1X	50X	1X

Analyte	591783			
	015	017	018	019
Boron	50X	50X	50X	5X
Calcium	50X	50X	50X	1X

Product: Determination of Metals by ICP-MS

Analytical Method: SW846 3005A/6020B

Analytical Procedure: GL-MA-E-014 REV# 35

Analytical Batch: 2311611

Preparation Method: SW846 3005A

Preparation Procedure: GL-MA-E-006 REV# 14

Preparation Batch: 2311610

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783021	FB-05
591783022	GWC-15
591783023	GWA-7
1205181386	Method Blank (MB) ICP-MS
1205181387	Laboratory Control Sample (LCS)
1205181390	591783022(GWC-15L) Serial Dilution (SD)
1205181388	591783022(GWC-15S) Matrix Spike (MS)
1205181389	591783022(GWC-15SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	591783	
	022	023
Boron	10X	100X
Calcium	10X	1X

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2312729

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2312726

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783001	GWC-12
591783002	GWC-13
591783003	GWC-14
591783004	GWC-20
591783005	GWC-21
591783006	MW-25D
591783007	FD-02
591783008	EB-01
591783009	GWC-11
591783010	MW-23D
591783011	GWA-8
591783012	GWA-7
591783013	GWB-6R
591783014	FD-01
591783015	GWB-5R

591783016	FB-04
591783017	GWB-4R
591783018	GWC-17
591783019	GWC-22
591783020	EB-02
1205183532	Method Blank (MB)CVAA
1205183533	Laboratory Control Sample (LCS)
1205183536	591783001(GWC-12L) Serial Dilution (SD)
1205183534	591783001(GWC-12D) Sample Duplicate (DUP)
1205183535	591783001(GWC-12S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Analytical Method: SW846 7470A

Analytical Procedure: GL-MA-E-010 REV# 38

Analytical Batch: 2312733

Preparation Method: SW846 7470A Prep

Preparation Procedure: GL-MA-E-010 REV# 38

Preparation Batch: 2312730

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783021	FB-05
591783022	GWC-15
591783023	GWA-7
1205183553	Method Blank (MB)CVAA
1205183554	Laboratory Control Sample (LCS)
1205183557	591729001(NonSDGL) Serial Dilution (SD)
1205183555	591729001(NonSDGD) Sample Duplicate (DUP)
1205183556	591729001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

General Chemistry

Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2311815

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783001	GWC-12
591783002	GWC-13
591783003	GWC-14
591783004	GWC-20
591783005	GWC-21
591783006	MW-25D
591783007	FD-02
591783008	EB-01
591783009	GWC-11
591783010	MW-23D
591783011	GWA-8
591783012	GWA-7
591783013	GWB-6R
591783014	FD-01
1205181698	Method Blank (MB)
1205181699	Laboratory Control Sample (LCS)
1205181700	591783001(GWC-12) Sample Duplicate (DUP)
1205181701	591783001(GWC-12) Post Spike (PS)
1205181702	591783013(GWB-6R) Sample Duplicate (DUP)
1205181703	591783013(GWB-6R) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

The following samples 1205181700 (GWC-12DUP), 1205181701 (GWC-12PS), 1205181702 (GWB-6RDUP), 1205181703 (GWB-6RPS), 591783001 (GWC-12), 591783002 (GWC-13), 591783003 (GWC-14), 591783004 (GWC-20), 591783005 (GWC-21), 591783007 (FD-02), 591783009 (GWC-11), 591783010 (MW-23D), 591783011 (GWA-8), 591783012 (GWA-7), 591783013 (GWB-6R) and 591783014 (FD-01) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	591783									
	001	002	003	004	005	007	009	010	011	012
Chloride	40X	1X	40X	50X	40X	1X	50X	1X	5X	20X
Sulfate	40X	2X	40X	50X	40X	2X	50X	5X	5X	1X

Analyte	591783	
	013	014
Chloride	100X	5X

Sulfate	100X	5X
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Product: Ion Chromatography

Analytical Method: EPA 300.0

Analytical Procedure: GL-GC-E-086 REV# 30

Analytical Batch: 2311967

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783015	GWB-5R
591783016	FB-04
591783017	GWB-4R
591783018	GWC-17
591783019	GWC-22
591783020	EB-02
591783021	FB-05
591783022	GWC-15
1205181986	Method Blank (MB)
1205181987	Laboratory Control Sample (LCS)
1205181988	591783015(GWB-5R) Sample Duplicate (DUP)
1205181989	591783015(GWB-5R) Post Spike (PS)
1205181990	591798017(NonSDG) Sample Duplicate (DUP)
1205181991	591798017(NonSDG) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions

The following samples 1205181988 (GWB-5RDUP), 1205181989 (GWB-5RPS), 1205181990 (Non SDG 591798017DUP), 1205181991 (Non SDG 591798017PS), 591783015 (GWB-5R), 591783017 (GWB-4R), 591783018 (GWC-17), 591783019 (GWC-22) and 591783022 (GWC-15) were diluted because target analyte concentrations exceeded the calibration range. Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.

Analyte	591783				
	015	017	018	019	022
Chloride	100X	100X	200X	10X	1X
Sulfate	100X	100X	200X	10X	10X

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2311939

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783001	GWC-12
591783002	GWC-13
591783003	GWC-14
1205181925	Method Blank (MB)
1205181926	Laboratory Control Sample (LCS)
1205181929	591692001(NonSDG) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Solids, Total Dissolved

Analytical Method: SM 2540C

Analytical Procedure: GL-GC-E-001 REV# 19

Analytical Batch: 2311940

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591783004	GWC-20
591783005	GWC-21
591783006	MW-25D
591783007	FD-02
591783008	EB-01
591783009	GWC-11
591783010	MW-23D
591783011	GWA-8
591783012	GWA-7
591783013	GWB-6R
591783014	FD-01
591783015	GWB-5R
591783016	FB-04
591783017	GWB-4R
591783018	GWC-17
591783019	GWC-22
591783020	EB-02
591783021	FB-05
591783022	GWC-15
1205181930	Method Blank (MB)
1205181931	Laboratory Control Sample (LCS)
1205181932	591783004(GWC-20) Sample Duplicate (DUP)
1205181933	591783018(GWC-17) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: 1 of 1
 Project # 591891
 GEL Quote #: 591893
 COC Number (0): 591893
 PO Number: GEL Work Order Number: 591893
 Client Name: GA Power
 Project/Site Name: Plant Kraft - Grumman Road Landfill
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: Taylor Goble

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax #
 GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments
						Radioactive (if yes, please supply isotopic info.)	(7) Known or possible Hazards		NI	NI	NI	NI	
GWC-1	09-01-22	1319	G	N	WG			6	CF, SO4, TDS EPA 300, SM 2540C	Metals * EPA 6020B, 6010D	Disolved Metals * EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	field pH = 5.80
GWC-2	09-01-22	1425	G	N	WG			6					field pH = 4.73
GWC-9	09-01-22	0924	G	N	WG			6					field pH = 4.60
GWC-16	09-01-22	1046	G	N	WG			6					field pH = 5.37
MW-24D	09-01-22	1159	G	N	WG			6					field pH = 6.08
FD-03	09-01-22	---	G	N	WG			6					field pH = ---
EB-03	09-01-22	1400	G	N	WQ			6					field pH = ---
FB-06	09-01-22	1030	G	N	WQ			6					field pH = ---

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>Taylor Goble</u>	9-2-22	<u>[Signature]</u>	9-2-22	0822
<u>[Signature]</u>	9-2-22	<u>[Signature]</u>	9-2-22	1015

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surchage)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Ti, Y, Zn, Hg

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: BA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description:

TSCA Regulated
PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

SAMPLE RECEIPT & REVIEW FORM

Client: <u>PLC</u>		SDG/AR/COC/Work Order: <u>591891 / 591893</u>	
Received By: <u>PL</u>		Date Received: <u>9/2/22</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other	
Suspected Hazard Information		Yes	No
			*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?			Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___
B) Did the client designate the samples are to be received as radioactive?			COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?			Maximum Net Counts Observed* (Observed Counts - Area Background Counts): _____ CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?			COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?			If D or B is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____
Sample Receipt Criteria		Yes	NA
		No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	X	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	X	Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	X	Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>2</u>
4	Daily check performed and passed on IR temperature gun?	X	Temperature Device Serial #: <u>112-3-21</u> Secondary Temperature Device Serial # (If Applicable): _____
5	Sample containers intact and sealed?	X	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	X	Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	X	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) ___ Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	X	ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X	ID's and containers affected:
10	Date & time on COC match date & time on bottles?	X	Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	X	Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	X	
13	COC form is properly signed in relinquished/received sections?	X	Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials em Date 09/06/22 Page 1 of 1

Page: 1 of 3
 Project # _____
 GEL Quote #: _____
 COC Number ⁽¹⁾: 591783
 PO Number: _____

GEL Laboratories, LLC
 2040 Snavage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Laboratories LLC
 Chemistry / Radiochemistry / Specialty Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: *Erlin Tran*

Client Name: GA Power
 Project/Site Name: Plant Kraft - Grumman Road Landfill
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Phone # 404-506-7116
 Fax # _____

Collected By: *Taylor Goble / A. Schmitt*
 * For computers - indicate start and stop time

Sample ID	Date Collected (mm-dd-yy)	Time Collected (hh:mm)	QC Code	Field Filtered	Sample Matrix	Should this sample be considered:		TAT number of containers	Sample Analysis Requested ⁽²⁾ (Fill in the number of containers for each test)	Preservative Type (6)	Comments Note: extra sample is required for sample specific QC	
						Yes, please supply isotope info.	(?) Known or possible hazard					
GWC-12	08-30-22	1503	G	N	WG			6	Cl, R, SO4, TDS EPA 309, SM 2310C EPA 6020B, 6010D Methicillin EPA 6020B, 6010D Kadium 226 & 228 SM 916-9213, 9220		field pH = 3.92	
GWC-13	08-31-22	1011	G	N	WG			6				field pH = 4.76
GWC-14	08-30-22	1157	G	N	WG			6				field pH = 5.86
GWC-20	08-30-22	1323	G	N	WG			6				field pH = 6.01
GWC-21	08-30-22	1725	G	N	WG			6				field pH = 5.76
MW-25D	08-31-22	1138	G	N	WG			6				field pH = 6.29
FD-02	08-31-22	---	G	N	WG			6				field pH = ---
EG-01	08-30-22	1630	G	N	WG			6				field pH = ---
GWC-11	08-31-22	1545	G	N	WG			6				field pH = 4.35
MW-23D	08-31-22	1618	G	N	WG			6				field pH = 6.06

Chain of Custody Signatures

Refiniquished By (Signed)	Date	Received by (signed)	Date	Time
<i>Taylor Goble</i>	7-1-22	<i>Erin Tran</i>	9-1-22	8:40
<i>Erin Tran</i>	9-1-22	<i>Erin Tran</i>	9-1-22	10:55

TAT Requested: Normal: Rush: _____ Specify: _____
 Fax Results: Yes No
 Select Deliverable: C of A IQC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Li, Mn, Se, Ti, V, Zn, Hg
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

> For sample shipping and delivery details, see Sample Receipt & Review form (SR&R)

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, ES = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a + or - for yes/no. For solid matrices, indicate with a + or - for yes/no. For samples not field filtered.
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WY=Waste Water, WY-W=Surface Water, WL=Lachne, SO=Soil, SE=Soil, SL=Sludge, WQ=Water Quality Control Matrix
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SF = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, if the preservative is added = leave field blank
 7.) KNOWN OR POSSIBLE HAZARDS
 FL = Flammable/ignitable
 CO = Corrosive
 RE = Reactive
 LW = Listed Waste
 F, K, P and U = Listed wastes (F, K, P and U listed wastes)
 Waste code(s): _____
 Characteristic Hazards
 TS/CA Regulated
 PCB = Polychlorinated biphenyls
 RCRA Metals
 AS = Arsenic
 Ba = Barium
 Cd = Cadmium
 Cr = Chromium
 Hg = Mercury
 Se = Selenium
 Ag = Silver
 MR = Misc. RCRA metals
 Pb = Lead
 Other: _____
 OT = Other / Unknown
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)


Page: 2 of 3

Project # _____

GEL Quote #: _____

COC Number #: _____

PO Number: _____



GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Work Order Number: _____ **Phone #** 404-306-7116 **Fax #** _____

Client Name: GA Power **Project/Site Name:** Plant Kraff - Grunman Road Landfill

Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: Jacob Benson 11/20/22 **Send Results To:** SCS & ACC Contacts

** For comparatives - indicate start and stop date time*

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (hh:mm)	OC Code	Field Filtered	Sample Matrix	Should this sample be considered:		Field number of containers	Sample Analysis Requested #5 (Fill in the number of containers for each test)	Preservative Type (6)	Comments
						Indicative (if yes, please specify isotopic info.)	(?) Known or possible threats				
6WA-8	08/30/22	1156	G	N	WG			6	NI		field pH = 4.58
6WA-7	08/30/22	0935	G	Y	WB			7	NI		field pH = 5.18
6WB-6R	08/30/22	1051	G	N	WB			6	NI		field pH = 5.55
FD-01	08/30/22	---	G	N	WB			6	NI		field pH = NA
6WB-5R	08/30/22	1420	G	N	WB			6	NI		field pH = 5.32
FB-04	08/30/22	1400	G	N	WB			6	NI		field pH = NA
6WB-4R	08/30/22	1520	G	N	WB			6	NI		field pH = 5.67
6WC-17	08/31/22	1135	G	N	WB			6	NI		field pH = 4.33
6WC-22	08/31/22	1350	G	N	WB			6	NI		field pH = 4.63
FB-02	08/31/22	1405	G	N	WB			6	NI		field pH = NA

Chain of Custody Signatures

Refiniquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	0840	<i>[Signature]</i>	9.1.22	840
<i>[Signature]</i>	9.1.22	<i>[Signature]</i>	9.1.22	1055

Chain of Custody Signatures

TAT Requested: Normal: Rush: Specify: _____

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered

4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WU=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 820B, 610B/470A), and number of containers provided for each (i.e. 12GBR - 3, 6010H 74704 - 1)

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SF = Sodium Hydroxide, SA = Sulfuric Acid, AA = Acetic Acid, HN = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) KNOWN OR POSSIBLE HAZARDS

RCRA Metals	As = Arsenic	Hg = Mercury	Se = Selenium
Ba = Barium	Cd = Cadmium	Ag = Silver	Cr = Chromium
Mn = Manganese	Pb = Lead		

Characteristics Hazards

FL = Flammable/ignitable
 CO = Corrosive
 RE = Reactive

TSCA Regulated
 PCB = Polychlorinated biphenyls

Listed Waste
 LW = Listed Waste
 (F, K, P and U-listed wastes.)
 Hazard code(s): _____

Other
 OY = Other / Unknown
 (i.e.: High/Low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

Page: 3 of 3
 Project # _____
 GEL Quote #: _____
 COC Number (1): _____
 PO Number: _____
 Client Name: GA Power
 Project/Site Name: Plant Kraut - Grumman Road Landfill
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax # _____
 Chain of Custody and Analytical Request
 GEL Project Manager: Erin Trent
 GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Test Name	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cl, F, SO ₄ , TDS									
EPA 308, SM, 254OC									
EPA 6020B, 6010D Metals *									
EPA 6020B, 6010D									
Radon 226 & 228									
SV-816 9315, 9320									

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military (blank))	QC Code (3)	Field Filtered (3)	Sample Filtered (3)	Should this sample be considered:	Total number of containers	Preservative Type (6)		Comments
								Yes, please supply isotopic info)	(3) Known or possible isotopes	
FG-05	08-31-22	1530	G	N	NG		6	✓		field pH = 6.57
GWL-15	08-31-22	1354	G	N	NG		6	✓		field pH = 6.57
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =

Chain of Custody Signatures

Refinishing By (Signed)	Date	Received by (signed)	Date	Time
[Signature]	9-1-22	[Signature]	9-1-22	8:40
[Signature]	9-1-22	[Signature]	9/1/22	10:55
[Signature]	9-1-22	[Signature]	9/1/22	16:55

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surchage)
 Fax Results: Yes No
 Select Deliverable: IC of A QC Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Bc,Cd,Cr,Cu,Pb,Li,Mo,Se,Ti,V,Zn,Hg
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Mountain Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, ED = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, VS=Surface Water, WY=Waste Water, WY-L=Leachate, SO=Soil, SS=Sludge, WQ=Water Quality Control Matrix
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 4010B/470A) and number of determinations provided for each (i.e. 8260B - 3, 4010B/470A - 1).
 6.) Preservative Type: BA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HY = Heme, ST = Sodium Thiosulfate. If no preservative is added = leave field blank.
 7.) KNOWN OR POSSIBLE HAZARDOUS

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F,K,P and U listed wastes.) Waste code(s):	OT = Other / Unknown (i.e.: High/low pH, asbestos, vermiculite, irritants, other misc. health hazards, etc.) Description:
	TSCA Regulated PCB = Polychlorinated biphenyls		

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

SAMPLE RECEIPT & REVIEW FORM

Client: <u>GPC</u>		SDG/AR/COC/Work Order: <u>591783, 591785</u>			
Received By: <u>PL</u>		Date Received: <u>9/1/22</u>			
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other			
Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.		
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___		
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.		
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> <u>CPM</u> / mR/Hr Classified as: Rad 1 Rad 2 Rad 3		
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	COC notation or hazard labels on containers equal client designation.		
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____		
Sample Receipt Criteria		Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures ^{must} recorded in Celsius TEMP: <u>3</u>
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>1R3-21</u> Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: If Preservation added, Lot#: _____
7	Do any samples require Volatile Analysis?			<input checked="" type="checkbox"/>	If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8	Samples received within holding time?	<input checked="" type="checkbox"/>			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>			
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished Other (describe)
Comments (Use Continuation Form if needed):					

PM (or PMA) review: Initials EMM Date 09/06/22 Page 1 of 1

List of current GEL Certifications as of 19 September 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-137
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

List of current GEL Certifications as of 19 September 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-137
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122021-36
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

December 08, 2022

Kristen Jurinko
Georgia Power Company
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308

Re: Kraft - Grumman Road Landfill CCR Groundwater Compliance
Work Orders: 591785 and 591893

Dear Kristen Jurinko:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 01, 2022 and September 02, 2022. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. The data package has been revised to report new MDC values for the Ra-226+228 Sum results.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4504.

Sincerely,



Edith Kent for
Erin Trent
Project Manager

Purchase Order: GPC82177-0001
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

**Certificate of Analysis Report
for**

GPCC001 Georgia Power Company

Client SDG: 591785 GEL Work Order: 591785

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.



Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis Report for

GPCC001 Georgia Power Company

Client SDG: 591893 GEL Work Order: 591893

The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a Tracer compound
- ** Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Erin Trent.



Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company
Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-12
Sample ID: 591785001
Matrix: WG
Collect Date: 30-AUG-22
Receive Date: 01-SEP-22
Collector: Client

Project: GPCC00102
Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.42	+/-1.47	2.29	+/-1.59	3.00	pCi/L			JE1	09/27/22	1220	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.37	+/-1.51	2.29	+/-1.63		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.952	+/-0.358	0.251	+/-0.387	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	84.5	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-13
 Sample ID: 591785002
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.01	+/-1.11	1.86	+/-1.14	3.00	pCi/L			JE1	09/27/22	1220	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.90	+/-1.16	1.86	+/-1.20		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.896	+/-0.320	0.214	+/-0.369	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	87.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-14
 Sample ID: 591785003
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.68	+/-1.17	1.85	+/-1.24	3.00	pCi/L			JE1	09/27/22	1220	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.62	+/-1.22	1.85	+/-1.31		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.932	+/-0.362	0.308	+/-0.425	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	90.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-20
 Sample ID: 591785004
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.60	+/-1.04	1.36	+/-1.23	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		4.95	+/-1.16	1.36	+/-1.39		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.35	+/-0.516	0.220	+/-0.652	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	93.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-21

Project: GPCC00102

Sample ID: 591785005

Client ID: GPCC001

Matrix: WG

Collect Date: 30-AUG-22

Receive Date: 01-SEP-22

Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.03	+/-1.08	1.80	+/-1.11	3.00	pCi/L			JE1	09/29/22	1050	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.56	+/-1.16	1.80	+/-1.23		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.53	+/-0.425	0.331	+/-0.539	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	90.4	(15%-125%)

Notes:
The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

Lc/LC: Critical Level

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Mtd.: Method

PF: Prep Factor

RL: Reporting Limit

TPU: Total Propagated Uncertainty

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-25D
 Sample ID: 591785006
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.395	+/-0.956	1.70	+/-0.961	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.645	+/-0.987	1.70	+/-0.993		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.250	+/-0.245	0.384	+/-0.250	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	91.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-02
 Sample ID: 591785007
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.22	+/-0.869	1.34	+/-0.922	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.85	+/-0.925	1.34	+/-0.987		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.631	+/-0.318	0.395	+/-0.353	1.00	pCi/L			LXP1	09/28/22	0732	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	89.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: EB-01
 Sample ID: 591785008
 Matrix: WQ
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0335	+/-1.10	2.04	+/-1.10	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.377	+/-1.13	2.04	+/-1.13		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.377	+/-0.242	0.262	+/-0.252	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	86.6	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-11
 Sample ID: 591785009
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.08	+/-1.25	1.73	+/-1.48	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		6.34	+/-1.40	1.73	+/-1.77		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		3.26	+/-0.628	0.291	+/-0.969	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	89.3	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-23D
 Sample ID: 591785010
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.03	+/-0.932	1.51	+/-0.967	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.79	+/-0.987	1.51	+/-1.03		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.761	+/-0.324	0.253	+/-0.345	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	87.2	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-8
 Sample ID: 591785011
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.07	+/-1.14	1.90	+/-1.17	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		1.97	+/-1.19	1.90	+/-1.23		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.894	+/-0.356	0.390	+/-0.398	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	86.8	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWA-7
 Sample ID: 591785012
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.66	+/-1.19	1.89	+/-1.26	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.75	+/-1.25	1.89	+/-1.34		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.09	+/-0.371	0.283	+/-0.451	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	96.9	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-6R
 Sample ID: 591785013
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.44	+/-1.76	2.97	+/-1.79	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.20	+/-1.82	2.97	+/-1.88		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.76	+/-0.487	0.313	+/-0.555	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	43.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-01
 Sample ID: 591785014
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.833	+/-1.17	2.01	+/-1.19	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.77	+/-1.23	2.01	+/-1.26		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.938	+/-0.380	0.405	+/-0.413	1.00	pCi/L			LXP1	09/28/22	0807	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	94	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Company : Georgia Power Company
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Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-5R
 Sample ID: 591785015
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.35	+/-0.820	1.21	+/-0.886	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.36	+/-0.983	1.21	+/-1.13		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		2.02	+/-0.542	0.494	+/-0.707	1.00	pCi/L			LXP1	09/28/22	0839	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	97	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-04
 Sample ID: 591785016
 Matrix: WQ
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.219	+/-0.943	1.72	+/-0.945	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.472	+/-0.977	1.72	+/-0.979		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.254	+/-0.253	0.406	+/-0.257	1.00	pCi/L			LXP1	09/28/22	0839	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	88.7	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWB-4R
 Sample ID: 591785017
 Matrix: WG
 Collect Date: 30-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		3.67	+/-1.45	2.10	+/-1.72	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		5.57	+/-1.55	2.10	+/-1.83		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.90	+/-0.558	0.481	+/-0.628	1.00	pCi/L			LXP1	09/28/22	0839	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	95.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-17
 Sample ID: 591785018
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.70	+/-1.32	2.13	+/-1.39	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.72	+/-1.37	2.13	+/-1.44		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.02	+/-0.349	0.348	+/-0.391	1.00	pCi/L			LXP1	09/28/22	0839	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	91.3	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-22
 Sample ID: 591785019
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.11	+/-0.937	1.51	+/-0.977	3.00	pCi/L			JE1	09/27/22	1221	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.07	+/-1.05	1.51	+/-1.15		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.96	+/-0.472	0.220	+/-0.601	1.00	pCi/L			LXP1	09/28/22	0839	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	90.6	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: EB-02
 Sample ID: 591785020
 Matrix: WQ
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.239	+/-0.801	1.47	+/-0.803	3.00	pCi/L			JE1	09/27/22	1222	2312611	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.506	+/-0.824	1.47	+/-0.828		pCi/L		1	TON1	09/30/22	1529	2312607	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.267	+/-0.193	0.227	+/-0.199	1.00	pCi/L			LXP1	09/28/22	0839	2312590	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312611	83.2	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-05
 Sample ID: 591785021
 Matrix: WQ
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0242	+/-1.34	2.46	+/-1.34	3.00	pCi/L			JE1	09/28/22	0844	2312612	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.686	+/-1.39	2.46	+/-1.39		pCi/L		1	TON1	09/30/22	1529	2312608	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.686	+/-0.345	0.309	+/-0.372	1.00	pCi/L			LXP1	09/29/22	0848	2312593	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312612	78.5	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-15
 Sample ID: 591785022
 Matrix: WG
 Collect Date: 31-AUG-22
 Receive Date: 01-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.60	+/-1.13	1.76	+/-1.20	3.00	pCi/L			JE1	09/28/22	0844	2312612	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.88	+/-1.23	1.76	+/-1.31		pCi/L		1	TON1	09/30/22	1529	2312608	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.28	+/-0.492	0.351	+/-0.535	1.00	pCi/L			LXP1	09/29/22	0920	2312593	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312612	80.8	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-1
 Sample ID: 591893001
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.243	+/-0.767	1.40	+/-0.769	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.911	+/-0.825	1.40	+/-0.838		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.668	+/-0.303	0.365	+/-0.332	1.00	pCi/L			LXP1	09/28/22	0911	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	91.9	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Mtd.: Method
DL: Detection Limit	PF: Prep Factor
Lc/LC: Critical Level	RL: Reporting Limit
MDA: Minimum Detectable Activity	TPU: Total Propagated Uncertainty
MDC: Minimum Detectable Concentration	

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-2
 Sample ID: 591893002
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		1.80	+/-1.17	1.79	+/-1.25	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.09	+/-1.19	1.79	+/-1.28		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.295	+/-0.231	0.326	+/-0.238	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	80.2	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-9
 Sample ID: 591893003
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	1.21	+/-0.899	1.40	+/-0.949	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		2.35	+/-0.965	1.40	+/-1.03		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.14	+/-0.351	0.275	+/-0.393	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	88.1	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: GWC-16
 Sample ID: 591893004
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	-0.0911	+/-1.07	1.99	+/-1.07	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.64	+/-1.16	1.99	+/-1.19		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		1.64	+/-0.452	0.324	+/-0.511	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	90.3	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: MW-24D
 Sample ID: 591893005
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228		2.71	+/-1.24	1.76	+/-1.42	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum		3.54	+/-1.27	1.76	+/-1.45		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.825	+/-0.295	0.197	+/-0.318	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	90.7	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FD-03
 Sample ID: 591893006
 Matrix: WG
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.631	+/-0.849	1.45	+/-0.864	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.963	+/-0.889	1.45	+/-0.906		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.332	+/-0.265	0.398	+/-0.273	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	93.8	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: EB-03
 Sample ID: 591893007
 Matrix: WQ
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.344	+/-1.19	2.14	+/-1.20	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	0.507	+/-1.22	2.14	+/-1.22		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226	U	0.163	+/-0.250	0.440	+/-0.252	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	79.6	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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Certificate of Analysis

Company : Georgia Power Company
 Address : 241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia 30308

Report Date: December 7, 2022

Contact: Kristen Jurinko

Project: Kraft - Grumman Road Landfill CCR Groundwater Compliance

Client Sample ID: FB-06
 Sample ID: 591893008
 Matrix: WQ
 Collect Date: 01-SEP-22
 Receive Date: 02-SEP-22
 Collector: Client

Project: GPCC00102
 Client ID: GPCC001

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting														
<i>GFPC Ra228, Liquid "As Received"</i>														
Radium-228	U	0.825	+/-1.31	2.26	+/-1.33	3.00	pCi/L			JE1	09/27/22	0923	2312614	1
<i>Radium-226+Radium-228 Calculation "See Parent Products"</i>														
Radium-226+228 Sum	U	1.15	+/-1.32	2.26	+/-1.34		pCi/L		1	NXL1	09/29/22	1056	2312610	2
Rad Radium-226														
<i>Lucas Cell, Ra226, Liquid "As Received"</i>														
Radium-226		0.324	+/-0.181	0.177	+/-0.193	1.00	pCi/L			LXP1	09/28/22	0942	2312595	3

The following Analytical Methods were performed

Method	Description
1	EPA 904.0/SW846 9320 Modified
2	Calculation
3	EPA 903.1 Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Barium-133 Tracer	GFPC Ra228, Liquid "As Received"	2312614	83.4	(15%-125%)

Notes:
 The MDC is a sample specific MDC.
 TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

- | | |
|---------------------------------------|-----------------------------------|
| DF: Dilution Factor | Mtd.: Method |
| DL: Detection Limit | PF: Prep Factor |
| Lc/LC: Critical Level | RL: Reporting Limit |
| MDA: Minimum Detectable Activity | TPU: Total Propagated Uncertainty |
| MDC: Minimum Detectable Concentration | |

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QC Summary

Report Date: December 7, 2022
Page 1 of 3

Client : Georgia Power Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 591785

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time	
Rad Gas Flow												
Batch	2312611											
QC1205183293	591785001	DUP										
Radium-228		2.42		2.40	pCi/L	.713		(0% - 100%)	JE1	09/27/22	12:20	
		Uncert:	+/-1.47	+/-0.993								
		TPU:	+/-1.59	+/-1.16								
QC1205183294	LCS											
Radium-228	43.9			43.5	pCi/L		99.2	(75%-125%)	JE1	09/27/22	12:20	
		Uncert:		+/-3.47								
		TPU:		+/-11.5								
QC1205183292	MB											
Radium-228			U	-0.571	pCi/L				JE1	09/27/22	12:20	
		Uncert:		+/-0.915								
		TPU:		+/-0.915								
Batch	2312612											
QC1205183296	591785022	DUP										
Radium-228		U	1.60	U	0.401	pCi/L	0		N/A	JE1	09/28/22	08:44
		Uncert:	+/-1.13		+/-0.867							
		TPU:	+/-1.20		+/-0.872							
QC1205183297	LCS											
Radium-228	44.2			46.6	pCi/L		105	(75%-125%)	JE1	09/28/22	08:44	
		Uncert:		+/-3.47								
		TPU:		+/-12.2								
QC1205183295	MB											
Radium-228			U	0.547	pCi/L				JE1	09/28/22	09:30	
		Uncert:		+/-1.42								
		TPU:		+/-1.42								
Rad Ra-226												
Batch	2312590											
QC1205183259	591785001	DUP										
Radium-226		0.952		0.880	pCi/L	7.96		(0% - 100%)	LXP1	09/28/22	09:11	
		Uncert:	+/-0.358	+/-0.352								
		TPU:	+/-0.387	+/-0.380								
QC1205183261	LCS											
Radium-226	26.5			28.2	pCi/L		106	(75%-125%)	LXP1	09/28/22	09:11	
		Uncert:		+/-1.87								
		TPU:		+/-5.78								
QC1205183258	MB											
Radium-226			U	0.197	pCi/L				LXP1	09/28/22	08:39	
		Uncert:		+/-0.167								
		TPU:		+/-0.172								
QC1205183260	591785001	MS										
Radium-226	130	0.952		104	pCi/L		79.2	(75%-125%)	LXP1	09/28/22	09:11	

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QC Summary

Workorder: 591785

Page 2 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Ra-226										
Batch	2312590									
		Uncert:	+/-0.358							+/-7.60
		TPU:	+/-0.387							+/-20.2
Batch	2312593									
QC1205183263	591785022	DUP								
Radium-226			1.28	0.966	pCi/L	28.2	(0% - 100%)	LXP1	09/29/22	10:25
		Uncert:	+/-0.492	+/-0.394						
		TPU:	+/-0.535	+/-0.440						
QC1205183265	LCS									
Radium-226		26.6		20.7	pCi/L		77.9 (75%-125%)	LXP1	09/29/22	10:57
		Uncert:		+/-1.84						
		TPU:		+/-3.78						
QC1205183262	MB									
Radium-226			U	0.306	pCi/L			LXP1	09/29/22	10:25
		Uncert:		+/-0.353						
		TPU:		+/-0.356						
QC1205183264	591785022	MS								
Radium-226		133	1.28	119	pCi/L		88.3 (75%-125%)	LXP1	09/29/22	10:57
		Uncert:	+/-0.492	+/-10.4						
		TPU:	+/-0.535	+/-20.6						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification

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QC Summary

Workorder: 591785

Page 3 of 3

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
UJ	Gamma Spectroscopy--Uncertain identification									
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.									
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier									
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.									
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.									
h	Preparation or preservation holding time was exceeded									

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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QC Summary

Report Date: December 7, 2022
Page 1 of 2

Client : Georgia Power Company
241 Ralph McGill Blvd NE, Bin 10160

Atlanta, Georgia

Contact: Kristen Jurinko

Workorder: 591893

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	2312614										
QC1205183302	591883001 DUP										
Radium-228	U	0.802	U	0.487	pCi/L	0		N/A	JE1	09/27/22	09:23
	Uncert:	+/-1.15		+/-1.24							
	TPU:	+/-1.16		+/-1.25							
QC1205183303	LCS										
Radium-228	43.9			41.8	pCi/L		95.3	(75%-125%)	JE1	09/27/22	09:23
	Uncert:			+/-3.24							
	TPU:			+/-10.9							
QC1205183301	MB										
Radium-228			U	0.716	pCi/L				JE1	09/27/22	09:23
	Uncert:			+/-1.07							
	TPU:			+/-1.09							
Rad Ra-226											
Batch	2312595										
QC1205183271	591613003 DUP										
Radium-226		1.03		1.10	pCi/L	6.62		(0% - 100%)	LXP1	09/28/22	10:14
	Uncert:	+/-0.384		+/-0.385							
	TPU:	+/-0.425		+/-0.450							
QC1205183273	LCS										
Radium-226	26.6			21.3	pCi/L		80	(75%-125%)	LXP1	09/28/22	10:14
	Uncert:			+/-1.47							
	TPU:			+/-3.62							
QC1205183270	MB										
Radium-226			U	0.258	pCi/L				LXP1	09/28/22	10:14
	Uncert:			+/-0.245							
	TPU:			+/-0.248							
QC1205183272	591613003 MS										
Radium-226	135	1.03		106	pCi/L		77.4	(75%-125%)	LXP1	09/28/22	10:14
	Uncert:	+/-0.384		+/-7.23							
	TPU:	+/-0.425		+/-18.3							

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded

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QC Summary

Workorder: 591893

Page 2 of 2

Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J										
J										
K										
L										
M										
M										
N/A										
N1										
ND										
NJ										
Q										
R										
U										
UI										
UJ										
UL										
X										
Y										
^										
h										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

** Indicates analyte is a surrogate/tracer compound.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 591785**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2312607

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591785001	GWC-12
591785002	GWC-13
591785003	GWC-14
591785004	GWC-20
591785005	GWC-21
591785006	MW-25D
591785007	FD-02
591785008	EB-01
591785009	GWC-11
591785010	MW-23D
591785011	GWA-8
591785012	GWA-7
591785013	GWB-6R
591785014	FD-01
591785015	GWB-5R
591785016	FB-04
591785017	GWB-4R
591785018	GWC-17
591785019	GWC-22
591785020	EB-02

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2312608

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
------------------------------	--

591785021 FB-05
591785022 GWC-15

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2312611

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591785001	GWC-12
591785002	GWC-13
591785003	GWC-14
591785004	GWC-20
591785005	GWC-21
591785006	MW-25D
591785007	FD-02
591785008	EB-01
591785009	GWC-11
591785010	MW-23D
591785011	GWA-8
591785012	GWA-7
591785013	GWB-6R
591785014	FD-01
591785015	GWB-5R
591785016	FB-04
591785017	GWB-4R
591785018	GWC-17
591785019	GWC-22
591785020	EB-02
1205183292	Method Blank (MB)
1205183293	591785001(GWC-12) Sample Duplicate (DUP)
1205183294	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Homogenous Matrix

Samples 591785004 (GWC-20), 591785012 (GWA-7), 591785013 (GWB-6R), 591785015 (GWB-5R) and 591785017 (GWB-4R) were non-homogenous matrix. Samples were yellow and cloudy 591785004 (GWC-20), 591785012 (GWA-7), 591785013 (GWB-6R), 591785015 (GWB-5R) and 591785017 (GWB-4R).

Technical Information**Recounts**

Sample 591785005 (GWC-21) was re-eluted and recounted to verify sample result. The recount is reported.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2312612

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591785021	FB-05
591785022	GWC-15
1205183295	Method Blank (MB)
1205183296	591785022(GWC-15) Sample Duplicate (DUP)
1205183297	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2312590

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591785001	GWC-12
591785002	GWC-13
591785003	GWC-14
591785004	GWC-20
591785005	GWC-21
591785006	MW-25D
591785007	FD-02
591785008	EB-01

591785009	GWC-11
591785010	MW-23D
591785011	GWA-8
591785012	GWA-7
591785013	GWB-6R
591785014	FD-01
591785015	GWB-5R
591785016	FB-04
591785017	GWB-4R
591785018	GWC-17
591785019	GWC-22
591785020	EB-02
1205183258	Method Blank (MB)
1205183259	591785001(GWC-12) Sample Duplicate (DUP)
1205183260	591785001(GWC-12) Matrix Spike (MS)
1205183261	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Homogenous Matrix

Samples 591785004 (GWC-20), 591785012 (GWA-7), 591785014 (FD-01) and 591785017 (GWB-4R) were non-homogenous matrix.

Miscellaneous Information

Additional Comments

The matrix spike, 1205183260 (GWC-12MS), aliquot was reduced to conserve sample volume.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2312593

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591785021	FB-05
591785022	GWC-15
1205183262	Method Blank (MB)
1205183263	591785022(GWC-15) Sample Duplicate (DUP)
1205183264	591785022(GWC-15) Matrix Spike (MS)
1205183265	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information**Additional Comments**

The matrix spike, 1205183264 (GWC-15MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

**Radiochemistry
Technical Case Narrative
Georgia Power Company
SDG #: 591893**

Product: Radium-226+Radium-228 Calculation

Analytical Method: Calculation

Analytical Procedure: GL-RAD-D-003 REV# 45

Analytical Batch: 2312610

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591893001	GWC-1
591893002	GWC-2
591893003	GWC-9
591893004	GWC-16
591893005	MW-24D
591893006	FD-03
591893007	EB-03
591893008	FB-06

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: GFPC Ra228, Liquid

Analytical Method: EPA 904.0/SW846 9320 Modified

Analytical Procedure: GL-RAD-A-063 REV# 5

Analytical Batch: 2312614

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591893001	GWC-1
591893002	GWC-2
591893003	GWC-9
591893004	GWC-16
591893005	MW-24D
591893006	FD-03
591893007	EB-03
591893008	FB-06
1205183301	Method Blank (MB)
1205183302	591883001(NonSDG) Sample Duplicate (DUP)
1205183303	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: Lucas Cell, Ra226, Liquid

Analytical Method: EPA 903.1 Modified

Analytical Procedure: GL-RAD-A-008 REV# 15

Analytical Batch: 2312595

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
591893001	GWC-1
591893002	GWC-2
591893003	GWC-9
591893004	GWC-16
591893005	MW-24D
591893006	FD-03
591893007	EB-03
591893008	FB-06
1205183270	Method Blank (MB)
1205183271	591613003(NonSDG) Sample Duplicate (DUP)
1205183272	591613003(NonSDG) Matrix Spike (MS)
1205183273	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

CSU

The blank (See Below) result is greater than 1.65 times the CSU but less than the MDC.

Sample	Analyte	Value
1205183270 (MB)	Radium-226	Blank result > 1.65 CSU

Miscellaneous Information

Additional Comments

The matrix spike, 1205183272 (Non SDG 591613003MS), aliquot was reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

591783 GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Work Order Number: _____ GEL Project Manager: Erin Trent
 Client Name: GA Power Phone # 404-506-7116
 Project/Site Name: Plant Kraft - Grumman Road Landfill Fax # _____
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308

Collected By: Taylor Goble / A. Schmittke Send Results To: SCS & ACC Contacts
 * For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm))	QC Code (1)	Field Filtered (2)	Sample Matrix (3)	Radionuclide (4) (If yes, please specify isotopic info)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
GWC-12	08-30-22	1503	G	N	WG		(7) Known or possible Hazards	EPA 6020B, 6010D	NI		field pH = 3.92
GWC-13	08-31-22	1011	G	N	WG			EPA 6020B, 6010D	NI		field pH = 4.76
GWC-14	08-30-22	1157	G	N	WG			EPA 6020B, 6010D	NI		field pH = 5.86
GWC-20	08-30-22	1323	G	N	WG			EPA 300, SM 2540C	NI		field pH = 6.01
GWC-21	08-30-22	1725	G	N	WG			C, F, SO4, TDS	NI		field pH = 5.76
MW-25D	08-31-22	1158	G	N	WG				NI		field pH = 6.29
FD-02	08-31-22	---	G	N	WG				NI		field pH = ---
EB-01	08-30-22	1630	G	N	WQ				NI		field pH = ---
GWC-11	08-31-22	1545	G	N	WG				NI		field pH = 4.85
MW-23D	08-31-22	1618	G	N	WG				NI		field pH = 6.06

Chain of Custody Signatures
 Relinquished By (Signed) Date Time Received by (signed) Date Time
 1. Taylor Goble 7-1-22 0840 Kurtis Boyd 9-1-22 840
 2. Kurtis Boyd 9-1-22 1055 Kurtis Boyd 9-1-22 1055
 3. _____
TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)
 Fax Results: Yes No
 Select Deliverable: C of A Q Summary Level 1 Level 2 Level 3 Level 4
 Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,Y,Zn,Hg
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C
 Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

> For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)
 1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, C = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Seiment, SL=Sludge, WQ=Water Quality Control Matrix
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**
 Characteristic Hazards: FL = Flammable/ignitable, CO = Corrosive, RE = Reactive
 Listed Waste: LW = Listed Waste (F,K,P and U-listed wastes), Waste code(s): _____
 Other: OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
 Chain of Custody and Analytical Request
 GEL Work Order Number: _____
 GEL Project Manager: Erin Trent
 Phone # 404-506-7116
 Fax # _____
 GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm))	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments
						Radioactive (if yes, please supply isotopic info.)	(?) Known or possible Hazards	CI, F, SO4, TDS EPA 300, SM 2540C	Metals * EPA 6020B, 6010D	Dissolved Metals * EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	
GWA-8	08/30/22	1156	G	N	WG			6	✓	✓		field pH = 4.58
GWA-7	08/30/22	0935	G	Y	WG			7	✓	✓		field pH = 5.98
GWB-6R	08/30/22	1051	G	N	WG			6	✓	✓		field pH = 5.55
FD-01	08/30/22	---	G	N	WG			6	✓	✓		field pH = N/A
GWB-5R	08/30/22	1420	G	N	WG			6	✓	✓		field pH = 5.22
FB-64	08/30/22	1400	G	N	WG			6	✓	✓		field pH = N/A
GWB-4R	08/30/22	1520	G	N	WG			6	✓	✓		field pH = 5.61
GWC-17	08/31/22	1135	G	N	WG			6	✓	✓		field pH = 4.33
GWC-22	08/31/22	1350	G	N	WG			6	✓	✓		field pH = 4.68
FB-02	08/31/22	1405	G	N	WG			6	✓	✓		field pH = N/A

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<i>[Signature]</i>	0840	<i>[Signature]</i>	09122	840
<i>[Signature]</i>	09122	<i>[Signature]</i>	09122	1055

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: * Metals: B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl, Y, Zn, Hg

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, PD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a -Y- for yes the sample was field filtered or -N- for sample was not field filtered.

4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Seiment, SL=Sludge, WQ=Water Quality Control Matrix

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

7.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals	Characteristic Hazards	Listed Waste	Other
As = Arsenic Ba = Barium Cd = Cadmium Cr = Chromium Pb = Lead	FL = Flammable/Ignitable CO = Corrosive RE = Reactive	LW = Listed Waste (F, K, P and U-listed wastes.) Waste code(s): _____	OT = Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.) Description: _____

TSCA Regulated
PCB = Polychlorinated biphenyls

Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

GEL Laboratories LLC
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics
Chain of Custody and Analytical Request
 GEL Project Manager: *Erin Trent*
 Phone # 404-506-7116
 Fax # _____

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Client Name: GA Power
 Project/Site Name: Plant Kraft - Grumman Road Landfill
 Address: 241 Ralph McGill Blvd SE, Atlanta GA 30308
 Collected By: *Jaylor Goole*
 Send Results To: SCS & ACC Contacts

GEL Work Order Number: _____
Sample Analysis Requested ⁽⁵⁾ (Fill in the number of containers for each test)

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hh:mm)	QC Code ⁽²⁾	Field Filtered ⁽³⁾	Sample Matrix ⁽⁴⁾	Radioactive (If yes, please supply isotopic info)	Should this sample be considered:	Total number of containers	Preservative Type (6)	Comments
FB-05	08-31-22	1530	G	N	WQ WG-TG		IN	IN	IN	Note: extra sample is required for sample specific QC
GWC-15	08-31-22	1354	G	N	WG		IN	IN	IN	field pH = 6.57
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =
										field pH =

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<i>[Signature]</i>	9-1-22	0840	<i>[Signature]</i>	9-1-22	840
<i>[Signature]</i>	9-1-22	1055	<i>[Signature]</i>	9/1/22	1055

TAT Requested: Normal: Rush: Specify: _____ (Subject to Surcharge)

Fax Results: Yes No
 Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Ti,V,Zn,Hg
 For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: _____ °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other: _____

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: WD=Drinking Water, WC=Groundwater, WS=Surface Water, WW=Waste Water, WL=Leachate, SO=Soil, SE=Sediment, SL=Sludge, WQ=Water Quality Control Matrix
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive
 Listed Waste: LW = Listed Waste (F,K,P and U-listed wastes.)
 Waste code(s): _____
 TSCA Regulated: _____
 PCB = Polychlorinated biphenyls
 RCRA Metals: Hg=Mercury, As=Arsenic, Ba=Barium, Cd=Cadmium, Cr=Chromium, Pb=Lead
 Other: OT= Other / Unknown (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
 Description: _____
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

SAMPLE RECEIPT & REVIEW FORM

Client: GPC SDG/AR/COC/Work Order: 591783, 591785

Received By: PL Date Received: 9/1/22

Carrier and Tracking Number

Circle Applicable:
 FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information Yes No *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.

A) Shipped as a DOT Hazardous? Yes No
 Hazard Class Shipped: _____ UN#: _____
 If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___

B) Did the client designate the samples are to be received as radioactive? Yes No
 COC notation or radioactive stickers on containers equal client designation.

C) Did the RSO classify the samples as radioactive? Yes No
 Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM/mR/hr
 Classified as: Rad 1 Rad 2 Rad 3

D) Did the client designate samples are hazardous? Yes No
 COC notation or hazard labels on containers equal client designation.

E) Did the RSO identify possible hazards? Yes No
 If D or B is yes, select Hazards below.
 PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Chain of custody documents included with shipment?	X			Circle Applicable: Client contacted and provided COC COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	X			Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>3</u>
4 Daily check performed and passed on IR temperature gun?	X			Temperature Device Serial #: <u>R3-21</u> Secondary Temperature Device Serial # (If Applicable):
5 Sample containers intact and sealed?	X			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6 Samples requiring chemical preservation at proper pH?	X			Sample ID's and Containers Affected: If Preservation added, Lot#:
7 Do any samples require Volatile Analysis?	X			If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___ Sample ID's and containers affected:
8 Samples received within holding time?	X			ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			ID's and containers affected:
10 Date & time on COC match date & time on bottles?	X			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11 Number of containers received match number indicated on COC?	X			Circle Applicable: No container count on COC Other (describe)
12 Are sample containers identifiable as GEL provided by use of GEL labels?	X			
13 COC form is properly signed in relinquished/received sections?	X			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials EM Date 09/06/22 Page 1 of 1

Send Results To: SCS & ACC Contacts
 Collected By: Taylor Goble
 * For composites - indicate start and stop date/time

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (hh:mm)	QC Code (1)	Field Filtered (2)	Sample Matrix (4)	Radioactive (If yes, please supply isotopic info.)	(7) Known or possible Hazards	Total number of containers	EPA 300, SM 2540C	EPA 6020B, 6010D	Disolved Metals *	EPA 6020B, 6010D	Radium 226 & 228 SW-846 9315, 9320	Preservative Type (6)	Comments
GWC-1	09-01-22	1319	G	N	WG			6	✓	✓	✓	✓	✓	<-- Preservative Type (6)	Note: extra sample is required for sample specific QC
GWC-2	09-01-22	1425	G	N	WG			6	✓	✓	✓	✓	✓	field pH = 5.80	
GWC-9	09-01-22	0924	G	N	WG			6	✓	✓	✓	✓	✓	field pH = 4.73	
GWC-16	09-01-22	1046	G	N	WG			6	✓	✓	✓	✓	✓	field pH = 4.60	
MW-2AD	09-01-22	1159	G	N	WG			6	✓	✓	✓	✓	✓	field pH = 5.37	
FB-03	09-01-22	1400	G	N	WQ			6	✓	✓	✓	✓	✓	field pH = 6.08	
FB-06	09-01-22	1030	G	N	WQ			6	✓	✓	✓	✓	✓	field pH = --	
								6	✓	✓	✓	✓	✓	field pH = --	
								6	✓	✓	✓	✓	✓	field pH = --	
								6	✓	✓	✓	✓	✓	field pH = --	
								6	✓	✓	✓	✓	✓	field pH = --	
								6	✓	✓	✓	✓	✓	field pH = --	

Chain of Custody Signatures

Relinquished By (Signed)	Date	Received by (signed)	Date	Time
<u>Taylor Goble</u>	9-2-22	<u>[Signature]</u>	9-2-22	0822
<u>[Signature]</u>	9-2-22	<u>[Signature]</u>	9-2-22	1015

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge)

Fax Results: Yes No

Select Deliverable: C of A QC Summary Level 1 Level 2 Level 3 Level 4

Additional Remarks: * Metals: B,Ca,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li,Mo,Se,Tl,V,Zn,Hg

For Lab Receiving Use Only: Custody Seal Intact? Yes No Cooler Temp: °C

Sample Collection Time Zone: Eastern Pacific Central Mountain Other:

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: WD=Drinking Water, WG=Groundwater, WS=Surface Water, WW=Waste Water, WL=L-Leachate, SO=Soil, SE=Sediment, SI=Sludge, WQ=Water Quality Control Matrix
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank
 7.) **KNOWN OR POSSIBLE HAZARDS**
RCRA Metals
 As = Arsenic Hg=Mercury
 Ba = Barium Se= Selenium
 Cd = Cadmium Ag= Silver
 Cr = Chromium MR= Misc. RCRA metals
 Pb = Lead
Characteristic Hazards
 FL = Flammable/Ignitable
 CO = Corrosive
 RE = Reactive
Listed Waste
 LW = Listed Waste
 (F,K,P and U-listed wastes.)
 Waste code(s):
Other
 OT = Other /Unknown
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)
Description:
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)

SAMPLE RECEIPT & REVIEW FORM

Client: <u>G PLLC</u>		SDG/AR/COC/Work Order: <u>591 891 / 591 893</u>	
Received By: <u>PLB</u>		Date Received: <u>9/2/22</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express FedEx Ground UPS Field Services <u>Courier</u> Other	
Suspected Hazard Information		Yes	No
		*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.	
A) Shipped as a DOT Hazardous?			<input checked="" type="checkbox"/>
		Hazard Class Shipped: _____ UN#: _____ If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___	
B) Did the client designate the samples are to be received as radioactive?			<input checked="" type="checkbox"/>
		COC notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?			<input checked="" type="checkbox"/>
		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): _____ CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?			<input checked="" type="checkbox"/>
		COC notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?			<input checked="" type="checkbox"/>
		If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: _____	
Sample Receipt Criteria		Yes	NA
		No	
		Comments/Qualifiers (Required for Non-Conforming Items)	
1	Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	
		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
2	Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	
		Circle Applicable: Client contacted and provided COC COC created upon receipt	
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>	
		Preservation Method: <u>Wet Ice</u> Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: <u>2</u>	
4	Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	
		Temperature Device Serial #: <u>1123-21</u> Secondary Temperature Device Serial # (If Applicable): _____	
5	Sample containers intact and sealed?	<input checked="" type="checkbox"/>	
		Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
6	Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>	
		Sample ID's and Containers Affected: If Preservation added, Lot#:	
7	Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>
		If Yes, are Encores or Soil Kits present for solids? Yes ___ No ___ NA ___ (If yes, take to VOA Freezer)	
		Do liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No) _____	
		Are liquid VOA vials free of headspace? Yes ___ No ___ NA ___	
		Sample ID's and containers affected:	
8	Samples received within holding time?	<input checked="" type="checkbox"/>	
		ID's and tests affected:	
9	Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	
		ID's and containers affected:	
10	Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>	
		Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)	
11	Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	
		Circle Applicable: No container count on COC Other (describe)	
12	Are sample containers identifiable as GEL provided by use of GEL labels?	<input checked="" type="checkbox"/>	
13	COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	
		Circle Applicable: Not relinquished Other (describe)	
Comments (Use Continuation Form if needed):			

PM (or PMA) review: Initials EM Date 09/06/22 Page 1 of 1

List of current GEL Certifications as of 07 December 2022

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122023-3
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2022-160
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-22-20
Utah NELAP	SC000122022-37
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

APPENDIX A

*Laboratory Data Validations
August 2022 Monitoring Event*

LEVEL 2A LABORATORY DATA VALIDATIONS

**Grumman Road
Semiannual Event
August 2022**

Georgia Power Company – Grumman Road Quality Control Review of Analytical Data – August 2022

This narrative presents results of the Quality Control (QC) review performed on analytical data submitted by GEL Laboratories LLC, Charleston for groundwater samples collected at Grumman Road between August 30, 2022 and September 1, 2022. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 Code of Federal Regulations (CFR), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA Method 903.1), and Radium-228 (USEPA Method 904.0).

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

DATA QUALITY OBJECTIVES

- Laboratory Precision:** Laboratory goals for precision were met, except for boron and radium-226 on GWC-15 (591783022) as described in the qualifications section below.
- Field Precision:** Field goals for precision were met, except for boron and radium-226 on GWC-13 (591783002) and boron, molybdenum, and total dissolved solids (TDS) on MW-24D (591891005) as described in the qualifications section below.
- Accuracy:** Laboratory goals for accuracy were met.
- Detection Limits:** Project goals for detection limits were met. Certain samples were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.
- Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.
- Holding Times:** Holding time requirements were met.

QUALIFICATIONS

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

- J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample
- U:** The analyte was not detected above the method detection limit

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

- Sample GWC-15 (591783022) was qualified as estimated (J) for boron and radium-226 as the laboratory relative percent differences (RPDs) exceeded QC criteria (24.3% and 28.2%, respectively, above limit of 20).
- Samples GWC-13 (591783002) and FD-02 (591783007) as well as samples MW-24D (591891005) and FD-03 (591891006) were qualified as estimated (J) for boron as the field RPDs exceeded QC criteria (40.6% and 36.3%, respectively, above limit of 20).
- Samples GWC-13 (591783002) and FD-02 (591783007) were qualified as estimated (J) for radium-226 as the field RPD exceeded QC criteria (34.7% above limit of 20).
- Samples MW-24D (591891005) and FD-03 (591891006) were qualified as estimated (J) for molybdenum and TDS as the field RPDs exceeded QC criteria (27.4% and 33.3%, respectively, above limit of 20).
- Certain molybdenum and vanadium results were qualified as non-detect (U) due to the analyte(s) being detected at a similar concentration in an associated blank sample. As shown in Table 2, when the original sample result was below the RL, the method detection limit (MDL) was raised to the blank detection as part of the qualification process.
- Certain radium-226 results were qualified as non-detect (U) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, when the original sample result was below the RL, the minimum detectable concentration (MDC) was raised to the blank detection as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from Grumman Road sampled between August 30, 2022 and September 1, 2022 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

REFERENCES

- ¹USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0
- ²USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

Grumman Road Private Industrial Landfill
2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 1
Georgia Power Company – Grumman Road
Sample Summary Table – August 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (903.1, 904.0)
591891	GWC-1	9/1/2022	591891001	WG		X	X	X	
591893	GWC-1	9/1/2022	591893001	WG					X
591891	GWC-2	9/1/2022	591891002	WG		X	X	X	
591893	GWC-2	9/1/2022	591893002	WG					X
591891	GWC-9	9/1/2022	591891003	WG		X	X	X	
591893	GWC-9	9/1/2022	591893003	WG					X
591891	GWC-16	9/1/2022	591891004	WG		X	X	X	
591893	GWC-16	9/1/2022	591893004	WG					X
591891	MW-24D	9/1/2022	591891005	WG		X	X	X	
591893	MW-24D	9/1/2022	591893005	WG					X
591891	FD-03	9/1/2022	591891006	WG	FD (MW-24D)	X	X	X	
591893	FD-03	9/1/2022	591893006	WG	FD (MW-24D)				X
591891	EB-03	9/1/2022	591891007	WQ	EB	X	X	X	
591893	EB-03	9/1/2022	591893007	WQ	EB				X
591891	FB-06	9/1/2022	591891008	WQ	FB	X	X	X	
591893	FB-06	9/1/2022	591893008	WQ	FB				X
591783	GWC-12	8/30/2022	591783001	WG		X	X	X	
591785	GWC-12	8/30/2022	591857001	WG					X
591783	GWC-13	8/31/2022	591783002	WG		X	X	X	
591785	GWC-13	8/31/2022	591785002	WG					X
591783	GWC-14	8/30/2022	591783003	WG		X	X	X	
591785	GWC-14	8/30/2022	591785003	WG					X
591783	GWC-20	8/30/2022	591783004	WG		X	X	X	
591785	GWC-20	8/30/2022	591785004	WG					X

Abbreviations:
 EB – Equipment Blank
 FB – Field Blank
 FD – Field Duplicate
 WG – Groundwater
 QC – Quality Control
 SDG – Sample Delivery Group
 TDS – Total Dissolved Solids
 WQ – Water Quality Control

Grumman Road Private Industrial Landfill
 2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 1 (continued)

Georgia Power Company – Grumman Road

Sample Summary Table – August 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (903.1, 904.0)
591783	GWC-21	8/30/2022	591783005	WG		X	X	X	
591785	GWC-21	8/30/2022	591785005	WG					X
591783	MW-25D	8/31/2022	591783006	WG		X	X	X	
591785	MW-25D	8/31/2022	591785006	WG					X
591783	FD-02	8/31/2022	591783007	WG	FD (GWC-13)	X	X	X	
591785	FD-02	8/31/2022	591785007	WG	FD (GWC-13)				X
591783	EB-01	8/30/2022	591783008	WQ	EB	X	X	X	
591785	EB-01	8/30/2022	591785008	WQ	EB				X
591783	GWC-11	8/31/2022	591783009	WG		X	X	X	
591785	GWC-11	8/31/2022	591785009	WG					X
591783	MW-23D	8/31/2022	591783010	WG		X	X	X	
591785	MW-23D	8/31/2022	591785010	WG					X
591783	GWA-8	8/30/2022	591783011	WG		X	X	X	
591785	GWA-8	8/30/2022	591785011	WG					X
591783	GWA-7	8/30/2022	591783012	WG		X	X	X	
591785	GWA-7	8/30/2022	591785012	WG					X
591783	GWB-6R	8/30/2022	591783013	WG		X	X	X	
591785	GWB-6R	8/30/2022	591785013	WG					X
591783	FD-01	8/30/2022	591783014	WG	FD (GWA-8)	X	X	X	
591785	FD-01	8/30/2022	591785014	WG	FD (GWA-8)				X
591783	GWB-5R	8/30/2022	591783015	WG		X	X	X	
591785	GWB-5R	8/30/2022	591785015	WG					X
591783	FB-04	8/30/2022	591783016	WQ	FB	X	X	X	
591785	FB-04	8/30/2022	591785016	WQ	FB				X
591783	GWB-4R	8/30/2022	591783017	WG		X	X	X	
591785	GWB-4R	8/30/2022	591785017	WG					X

Abbreviations:
 EB – Equipment Blank
 FB – Field Blank
 FD – Field Duplicate
 WG – Groundwater
 QC – Quality Control
 SDG – Sample Delivery Group
 TDS – Total Dissolved Solids
 WQ – Water Quality Control

Grumman Road Private Industrial Landfill
 2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 1 (continued)

Georgia Power Company – Grumman Road

Sample Summary Table – August 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (903.1, 904.0)
591783	GWC-17	8/31/2022	591783018	WG		X	X	X	
591785	GWC-17	8/31/2022	591785018	WG					X
591783	GWC-22	8/31/2022	591783019	WG		X	X	X	
591785	GWC-22	8/31/2022	591785019	WG					X
591783	EB-02	8/31/2022	591783020	WQ	EB	X	X	X	
591785	EB-02	8/31/2022	591785020	WQ	EB				X
591783	FB-05	8/31/2022	591783021	WQ	FB	X	X	X	
591785	FB-05	8/31/2022	591785021	WQ	FB				X
591783	GWC-15	8/31/2022	591783022	WG		X	X	X	
591785	GWC-15	8/31/2022	591785022	WG					X
591783	GWA-7	8/30/2022	591783023	WG		X			

- Abbreviations:
 EB – Equipment Blank
 FB – Field Blank
 FD – Field Duplicate
 WG – Groundwater
 QC – Quality Control
 SDG – Sample Delivery Group
 TDS – Total Dissolved Solids
 WQ – Water Quality Control

Grumman Road Private Industrial Landfill
 2022 Semiannual Groundwater Monitoring and Corrective Action Report

TABLE 2
 Georgia Power Company – Grumman Road
 Qualifier Summary Table – August 2022

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
591891	GWC-1	Molybdenum		0.000271	U	Blank detection
591891	GWC-16	Molybdenum		0.000271	U	Blank detection
591891	MW-24D	Molybdenum		0.000271	U	Blank detection
591891	FD-03	Molybdenum		0.000271	U	Blank detection
591891	GWC-1	Vanadium		0.00388	U	Blank detection
591891	GWC-2	Vanadium		0.00388	U	Blank detection
591891	GWC-9	Vanadium		0.00388	U	Blank detection
591891	GWC-16	Vanadium		0.00388	U	Blank detection
591891	MW-24D	Vanadium		0.00388	U	Blank detection
591891	FD-03	Vanadium		0.00388	U	Blank detection
591891	EB-03	Vanadium		0.00388	U	Blank detection
591891	FB-06	Vanadium		0.00388	U	Blank detection
591893	MW-24D	Radium-226		0.258	U	Blank detection
591893	FB-06	Radium-226		0.258	U	Blank detection
591783	GWC-15	Boron			J	RPD exceeds lab goal
591785	GWC-15	Radium-226			J	RPD exceeds lab goal
591783	GWC-13	Boron			J	RPD exceeds field goal
591783	FD-02	Boron			J	RPD exceeds field goal
591891	MW-24D	Boron			J	RPD exceeds field goal
591891	FD-03	Boron			J	RPD exceeds field goal
591891	MW-24D	Molybdenum			J	RPD exceeds field goal
591891	FD-03	Molybdenum			J	RPD exceeds field goal
591891	MW-24D	TDS			J	RPD exceeds field goal
591891	FD-03	TDS			J	RPD exceeds field goal
591785	GWC-13	Radium-226			J	RPD exceeds field goal
591785	FD-02	Radium-226			J	RPD exceeds field goal

Abbreviations:

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

Qualifiers:

J – Estimated Result
 U – Non-Detect Result

APPENDIX A

*Field Sampling Reports
August 2022 Monitoring Event*

Low-Flow Test Report:

Test Date / Time: 8/30/2022 9:05:16 AM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWA-7 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 16.2 ft Total Depth: 21.2 ft Initial Depth to Water: 5.8 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 18 ft Estimated Total Volume Pumped: 6.7 liter Flow Cell Volume: 90 ml Final Flow Rate: 225 ml/min Final Draw Down: 4.8 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Cloudy, sample time-0935

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/30/2022 9:05 AM	00:00	7.11 pH	26.00 °C	15.84 µS/cm	8.16 mg/L	49.00 NTU	246.4 mV	5.80 ft	225.00 ml/min
8/30/2022 9:10 AM	05:00	5.97 pH	24.56 °C	1,077.0 µS/cm	0.28 mg/L	55.00 NTU	47.9 mV	6.10 ft	225.00 ml/min
8/30/2022 9:15 AM	10:00	5.97 pH	24.42 °C	1,081.2 µS/cm	0.09 mg/L	89.00 NTU	30.4 mV	6.10 ft	225.00 ml/min
8/30/2022 9:20 AM	15:00	5.98 pH	24.38 °C	1,086.9 µS/cm	0.05 mg/L	133.00 NTU	20.4 mV	6.20 ft	225.00 ml/min
8/30/2022 9:25 AM	20:00	5.98 pH	24.27 °C	1,083.2 µS/cm	0.03 mg/L	136.00 NTU	14.4 mV	6.20 ft	225.00 ml/min
8/30/2022 9:30 AM	25:00	5.97 pH	24.29 °C	1,082.8 µS/cm	0.03 mg/L	133.00 NTU	9.2 mV	6.20 ft	225.00 ml/min
8/30/2022 9:35 AM	30:00	5.98 pH	24.24 °C	1,083.6 µS/cm	0.01 mg/L	128.00 NTU	0.1 mV	6.20 ft	225.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 11:21:27 AM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWA-8 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 15.8 ft Total Depth: 20.8 ft Initial Depth to Water: 6.16 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 18 ft Estimated Total Volume Pumped: 8 liter Flow Cell Volume: 90 ml Final Flow Rate: 230 ml/min Final Draw Down: 22 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sunny, sample time-1156, Taylor started well at 0901, switched operators. FD-01 here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/30/2022 11:21 AM	00:00	6.34 pH	33.24 °C	2.05 µS/cm	7.19 mg/L	2.02 NTU	58.9 mV	6.16 ft	230.00 ml/min
8/30/2022 11:26 AM	05:00	4.61 pH	27.41 °C	173.94 µS/cm	0.13 mg/L	1.96 NTU	15.3 mV	6.50 ft	230.00 ml/min
8/30/2022 11:31 AM	10:00	4.61 pH	26.80 °C	173.76 µS/cm	0.07 mg/L	1.36 NTU	20.2 mV	6.90 ft	230.00 ml/min
8/30/2022 11:36 AM	15:00	4.63 pH	26.49 °C	169.84 µS/cm	0.06 mg/L	1.53 NTU	22.7 mV	7.30 ft	230.00 ml/min
8/30/2022 11:41 AM	20:00	4.61 pH	26.48 °C	171.05 µS/cm	0.06 mg/L	0.58 NTU	24.8 mV	7.70 ft	230.00 ml/min
8/30/2022 11:46 AM	25:00	4.60 pH	26.68 °C	174.21 µS/cm	0.04 mg/L	0.97 NTU	26.0 mV	7.90 ft	230.00 ml/min
8/30/2022 11:51 AM	30:00	4.58 pH	26.20 °C	178.25 µS/cm	0.03 mg/L	1.02 NTU	26.8 mV	8.00 ft	230.00 ml/min
8/30/2022 11:56 AM	35:00	4.58 pH	26.38 °C	179.29 µS/cm	0.03 mg/L	1.07 NTU	27.2 mV	8.00 ft	230.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 2:55:04 PM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWB-4R Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 17 ft Total Depth: 27 ft Initial Depth to Water: 14.47 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 25 ft Estimated Total Volume Pumped: 6.1 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 4 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sunny, sample time-1530

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/30/2022 2:55 PM	00:00	5.68 pH	39.13 °C	0.82 µS/cm	5.93 mg/L	4.12 NTU	53.1 mV	14.47 ft	175.00 ml/min
8/30/2022 3:00 PM	05:00	5.67 pH	30.11 °C	1,030.3 µS/cm	0.97 mg/L	3.28 NTU	33.8 mV	14.70 ft	175.00 ml/min
8/30/2022 3:05 PM	10:00	5.65 pH	27.82 °C	1,029.7 µS/cm	0.17 mg/L	4.01 NTU	22.3 mV	14.70 ft	175.00 ml/min
8/30/2022 3:10 PM	15:00	5.66 pH	27.53 °C	989.75 µS/cm	0.78 mg/L	3.44 NTU	18.9 mV	14.80 ft	175.00 ml/min
8/30/2022 3:15 PM	20:00	5.67 pH	27.62 °C	956.20 µS/cm	1.05 mg/L	2.89 NTU	22.5 mV	14.80 ft	175.00 ml/min
8/30/2022 3:20 PM	25:00	5.68 pH	28.02 °C	914.93 µS/cm	1.29 mg/L	3.21 NTU	24.8 mV	14.80 ft	175.00 ml/min
8/30/2022 3:25 PM	30:00	5.67 pH	29.39 °C	924.66 µS/cm	1.23 mg/L	3.39 NTU	22.4 mV	14.80 ft	175.00 ml/min
8/30/2022 3:30 PM	35:00	5.67 pH	27.80 °C	883.91 µS/cm	0.09 mg/L	3.06 NTU	21.4 mV	14.80 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 1:40:13 PM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWB-5R Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 16.5 ft Total Depth: 26.5 ft Initial Depth to Water: 9.39 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 8 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 3.6 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Cloudy, sample time-1420, FB-04 here at 1400

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/30/2022 1:40 PM	00:00	4.80 pH	38.60 °C	0.11 µS/cm	6.40 mg/L	2.63 NTU	67.4 mV	9.39 ft	200.00 ml/min
8/30/2022 1:45 PM	05:00	5.28 pH	27.57 °C	783.75 µS/cm	0.24 mg/L	2.22 NTU	43.5 mV	9.60 ft	200.00 ml/min
8/30/2022 1:50 PM	10:00	5.27 pH	26.13 °C	795.39 µS/cm	0.13 mg/L	1.90 NTU	27.1 mV	9.70 ft	200.00 ml/min
8/30/2022 1:55 PM	15:00	5.27 pH	25.88 °C	795.82 µS/cm	0.09 mg/L	2.31 NTU	17.8 mV	9.70 ft	200.00 ml/min
8/30/2022 2:00 PM	20:00	5.26 pH	25.74 °C	786.76 µS/cm	0.08 mg/L	2.03 NTU	9.8 mV	9.70 ft	200.00 ml/min
8/30/2022 2:05 PM	25:00	5.24 pH	25.80 °C	772.45 µS/cm	0.06 mg/L	1.27 NTU	4.3 mV	9.70 ft	200.00 ml/min
8/30/2022 2:10 PM	30:00	5.22 pH	25.60 °C	802.90 µS/cm	0.05 mg/L	1.31 NTU	1.5 mV	9.70 ft	200.00 ml/min
8/30/2022 2:15 PM	35:00	5.22 pH	25.78 °C	822.47 µS/cm	0.05 mg/L	1.23 NTU	-0.7 mV	9.70 ft	200.00 ml/min
8/30/2022 2:20 PM	40:00	5.22 pH	25.66 °C	834.16 µS/cm	0.04 mg/L	1.46 NTU	-2.1 mV	9.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 10:21:01 AM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWB-6R Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 12.7 ft Total Depth: 22.7 ft Initial Depth to Water: 6.96 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 19 ft Estimated Total Volume Pumped: 6 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 1.6 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sunny, sample time-1051

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/30/2022 10:21 AM	00:00	6.95 pH	28.79 °C	0.61 µS/cm	7.74 mg/L	5.00 NTU	29.3 mV	6.96 ft	200.00 ml/min
8/30/2022 10:26 AM	05:00	5.57 pH	26.73 °C	1,742.4 µS/cm	0.38 mg/L	4.11 NTU	50.2 mV	7.00 ft	200.00 ml/min
8/30/2022 10:31 AM	10:00	5.57 pH	26.29 °C	1,728.4 µS/cm	0.21 mg/L	3.85 NTU	43.1 mV	7.10 ft	200.00 ml/min
8/30/2022 10:36 AM	15:00	5.56 pH	26.20 °C	1,724.9 µS/cm	0.14 mg/L	2.18 NTU	38.4 mV	7.10 ft	200.00 ml/min
8/30/2022 10:41 AM	20:00	5.55 pH	26.24 °C	1,756.6 µS/cm	0.09 mg/L	2.03 NTU	35.3 mV	7.10 ft	200.00 ml/min
8/30/2022 10:46 AM	25:00	5.55 pH	26.14 °C	1,746.3 µS/cm	0.06 mg/L	1.88 NTU	32.1 mV	7.10 ft	200.00 ml/min
8/30/2022 10:51 AM	30:00	5.55 pH	26.15 °C	1,750.0 µS/cm	0.05 mg/L	1.25 NTU	30.3 mV	7.10 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/1/2022 12:49:44 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-1 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 23.2 ft Total Depth: 28.2 ft Initial Depth to Water: 18.77 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 25 ft Estimated Total Volume Pumped: 7500 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0.16 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sampled at 1319. Cloudy 82 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
9/1/2022 12:49 PM	00:00	5.50 pH	27.56 °C	260.15 µS/cm	2.87 mg/L	1.90 NTU	103.7 mV	18.85 ft	250.00 ml/min
9/1/2022 12:54 PM	05:00	5.79 pH	24.29 °C	337.76 µS/cm	0.19 mg/L	1.71 NTU	108.1 mV	18.91 ft	250.00 ml/min
9/1/2022 12:59 PM	10:00	5.81 pH	24.21 °C	342.19 µS/cm	0.15 mg/L	1.33 NTU	110.0 mV	18.93 ft	250.00 ml/min
9/1/2022 1:04 PM	15:00	5.81 pH	24.35 °C	340.80 µS/cm	0.12 mg/L	0.99 NTU	111.6 mV	18.93 ft	250.00 ml/min
9/1/2022 1:09 PM	20:00	5.81 pH	24.45 °C	339.97 µS/cm	0.09 mg/L	0.86 NTU	112.8 mV	18.93 ft	250.00 ml/min
9/1/2022 1:14 PM	25:00	5.81 pH	24.48 °C	339.29 µS/cm	0.08 mg/L	0.72 NTU	114.2 mV	18.93 ft	250.00 ml/min
9/1/2022 1:19 PM	30:00	5.80 pH	24.52 °C	338.13 µS/cm	0.07 mg/L	0.69 NTU	115.6 mV	18.93 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/1/2022 1:55:39 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-2 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 27.73 ft Total Depth: 32.73 ft Initial Depth to Water: 19.27 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 30 ft Estimated Total Volume Pumped: 7500 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0.23 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sampled at 1425. Cloudy 84 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
9/1/2022 1:55 PM	00:00	5.10 pH	29.67 °C	58.72 µS/cm	3.51 mg/L	4.43 NTU	87.9 mV	19.45 ft	250.00 ml/min
9/1/2022 2:00 PM	05:00	4.56 pH	24.71 °C	56.55 µS/cm	0.15 mg/L	2.18 NTU	82.7 mV	19.50 ft	250.00 ml/min
9/1/2022 2:05 PM	10:00	4.64 pH	24.15 °C	55.93 µS/cm	0.10 mg/L	2.11 NTU	81.5 mV	19.50 ft	250.00 ml/min
9/1/2022 2:10 PM	15:00	4.66 pH	23.75 °C	55.89 µS/cm	0.08 mg/L	1.75 NTU	80.5 mV	19.50 ft	250.00 ml/min
9/1/2022 2:15 PM	20:00	4.67 pH	23.87 °C	55.07 µS/cm	0.07 mg/L	1.65 NTU	80.0 mV	19.50 ft	250.00 ml/min
9/1/2022 2:20 PM	25:00	4.70 pH	24.02 °C	54.87 µS/cm	0.06 mg/L	1.30 NTU	78.5 mV	19.50 ft	250.00 ml/min
9/1/2022 2:25 PM	30:00	4.73 pH	23.96 °C	54.72 µS/cm	0.06 mg/L	1.36 NTU	77.8 mV	19.50 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 2:36:12 PM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWC-9 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 22.4 ft Total Depth: 27.4 ft Initial Depth to Water: 8.62 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 11.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 224 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sunny, no sample, well purged dry, allow for overnight recharge.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/31/2022 2:36 PM	00:00	4.97 pH	41.55 °C	0.45 µS/cm	6.02 mg/L	2.52 NTU	94.0 mV	8.62 ft	150.00 ml/min
8/31/2022 2:41 PM	05:00	4.76 pH	26.88 °C	107.42 µS/cm	0.20 mg/L	1.02 NTU	53.9 mV	9.80 ft	150.00 ml/min
8/31/2022 2:46 PM	10:00	4.71 pH	25.15 °C	111.32 µS/cm	0.17 mg/L	1.57 NTU	46.0 mV	10.60 ft	150.00 ml/min
8/31/2022 2:51 PM	15:00	4.72 pH	24.61 °C	112.01 µS/cm	0.15 mg/L	2.99 NTU	40.1 mV	12.10 ft	150.00 ml/min
8/31/2022 2:56 PM	20:00	4.72 pH	24.75 °C	112.32 µS/cm	0.12 mg/L	3.21 NTU	36.2 mV	13.80 ft	150.00 ml/min
8/31/2022 3:01 PM	25:00	4.72 pH	24.54 °C	113.79 µS/cm	0.12 mg/L	4.35 NTU	34.3 mV	15.70 ft	150.00 ml/min
8/31/2022 3:06 PM	30:00	4.75 pH	24.30 °C	114.04 µS/cm	0.11 mg/L	4.26 NTU	32.6 mV	16.50 ft	150.00 ml/min
8/31/2022 3:11 PM	35:00	4.77 pH	24.16 °C	114.87 µS/cm	0.12 mg/L	4.99 NTU	31.0 mV	17.40 ft	150.00 ml/min
8/31/2022 3:16 PM	40:00	4.81 pH	24.51 °C	115.30 µS/cm	0.11 mg/L	4.72 NTU	28.1 mV	18.90 ft	150.00 ml/min
8/31/2022 3:21 PM	45:00	4.84 pH	24.60 °C	115.72 µS/cm	0.11 mg/L	5.11 NTU	26.5 mV	20.00 ft	150.00 ml/min
8/31/2022 3:26 PM	50:00	4.84 pH	24.56 °C	115.54 µS/cm	0.11 mg/L	5.62 NTU	26.6 mV	21.70 ft	150.00 ml/min
8/31/2022 3:31 PM	55:00	4.84 pH	24.50 °C	115.10 µS/cm	0.13 mg/L	5.90 NTU	25.8 mV	23.40 ft	150.00 ml/min
8/31/2022 3:36 PM	01:00:00	4.84 pH	24.49 °C	114.50 µS/cm	0.21 mg/L	6.74 NTU	24.7 mV	25.10 ft	150.00 ml/min
8/31/2022 3:41 PM	01:05:00	4.82 pH	24.42 °C	113.75 µS/cm	0.37 mg/L	6.21 NTU	25.6 mV	25.60 ft	150.00 ml/min
8/31/2022 3:46 PM	01:10:00	4.87 pH	24.38 °C	112.41 µS/cm	1.52 mg/L	6.57 NTU	25.3 mV	26.40 ft	150.00 ml/min

8/31/2022 3:51 PM	01:15:00	4.95 pH	24.47 °C	110.14 µS/cm	3.22 mg/L	6.19 NTU	27.9 mV	27.30 ft	150.00 ml/min
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Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/1/2022 9:09:46 AM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-9 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 22.4 ft Total Depth: 27.4 ft Initial Depth to Water: 9.08 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 1500 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 1.29 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sampled at 0924. Cloudy 77 degrees. Purged dry on 8-31.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
9/1/2022 9:09 AM	00:00	4.71 pH	24.19 °C	158.71 µS/cm	0.37 mg/L	3.66 NTU	74.0 mV	9.72 ft	100.00 ml/min
9/1/2022 9:14 AM	05:00	4.63 pH	23.57 °C	148.24 µS/cm	0.19 mg/L	3.38 NTU	58.3 mV	10.14 ft	100.00 ml/min
9/1/2022 9:19 AM	10:00	4.61 pH	23.60 °C	147.43 µS/cm	0.17 mg/L	2.67 NTU	56.5 mV	10.37 ft	100.00 ml/min
9/1/2022 9:24 AM	15:00	4.60 pH	23.57 °C	147.67 µS/cm	0.15 mg/L	2.40 NTU	53.3 mV	10.37 ft	100.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 2:30:07 PM

Project: Grumman Road Landfill

Operator Name: A. Schnittker

Location Name: GWC-11 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 17.6 ft Total Depth: 22.6 ft Initial Depth to Water: 12.95 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 20 ft Estimated Total Volume Pumped: 9.1 liter Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min Final Draw Down: 31 in	Instrument Used: Aqua TROLL 400 Serial Number: 728566
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Test Notes:

Sample time 1545. Sunny 90s.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 5	
8/31/2022 2:30 PM	00:00	4.89 pH	26.62 °C	556.90 µS/cm	0.67 mg/L	9.58 NTU	125.8 mV	12.95 ft	130.00 ml/min
8/31/2022 2:35 PM	05:00	4.90 pH	26.79 °C	572.13 µS/cm	0.52 mg/L	7.47 NTU	115.5 mV	13.70 ft	130.00 ml/min
8/31/2022 2:40 PM	10:00	4.91 pH	26.33 °C	607.17 µS/cm	0.50 mg/L	6.74 NTU	131.4 mV	14.50 ft	130.00 ml/min
8/31/2022 2:45 PM	15:00	4.90 pH	26.42 °C	665.57 µS/cm	0.51 mg/L	5.56 NTU	111.7 mV	15.10 ft	130.00 ml/min
8/31/2022 2:50 PM	20:00	4.89 pH	26.27 °C	738.14 µS/cm	0.55 mg/L	4.50 NTU	129.8 mV	15.50 ft	130.00 ml/min
8/31/2022 2:55 PM	25:00	4.88 pH	25.99 °C	794.65 µS/cm	0.23 mg/L	3.16 NTU	142.6 mV	15.50 ft	130.00 ml/min
8/31/2022 3:00 PM	30:00	4.87 pH	26.36 °C	847.59 µS/cm	0.21 mg/L	2.69 NTU	129.8 mV	15.50 ft	130.00 ml/min
8/31/2022 3:05 PM	35:00	4.86 pH	26.47 °C	886.21 µS/cm	0.22 mg/L	2.64 NTU	133.2 mV	15.50 ft	130.00 ml/min
8/31/2022 3:10 PM	40:00	4.86 pH	25.92 °C	906.05 µS/cm	0.22 mg/L	2.45 NTU	138.3 mV	15.50 ft	130.00 ml/min
8/31/2022 3:15 PM	45:00	4.85 pH	26.05 °C	955.75 µS/cm	0.20 mg/L	3.04 NTU	141.8 mV	15.50 ft	130.00 ml/min
8/31/2022 3:20 PM	50:00	4.85 pH	26.11 °C	975.08 µS/cm	0.19 mg/L	2.76 NTU	145.6 mV	15.50 ft	130.00 ml/min
8/31/2022 3:25 PM	55:00	4.85 pH	26.11 °C	1,011.7 µS/cm	0.19 mg/L	2.64 NTU	182.3 mV	15.50 ft	130.00 ml/min
8/31/2022 3:30 PM	01:00:00	4.85 pH	25.97 °C	1,040.3 µS/cm	0.19 mg/L	2.46 NTU	188.7 mV	15.50 ft	130.00 ml/min
8/31/2022 3:35 PM	01:05:00	4.84 pH	26.06 °C	1,071.7 µS/cm	0.18 mg/L	2.54 NTU	156.3 mV	15.50 ft	130.00 ml/min
8/31/2022 3:40 PM	01:10:00	4.85 pH	26.10 °C	1,093.6 µS/cm	0.17 mg/L	2.43 NTU	192.9 mV	15.50 ft	130.00 ml/min

Low-Flow Test Report:

Test Date / Time: 8/30/2022 2:23:20 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-12 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 21.7 ft Total Depth: 26.7 ft Initial Depth to Water: 12.5 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 8800 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.52 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1503. Cloudy 85 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/30/2022 2:23 PM	00:00	4.30 pH	30.69 °C	737.90 µS/cm	3.64 mg/L	1.54 NTU	134.5 mV	12.91 ft	220.00 ml/min
8/30/2022 2:28 PM	05:00	4.10 pH	26.06 °C	750.50 µS/cm	0.10 mg/L	1.30 NTU	133.7 mV	12.97 ft	220.00 ml/min
8/30/2022 2:33 PM	10:00	4.09 pH	25.76 °C	784.07 µS/cm	0.05 mg/L	0.98 NTU	133.1 mV	13.01 ft	220.00 ml/min
8/30/2022 2:38 PM	15:00	4.06 pH	25.55 °C	789.91 µS/cm	0.02 mg/L	0.61 NTU	131.9 mV	13.02 ft	220.00 ml/min
8/30/2022 2:43 PM	20:00	3.98 pH	25.61 °C	837.29 µS/cm	0.02 mg/L	0.55 NTU	131.9 mV	13.02 ft	220.00 ml/min
8/30/2022 2:48 PM	25:00	3.95 pH	25.46 °C	894.09 µS/cm	0.01 mg/L	0.50 NTU	130.2 mV	13.02 ft	220.00 ml/min
8/30/2022 2:53 PM	30:00	3.94 pH	25.57 °C	913.71 µS/cm	0.01 mg/L	0.42 NTU	129.3 mV	13.02 ft	220.00 ml/min
8/30/2022 2:58 PM	35:00	3.92 pH	25.68 °C	928.36 µS/cm	0.00 mg/L	0.41 NTU	127.9 mV	13.02 ft	220.00 ml/min
8/30/2022 3:03 PM	40:00	3.92 pH	25.78 °C	924.84 µS/cm	0.01 mg/L	0.33 NTU	128.1 mV	13.02 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 9:36:30 AM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-13 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 19.5 ft Total Depth: 24.53 ft Initial Depth to Water: 14.27 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 22 ft Estimated Total Volume Pumped: 9100 ml Flow Cell Volume: 90 ml Final Flow Rate: 260 ml/min Final Draw Down: 0.33 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1011. Sunny 83 degrees. FD-02 taken here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/31/2022 9:36 AM	00:00	7.00 pH	32.15 °C	41.48 µS/cm	6.35 mg/L	4.13 NTU	128.6 mV	14.45 ft	260.00 ml/min
8/31/2022 9:41 AM	05:00	6.61 pH	25.96 °C	43.03 µS/cm	5.25 mg/L	3.47 NTU	129.9 mV	14.60 ft	260.00 ml/min
8/31/2022 9:46 AM	10:00	4.88 pH	25.10 °C	111.40 µS/cm	2.12 mg/L	3.31 NTU	124.0 mV	14.60 ft	260.00 ml/min
8/31/2022 9:51 AM	15:00	4.83 pH	24.59 °C	120.24 µS/cm	0.99 mg/L	1.99 NTU	119.7 mV	14.60 ft	260.00 ml/min
8/31/2022 9:56 AM	20:00	4.81 pH	24.79 °C	117.73 µS/cm	0.51 mg/L	1.70 NTU	112.9 mV	14.60 ft	260.00 ml/min
8/31/2022 10:01 AM	25:00	4.79 pH	24.74 °C	113.55 µS/cm	0.34 mg/L	1.52 NTU	109.0 mV	14.60 ft	260.00 ml/min
8/31/2022 10:06 AM	30:00	4.77 pH	24.87 °C	110.89 µS/cm	0.25 mg/L	1.26 NTU	106.0 mV	14.60 ft	260.00 ml/min
8/31/2022 10:11 AM	35:00	4.76 pH	24.95 °C	110.25 µS/cm	0.19 mg/L	1.18 NTU	104.0 mV	14.60 ft	260.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 11:15:54 AM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-14 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 22 ft Total Depth: 27 ft Initial Depth to Water: 19.45 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 8620.5 ml Flow Cell Volume: 90 ml Final Flow Rate: 210 ml/min Final Draw Down: 0.4 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1157. Mostly cloudy 81 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/30/2022 11:15 AM	00:00	5.01 pH	26.48 °C	78.54 µS/cm	4.80 mg/L	0.89 NTU	117.7 mV	19.72 ft	210.00 ml/min
8/30/2022 11:16 AM	01:03	4.99 pH	25.59 °C	78.80 µS/cm	4.53 mg/L	0.76 NTU	119.0 mV	19.85 ft	210.00 ml/min
8/30/2022 11:21 AM	06:03	5.31 pH	24.28 °C	198.29 µS/cm	4.02 mg/L	0.71 NTU	116.8 mV	19.85 ft	210.00 ml/min
8/30/2022 11:26 AM	11:03	5.71 pH	24.11 °C	553.70 µS/cm	2.43 mg/L	0.65 NTU	112.3 mV	19.85 ft	210.00 ml/min
8/30/2022 11:31 AM	16:03	5.79 pH	24.05 °C	704.63 µS/cm	1.61 mg/L	0.69 NTU	109.7 mV	19.85 ft	210.00 ml/min
8/30/2022 11:36 AM	21:03	5.82 pH	23.87 °C	765.16 µS/cm	1.36 mg/L	0.55 NTU	108.0 mV	19.85 ft	210.00 ml/min
8/30/2022 11:41 AM	26:03	5.83 pH	23.99 °C	803.27 µS/cm	1.22 mg/L	0.51 NTU	107.4 mV	19.85 ft	210.00 ml/min
8/30/2022 11:46 AM	31:03	5.85 pH	24.17 °C	843.56 µS/cm	1.06 mg/L	0.58 NTU	107.4 mV	19.85 ft	210.00 ml/min
8/30/2022 11:51 AM	36:03	5.86 pH	23.87 °C	867.16 µS/cm	1.00 mg/L	0.72 NTU	106.6 mV	19.85 ft	210.00 ml/min
8/30/2022 11:56 AM	41:03	5.86 pH	23.60 °C	880.86 µS/cm	0.99 mg/L	0.80 NTU	105.9 mV	19.85 ft	210.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 1:24:08 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-15 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 21.8 ft Total Depth: 26.8 ft Initial Depth to Water: 19.2 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 24 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.61 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1354. Mostly cloudy 90 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/31/2022 1:24 PM	00:00	6.52 pH	32.90 °C	566.76 µS/cm	2.72 mg/L	4.02 NTU	127.7 mV	19.51 ft	180.00 ml/min
8/31/2022 1:29 PM	05:00	6.58 pH	25.55 °C	702.65 µS/cm	0.10 mg/L	3.66 NTU	121.2 mV	19.67 ft	180.00 ml/min
8/31/2022 1:34 PM	10:00	6.58 pH	25.04 °C	719.66 µS/cm	0.06 mg/L	3.15 NTU	120.3 mV	19.77 ft	180.00 ml/min
8/31/2022 1:39 PM	15:00	6.58 pH	24.81 °C	715.13 µS/cm	0.03 mg/L	3.37 NTU	117.5 mV	19.81 ft	180.00 ml/min
8/31/2022 1:44 PM	20:00	6.58 pH	24.73 °C	719.96 µS/cm	0.01 mg/L	3.55 NTU	116.3 mV	19.81 ft	180.00 ml/min
8/31/2022 1:49 PM	25:00	6.57 pH	24.65 °C	710.01 µS/cm	0.01 mg/L	3.31 NTU	113.3 mV	19.81 ft	180.00 ml/min
8/31/2022 1:54 PM	30:00	6.57 pH	24.62 °C	709.92 µS/cm	0.01 mg/L	3.45 NTU	110.6 mV	19.81 ft	180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/1/2022 10:16:48 AM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-16 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 23.2 ft Total Depth: 28.2 ft Initial Depth to Water: 20.44 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 25 ft Estimated Total Volume Pumped: 5400 ml Flow Cell Volume: 90 ml Final Flow Rate: 180 ml/min Final Draw Down: 0.37 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sampled at 1046. Cloudy 79 degrees. FB-06 taken here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
9/1/2022 10:16 AM	00:00	4.92 pH	24.80 °C	728.25 µS/cm	1.53 mg/L	2.12 NTU	101.2 mV	20.60 ft	180.00 ml/min
9/1/2022 10:21 AM	05:00	5.13 pH	24.11 °C	1,580.6 µS/cm	0.31 mg/L	1.70 NTU	116.2 mV	20.77 ft	180.00 ml/min
9/1/2022 10:26 AM	10:00	5.18 pH	24.06 °C	1,639.6 µS/cm	0.31 mg/L	1.33 NTU	115.2 mV	20.81 ft	180.00 ml/min
9/1/2022 10:31 AM	15:00	5.27 pH	24.06 °C	1,778.5 µS/cm	0.29 mg/L	1.25 NTU	115.5 mV	20.81 ft	180.00 ml/min
9/1/2022 10:36 AM	20:00	5.32 pH	24.15 °C	1,837.0 µS/cm	0.28 mg/L	1.71 NTU	115.5 mV	20.81 ft	180.00 ml/min
9/1/2022 10:41 AM	25:00	5.35 pH	24.15 °C	1,883.7 µS/cm	0.29 mg/L	1.49 NTU	114.7 mV	20.81 ft	180.00 ml/min
9/1/2022 10:46 AM	30:00	5.37 pH	24.06 °C	1,907.9 µS/cm	0.31 mg/L	1.40 NTU	114.5 mV	20.81 ft	180.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 9:10:18 AM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWC-17 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 18.5 ft Total Depth: 23.5 ft Initial Depth to Water: 4.87 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 22 ft Estimated Total Volume Pumped: 25.3 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 14.7 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sunny, sample time-1135

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/31/2022 9:10 AM	00:00	7.55 pH	29.06 °C	3.69 µS/cm	7.80 mg/L	33.00 NTU	221.5 mV	4.87 ft	175.00 ml/min
8/31/2022 9:15 AM	05:00	6.17 pH	28.55 °C	269.48 µS/cm	0.63 mg/L	25.00 NTU	81.8 mV	5.20 ft	175.00 ml/min
8/31/2022 9:20 AM	10:00	6.16 pH	28.12 °C	272.90 µS/cm	0.38 mg/L	29.00 NTU	82.0 mV	5.60 ft	175.00 ml/min
8/31/2022 9:25 AM	15:00	5.23 pH	27.85 °C	1,278.9 µS/cm	0.25 mg/L	19.00 NTU	91.3 mV	5.80 ft	175.00 ml/min
8/31/2022 9:30 AM	20:00	4.93 pH	27.63 °C	1,479.2 µS/cm	0.19 mg/L	20.00 NTU	85.6 mV	6.00 ft	175.00 ml/min
8/31/2022 9:35 AM	25:00	4.99 pH	27.36 °C	1,225.4 µS/cm	0.16 mg/L	17.00 NTU	75.9 mV	6.10 ft	175.00 ml/min
8/31/2022 9:40 AM	30:00	6.44 pH	30.57 °C	0.77 µS/cm	7.30 mg/L	14.00 NTU	64.1 mV	6.10 ft	175.00 ml/min
8/31/2022 9:45 AM	35:00	6.41 pH	33.46 °C	0.52 µS/cm	7.05 mg/L	11.00 NTU	64.3 mV	6.10 ft	175.00 ml/min
8/31/2022 9:50 AM	40:00	4.96 pH	29.58 °C	1,417.4 µS/cm	0.32 mg/L	7.92 NTU	82.3 mV	6.10 ft	175.00 ml/min
8/31/2022 9:55 AM	45:00	4.96 pH	28.31 °C	1,441.5 µS/cm	0.13 mg/L	8.22 NTU	77.0 mV	6.10 ft	175.00 ml/min
8/31/2022 10:00 AM	50:00	4.96 pH	28.37 °C	1,441.0 µS/cm	0.11 mg/L	9.91 NTU	73.8 mV	6.10 ft	175.00 ml/min
8/31/2022 10:05 AM	55:00	4.92 pH	28.38 °C	1,479.1 µS/cm	0.10 mg/L	7.34 NTU	72.0 mV	6.10 ft	175.00 ml/min
8/31/2022 10:10 AM	01:00:00	6.16 pH	28.71 °C	260.86 µS/cm	0.16 mg/L	5.11 NTU	36.8 mV	6.10 ft	175.00 ml/min
8/31/2022 10:15 AM	01:05:00	6.19 pH	29.19 °C	261.83 µS/cm	0.16 mg/L	5.80 NTU	44.9 mV	6.10 ft	175.00 ml/min
8/31/2022 10:20 AM	01:10:00	6.18 pH	29.48 °C	263.56 µS/cm	0.16 mg/L	6.21 NTU	48.9 mV	6.10 ft	175.00 ml/min

8/31/2022 10:25 AM	01:15:00	4.93 pH	29.11 °C	1,465.6 µS/cm	0.08 mg/L	5.32 NTU	74.2 mV	6.10 ft	175.00 ml/min
8/31/2022 10:30 AM	01:20:00	4.95 pH	29.16 °C	1,309.0 µS/cm	0.07 mg/L	9.31 NTU	67.5 mV	6.10 ft	175.00 ml/min
8/31/2022 10:35 AM	01:25:00	6.17 pH	29.77 °C	250.84 µS/cm	0.15 mg/L	13.00 NTU	39.5 mV	6.10 ft	175.00 ml/min
8/31/2022 10:40 AM	01:30:00	4.97 pH	29.57 °C	1,496.6 µS/cm	0.12 mg/L	15.00 NTU	77.1 mV	6.10 ft	175.00 ml/min
8/31/2022 10:45 AM	01:35:00	6.15 pH	30.42 °C	271.89 µS/cm	0.13 mg/L	15.00 NTU	32.7 mV	6.10 ft	175.00 ml/min
8/31/2022 10:50 AM	01:40:00	6.18 pH	30.24 °C	250.14 µS/cm	0.15 mg/L	17.00 NTU	41.0 mV	6.10 ft	175.00 ml/min
8/31/2022 10:55 AM	01:45:00	4.87 pH	29.21 °C	1,535.8 µS/cm	0.08 mg/L	16.00 NTU	71.9 mV	6.10 ft	175.00 ml/min
8/31/2022 11:00 AM	01:50:00	4.86 pH	29.12 °C	1,540.3 µS/cm	0.06 mg/L	17.00 NTU	68.6 mV	6.10 ft	175.00 ml/min
8/31/2022 11:05 AM	01:55:00	4.86 pH	28.86 °C	1,539.7 µS/cm	0.05 mg/L	16.00 NTU	66.3 mV	6.10 ft	175.00 ml/min
8/31/2022 11:10 AM	02:00:00	4.83 pH	29.63 °C	1,557.9 µS/cm	0.05 mg/L	15.00 NTU	63.7 mV	6.10 ft	175.00 ml/min
8/31/2022 11:15 AM	02:05:00	4.81 pH	30.00 °C	1,579.2 µS/cm	0.04 mg/L	6.37 NTU	61.3 mV	6.10 ft	175.00 ml/min
8/31/2022 11:20 AM	02:10:00	4.45 pH	26.37 °C	2,154.7 µS/cm	0.03 mg/L	5.68 NTU	69.6 mV	6.10 ft	175.00 ml/min
8/31/2022 11:25 AM	02:15:00	4.37 pH	27.64 °C	2,266.3 µS/cm	0.03 mg/L	4.32 NTU	69.1 mV	6.10 ft	175.00 ml/min
8/31/2022 11:30 AM	02:20:00	4.36 pH	27.59 °C	2,222.5 µS/cm	0.03 mg/L	4.79 NTU	68.5 mV	6.10 ft	175.00 ml/min
8/31/2022 11:35 AM	02:25:00	4.33 pH	27.53 °C	2,251.2 µS/cm	0.03 mg/L	4.72 NTU	68.7 mV	6.10 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 12:41:33 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-20 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 20.59 ft Total Depth: 25.59 ft Initial Depth to Water: 20.87 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 8090 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.32 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes:

Sampled at 1323. Mostly cloudy 85 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/30/2022 12:41 PM	00:00	6.12 pH	28.36 °C	861.05 µS/cm	2.54 mg/L	8.11 NTU	135.8 mV	20.87 ft	200.00 ml/min
8/30/2022 12:46 PM	05:00	6.06 pH	25.10 °C	1,053.4 µS/cm	0.09 mg/L	7.57 NTU	134.9 mV	21.11 ft	200.00 ml/min
8/30/2022 12:51 PM	10:00	6.01 pH	24.67 °C	1,313.7 µS/cm	0.06 mg/L	4.46 NTU	134.1 mV	21.17 ft	200.00 ml/min
8/30/2022 12:56 PM	15:00	5.97 pH	24.74 °C	1,443.7 µS/cm	0.02 mg/L	3.70 NTU	133.0 mV	21.19 ft	200.00 ml/min
8/30/2022 1:01 PM	20:00	5.98 pH	24.61 °C	1,422.4 µS/cm	0.01 mg/L	3.22 NTU	130.3 mV	21.19 ft	200.00 ml/min
8/30/2022 1:06 PM	25:00	5.99 pH	24.51 °C	1,413.9 µS/cm	0.01 mg/L	2.73 NTU	127.9 mV	21.19 ft	200.00 ml/min
8/30/2022 1:07 PM	25:27	5.99 pH	24.51 °C	1,422.3 µS/cm	0.01 mg/L	2.70 NTU	127.5 mV	21.19 ft	200.00 ml/min
8/30/2022 1:12 PM	30:27	6.01 pH	24.51 °C	1,354.0 µS/cm	0.01 mg/L	2.61 NTU	123.6 mV	21.19 ft	200.00 ml/min
8/30/2022 1:17 PM	35:27	6.01 pH	24.58 °C	1,337.5 µS/cm	0.01 mg/L	2.40 NTU	120.8 mV	21.19 ft	200.00 ml/min
8/30/2022 1:22 PM	40:27	6.01 pH	24.64 °C	1,360.7 µS/cm	0.01 mg/L	2.24 NTU	118.7 mV	21.19 ft	200.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/30/2022 5:00:43 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: GWC-21 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 20.54 ft Total Depth: 25.54 ft Initial Depth to Water: 20.21 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 23 ft Estimated Total Volume Pumped: 5500 ml Flow Cell Volume: 90 ml Final Flow Rate: 220 ml/min Final Draw Down: 0.3 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
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Test Notes: Sampled at 1725. Mostly cloudy 87 degrees. Total purge time 70 minutes.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/30/2022 5:00 PM	00:00	5.76 pH	24.51 °C	804.88 µS/cm	2.32 mg/L	0.99 NTU	135.1 mV	20.51 ft	220.00 ml/min
8/30/2022 5:05 PM	05:00	5.76 pH	24.58 °C	921.12 µS/cm	2.32 mg/L	0.91 NTU	134.1 mV	20.51 ft	220.00 ml/min
8/30/2022 5:10 PM	10:00	5.75 pH	24.78 °C	947.61 µS/cm	2.24 mg/L	0.88 NTU	133.9 mV	20.51 ft	220.00 ml/min
8/30/2022 5:15 PM	15:00	5.76 pH	24.80 °C	957.16 µS/cm	2.17 mg/L	0.83 NTU	133.4 mV	20.51 ft	220.00 ml/min
8/30/2022 5:20 PM	20:00	5.75 pH	24.85 °C	973.61 µS/cm	2.05 mg/L	0.76 NTU	133.0 mV	20.51 ft	220.00 ml/min
8/30/2022 5:25 PM	25:00	5.76 pH	24.82 °C	977.36 µS/cm	1.97 mg/L	0.71 NTU	131.9 mV	20.51 ft	220.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 1:15:11 PM

Project: Grumman Road Landfill

Operator Name: J. Berisford

Location Name: GWC-22 Well Diameter: 2 in Casing Type: PVC Screen Length: 5 ft Top of Screen: 14.21 ft Total Depth: 19.21 ft Initial Depth to Water: 8.88 ft	Pump Type: Peri. Pump Tubing Type: Poly Pump Intake From TOC: 17 ft Estimated Total Volume Pumped: 6.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 175 ml/min Final Draw Down: 2.6 in	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sunny, sample time-1350

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
8/31/2022 1:15 PM	00:00	4.26 pH	41.75 °C	5.00 µS/cm	6.37 mg/L	3.28 NTU	217.0 mV	8.88 ft	175.00 ml/min
8/31/2022 1:20 PM	05:00	4.74 pH	30.43 °C	157.95 µS/cm	0.45 mg/L	3.11 NTU	68.1 mV	9.10 ft	175.00 ml/min
8/31/2022 1:25 PM	10:00	4.70 pH	28.69 °C	186.35 µS/cm	0.19 mg/L	2.69 NTU	72.8 mV	9.10 ft	175.00 ml/min
8/31/2022 1:30 PM	15:00	4.69 pH	28.20 °C	192.53 µS/cm	0.14 mg/L	2.44 NTU	74.9 mV	9.10 ft	175.00 ml/min
8/31/2022 1:35 PM	20:00	4.69 pH	27.88 °C	197.30 µS/cm	0.12 mg/L	2.30 NTU	76.4 mV	9.10 ft	175.00 ml/min
8/31/2022 1:40 PM	25:00	4.68 pH	27.91 °C	203.20 µS/cm	0.10 mg/L	2.54 NTU	77.2 mV	9.10 ft	175.00 ml/min
8/31/2022 1:45 PM	30:00	4.68 pH	28.01 °C	207.30 µS/cm	0.09 mg/L	2.80 NTU	78.7 mV	9.10 ft	175.00 ml/min
8/31/2022 1:50 PM	35:00	4.68 pH	27.61 °C	208.06 µS/cm	0.08 mg/L	2.75 NTU	79.4 mV	9.10 ft	175.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 3:23:27 PM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: MW-23D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 53.3 ft Total Depth: 63.3 ft Initial Depth to Water: 22.73 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 58 ft Estimated Total Volume Pumped: 13750 ml Flow Cell Volume: 90 ml Final Flow Rate: 250 ml/min Final Draw Down: 0.14 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
---	---	--

Test Notes:

Sampled at 1618. Mostly cloudy 90 degrees. FB-05 poured here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/31/2022 3:23 PM	00:00	6.70 pH	29.28 °C	196.56 µS/cm	5.53 mg/L	3.11 NTU	78.1 mV	22.83 ft	250.00 ml/min
8/31/2022 3:28 PM	05:00	6.25 pH	24.31 °C	226.06 µS/cm	0.21 mg/L	2.43 NTU	26.2 mV	22.87 ft	250.00 ml/min
8/31/2022 3:33 PM	10:00	6.26 pH	24.11 °C	225.97 µS/cm	0.11 mg/L	2.50 NTU	8.4 mV	22.87 ft	250.00 ml/min
8/31/2022 3:38 PM	15:00	6.26 pH	24.19 °C	225.83 µS/cm	0.08 mg/L	3.43 NTU	-1.2 mV	22.87 ft	250.00 ml/min
8/31/2022 3:43 PM	20:00	6.26 pH	24.55 °C	225.76 µS/cm	0.06 mg/L	3.75 NTU	-8.9 mV	22.87 ft	250.00 ml/min
8/31/2022 3:48 PM	25:00	6.25 pH	24.42 °C	232.65 µS/cm	0.04 mg/L	3.99 NTU	-13.1 mV	22.87 ft	250.00 ml/min
8/31/2022 3:53 PM	30:00	6.10 pH	24.30 °C	274.21 µS/cm	0.03 mg/L	2.94 NTU	-0.2 mV	22.87 ft	250.00 ml/min
8/31/2022 3:58 PM	35:00	6.09 pH	24.07 °C	261.04 µS/cm	0.02 mg/L	2.70 NTU	6.9 mV	22.87 ft	250.00 ml/min
8/31/2022 4:03 PM	40:00	6.08 pH	23.88 °C	258.68 µS/cm	0.02 mg/L	2.55 NTU	11.5 mV	22.87 ft	250.00 ml/min
8/31/2022 4:08 PM	45:00	6.08 pH	23.70 °C	239.92 µS/cm	0.01 mg/L	2.42 NTU	13.6 mV	22.87 ft	250.00 ml/min
8/31/2022 4:13 PM	50:00	6.08 pH	23.63 °C	230.35 µS/cm	0.01 mg/L	3.13 NTU	15.7 mV	22.87 ft	250.00 ml/min
8/31/2022 4:18 PM	55:00	6.06 pH	23.52 °C	231.42 µS/cm	0.01 mg/L	3.89 NTU	18.7 mV	22.87 ft	250.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 9/1/2022 11:29:06 AM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: MW-24D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 56.3 ft Total Depth: 66.3 ft Initial Depth to Water: 22.57 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 63 ft Estimated Total Volume Pumped: 9000 ml Flow Cell Volume: 90 ml Final Flow Rate: 300 ml/min Final Draw Down: 0.08 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850751
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Test Notes:

Sampled at 1159. Cloudy 80 degrees. FD-03 taken here.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
9/1/2022 11:29 AM	00:00	6.29 pH	28.18 °C	63.13 µS/cm	3.44 mg/L	5.50 NTU	60.3 mV	22.65 ft	300.00 ml/min
9/1/2022 11:34 AM	05:00	6.10 pH	24.26 °C	54.99 µS/cm	0.69 mg/L	4.77 NTU	58.5 mV	22.65 ft	300.00 ml/min
9/1/2022 11:39 AM	10:00	6.09 pH	23.91 °C	55.08 µS/cm	0.63 mg/L	4.25 NTU	59.3 mV	22.65 ft	300.00 ml/min
9/1/2022 11:44 AM	15:00	6.08 pH	23.90 °C	54.85 µS/cm	0.57 mg/L	4.26 NTU	60.2 mV	22.65 ft	300.00 ml/min
9/1/2022 11:49 AM	20:00	6.08 pH	23.72 °C	55.02 µS/cm	0.53 mg/L	4.27 NTU	60.7 mV	22.65 ft	300.00 ml/min
9/1/2022 11:54 AM	25:00	6.08 pH	23.79 °C	54.86 µS/cm	0.54 mg/L	4.27 NTU	60.9 mV	22.65 ft	300.00 ml/min
9/1/2022 11:59 AM	30:00	6.08 pH	23.86 °C	54.81 µS/cm	0.45 mg/L	4.17 NTU	61.2 mV	22.65 ft	300.00 ml/min

Samples

Sample ID:	Description:
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Low-Flow Test Report:

Test Date / Time: 8/31/2022 11:28:34 AM

Project: Grumman Road Landfill

Operator Name: Taylor Goble

Location Name: MW-25D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 60.2 ft Total Depth: 70.2 ft Initial Depth to Water: 20.79 ft	Pump Type: Peristaltic Pump Tubing Type: Poly Pump Intake From TOC: 65 ft Estimated Total Volume Pumped: 4500 ml Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 2.83 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883536
---	--	--

Test Notes:

Sampled at 1158. Mostly cloudy 89 degrees.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 2	+/- 5 %	+/- 10 %	+/- 10	+/- 25	+/- 0.3	
8/31/2022 11:28 AM	00:00	6.23 pH	29.97 °C	53.09 µS/cm	4.18 mg/L	1.30 NTU	94.9 mV	21.78 ft	150.00 ml/min
8/31/2022 11:33 AM	05:00	6.30 pH	25.23 °C	56.97 µS/cm	4.20 mg/L	1.21 NTU	91.6 mV	22.45 ft	150.00 ml/min
8/31/2022 11:38 AM	10:00	6.32 pH	24.96 °C	57.19 µS/cm	4.19 mg/L	1.17 NTU	90.8 mV	23.12 ft	150.00 ml/min
8/31/2022 11:43 AM	15:00	6.32 pH	25.32 °C	56.93 µS/cm	4.12 mg/L	0.92 NTU	90.5 mV	23.56 ft	150.00 ml/min
8/31/2022 11:48 AM	20:00	6.32 pH	25.53 °C	57.28 µS/cm	4.08 mg/L	0.77 NTU	89.9 mV	23.62 ft	150.00 ml/min
8/31/2022 11:53 AM	25:00	6.31 pH	25.52 °C	56.81 µS/cm	3.83 mg/L	0.73 NTU	91.0 mV	23.62 ft	150.00 ml/min
8/31/2022 11:58 AM	30:00	6.29 pH	25.84 °C	57.27 µS/cm	3.73 mg/L	0.55 NTU	90.2 mV	23.62 ft	150.00 ml/min

Samples

Sample ID:	Description:
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APPENDIX A

*Daily Instrument Calibration Logs
August 2022 Monitoring Event*



Daily Instrument Calibration Log

SITE: Grimman Rd
TECHNICIAN: A Schmitter

INSTRUMENT S/N: 11090C12353
INSTRUMENT TYPE: Hach 2100 Q Turbidity Meter
CAL. SOLUTION: 0 NTU - LOT # NA EXP. DATE: NA Fresh DI
10 NTU - LOT # A2122 EXP. DATE: 8/23
20 NTU - LOT # A2124 EXP. DATE: 8/23
NTU - LOT # EXP. DATE:
NTU - LOT # EXP. DATE:

Calibration Date: 8/31

Calibration Solution	Instrument Reading	
0.0	0.17	NTU
10.0	9.87	NTU
20.0	21.2	NTU
		NTU
		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU
		NTU
		NTU



Daily Instrument Calibration Log

SITE: Grumman Road Landfill
TECHNICIAN: Aschnittker

WATER LEVEL: Solinst
WATER LEVEL S/N: 377060

INSTRUMENT S/N: 728566
INSTRUMENT TYPE: _____

CAL. SOLUTION/S:	ID:	LOT #:	EXP. DATE:
PH 4	PH 4	16K617	11/23
PH 7	PH 7	26C169	3/24
PH 10	PH 10	166429	7/23
Cond	Cond	26F806	6/23
ORR	ORR	21140143	4/23
	ID:	LOT #:	EXP. DATE:
	ID:	LOT #:	EXP. DATE:

Calibration Date: 8/31/22
 RDO: 100% sat. = 100.83
 PH: 4.00 = 4.01 7.00 = 7.03 10.00 = 9.99
 CONDUCTIVITY: 1413 = 1392.2
 ORP (mV) 228 = 226.4

ph v 7.00

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____
 ORP (mV) _____

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____
 ORP (mV) _____

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____
 ORP (mV) _____

Calibration Date: _____
 RDO: 100% sat. = _____
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____
 CONDUCTIVITY: _____
 ORP (mV) _____



Daily Instrument Calibration Log

SITE: Grumman Road
 TECHNICIAN: T. Goble
 WATER LEVEL: Solinst
 WATER LEVEL S/N: 236986

INSTRUMENT S/N: 883536
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTION/S: ID: pH 4 LOT #: 21470032 EXP. DATE: 4/23
 ID: pH 7 LOT #: 266042 EXP. DATE: 7/24
 ID: pH 10 LOT #: 266019 EXP. DATE: 7/24
 ID: Cond LOT #: 21470032 EXP. DATE: 4/23
 ID: ORP LOT #: 21140143 EXP. DATE: 4/23

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 7-30-22
 RDO: 100% sat. = 94.50 **Midday pH check**
 PH: 4.00 = 4.17 7.00 = 7.17 10.00 = 10.20 7.0 = 7.01
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = N/A post recal check ✓
 CONDUCTIVITY: 4490 = 4550
 ORP (mV) 228 = 224.4

Calibration Date: 8-31-22
 RDO: 100% sat. = 99.96 **Midday pH check**
 PH: 4.00 = 4.06 7.00 = 6.99 10.00 = 10.00 7.0 = 7.04
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = N/A post recal check ✓
 CONDUCTIVITY: 4490 = 4396
 ORP (mV) 228 = 220.6

Calibration Date: 9-1-22
 RDO: 100% sat. = 103.81 **Midday pH check**
 PH: 4.00 = 3.99 7.00 = 6.97 10.00 = 10.13 7.0 = 7.03
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = N/A post recal check ✓
 CONDUCTIVITY: 1413 = 1055
 ORP (mV) 228 = 207.2

Calibration Date:
 RDO: 100% sat. = **Midday pH check**
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =

Calibration Date:
 RDO: 100% sat. = **Midday pH check**
 PH: 4.00 = 7.00 = 10.00 = 7.0 =
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: =
 ORP (mV) =



Daily Instrument Calibration Log

SITE: Plant Wansley
TECHNICIAN: T. Groble

INSTRUMENT S/N: 15040C040490
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # ← EXP. DATE: New DI
10 NTU - LOT # 2961801 EXP. DATE: 4/23
20 NTU - LOT # 2684801 EXP. DATE: 4/23

Calibration Date: 8-30-22

Calibration Solution	Instrument Reading	
0.0	0.19	NTU
10.0	10.8	NTU
20.0	17.7	NTU

100 = 97.7
800 = 793

Calibration Date: 8-31-22

Calibration Solution	Instrument Reading	
0.0	0.23	NTU
10.0	10.9	NTU
20.0	20.5	NTU

100 = 98.0
800 = 796

Calibration Date: 9-1-22

Calibration Solution	Instrument Reading	
0.0	0.28	NTU
10.0	10.8	NTU
20.0	20.3	NTU

100 = 103
800 = 801

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



Daily Instrument Calibration Log

SITE: Gummer Rd
 TECHNICIAN: J. Rufford
 WATER LEVEL: 30.45
 WATER LEVEL S/N: 267304

INSTRUMENT S/N: 850751
 INSTRUMENT TYPE: AquaTroll
 CAL. SOLUTIONS:

ID: <u>pH 4</u>	LOT #: <u>260293</u>	EXP. DATE: <u>3/24</u>
ID: <u>pH 7</u>	LOT #: <u>162340</u>	EXP. DATE: <u>12/23</u>
ID: <u>pH 10</u>	LOT #: <u>1610654</u>	EXP. DATE: <u>11/23</u>
ID: <u>COND</u>	LOT #: <u>1610805</u>	EXP. DATE: <u>11/22</u>
ID: <u>ORP</u>	LOT #: <u>268100</u>	EXP. DATE: <u>11/22</u>
ID:	LOT #:	EXP. DATE:
ID:	LOT #:	EXP. DATE:

Midday pH check
 Must be less than .10
 (6.90-7.10 range)
 Recalibrate if not within range

Calibration Date: 8/30/22

RDO: 100% sat. = 100.2 Midday pH check
 PH: 4.00 = 3.77 7.00 = 6.87 10.00 = 10.48 7.0 = 9.04
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1413
 ORP (mV) 228 = 228

Calibration Date: 8/31/22

RDO: 100% sat. = 100.4 Midday pH check
 PH: 4.00 = 9.06 7.00 = 7.08 10.00 = 9.90 7.0 = 7.62
 PH Recal (if needed): 4.00 = 7.00 = 10.00 = 7.0 = post recal check
 CONDUCTIVITY: 1413 = 1437
 ORP (mV) 228 = 226

Calibration Date:

RDO: 100% sat. = _____ Midday pH check
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Calibration Date:

RDO: 100% sat. = _____ Midday pH check
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____

Calibration Date:

RDO: 100% sat. = _____ Midday pH check
 PH: 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____
 PH Recal (if needed): 4.00 = _____ 7.00 = _____ 10.00 = _____ 7.0 = _____ post recal check
 CONDUCTIVITY: _____ = _____
 ORP (mV) _____ = _____



Daily Instrument Calibration Log

SITE: Plant Wansley
TECHNICIAN: J. Berkel

INSTRUMENT S/N: 171200063767
INSTRUMENT TYPE: Hach 2100Q
CAL. SOLUTION: 0 NTU - LOT # MA ← EXP. DATE: 11/20
10 NTU - LOT # A12012 EXP. DATE: 11/22
20 NTU - LOT # A1207 EXP. DATE: 11/22

Calibration Date: 8/30/22

Calibration Solution	Instrument Reading	
0.0	0.32	NTU
10.0	16.2	NTU
20.0	20.1	NTU

Calibration Date: 8/31/22

Calibration Solution	Instrument Reading	
0.0	0.29	NTU
10.0	9.87	NTU
20.0	20.3	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

APPENDIX A

*Well Inspection Forms
August 2022 Monitoring Event*

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

1 - Location/Identification		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

2 - Protective Outer Casing		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

3 - Surface Pad

		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

4 - Internal Well Casing		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):

		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	N/A	No	No	No

NOTE: N/A - Not Applicable
Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

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

	GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

7 - Corrective actions completed and Notes:

GWC-10 - Cable line hanging onto well pad.

Staff: T. Goble
Date: 8/29/2022

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

1 - Location/Identification		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

2 - Protective Outer Casing		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

3 - Surface Pad

		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

4 - Internal Well Casing		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):

		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	Yes	No	No	No	No	No	No	N/A	N/A

NOTE: N/A - Not Applicable
Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill
August 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

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

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

7 - Corrective actions completed and Notes:

Staff: T. Goble
Date: 8/29/2022

APPENDIX B

Semiannual Remedy Selection and Design Progress Report

**Grumman Road Private Industrial Landfill
Chatham County, Georgia
2022 Semiannual Groundwater Monitoring and Corrective Action Report**



February 2023
Grumman Road Private Industrial Landfill



Semiannual Remedy Selection and Design Progress Report

Prepared for Georgia Power Company

February 2023
Grumman Road Private Industrial Landfill

Semiannual Remedy Selection and Design Progress Report

Prepared for
Georgia Power Company
214 Ralph McGill Boulevard NE
Atlanta, Georgia 30308

Prepared by
Anchor QEA, LLC
9797 Timber Circle, Suite B
Daphne, Alabama 36527

Engineer's Certification

This *Semiannual Remedy Selection and Design Progress Report* has been prepared for Georgia Power Company's Grumman Road Private Industrial Landfill in accordance with the U.S. Environmental Protection Agency coal combustion residuals rule, specifically 40 Code of Federal Regulations 257.97(a) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a). This report describes the progress made during the second semiannual period of 2022 in selecting and designing a remedy previously documented in the *Assessment of Corrective Measures* (Anchor QEA 2020).

This report was prepared under the supervision and direction of the undersigned, whose seal as a registered professional engineer is affixed below. The undersigned is practicing through Anchor QEA, LLC, which is an authorized engineering business in the State of Georgia (Certificate of Authorization license number PEF006751; a copy of this license is provided in Appendix A). I hereby certify that I am a qualified groundwater scientist in accordance with the Georgia Rules of Solid Waste Management and 40 Code of Federal Regulations Part 258.50(g).



Kristi Ann Mitchell

Kristi Ann Mitchell, Managing Engineer
Georgia Professional Engineer No. PE049188

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APPENDICES

Appendix A Certificate of Authorization
Appendix B Trend Test Graphs
Appendix C Well Survey

ABBREVIATIONS

ACM	assessment of corrective measures
ACM Report	<i>Assessment of Corrective Measures</i>
CCR	coal combustion residuals
CFR	Code of Federal Regulations
Clifton Landfill	Clifton Rental Company, Inc., Landfill
CSM	conceptual site model
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
GWPS	groundwater protection standard
ISS	in situ stabilization/solidification
mg/L	milligram per liter
MNA	monitored natural attenuation
PRB	permeable reactive barrier
Site	Grumman Road Private Industrial Landfill
SRIL	Savannah Regional Industrial Landfill
SSL	statistically significant level
transport model	groundwater flow and reactive transport model

1 Introduction

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4.10(6)(a), this *Semiannual Remedy Selection and Design Progress Report* has been prepared for the Grumman Road Private Industrial Landfill (Site). Assessment of corrective measures (ACM) requirements of GA EPD Rule 391-3-4.10(6)(a) are incorporated by reference from the U.S. Environmental Protection Agency coal combustion residuals (CCR) rule (40 Code of Federal Regulations [CFR] Part 257, Subpart D).

This progress report supports the *Assessment of Corrective Measures* (ACM Report; Anchor QEA 2020), which Georgia Power Company (Georgia Power) submitted on December 4, 2020. Georgia Power has placed the ACM Report in the Site's operating record and posted it to the Site's CCR rule compliance website. The purpose of the ACM Report (and subsequent semiannual progress reports) is to evaluate potential corrective measures to address the occurrence of arsenic and molybdenum in groundwater at statistically significant levels (SSLs). This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures to improve groundwater quality.

Pursuant to 40 CFR 257.97, Georgia Power is evaluating the potential corrective measures presented in the ACM Report to identify an appropriate remedy or combination of remedies as soon as is feasible (Anchor QEA 2020). In the ACM Report, the following remedies were considered feasible for corrective measures for groundwater at the Site:

- Geochemical approaches (in situ injection)
- Hydraulic containment (pump-and-treat)
- In situ stabilization/solidification (ISS)
- Monitored natural attenuation (MNA)
- Permeable reactive barrier (PRB) wall
- Phytoremediation
- Subsurface vertical barrier wall

A comparative screening of these corrective measures is presented in Table 1 and summarized in Section 5.

This *Semiannual Remedy Selection and Design Progress Report* is included as an appendix to the *2022 Semiannual Groundwater Monitoring and Corrective Action Report* (ACC 2023). Georgia Power will include future semiannual remedy selection progress reports as an appendix to the routine semiannual groundwater monitoring and corrective action reports.

Georgia Power has proactively initiated adaptive site management as outlined in the ACM Report (Anchor QEA 2020) to support the groundwater remedy selection process and address potential

changes in Site conditions as appropriate. The adaptive site management approach takes existing Site conditions, including natural attenuation mechanisms, into account.

1.1 Site Background

The Site, located in Port Wentworth, Georgia, is a permitted industrial landfill owned and operated by Georgia Power previously used for disposal of coal ash from Georgia Power's Plant Kraft. The Site has not received ash since Plant Kraft was retired in late 2015, exempting it from the requirements of the federal CCR rule. The Site location is shown in Figure 1.

The Site is adjacent to two other permitted solid-waste disposal facilities: one to the east and the other to the south (Figure 1). The closed Clifton Rental Company, Inc., Landfill (Clifton Landfill; Permit No. 025-030D(L)) is east, hydraulically upgradient of and cross gradient to the Site. Based on available information, Clifton Landfill was not constructed with a synthetic liner or leachate collection system (which was consistent with GA EPD requirements at the time of construction), and waste extends below the water table. As described in previous reports (ACC 2019a; Anchor QEA 2019), strong physical and geochemical evidence supports the mobilization of arsenic and molybdenum by landfill leachate coming onto the Site from the adjacent Clifton Landfill. The active Savannah Regional Industrial Landfill (SRIL) operated by Republic Services, Inc. (Permit No. 025-072D(L)) is south of the Site and hydraulically downgradient of both Clifton Landfill and the Site. SRIL is constructed with a synthetic liner and leachate collection system meeting the requirements specified in GA EPD Rule 391-3-4-.14.

The Site consists of four parcels—A, B1, B2, and B3—comprising approximately 33 acres (Figure 2). Closure of the Site has been completed in accordance with the landfill permit and performance standards listed in 40 CFR 257.102(d)(3) and adopted by GA EPD Rule 391 3 4.10(7). Parcels A and B1 were initially closed in 2004, and Parcels B2 and B3 were closed in 2017 (SCG 2007; Brantley Engineering 2017). A new final cover system over Parcel A', the portion of Parcel A outside the original closure area, was installed in 2019 to meet the requirements of GA EPD Rule 391 3 4.10(7) (Brantley Engineering 2019). The final closure certification report was submitted to GA EPD on November 25, 2019 (Brantley Engineering 2019). The Site is permitted under Solid Waste Handling Permit No. 025-061D(LI).

1.2 Nature and Extent

1.2.1 Current SSL Status

Groundwater monitoring has been performed at the Site since 2000, in accordance with a state permit. Assessment monitoring was initiated in 2005 under the state program. Since that time, additional investigations and landfill closures have been performed, the conceptual site model (CSM) has been updated based on additional investigations, and ACMs have been prepared and updated

(for example, *Assessment of Corrective Measures – 2019 Addendum* [ACC 2019a]). A summary of groundwater monitoring and site investigations can be found in the most recent ACM Report for the Site (Anchor QEA 2020).

Under GA EPD regulations applicable to the Site (GA EPD Rule 391-3-4.10(6)(a)), background sampling occurred between 2016 and 2018. Groundwater detection monitoring began following completion of background sampling, with the first sampling event occurring in March 2019. Statistically significant increases of 40 CFR 257 Appendix III constituents were noted as described in the *Supplemental 2019 First Semiannual Groundwater Monitoring Report* (ACC 2019b). The Appendix III statistically significant increases triggered assessment sampling for 40 CFR 257 Appendix IV constituents. Subsequent monitoring verified Appendix IV constituents arsenic and molybdenum at SSLs that exceeded groundwater protection standards (GWPSs).

Recurring SSLs that exceeded the GWPS for arsenic (0.0287 milligram per liter [mg/L]) and molybdenum (0.1 mg/L) during the most recent (August 2022) assessment monitoring event are summarized as follows (ACC 2023):

- Arsenic GWPS exceedances were identified at monitoring wells GWC-15, GWC-16, and GWC-20.
- Molybdenum GWPS exceedances were identified at monitoring wells GWC-16 and GWC-20.

Based on GA EPD guidance, wells with SSLs were further evaluated by Groundwater Stats Consulting, LLC, using the Sen's Slope/Mann-Kendall trend test (Appendix B). The full report generated from the analyses is provided in Appendix C of the *2022 Semiannual Groundwater Monitoring and Corrective Action Report* (ACC 2023). A statistically significant increasing trend was identified for arsenic at GWC-15. No statistically significant increasing trends were identified for the other well/constituent pairs.

Pursuant to 40 CFR 257.96, groundwater at the Site continues to be monitored in accordance with the established assessment monitoring program while potential corrective measures are evaluated (ACC 2023). Monitoring well locations are shown in Figure 3.

1.2.2 Geochemistry and Influence of Adjacent Clifton Landfill

Arsenic and molybdenum have been detected at elevated concentrations in monitoring wells at the boundary between the Site and the adjacent closed Clifton Landfill. Based on previous studies, leachate-impacted groundwater from the adjacent Clifton Landfill migrates onto the Site, impacting monitoring wells at the Site. Potentiometric surface contours from the August 29, 2022, gauging event are shown in Figures 4 and 5. The leachate-impacted groundwater contains elevated dissolved organic carbon, which induces reducing groundwater conditions that drive the reductive dissolution of iron oxides present in the subsurface solid matrix and subsequent release of associated species

(e.g., arsenic and molybdenum). Iron oxides are naturally present in soils as grain coatings and are also a significant component of ash. Iron oxides are a host phase for many trace elements, including arsenic and molybdenum. Based on soil samples previously collected at the Site, the iron oxide content of ash is higher than that of the background soils.

SSLs of arsenic and molybdenum appear to be due to mobilization by the landfill leachate-impacted groundwater migrating onto the Site. As leachate-impacted groundwater travels beneath the Site, reductive dissolution of iron oxides releases arsenic and molybdenum that are adsorbed on and coprecipitated in the iron oxides naturally present in soils and ash. Arsenic and molybdenum concentrations increase along the groundwater flow path and are highest near the hydraulically downgradient southeast corner of the Site (Figures 4 and 5).

The study summarized in the previously submitted *Arsenic Mobilization Laboratory Evaluation* (Anchor QEA 2019) and the Site conditions suggest control of leachate impacts to groundwater from Clifton Landfill would be expected to greatly reduce groundwater arsenic (and, by geochemical inference, molybdenum) concentrations at the Site. Similarly, groundwater corrective actions for arsenic and molybdenum will likely not be effective until leachate from Clifton Landfill is controlled.

1.2.3 Current Delineation Status

Isoconcentration maps that show the interpreted extent of arsenic and molybdenum, as well as the posted data from the August 2022 semiannual sampling, are shown in Figures 4 and 5. The applicable laboratory analytical report for this data is provided in the *2022 Semiannual Groundwater Monitoring and Corrective Action Report* (ACC 2023). Appendix B shows concentration versus time graphs for wells with SSLs of arsenic or molybdenum and arsenic and molybdenum concentrations versus time in background wells.

Vertical delineation of arsenic and molybdenum in groundwater beneath the Site has been achieved (ACC 2023). Data from the August 2022 semiannual monitoring event at SRIL indicate arsenic is horizontally delineated below the GWPS by upgradient SRIL wells GWA-6 and GWA-12B, just south of the Site (CEC 2022). Horizontal delineation of molybdenum was completed using a groundwater flow and reactive transport model (transport model; Anchor QEA 2021a; Figure 6), which was submitted to GA EPD on November 19, 2021. Based on the transport model, molybdenum is horizontally delineated to below the GWPS a short distance south of the northern boundary of SRIL. The transport model has been submitted to GA EPD in its entirety (Anchor QEA 2021a) and is only summarized herein. A neighbor notification was submitted to Republic Services, Inc., on September 25, 2020, notifying it of these arsenic and molybdenum detections.

Details regarding current statistical analysis, nature, and extent are provided in Sections 4 and 5, respectively, of the *2022 Semiannual Groundwater Monitoring and Corrective Action Report* (ACC 2023).

1.2.4 Transport Model

In support of the previously submitted ACM Report (Anchor QEA 2020), a transport model was developed and submitted to GA EPD for the purposes of off-site delineation of molybdenum concentrations in groundwater south of the Site (Anchor QEA 2021a).

The findings from the transport modeling showed molybdenum concentrations in groundwater above the Site GWPS that originate from the Site have likely migrated a short distance beneath but not reached the southern boundary of SRIL (Anchor QEA 2021a). An isoconcentration contour map depicting simulated molybdenum concentrations exceeding the GWPS (0.1 mg/L) after 41 years of migration (i.e., 1980 to 2021) is presented in Figure 6. This figure depicts the overall extent of simulated concentrations exceeding the GWPS based on the four scenarios included in the sensitivity analysis, which provides a conservative estimate of the overall extent of current impacts based on the data available for this transport model. The simulated concentrations shown in Figure 6 overestimate the extent of molybdenum to the southeast, as it is delineated by SRIL upgradient well GWA-12B.

Additional details on the groundwater model are presented in the *Transport Modeling Report* (Anchor QEA 2021a).

1.3 Well Survey Update

As requested by GA EPD, the potable well survey within a 2-mile radius of the Site consisting of reviewing federal, state, and county records, and online sources was updated. No new wells were identified in the 2023 survey. The potable well survey is attached in Appendix C.

2 Summary of Work Completed

A draft geochemical CSM report has been prepared to support the remedy selection efforts being completed at the Site. The purpose of the geochemical CSM report is to document Site geochemical conditions for arsenic and molybdenum. This report integrates data previously submitted to GA EPD as part of routine semiannual remedy selection and design progress reports. The geochemical CSM is currently under review and will be submitted with the draft remedy selection report.

3 Summary of Results

There are no new field or analytical laboratory results to discuss during this progress reporting period.

4 Updated Conceptual Site Model

The updated CSM discussed in the February 2022 *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2022a) noted that the identified hydrogeological units at the Site consist of four units comprising the near-surface aquifer system. They have been identified as follows:

- Upper Sands and Topsoil Unit—Variably Saturated Zone: silty, fine sand
- Unit 1—Uppermost Aquifer: silty, fine sand
- Unit 2—Low Permeability Zone: interbedded sand, silt, and clay
- Unit 3—Lower Sand Aquifer: silty and/or clayey fine to medium sand

Unit 2 is absent in some areas of the Site, such as along its southern and southeastern parts. The unit, where present, acts as a semi-confining unit, impeding downward migration to Unit 3 and creating perched water within Unit 1. Where Unit 2 is absent, however, hydraulic communication does exist between Units 1 and 3. Two cross sections presented in the *Transport Modeling Report* and *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2021a, 2021b) are included in Figures 7 and 8. Detailed descriptions of these units are provided in the ACM Report and *Transport Modeling Report* (Anchor QEA 2020, 2021a).

The following bullets summarize the current understanding of the CSM within the context of selecting an appropriate groundwater corrective measure for the Site:

- As discussed in Sections 1.2.3 and 1.2.4, horizontal and vertical delineation at the Site is complete.
 - Arsenic and molybdenum are vertically delineated by on-site monitoring wells.
 - Arsenic is horizontally delineated by upgradient SRIL wells GWA-6 and GWA-12B, just south of the Site (CEC 2022).
 - Molybdenum is horizontally delineated to below the GWPS north of the southern boundary of SRIL by the transport model.
- The soil characterization data indicate iron oxides are most relevant for arsenic and molybdenum fate and transport (Anchor QEA 2022b).
 - Iron oxides are more abundant than aluminum oxides in site soils, and arsenic and molybdenum are adsorbed more strongly by iron oxides than by aluminum oxides.
 - Clay minerals are not abundant in Site soils (as indicated by low cation exchange capacity) and, therefore, do not play a significant role in attenuating arsenic and molybdenum fate and transport at the Site.
 - The lower iron oxide content of Unit 1 soil samples is consistent with leaching by groundwater impacted by Clifton Landfill leachate, which likely released arsenic and molybdenum to Site groundwater. The higher iron oxide content and absence of GWPS exceedances in Unit 3 indicate these impacts are limited to Unit 1 groundwater.

- The higher aluminum oxide content in Unit 1 soil samples is also consistent with enhanced weathering of primary aluminosilicate minerals by organic acids that would be present in landfill leachate.

5 Updated Evaluation of Corrective Measures

Closure of the Site and installation of a cover system in 2019 provide source control that reduces the potential for migration of CCR constituents to groundwater. The corrective measures proposed in the ACM Report (Anchor QEA 2020) were further evaluated based on site-specific conditions to address SSLs in groundwater at the Site. Each individual corrective measure was evaluated relative to criteria specified in 40 CFR 257.96(c) and 257.97(b).

A comparative evaluation and feasibility assessment of the corrective measures is provided in Table 1, which includes a brief overview of each corrective measure as follows:

- Geochemical approaches
- Hydraulic containment (pump-and-treat)
- ISS
- MNA
- PRB walls
- Phytoremediation
- Subsurface vertical barrier walls

Detailed descriptions of these corrective measures are provided in the July 2021 *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2021b).

5.1 Corrective Measures Retained

The following corrective measures are considered feasible and retained for further analyses¹:

- Geochemical approaches (in situ injection)
 - Geochemical approaches involve modifying the subsurface geochemistry of the Site by injection of reagents to create a treatment zone and immobilize arsenic and molybdenum in situ.
 - Based on the results of the bench-scale treatability results presented in the February 2022 progress report (Anchor QEA 2022a), the following specific geochemical approaches are retained for consideration as a corrective remedy:
 - Aeration with iron addition: effective in the removal of both arsenic and molybdenum
 - Chemical oxidation with permanganate: effective in the removal of both arsenic and molybdenum
- MNA

¹ Groundwater corrective actions for arsenic and molybdenum will likely not be effective until leachate from Clifton Landfill is controlled.

- Based on the MNA evaluation results presented in the February 2022 progress report (Anchor QEA 2022a), MNA continues to be retained as a potential corrective measure.
 - X-ray fluorescence results showed a correlation between arsenic and iron, and molybdenum and iron concentrations.
 - Geochemical stability results show Site groundwater Eh-pH conditions are likely controlled by an amorphous hydrous iron oxide [Fe(OH)₃(a)]. Iron oxides are, therefore, expected to be present and stable in Site soils in absence of impacts from Clifton Landfill leachate.
 - Soil extractions confirmed the ubiquitous presence of amorphous iron and aluminum oxides, which are strong sorbents for many metals and metalloids, including arsenic and molybdenum, in Site soils.
 - Column testing showed that, overall, Site soils attenuate arsenic and, in some cases, molybdenum.
- Phytoremediation
 - Phytoremediation could provide some hydraulic containment through targeted placement of TreeWells, which function like small pumping wells via transpiration.

5.2 Corrective Measures Not Retained

The following corrective measures are not recommended for further evaluation or implementation due to site-specific conditions:

- ISS, also known as deep soil mixing, is a method for solidifying soil or waste material, immobilizing constituents of interest in the solid matrix, and reducing leaching of the constituents to groundwater. ISS was not retained because this technology is less effective or not applicable to dilute concentrations of arsenic and molybdenum in groundwater beyond the facility boundary as compared to the other options evaluated.
- Hydraulic containment (pump-and-treat)
- PRB walls
- Subsurface vertical barrier walls, either stand-alone or in conjunction with PRB walls in a funnel-and-gate configuration

Detailed explanation of why the latter three of these corrective measures are no longer retained for consideration is provided in the July 2021 *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2021b).

6 Planned Activities and Anticipated Schedule

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Anchor QEA 2020) to support the remedial strategy and address potential changes in Site conditions as appropriate. The adaptive site management approach may be adjusted over the Site's life cycle as new Site information and technologies become available. Georgia Power will continue its data collection efforts as necessary to refine the CSM and further evaluate the feasibility of each corrective measure proposed in the ACM Report. The corrective measures that continue to be evaluated are presented in Section 5 and explained in Table 1. Once sufficient data are available to make technically sound decisions regarding the ability to implement one or more specific corrective measures, appropriate steps will be taken to design and implement a remedy for the Site.

Specific activities to be performed during the next semiannual reporting period include the following:

- Analyze and evaluate trends for effectiveness of source control and plume stability.
- Collect additional geochemical data to refine the CSM.
- Evaluate concentration versus time graphs to determine if natural attenuation is already occurring through time. If data are sufficient, estimate time to achieve GWPSs from the graphs.

Georgia Power will continue to prepare semiannual remedy selection progress reports to document groundwater conditions, results associated with additional data gathering, and the progress in selecting and designing the remedy in accordance with 40 CFR 257.97(a). Georgia Power will include future semiannual remedy selection progress reports in routine groundwater monitoring and corrective action reports. Georgia Power will submit a draft remedy selection report, under separate cover, with the next routine groundwater monitoring and corrective action report. Recordkeeping, notifications, and publicly accessible website requirements for the semiannual remedy selection progress reports will be provided in accordance with 40 CFR 257.105(h)(12), 257.106(h)(9), and 257.107(h)(9), respectively.

7 References

- ACC (Atlantic Coast Consulting, Inc.), 2019a. *Assessment of Corrective Measures – 2019 Addendum*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. October 2019.
- ACC, 2019b. *Supplemental 2019 First Semiannual Groundwater Monitoring Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. August 2019.
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Table

Table 1
Evaluation of Remedial Technologies

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(1)			
	Description	Performance	Reliability	Ease or Difficulty of Implementation	Potential Impacts of Remedy
Geochemical approaches (oxidation by physical or chemical means; adsorption to or coprecipitation with iron compounds via injection of treatment chemicals)	Geochemical approaches involve modifying the geochemistry of the Site to immobilize arsenic and molybdenum on solids created by injection. Depending upon the objective and Site geochemical conditions, immobilization may be achieved by oxygenation or injection of the appropriate treatment solutions. Oxygenation may be achieved chemically by injecting oxidants, placing slow-release oxidizing chemical candles in wells, or by physical methods such as air sparging or installation of Waterloo Emitters in wells. Other forms of geochemical approaches (also known as enhanced attenuation) include the injection of treatment solutions to immobilize constituents by precipitation/coprecipitation and/or sorption. The treatment solutions would likely contain iron compounds to create ferrihydrite to sorb arsenic and molybdenum, or to precipitate sulfide minerals, which incorporate arsenic and molybdenum into their mineral structures.	The performance of this remedy is considered medium. Leachate from the Clifton Landfill would need to be controlled for both oxidation and adsorption/coprecipitation to be effective. If not controlled, the reducing characteristics of Clifton Landfill leachate would produce reductive dissolution of iron or other natural or introduced metal oxides, which would release arsenic and molybdenum bound to those oxides.	The reliability of this remedy is considered medium. Multiple injections will likely be required for chemical-based approaches. For physical approaches (such as sparging wells and emitters), mechanical components would need to be maintained.	Implementation of this remedy would be easy to moderate. For chemical approaches, laboratory treatability studies would need to be scaled up to field conditions, injection wells installed, or a system using direct push technology designed. For physical approaches, mechanical components would need to be designed, installed, and maintained.	The unintended release of constituents currently bound to soil is possible if inappropriate treatment chemicals or oxidizing agents are used. Also, treatment chemicals need to be tested for Appendix IV impurities before injection to avoid accidental introduction.
Hydraulic containment (pump-and-treat)	Hydraulic containment uses pumping wells (and sometimes injection wells, trenches, and/or galleries) to contain and prevent the expansion of impacted groundwater by creating a horizontal and vertical capture zone or a hydraulic barrier. If pumped, the water may be reused in beneficial applications or treated, discharged, or reinjected after treatment. Reinjection contributes to hydraulic containment by creating a hydraulic barrier of clean water. Hydraulic containment in various applications (including pump-and-treat) is applicable to arsenic and molybdenum because conventional and proven water treatment technologies are available for arsenic and molybdenum.	Hydraulic containment via pump-and-treat has been used for groundwater corrective action for decades. When the pump-and-treat system is online, the performance is considered high. Arsenic and molybdenum are readily treated, and if the system subsurface hydraulics are designed properly, the area of impact will stabilize or shrink.	Because the pump-and-treat system requires substantial operation and maintenance, reliability is considered medium. Pumps, piping, and the water treatment system must be maintained and will be offline occasionally for various reasons.	Hydraulic containment via pump-and-treat is difficult to implement due to design; installation of wells, pumps, and piping; and space constraints. An on-site water treatment plant would be required to accommodate the quantity and constituents in the pumped groundwater. Because the quantity of water requiring treatment cannot be determined without further study, the design parameters of the treatment system would also need to be verified through additional investigations.	Hydraulic containment via pump-and-treat will alter groundwater-flow hydraulics beneath and adjacent to the Site.
In situ solidification/stabilization	ISS, also known as deep soil mixing, is a method for solidifying soil or waste material, immobilizing constituents of interest in the solid matrix, and reducing leaching of the constituents to groundwater. ISS both reduces permeability and chemically binds constituents of interest such as arsenic and molybdenum. Materials specific to the constituents of interest (e.g., ferrous sulfate or zero-valent iron for arsenic and molybdenum) may be added in small quantities to further reduce leaching of the constituents. In ISS, Portland cement and, sometimes, select chemical additives are mixed with soil or waste material using a bucket, large augers, or rotary methods. At the Site, ISS would be used as a source control measure to solidify/stabilize ash beneath the water table, thereby reducing leaching to groundwater. Due to the ISS application depths required at the Site, mixing by auger is likely the only viable application method.	Performance is considered high, as leaching of constituents can be greatly reduced in both laboratory treatability studies, and subsequent field applications. Site-specific performance would need to be assessed with laboratory treatability and, possibly, a field pilot test.	Reliability is considered high because the stabilized block does not require maintenance and is essentially permanent.	Ease of implementation is considered moderate at the Site because mixing would need to be implemented at depth from the top or slopes of the ash landfill. Depending upon the method of application, a cement batch plant (and associated pumps) may need to be constructed at the Site.	ISS may cause a temporary spike of arsenic and, possibly, molybdenum in groundwater at the time of implementation. This spike is expected to dissipate, and groundwater arsenic and molybdenum concentrations are expected to fall below pre-implementation values with time.

Table 1
Evaluation of Remedial Technologies

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(1)			
	Description	Performance	Reliability	Ease or Difficulty of Implementation	Potential Impacts of Remedy
MNA	MNA relies on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other, more active, methods. For arsenic and molybdenum, the primary mechanisms of natural attenuation include sorption to iron compounds such as ferrihydrite or iron sulfide minerals, precipitation and coprecipitation with sparingly soluble sulfide minerals and other compounds, and physical processes such as dispersion (USEPA 2007a, 2007b; EPRI 2015). Under favorable conditions, these processes act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater.	The performance of MNA requires further investigation, especially related to the identification of attenuating mechanisms, aquifer capacity for attenuation, and time to achieve GWPS. The aquifer material at the Site contains significant silt and/or clay, which favors natural attenuation mechanisms such as sorption. However, leachate from the Clifton Landfill is likely mobilizing arsenic and, possibly, molybdenum from ash and natural soil, resulting in a continued source of those constituents to groundwater if not controlled. Therefore, MNA performance is considered medium to high if landfill leachate from Clifton Landfill is controlled.	Reliability of MNA will be relatively high because MNA requires almost no operation and maintenance.	Implementation of MNA at the Site will be relatively easy. Most of the wells for MNA are already in place, though a few additional wells may need to be installed to monitor progress in critical areas.	Potential impacts of the remedy will be negligible because MNA is non-intrusive and produces no effluents or emissions.
PRB wall (containing sorptive media, oxygenation chemicals, or organic matter)	A PRB wall is the emplacement of chemically reactive materials in the subsurface to intercept impacted groundwater, provide a flow path through the reactive media, and capture or transform the constituents in groundwater to achieve GWPS downgradient of the PRB wall. PRB walls are an in situ technology that allows impacted water to flow through the media and provides a barrier to constituents, rather than to groundwater flow, thereby reducing constituents downgradient of the reactive barrier to compliance levels (Powell et al. 1998, 2002). PRB walls may be constructed as funnel-and-gate systems. In a PRB wall implementation, reactive media may be emplaced in a trench or mixed directly with the soil or aquifer media using augers or other mixing techniques. If emplaced in a trench, coarse sand is usually included to maintain permeability through the wall. Effective reactive media are commercially available for arsenic and molybdenum. Depending on the site conditions and the objective of the PRB wall, three types of media could be used: oxygenating chemicals, adsorptive media, or organic matter and chemicals to create sulfide minerals (i.e., a biowall).	When working effectively in suitable conditions, PRB walls can reduce constituents to GWPS downgradient of the walls. However, because of site-specific uncertainties associated with the reactive media and subsurface hydraulics, performance is considered medium to high.	Because the reactive media are expended, may clog through time, and will need to be replaced, reliability is considered medium.	Because it involves trenching or mixing with augers, and due to space constraints, ease of implementation is considered moderate to difficult.	Alteration of subsurface hydraulics (flow) may be a potential impact of this remedy.
Phytoremediation	Phytoremediation uses trees or other plants to take up or immobilize constituents or achieve some level of hydraulic containment. Hyperaccumulating plants are available for arsenic and molybdenum, but the roots of those plants are too shallow to access impacted groundwater at the Site. Some level of hydraulic containment could be achieved at the Site using trees, including the engineered TreeWell system. Transpiration of groundwater causes the TreeWell to act like a pumping well. Trees can affect hydraulic gradients and groundwater flow by removal of water and thus can be used to create a partial barrier to groundwater flow. This process may be enhanced by planting the tree in a column of more permeable material (e.g., the TreeWell system), such that water preferentially flows toward the TreeWell. In addition, some arsenic and molybdenum may be immobilized within the root zone or incidentally taken up into the tree biomass.	The performance of TreeWells is considered medium because the trees may not transpire (pump) enough water to maintain hydraulic containment based on site-specific conditions.	The reliability of TreeWells is considered medium because the trees may not transpire (pump) as much during winter.	Implementation of hydraulic containment using trees will be relatively easy, primarily consisting of constructing the TreeWells and planting the trees.	None have been identified.

Table 1
Evaluation of Remedial Technologies

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(1)			
	Description	Performance	Reliability	Ease or Difficulty of Implementation	Potential Impacts of Remedy
Subsurface vertical barrier walls (if/as needed as a component of PRB walls or, possibly, hydraulic containment)	Subsurface vertical barrier walls can be used to stop the flow of groundwater and any constituents that groundwater contains, including arsenic and molybdenum. Though effective, vertical barrier walls may serve as groundwater dams such that groundwater rises to the surface or flows around the ends of the wall. Subsurface barrier walls are not envisioned as stand-alone corrective measures at the Site. If they offer advantages, subsurface barrier walls could be a component of PRB walls in a funnel-and-gate configuration or as part of a hydraulic containment system to direct groundwater toward pumping wells.	Subsurface vertical barrier walls are a widely used and accepted technology with relatively high performance.	Subsurface vertical barrier walls are a widely used and accepted technology with relatively high reliability due to minimal need for maintenance or replacement.	Implementation at the Site is considered easy to moderate due to trenching or other emplacement methods.	Potential impacts of the remedy include alteration of subsurface hydraulics (flow) beneath and adjacent to the Site.

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(2)	40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
Geochemical approaches (oxidation by physical or chemical means, and adsorption to or coprecipitation with iron compounds via injection of treatment chemicals)	Geochemical approaches involve modifying the geochemistry of the Site to immobilize arsenic and molybdenum on solids created by injection. Depending upon the objective and Site geochemical conditions, immobilization may be achieved by oxygenation or injection of the appropriate treatment solutions. Oxygenation may be achieved chemically by injecting oxidants, placing slow-release oxidizing chemical candles in wells, or by physical methods such as air sparging or installation of Waterloo Emitters in wells. Other forms of geochemical approaches (also known as enhanced attenuation) include the injection of treatment solutions to immobilize constituents by precipitation/coprecipitation and/or sorption. The treatment solutions would likely contain iron compounds to create ferrihydrite to sorb arsenic and molybdenum or to precipitate sulfide minerals, which incorporate arsenic and molybdenum into their mineral structures.	This remedy could be designed and implemented in 1 to 2 years. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation processes of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.	An underground injection control permit may be required for injection of oxidizing agents or treatment chemicals.	Treatability studies, groundwater modeling, and monitoring may be required to demonstrate that unintended impacts (e.g., release of constituents) are not occurring and do not extend off site.	Low to medium due to injection infrastructure, oxidizing agents or treatment chemicals, and mechanical equipment for the physical oxidation techniques	<p>The following are based on treatability studies:</p> <ul style="list-style-type: none"> Aeration with iron addition was effective for both arsenic and molybdenum (feasible). Chemical oxidation using permanganate was effective for both arsenic and molybdenum (feasible), but persulfate or hydrogen peroxide were effective for arsenic only (not recommended). Biogenic sulfide generation was effective for arsenic only, not molybdenum (not recommended).

Table 1
Evaluation of Remedial Technologies

Corrective Measure	Regulatory Citation for Criteria		40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	40 CFR 257.96(C)(2) Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
Hydraulic containment (pump-and-treat)	Hydraulic containment uses pumping wells (and sometimes injection wells, trenches, and/or galleries) to contain and prevent the expansion of impacted groundwater by creating a horizontal and vertical capture zone or hydraulic barrier. If pumped, the water may be reused in beneficial applications or treated, discharged, or reinjected after treatment. Reinjection contributes to hydraulic containment by creating a hydraulic barrier of clean water. Hydraulic containment in various applications (including pump-and-treat) is applicable to arsenic and molybdenum because conventional and proven water treatment technologies are available for arsenic and molybdenum.	Pump-and-treat could probably be designed and installed within 1 to 2 years. Based on case histories, time to achieve GWPS is dependent on the desorption kinetics of arsenic and molybdenum from the aquifer solids and could take an extended period of time. If leachate coming from the Clifton Landfill is not controlled, time to achieve GWPS cannot be determined.	Regulatory requirements and institutional controls may be greater for pump-and-treat than some of the other technologies. For example, permits may be required for the withdrawal and reinjection (if used) of water. Discharge of treated water would likely require a National Pollutant Discharge Elimination System permit.	Aboveground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	High	Not recommended Hydraulic containment is not recommended for the following reasons: geometry of the Site may not be amenable to effective hydraulic containment due to possible spatial constraints for system installation and the conditions created by adjacent landfills; without control of Clifton Landfill leachate, the Site hydraulic control system may essentially be a treatment system for Clifton Landfill leachate and would operate indefinitely until the landfill leachate is controlled; required installation of a water treatment system and identification of a discharge point for treated water; high operation and maintenance requirements; long time required to achieve GWPS, likely beyond the post-closure period of 30 years; and excessive use of resources (such as electricity and water treatment chemicals), making it one of the least sustainable corrective action options (EPRI 2015).
In situ solidification/stabilization	ISS is achieved by creating reactive zones in the subsurface through chemical injection to intercept constituents and permanently immobilize or degrade them into harmless end products. ISS is the process by which constituent mobility in a solid matrix is decreased through physical and/or chemical means. Grout or other chemical additives are mixed with aquifer materials to reduce permeability. The resulting lower aquifer permeability limits the flow of impacted groundwater.	ISS could be designed and implemented in 1 to 2 years. Laboratory treatability and, possibly, a field pilot test would need to be performed. Time to achieve GWPS is uncertain and may be dependent on natural attenuation processes.	No institutional requirements are expected.	There would be a small disruption of industrial area during construction. Following installation, the remedy is passive.	Medium, due to mobilization and use of large equipment and, possibly, a cement batch plant and associated equipment such as pumps	Not recommended ISS is not recommended because this technology is less effective for or not applicable to dilute concentrations of arsenic and molybdenum in groundwater beyond the facility boundary as compared to the other options evaluated.

Table 1
Evaluation of Remedial Technologies

Corrective Measure	Regulatory Citation for Criteria		40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	40 CFR 257.96(C)(2) Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
MNA	MNA relies on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other, more active methods. For arsenic and molybdenum, the primary mechanisms of natural attenuation include sorption to iron compounds such as ferrihydrite or iron sulfide minerals, precipitation and coprecipitation with sparingly soluble sulfide minerals and other compounds, and physical processes such as dispersion (USEPA 1999, 2007a, 2007b; EPRI 2015). Under favorable conditions, these processes act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater.	Implementation of MNA would require some geochemical studies and, possibly, the installation of some new wells. Because MNA does not require design and construction of infrastructure other than new monitoring wells, it can be initiated within 6 months to a year and fully implemented in 18 to 24 months. The longer time period is because initial geochemical studies would need to be performed to support USEPA's phases, and at least 1 year of groundwater monitoring data is recommended before implementation of MNA is considered complete. The additional data would be needed for statistical analysis and to determine if additional monitoring wells need to be installed. MNA is expected to be successful within a reasonable time frame if Clifton Landfill leachate is controlled.	None identified	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding industrial area. Following installation, the remedy is passive and does not require external energy.	Low	Based on MNA Evaluation to date: Feasible
PRB wall (containing sorptive media, oxygenation chemicals, or organic matter)	A PRB wall is the emplacement of chemically reactive materials in the subsurface to intercept impacted groundwater, provide a flow path through the reactive media, and capture or transform the constituents in groundwater to achieve GWPS downgradient of the PRB wall. PRB walls are an in situ technology that allows impacted water to flow through the media and provides a barrier to constituents, rather than to groundwater flow, thereby reducing constituents downgradient of the reactive barrier to compliance levels (Powell et al. 1998, 2002). PRB walls may be constructed as funnel-and-gate systems. In a PRB wall implementation, reactive media may be emplaced in a trench or mixed directly with the soil or aquifer media using augers or other mixing techniques. If emplaced in a trench, coarse sand is usually included to maintain permeability through the wall. Effective reactive media are commercially available for arsenic and molybdenum. Depending on the site conditions and the objective of the PRB wall, three types of media could be used: oxygenating chemicals, adsorptive media, or organic matter and chemicals to create sulfide minerals (i.e., a biowall).	Considering the need for laboratory treatability studies on the reactive media, analysis of the subsurface hydraulics, and the relatively small area of emplacement, time to implement the remedy is estimated to be 1 to 2 years. Once installed, the time to achieve GWPS immediately downgradient of the PRB wall is anticipated to be relatively quick. Time to achieve GWPS more distant from the PRB wall would be dependent on natural attenuation processes.	None identified	There would be a small disruption of industrial area during construction. Following installation, the remedy is passive. If reactive media are not selected carefully through laboratory treatability studies, groundwater geochemistry could be altered (possibly resulting in unintended releases of constituents downgradient of the wall).	Medium	Not recommended This is not recommended due to a lack of a continuous, low-permeability confining layer to tie the PRB wall into at depths above the maximum depth investigated (approximately 70 feet bgs), periodic replacement of the reactive media as the media becomes spent or clogged, and inability to address previously impacted groundwater downgradient of wall installation.

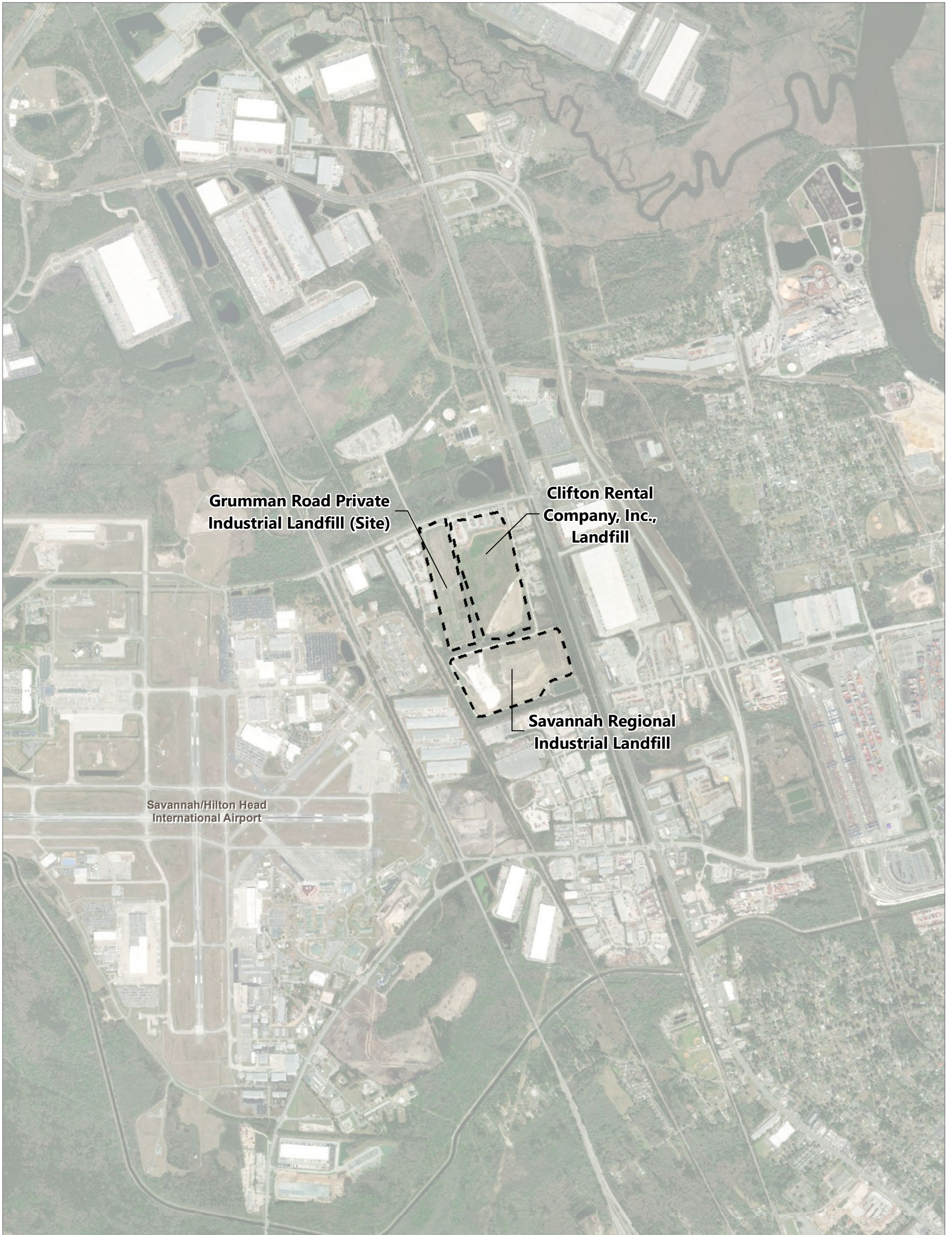
Table 1
Evaluation of Remedial Technologies

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(2)	40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
Phytoremediation	Phytoremediation uses trees or other plants to take up or immobilize constituents or achieve some level of hydraulic containment. Hyperaccumulating plants are available for arsenic and molybdenum, but the roots of those plants are too shallow to access impacted groundwater at the Site. Some level of hydraulic containment could be achieved at the Site using trees, including the engineered TreeWell system. Trees can affect hydraulic gradients and groundwater flow by removal of water and thus can be used to create a partial barrier to groundwater flow. This process may be enhanced by planting the tree in a column of more permeable material (e.g., the TreeWell system), such that water preferentially flows toward the TreeWell. Transpiration of groundwater causes the TreeWell to act like a pumping well. In addition, some arsenic and molybdenum may be immobilized within the root zone or incidentally taken up into the tree biomass.	Phytoremediation could be designed and implemented in 6 to 12 months. Hydraulic containment is expected to occur in a reasonable time frame but needs to be calculated based on the number and transpiration rate of the TreeWells.	None identified	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding industrial area. Following installation, the remedy is passive and does not require external energy.	Low	Feasible
Subsurface vertical barrier walls (if/as needed as a component of PRB walls or, possibly, hydraulic containment)	Subsurface vertical barrier walls can be used to stop the flow of groundwater and any constituents that groundwater contains, including arsenic and molybdenum. Though effective, vertical barrier walls may serve as groundwater dams such that groundwater rises to the surface or flows around the ends of the wall. Subsurface barrier walls are not envisioned as stand-alone corrective measures at the Site. If they offer advantages, subsurface barrier walls could be a component of PRB walls in a funnel-and-gate configuration or as part of a hydraulic containment system to direct groundwater toward pumping wells.	Time to implement the remedy (design and construct the wall) could be 1 to 2 years. As a component of PRB walls in a funnel-and-gate configuration or as part of a hydraulic containment system, time to achieve GWPS would be dependent on the other corrective measures.	None identified	There would be some disruption of industrial area during construction. Following installation, the remedy is passive.	Medium	Not Recommended This is not recommended due to being contingent on companion technology; see PRB wall implementation discussion above. Also, as with a PRB wall, there is no continuous, low-permeability confining layer to tie into at depths above the maximum depth investigated (approximately 70 feet bgs).


Notes:

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 Powell, R.M., R.W. Puls, D. Blowes, J. Vogan, R.W. Gillham, P.D. Powell, D. Schultz, R. Landis, and T. Sivavec, 1998. *Permeable Reactive Barrier Technologies for Contaminant Remediation*. EPA/600/R-98-125.
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 USEPA, 1999. *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites*. EPA/OSWER No. 9200.4-17P. Washington, DC: Office of Solid Waste and Emergency Response.
 USEPA, 2007a. *Monitored Natural Attenuation of Inorganic Contaminants in Ground Water Volume 1 – Technical Basis for Assessment*. EPA/600/R-07/139. October 2007.
 USEPA, 2007b. *Monitored Natural Attenuation of Inorganic Contaminants in Ground Water Volume 2 – Assessment for Non-Radionuclides Including Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Nitrate, Perchlorate, and Selenium*. EPA/600/R-07/140. October 2007.
 bgs: below ground surface
 CFR: Code of Federal Regulations
 Clifton Landfill: Clifton Rental Company, Inc., Landfill (closed)
 GWPS: groundwater protection standard
 ISS: in situ stabilization/solidification
 MNA: monitored natural attenuation
 PRB: permeable reactive barrier
 Site: Grumman Road Private Industrial Landfill
 USEPA: U.S. Environmental Protection Agency

Figures

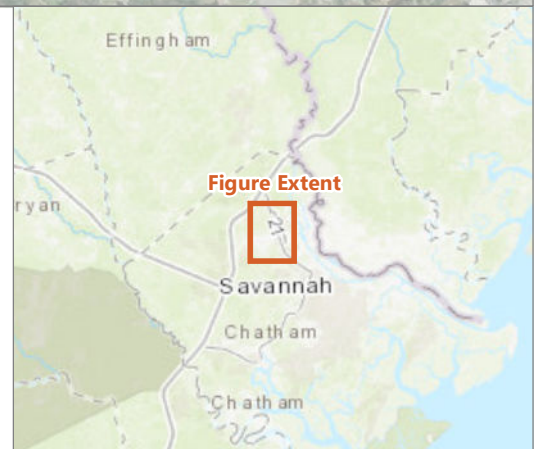
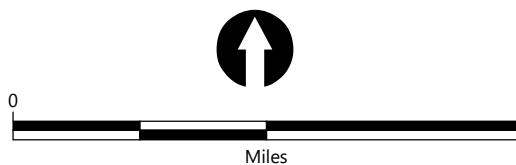


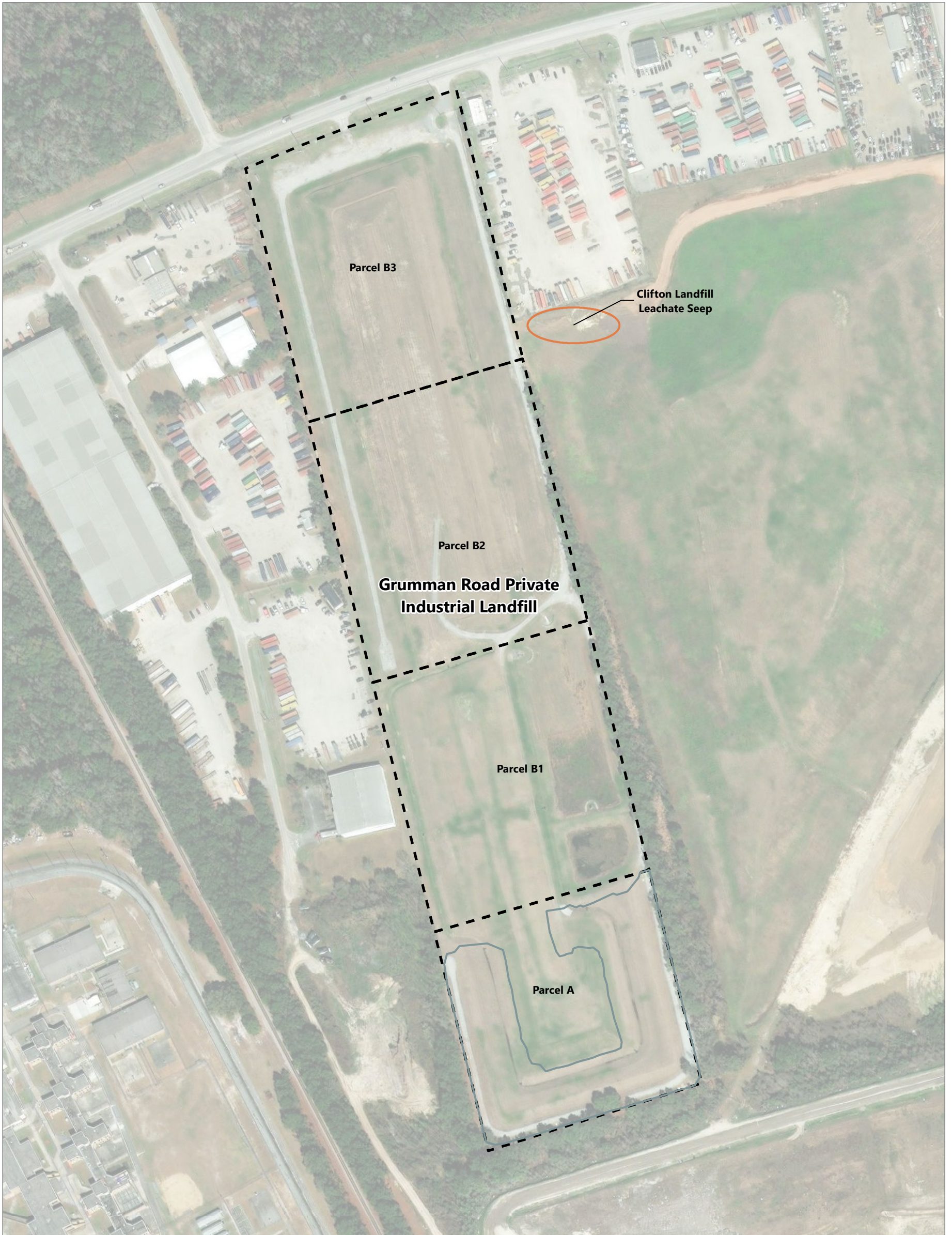
LEGEND:

 Landfill Boundary



NOTE:

1. Aerial imagery is from Esri basemap service (source date: February 25, 2022).





LEGEND:

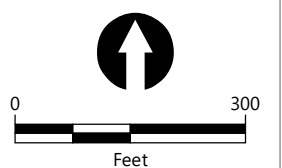
-  Site Parcel Boundary
-  Parcel A' Final Cover Limits

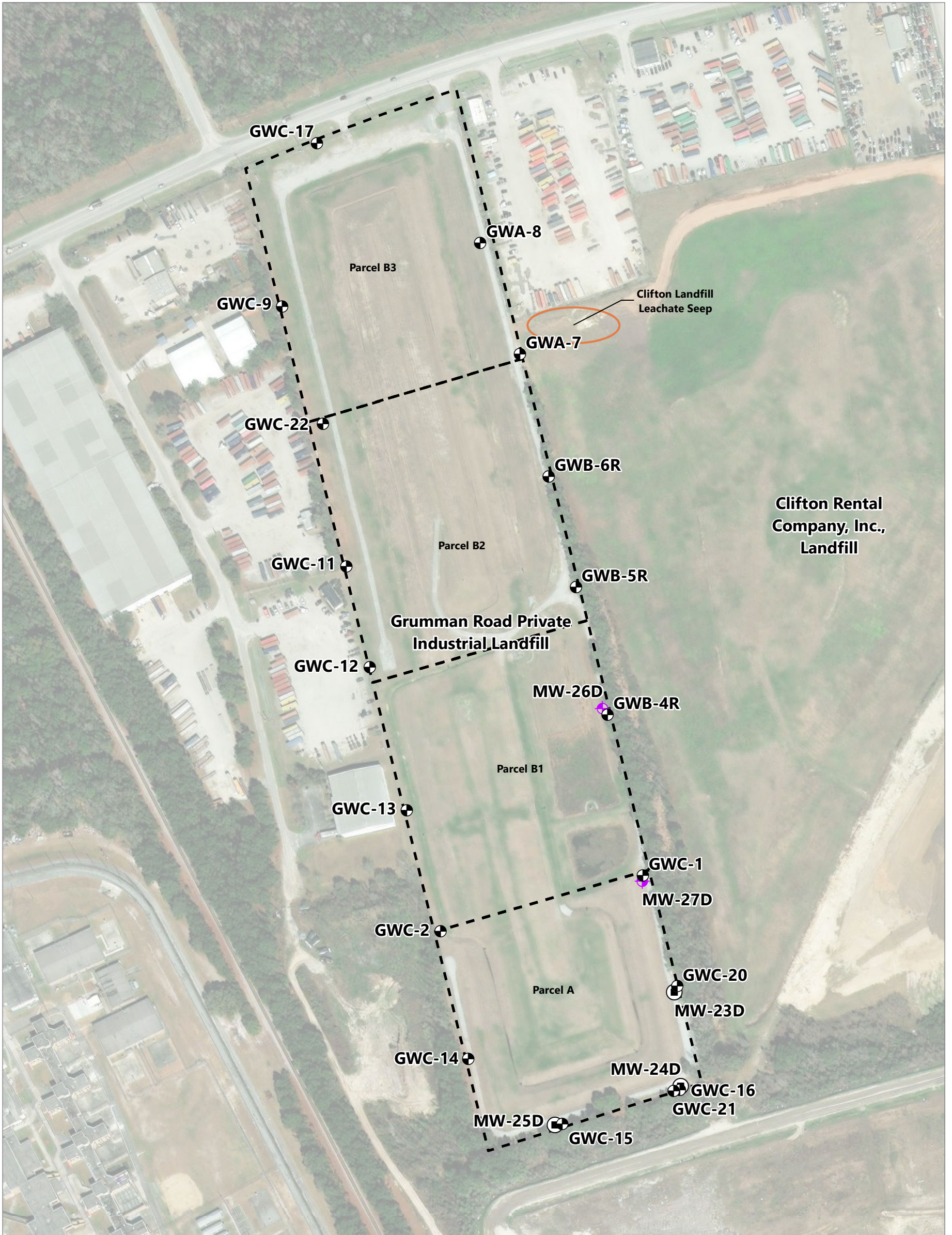
NOTES:

1. Aerial imagery is from Esri basemap service (source date: February 25, 2022).
2. Parcel A' boundary is taken from the Plant Kraft Grumman Road Landfill Final Cover Asbuilt (Brantley Engineering 2019).

REFERENCE:

Brantley Engineering, 2019. *Closure Construction Certification Report. Grumman Road Ash Landfill Parcel A' (Prime), Closure Final Cover Construction.* Georgia Power Company Grumman Road Landfill. Prepared for Southern Company Services Engineering and Construction Services. November 2019.



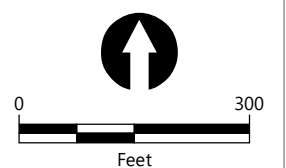


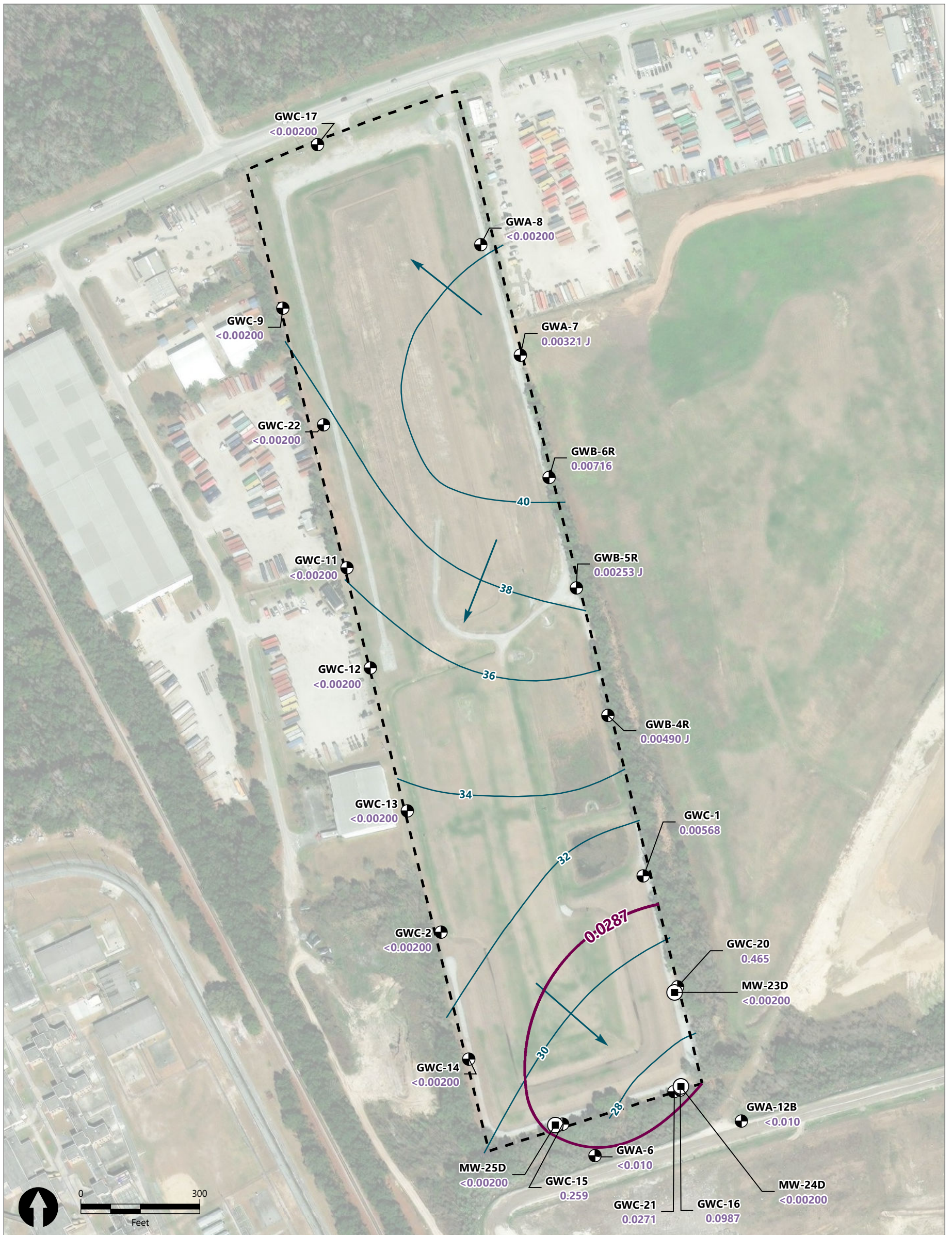
LEGEND:

-  Grumman Road Private Industrial Landfill
-  Piezometer
-  Detection Monitoring Well
-  Assessment Monitoring Well

NOTE:

1. Aerial imagery is from Esri basemap service (source date: February 25, 2022).





LEGEND:

- Site Boundary
- Detection Monitoring Well
- Assessment Monitoring Well
- Groundwater Flow Direction
- Groundwater Contour (feet MSL)

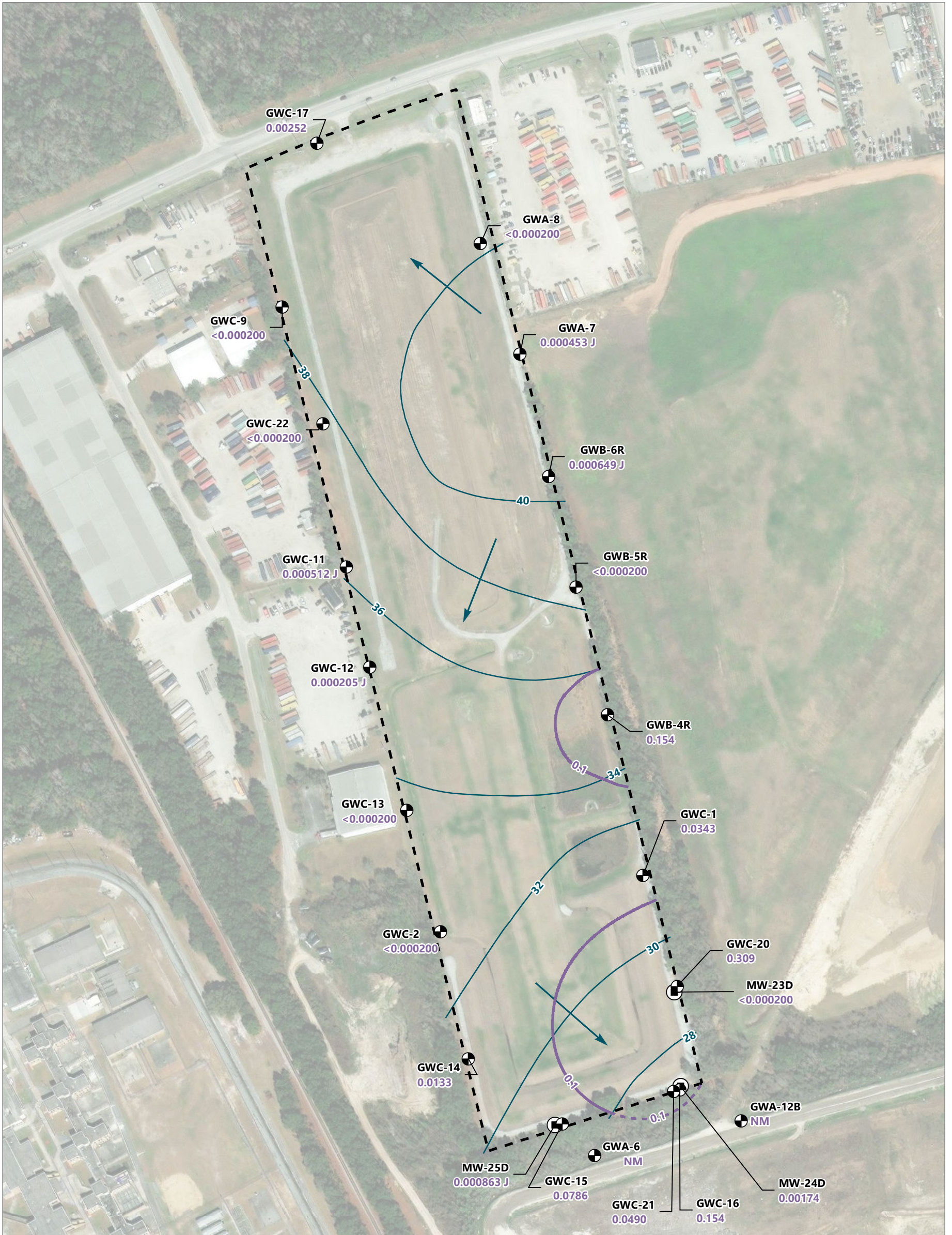
Well ID

Arsenic Concentration

NOTES:

1. Arsenic and groundwater elevation data are from the August 2022 routine semiannual sampling event. Groundwater contours were provided by Atlantic Coast Consulting, Inc. 2022 *Semiannual Groundwater Monitoring and Corrective Action Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. February 2023.
2. Savannah Regional Industrial Landfill arsenic data (wells GWA-6 and GWA-12B) are from the August 2022 semiannual sampling event.
3. Concentrations are reported in mg/L.
4. Site background concentration for arsenic is 0.0287 mg/L and is the site-specific groundwater protection standard.
5. The groundwater protection standard was calculated using data through the August sampling event.
6. Groundwater elevations are in feet MSL.
7. MW-23D, MW-24D, and MW-25D were not used to create the isocontour.
8. Aerial imagery is from Esri basemap service (source date: February 25, 2022).

<: Indicates the substance was not detected above the relevant laboratory method detection limit.
 J: Indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed value is qualified by the laboratory as an estimated number.
 mg/L: milligrams per liter
 MSL: mean sea level



LEGEND:

- Site Boundary
- Detection Monitoring Well
- Assessment Monitoring Well
- Molybdenum Isoconcentration Contour
- Projected Molybdenum Isoconcentration Contour
- Groundwater Flow Direction
- Groundwater Contour (feet MSL)

Well ID
Molybdenum Concentration

NOTES:

1. Molybdenum and groundwater elevation data are from the August 2022 sampling event. Groundwater contours were provided by Atlantic Coast Consulting, Inc. 2022 *Semiannual Groundwater Monitoring and Corrective Action Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. February 2023.
2. Concentrations are reported in mg/L.
3. The groundwater protection standard for molybdenum is 0.1 mg/L.
4. Dashed lines indicate projected molybdenum isoconcentration contours.
5. MW-23D, MW-24D, and MW-25D were not used to create the isocontour.
6. The contour lines are extended to the south based on the most recent available data from two nearby Savannah Regional Industrial Landfill wells, GWA-6 and GWA-12B (August 2020).
7. Aerial imagery is from Esri basemap service (source date: February 25, 2022).

<: Indicates the substance was not detected above the relevant laboratory method detection limit.
 J: Indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
 mg/L: milligrams per liter
 MSL: mean sea level
 NM: not measured

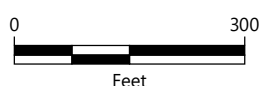


Figure 5
Isoconcentration Map: Molybdenum – August 2022
 Semiannual Remedy Selection and Design Progress Report
 Grumman Road Private Industrial Landfill, Port Wentworth, Georgia



LEGEND:

- Model Domain
- Landfill Boundary

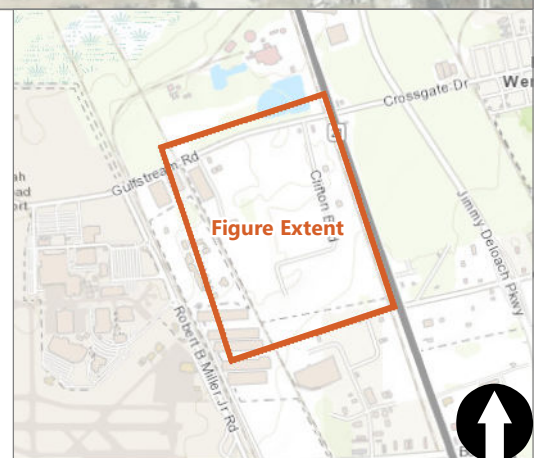
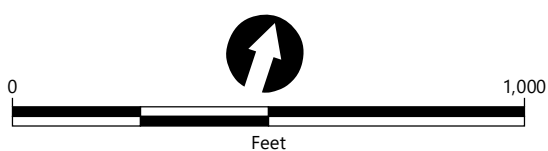
Simulated Molybdenum Concentration:

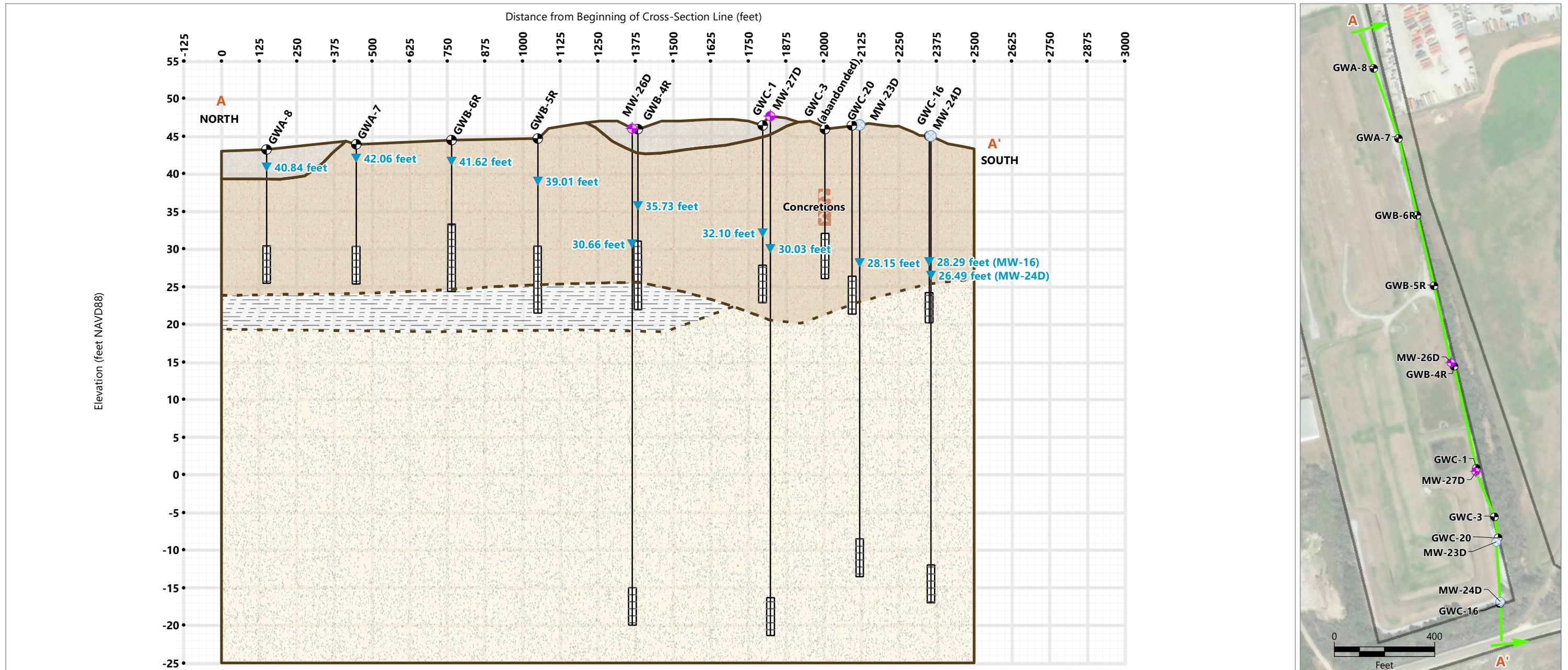
- Site GWPS (0.1 mg/L)

NOTES:

1. Aerial imagery is from Esri basemap service (source date: February 21, 2021).
2. Isoconcentrations represent dissolved-phase concentrations at the GWPS for the Site, assuming Clifton Landfill impacts beginning in 1980.
3. Molybdenum Site GWPS: 0.1 mg/L

GWPS: groundwater protection standard
 mg/L: milligrams per liter
 Site: Grumman Road Industrial Landfill





LEGEND:

- Detection Monitoring Well
- Assessment Monitoring Well
- Piezometer
- Well Depth Below Ground Surface
- Measured Groundwater Elevation
- Plan View Cross Section
- Monitoring Well Screened Interval

Upper Sands and Topsoil: tan to brown or black, silty fine sand with occasional organic matter

Unit 1: Uppermost Water-Bearing Zone: gray, tan, yellow, orange, and/or brown, silty fine sand with occasional opaque minerals and orange-brown concretions

Unit 2: Low Permeability Zone: olive gray to light gray, very silty fine sands, clayey sands, and sandy silt

Unit 3: Lower Sand Water Bearing Zone: light yellowish brown to light or olive gray, and silty to clayey fine to coarse sands

NOTES:

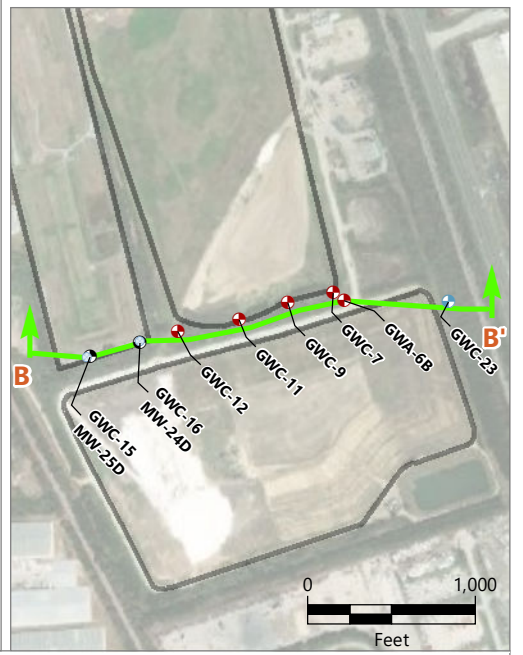
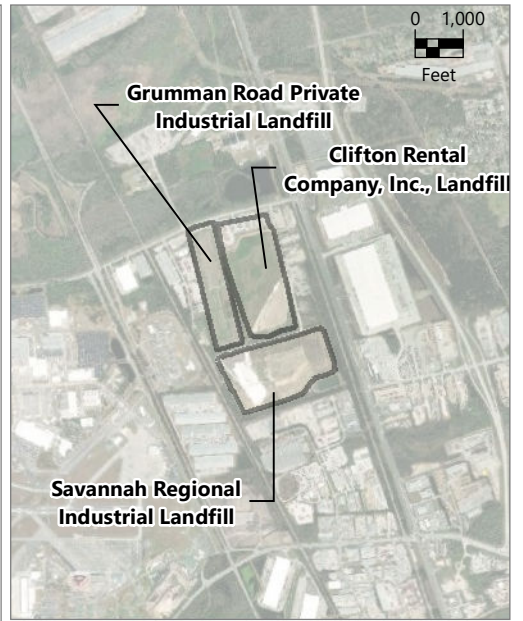
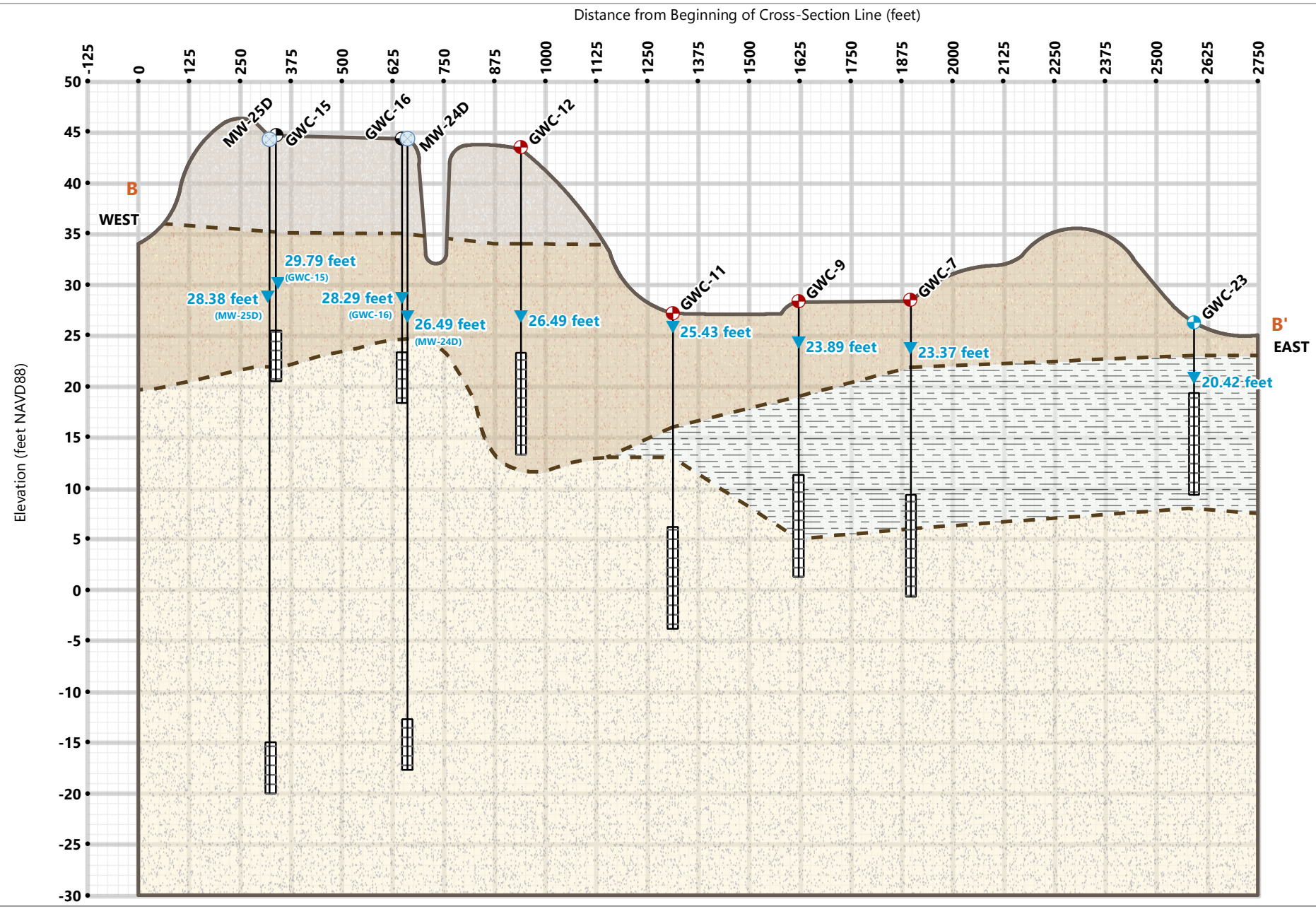
- Cross section redrawn from figures provided in *Assessment of Corrective Measures* (Anchor QEA 2020).
- Stratigraphic layers were correlated using a combination of boring data and gamma logs.
- Aerial imagery is from Esri basemap service (source date: February 21, 2021).
- Measured groundwater elevation data for Grumman Road landfill are from the March 8, 2021, gauging event.
- Vertical exaggeration is 25x.

NAVD88: North American Vertical Datum of 1988

Publish Date: 2023/02/22, 12:30 PM | User: jquinley
 Report Title: Semiannual Remedy Selection and Design Progress Report



Figure 7
A to A' Geologic Cross Section
 Semiannual Remedy Selection and Design Progress Report
 Grumman Road Private Industrial Landfill, Port Wentworth, Georgia



LEGEND:

- Clifton Rental Company, Inc. Landfill
- Grumman Road Private Industrial Landfill
- Savannah Regional Industrial Landfill
- Assessment Monitoring Well
- Approximate Groundwater Elevation
- Well Depth Below Ground Surface
- Plan View Cross Section
- Monitoring Well Screened Interval

- Upper Sands and Topsoil: tan to brown or black, silty fine sand with occasional organic matter
- Unit 1: Uppermost Water-Bearing Zone: gray, tan, yellow, orange, and/or brown, silty fine sand with occasional opaque minerals and orange-brown concretions
- Unit 2: Low Permeability Zone: olive gray to light gray, very silty fine sands, clayey sands, and sandy silt
- Unit 3: Lower Sand Water Bearing Zone: light yellowish brown to light or olive gray, and silty to clayey fine to coarse sands

NOTES:

1. Cross section redrawn from figures provided in *Assessment of Corrective Measures* (Anchor QEA 2020).
2. Stratigraphic layers were correlated using a combination of boring data and gamma logs.
3. Aerial imagery is from Esri basemap service (source date: February 21, 2021).
4. Measured groundwater elevation data for Grumman Road landfill are from the March 8, 2021, gauging event.
5. Vertical exaggeration is 25x.

NAVD88: North American Vertical Datum of 1988



Appendix A
Certificate of Authorization



STATE OF GEORGIA
BRAD RAFFENSPERGER, Secretary of State
State Board of Registration for Professional Engineers and
Land Surveyors

LICENSE NO. PEF006751
Anchor QEA, LLC

10320 Little Patuxent Parkway Suite 1140
Columbia MD 21044

Engineer Firm

EXP DATE - 06/30/2024 Status: Active
Issue Date: 06/18/2015

A pocket-sized license card is below. Above is an enlarged copy of your pocket card.

Please make note of the expiration date on your license. It is your responsibility to renew your license before it expires. Please notify the Board if you have a change of address.

Wall certificates suitable for framing are available at cost, see board fee schedule. To order a wall certificate, please order from the web site – www.sos.ga.gov/plb.

Please refer to Board Rules for any continuing education requirements your profession may require.

Georgia State Board of Professional Licensing
237 Coliseum Drive
Macon GA 31217
Phone: (404) 424-9966
www.sos.ga.gov/plb

Anchor QEA, LLC
10320 Little Patuxent Parkway Suite 1140
Columbia MD 21044



STATE OF GEORGIA
BRAD RAFFENSPERGER, Secretary of State
Georgia State Board of Registration for Professional Engineers and
Land Surveyors

License No. PEF006751
Anchor QEA, LLC

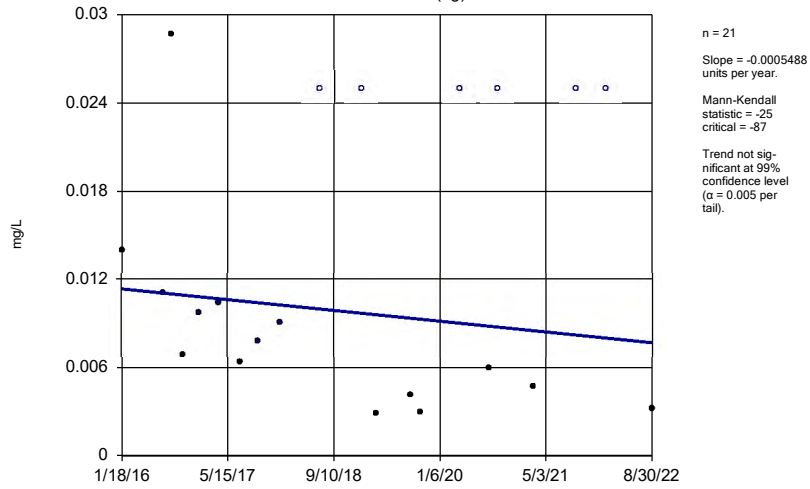
10320 Little Patuxent Parkway Suite 1140
Columbia MD 21044

Engineer Firm

EXP DATE - 06/30/2024 Status: Active
Issue Date: 06/18/2015

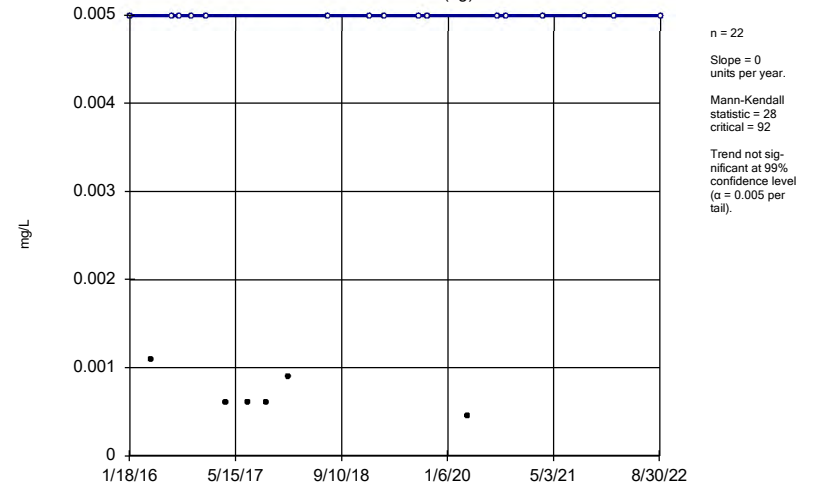
Appendix B
Trend Test Graphs

Sen's Slope Estimator
GWA-7 (bg)



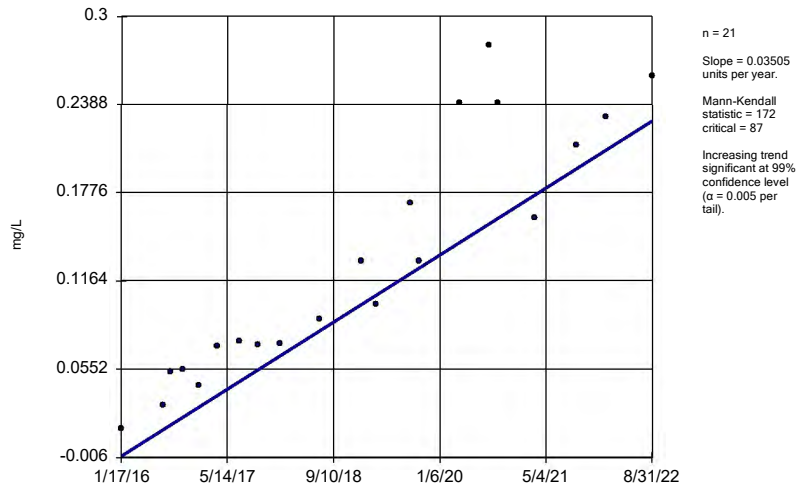
Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



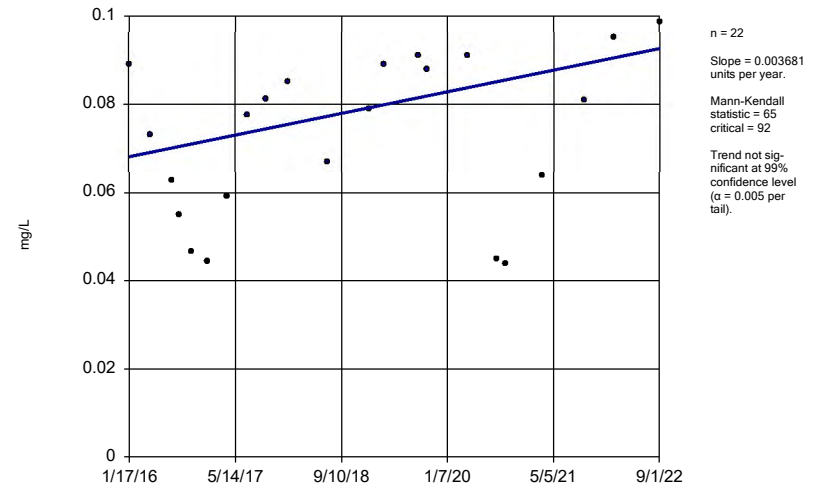
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-15



Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

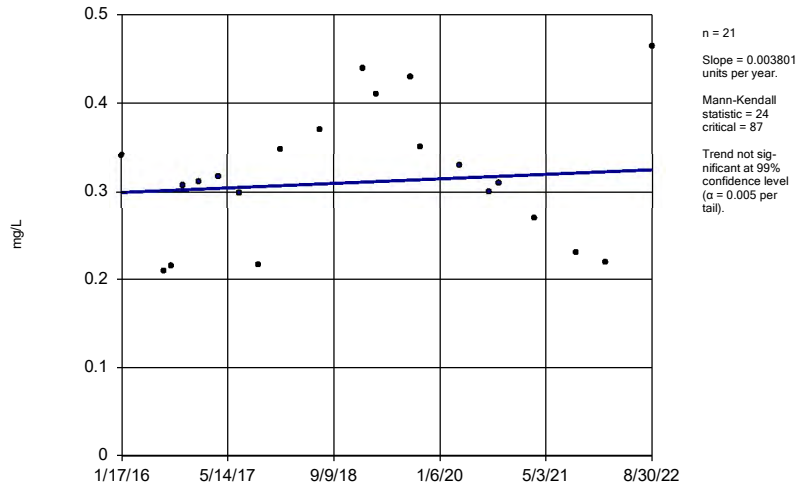
Sen's Slope Estimator
GWC-16



Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator

GWC-20

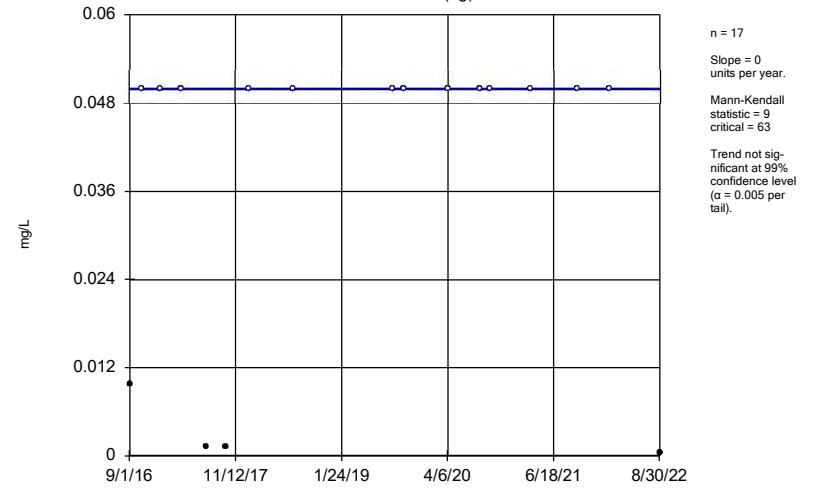


Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

Sen's Slope Estimator

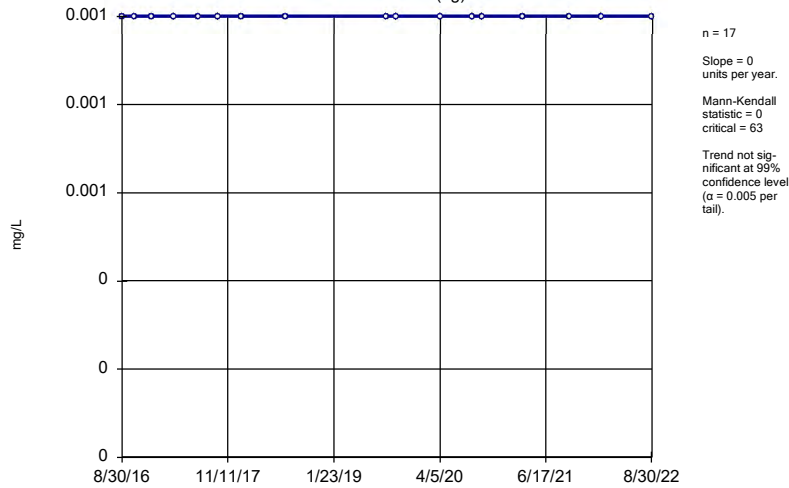
GWA-7 (bg)



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator

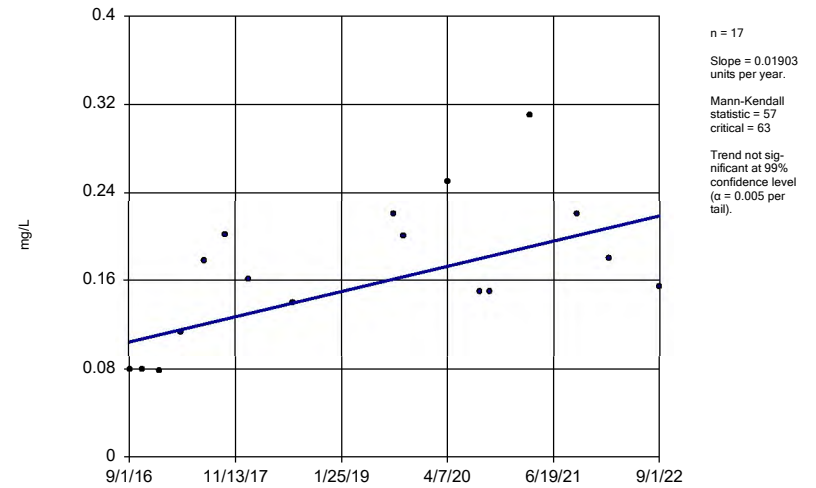
GWA-8 (bg)



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator

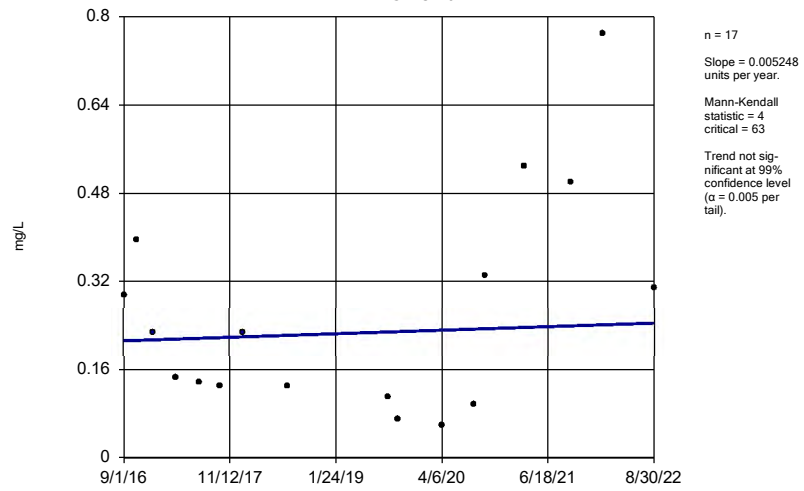
GWC-16



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator

GWC-20



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Appendix C
Well Survey

Grumman Road Landfill

135 Gulfstream Road
Savannah, GA 31408

Inquiry Number: 7215311.1s
January 03, 2023

The EDR GeoCheck® Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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GEOCHECK® - PHYSICAL SETTING SOURCE REPORT

TARGET PROPERTY ADDRESS

GRUMMAN ROAD LANDFILL
135 GULFSTREAM ROAD
SAVANNAH, GA 31408

TARGET PROPERTY COORDINATES

Latitude (North):	32.142978 - 32° 8' 34.72"
Longitude (West):	81.184041 - 81° 11' 2.55"
Universal Transverse Mercator:	Zone 17
UTM X (Meters):	482643.0
UTM Y (Meters):	3556110.5
Elevation:	41 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	32081-B2 PORT WENTWORTH, GA SC
Version Date:	1998

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

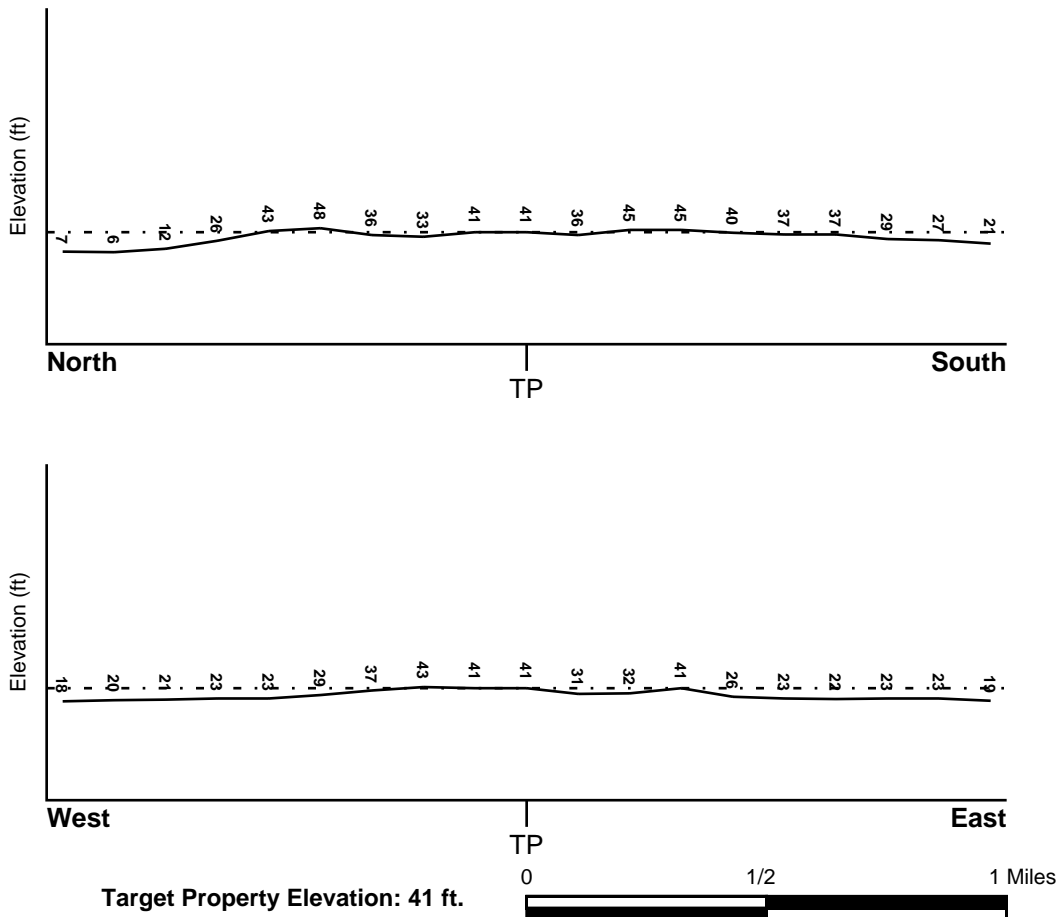
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
13051C0045F	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
13051C0040G	FEMA FIRM Flood data
13051C0127G	FEMA FIRM Flood data
13051C0135G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
PORT WENTWORTH	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
B5	1/2 - 1 Mile NW	E
B6	1/2 - 1 Mile NW	WNW
B7	1/2 - 1 Mile NW	Not Reported
B8	1/2 - 1 Mile NW	Varies

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Cenozoic
System: Quaternary
Series: Holocene
Code: Qh (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: MANDARIN
Soil Surface Texture: fine sand
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class: Somewhat poorly. Soils commonly have a layer with low hydraulic conductivity, wet state high in profile, etc. Depth to water table is 1 to 3 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	26 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 20.00 Min: 6.00	Max: 6.00 Min: 3.60
2	26 inches	40 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 3.60
3	40 inches	73 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 20.00 Min: 6.00	Max: 7.30 Min: 3.60
4	73 inches	80 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand.	Max: 2.00 Min: 0.60	Max: 7.30 Min: 3.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sand

Surficial Soil Types: sand

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: sand

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	2.000
Federal FRDS PWS	2.000
State Database	2.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A3	USGS40000259556	1/2 - 1 Mile South
C9	USGS40000259548	1 - 2 Miles South
E13	USGS40000259536	1 - 2 Miles SSW
F17	USGS40000259566	1 - 2 Miles WSW
E20	USGS40000259535	1 - 2 Miles SSW
D21	USGS40000259654	1 - 2 Miles NNE
G22	USGS40000259637	1 - 2 Miles NE
G26	USGS40000259634	1 - 2 Miles NE
G29	USGS40000259635	1 - 2 Miles NE
H31	USGS40000259658	1 - 2 Miles North
I33	USGS40000259537	1 - 2 Miles SE
H34	USGS40000259661	1 - 2 Miles North
J35	USGS40000259527	1 - 2 Miles SSW
J37	USGS40000259528	1 - 2 Miles SSW
J41	USGS40000259520	1 - 2 Miles SSW
43	USGS40000259664	1 - 2 Miles North

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
4	GA0510057	1/2 - 1 Mile ESE
11	GA0510268	1 - 2 Miles ENE
D12	GA0510020	1 - 2 Miles NNE
E15	GA0510102	1 - 2 Miles SSW
D18	GA0510019	1 - 2 Miles NNE
G28	GA0510002	1 - 2 Miles ENE
G30	GA0510002	1 - 2 Miles ENE
H32	GA0510136	1 - 2 Miles North
H38	GA0510137	1 - 2 Miles North
I39	GA0510162	1 - 2 Miles SE
J40	GA0510102	1 - 2 Miles SSW
K45	GA0510102	1 - 2 Miles SSW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

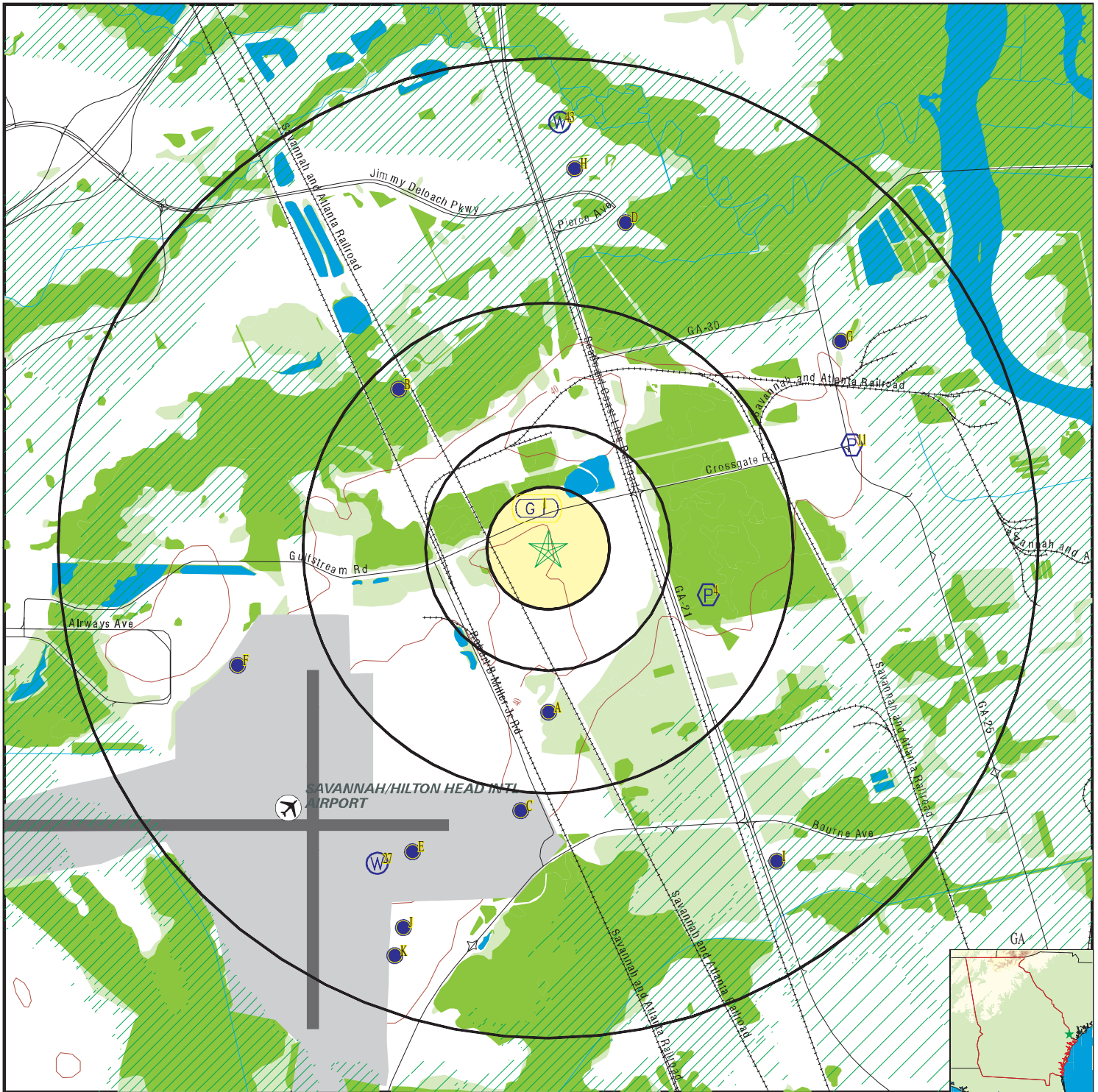
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
---------------	----------------	-------------------------

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	0000001906	1/2 - 1 Mile South
C10	0000001904	1 - 2 Miles South
E14	0000001901	1 - 2 Miles SSW
F16	0000001908	1 - 2 Miles WSW
E19	614	1 - 2 Miles SSW
G23	0000001919	1 - 2 Miles NE
G24	612	1 - 2 Miles NE
G25	0000001918	1 - 2 Miles NE
27	615	1 - 2 Miles SSW
J36	0000001899	1 - 2 Miles SSW
J42	0000001897	1 - 2 Miles SSW
K44	617	1 - 2 Miles SSW

PHYSICAL SETTING SOURCE MAP - 7215311.1s



- | | | |
|--|--|----------------|
| County Boundary | Groundwater Flow Direction | Wildlife Areas |
| Major Roads | Indeterminate Groundwater Flow at Location | |
| Contour Lines | Groundwater Flow Varies at Location | |
| Airports | 100-year flood zone | |
| Earthquake epicenter, Richter 5 or greater | 500-year flood zone | |
| Water Wells | National Wetland Inventory | |
| Public Water Supply Wells | | |
| Cluster of Multiple Icons | | |

SITE NAME: Grumman Road Landfill ADDRESS: 135 Gulfstream Road Savannah GA 31408 LAT/LONG: 32.142978 / 81.184041	CLIENT: ANCHOR QEA, LLC CONTACT: Kristi Mitchell INQUIRY #: 7215311.1s DATE: January 03, 2023 11:13 am
--	---

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1 NNW 1/8 - 1/4 Mile Lower	Site ID: 9000518	Groundwater Flow: NOT REPORTED	AQUIFLOW	11620
	Shallow Water Depth: 6	Deep Water Depth: 9		
	Average Water Depth: Not Reported	Date: 10-23-90		

A2 South 1/2 - 1 Mile Lower			GA WELLS	000001906
--	--	--	-----------------	------------------

County code: 051	Well num: 36R006
Remarks: PORT WENTWORTH CORP 1	Lat: 320759
Lon: 0811103	Latlon datum: NAD27
Alt: 40.00	Alt datum: NGVD29
Depth: 1088	Depth to casing: 270.00
Casing dia: 10.00	Casing matl: Not Reported
Depth to top: 271.00	Depth to bot: 1088.00
Opening type: X	Constr date: 195610
Discharge: Not Reported	Prim use: C
Aquifer code: 120FLRD	Edr id: 000001906

A3 South 1/2 - 1 Mile Lower			FED USGS	USGS40000259556
--	--	--	-----------------	------------------------

Organization ID: USGS-GA	Organization Name: USGS Georgia Water Science Center
Monitor Location: 36R006	Type: Well
Description: PORT WENTWORTH CORP 1	HUC: 03060109
Drainage Area: Not Reported	Drainage Area Units: Not Reported
Contrib Drainage Area: Not Reported	Contrib Drainage Area Unts: Not Reported
Aquifer: Floridan aquifer system	Formation Type: Floridan Aquifer System
Aquifer Type: Confined multiple aquifer	Construction Date: 19561001
Well Depth: 1088	Well Depth Units: ft
Well Hole Depth: 1089	Well Hole Depth Units: ft

4 ESE 1/2 - 1 Mile Lower			FRDS PWS	GA0510057
---	--	--	-----------------	------------------

Epa region: 04	State: GA
Pwsid: GA0510057	Pwsname: WOODLAWN TERRACE
Cityserved: Not Reported	Stateserved: GA
Zipsserved: Not Reported	Fipscounty: 13025
Status: Closed	Retpopsrvid: 730
Pwssvconn: 210	Psource longname: Groundwater
Pwstype: CWS	Owner: unknown
Contact: WOODLAWN TERRACE	Contactorgname: Not Reported
Contactphone: 912-964-1711	Contactaddress1: Not Reported
Contactaddress2: 96 MAIN ST.	Contactcity: GARDEN
Contactstate: GA	Contactzip: 31408
Pwsactivitycode: I	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pwsid:	GA0510057	Facid:	1T
Facname:	06DW00000000000	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	chlorination (frds-1.5)	Factypecode:	TP
Pwsid:	GA0510057	Facid:	2T
Facname:	00DW00000000000	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	chlorination (frds-1.5)	Factypecode:	TP
PWS ID:	GA0510057	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510057
Activity status:	Active	Date system activated:	7706
Date system deactivated:	Not Reported	Retail population:	00000730
System name:	WOODLAWN TERRACE	System address:	Not Reported
System address:	96 MAIN ST.	System city:	GARDEN
System state:	GA	System zip:	31408
County FIPS:	025	City served:	SAVANNAH GEORGI
Population served:	501 - 1,000 Persons	Treatment:	Treated
Latitude:	320534	Longitude:	0811023
Latitude:	320824	Longitude:	0811023

B5 NW 1/2 - 1 Mile Lower	Site ID:	9-025076	
	Groundwater Flow:	E	AQUIFLOW 11615
	Shallow Water Depth:	7 FT.	
	Deep Water Depth:	8 FT.	
	Average Water Depth:	Not Reported	
	Date:	FEB. 29, 1996	

B6 NW 1/2 - 1 Mile Lower	Site ID:	9-025152	
	Groundwater Flow:	WNW	AQUIFLOW 11616
	Shallow Water Depth:	2.5 FT	
	Deep Water Depth:	5 FT.	
	Average Water Depth:	Not Reported	
	Date:	AUGUST 29, 1994	

B7 NW 1/2 - 1 Mile Lower	Site ID:	4250162	
	Groundwater Flow:	Not Reported	AQUIFLOW 19243
	Shallow Water Depth:	15	
	Deep Water Depth:	18	
	Average Water Depth:	Not Reported	
	Date:	12	

B8 NW 1/2 - 1 Mile Lower	Site ID:	4250096	
	Groundwater Flow:	Varies	AQUIFLOW 19071
	Shallow Water Depth:	3.5	
	Deep Water Depth:	13.14	
	Average Water Depth:	Not Reported	
	Date:	Not Reported	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

C9
South
1 - 2 Miles
Lower

FED USGS USGS40000259548

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R009	Type:	Well
Description:	CHEROKEE OIL TW	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19200101
Well Depth:	2150	Well Depth Units:	ft
Well Hole Depth:	2150	Well Hole Depth Units:	ft

C10
South
1 - 2 Miles
Lower

GA WELLS 000001904

County code:	051	Well num:	36R009
Remarks:	CHEROKEE OIL TW	Lat:	320738
Lon:	0811110	Latlon datum:	NAD27
Alt:	21.50	Alt datum:	NGVD29
Depth:	2150	Depth to casing:	2126.00
Casing dia:	8.00	Casing matl:	Not Reported
Depth to top:	2126	Depth to bot:	2150
Opening type:	X	Constr date:	1920
Discharge:	Not Reported	Prim use:	U
Aquifer code:	Not Reported	Edr id:	000001904

11
ENE
1 - 2 Miles
Lower

FRDS PWS GA0510268

Epa region:	04	State:	GA
Pwsid:	GA0510268	Pwsname:	GA PACIFIC- GA STEAMSHIP CO.
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	70
Pwssvconn:	1	Psource longname:	Groundwater
Pwstype:	NTNCWS	Owner:	Private
Contact:	GA PACIFIC- GA STEAMSHIP CO.	Contactphone:	Not Reported
Contactorgname:	Not Reported	Contactaddress2:	Not Reported
Contactaddress1:	Not Reported	Contactstate:	Not Reported
Contactcity:	Not Reported	Pwsactivitycode:	I
Contactzip:	Not Reported		
PWS ID:	GA0510268	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510268
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000070
System name:	GA PACIFIC- GA STEAMSHIP CO.		
System address:	GA PACIFIC-GA STEAMSHIP CO.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System address:	4226 CROSSGATE RD	System city:	PORT WENTWORTH
System state:	GA	System zip:	31407
Population served:	Under 101 Persons	Treatment:	Untreated
Latitude:	320856	Longitude:	0810947
Latitude:	315902	Longitude:	0810657

**D12
NNE
1 - 2 Miles
Lower**

FRDS PWS GA0510020

Epa region:	04	State:	GA
Pwsid:	GA0510020	Pwsname:	COLLUMS TRAILER PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	112
Pwssvconn:	32	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	COLLUM, LOIS	Contactorgname:	Not Reported
Contactphone:	912-964-6163	Contactaddress1:	10 DIXIE STREET
Contactaddress2:	Not Reported	Contactcity:	PORT WENTWORTH
Contactstate:	GA	Contactzip:	31407
Pwsactivitycode:	I		
PWS ID:	GA0510020	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510020
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000112
System name:	COLLUMS TRAILER PARK	System address:	COLLUMS TRAILER PARK
System address:	10 DIXIE STREET	System city:	PORT WENTWORTH
System state:	GA	System zip:	31407
Population served:	101 - 500 Persons	Treatment:	Untreated
Latitude:	320941	Longitude:	0811042
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	41.0000
Longitude degrees:	81	Longitude minutes:	10
Longitude seconds:	42.0000		

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200002	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	090192	Violation end date:	093092
Violation period (months):	001	Violation awareness date:	Not Reported
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

E13
SSW
1 - 2 Miles
Higher

FED USGS USGS40000259536

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36Q014	Type:	Well
Description:	SAVANNAH, GA 19	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Floridan aquifer system	Formation Type:	Upper Floridan Aquifer
Aquifer Type:	Confined multiple aquifer	Construction Date:	19450101
Well Depth:	680	Well Depth Units:	ft
Well Hole Depth:	680	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	9	Level reading date:	2000-09-08
Feet below surface:	101.88	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1998-05-25	Feet below surface:	98.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1985-05-21	Feet below surface:	125.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-11-20	Feet below surface:	102.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-10-31	Feet below surface:	105.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-04-30	Feet below surface:	102.12
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-11-04	Feet below surface:	90.42
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-05-03	Feet below surface:	96.70
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-11-02	Feet below surface:	99.62
Feet to sea level:	Not Reported	Note:	Not Reported

E14
SSW
1 - 2 Miles
Higher

GA WELLS 000001901

County code:	051	Well num:	36Q014
Remarks:	SAVANNAH, GA 19	Lat:	320729
Lon:	0811134	Latlon datum:	NAD27
Alt:	45.06	Alt datum:	NGVD29
Depth:	680	Depth to casing:	250.00
Casing dia:	12.00	Casing matl:	Not Reported
Depth to top:	250.00	Depth to bot:	680.00
Opening type:	X	Constr date:	1945
Discharge:	Not Reported	Prim use:	P
Aquifer code:	120FLRDU	Edr id:	000001901

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

E15
SSW
1 - 2 Miles
Higher

FRDS PWS GA0510102

Epa region:	04	State:	GA
Pwsid:	GA0510102	Pwsname:	SAVANNAH-TRAVIS FIELD
Cityserved:	Not Reported	Stateserved:	GA
Ziperved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	304
Pwssvconn:	117	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt
Contact:	JUE, HARRY	Contactorgname:	Not Reported
Contactphone:	912-651-4241	Contactaddress1:	POB 1027
Contactaddress2:	Not Reported	Contactcity:	SAVANNAH
Contactstate:	GA	Contactzip:	314021027
Pwsactivitycode:	I		
Pwsid:	GA0510102	Facid:	3972
Facname:	WELL #17 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA0510102	Facid:	3979
Facname:	WELL #18 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA0510102	Facid:	3985
Facname:	WELL #19 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
PWS ID:	GA0510102	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510102
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00001100
System name:	SAVANNAH-TRAVIS FIELD	System address:	SAVANNAH-TRAVIS FIELD
System address:	702 STILES AVE	System city:	SAVANNAH
System state:	GA	System zip:	31402
Population served:	1,001 - 2,500 Persons	Treatment:	Treated
Latitude:	320731	Longitude:	0811140
Latitude:	320705	Longitude:	0811140
Latitude:	320710	Longitude:	0811136
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	5.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	40.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	10.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	36.0000		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	31.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	40.0000		

**F16
WSW
1 - 2 Miles
Lower**

GA WELLS 000001908

County code:	051	Well num:	36R041
Remarks:	VPI DOE 044 SAV AIRPORT	Lat:	320809
Lon:	0811221	Latlon datum:	NAD27
Alt:	20	Alt datum:	NGVD29
Depth:	1000	Depth to casing:	Not Reported
Casing dia:	Not Reported	Casing matl:	Not Reported
Depth to top:	Not Reported	Depth to bot:	Not Reported
Opening type:	Not Reported	Constr date:	19800810
Discharge:	Not Reported	Prim use:	U
Aquifer code:	Not Reported	Edr id:	000001908

**F17
WSW
1 - 2 Miles
Lower**

FED USGS USGS40000259566

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R041	Type:	Well
Description:	VPI DOE 044 SAV AIRPORT	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19800810
Well Depth:	1000	Well Depth Units:	ft
Well Hole Depth:	1000	Well Hole Depth Units:	ft

**D18
NNE
1 - 2 Miles
Lower**

FRDS PWS GA0510019

Epa region:	04	State:	GA
Pwsid:	GA0510019	Pwsname:	CHEROKEE MOBILE HOME PARK
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	88
Pwssvconn:	33	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	ROYAL, JAMES	Contactorgname:	Not Reported
Contactphone:	912-964-4270	Contactaddress1:	6500 HIGHWAY 21
Contactaddress2:	Not Reported	Contactcity:	PORT WENTWORTH
Contactstate:	GA	Contactzip:	31407
Pwsactivitycode:	I		
Pwsid:	GA0510019	Facid:	403
Facname:	WELL #1 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

PWS ID:	GA0510019	PWS name:	CHEROKEE MOBILE HOME PARK
Address:	6500 HIGHWAY 21	Care of:	CHEROKEE MOBILE HOME PARK
City:	PORT WENTWORTH	State:	GA
Zip:	31407	Owner:	CHEROKEE MOBILE HOME PARK
Source code:	Ground water	Population:	88
PWS ID:	GA0510019	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	County:	CHATHAM
Source:	Ground water	Treatment Objective:	DISINFECTION
Process:	HYPOCHLORINATION, POST	Population:	88
PWS ID:	GA0510019	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000088	System name:	CHEROKEE MOBILE HOME PARK
System address:	CHEROKEE MOBILE HOME PARK	System address:	6500 HIGHWAY 21
System city:	PORT WENTWORTH	System state:	GA
System zip:	31407		
Population served:	Under 101 Persons	Treatment:	Treated
Latitude:	320944	Longitude:	0811045
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	44.0000
Longitude degrees:	81	Longitude minutes:	10
Longitude seconds:	45.0000		
Violation id:	200	Orig code:	S
State:	GA	Violation Year:	1999
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/19/1999
Cmp edt:	Not Reported		
Violation id:	30101	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		
Violation ID:	200	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	10/06/2000
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	200	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	10/06/2000
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	30101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/02/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	30101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/10/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

E19
SSW
1 - 2 Miles
Higher

GA WELLS 614

Id:	614	Water source id:	25M4B19
Name:	CITY OF SAVANNAH-TRAVIS F	Latitude:	32.1247
Longitude:	81.1942	Source:	G
Gw mgd:	0.67	Sw mgd:	0.00
Status:	1	Gwsi id:	36Q014
Population:	0	County:	CHATHAM
County fips:	51	Ggs:	1

E20
SSW
1 - 2 Miles
Higher

FED USGS USGS40000259535

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36Q365	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

D21
NNE
1 - 2 Miles
Lower

FED USGS USGS40000259654

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R022	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

G22
NE
1 - 2 Miles
Lower

FED USGS USGS40000259637

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R008	Type:	Well
Description:	PORT WENTWORTH, GA 2	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Floridan aquifer system	Formation Type:	Upper Floridan Aquifer
Aquifer Type:	Confined multiple aquifer	Construction Date:	19230101

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well Depth:	502	Well Depth Units:	ft	
Well Hole Depth:	502	Well Hole Depth Units:	ft	
Ground water levels,Number of Measurements:		22	Level reading date:	2000-09-14
Feet below surface:	78.70		Feet to sea level:	Not Reported
Note:	Not Reported			
Level reading date:	1998-05-22	Feet below surface:	70.03	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1993-11-10	Feet below surface:	78.87	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1990-05-17	Feet below surface:	80.62	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1988-05-24	Feet below surface:	89.85	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1985-05-20	Feet below surface:	83.10	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1984-11-01	Feet below surface:	84.77	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1984-05-18	Feet below surface:	82.87	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1983-11-08	Feet below surface:	82.90	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1983-06-15	Feet below surface:	79.37	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1982-11-03	Feet below surface:	76.00	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1981-10-27	Feet below surface:	81.90	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1980-05-21	Feet below surface:	74.10	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1979-11-02	Feet below surface:	79.20	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1978-12-04	Feet below surface:	78.35	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1977-11-07	Feet below surface:	79.60	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1976-12-14	Feet below surface:	72.40	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1976-02-20	Feet below surface:	71.80	
Feet to sea level:	Not Reported	Note:	Not Reported	
Level reading date:	1976-01-16	Feet below surface:	70.00	
Feet to sea level:	Not Reported	Note:	Not Reported	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1975-09-22	Feet below surface:	72.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1973-11-29	Feet below surface:	76.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-11-30	Feet below surface:	58.35
Feet to sea level:	Not Reported	Note:	Not Reported

G23
NE
1 - 2 Miles
Lower

GA WELLS 000001919

County code:	051	Well num:	36R008
Remarks:	PORT WENTWORTH, GA 2	Lat:	320920
Lon:	0810952	Latlon datum:	NAD27
Alt:	18	Alt datum:	NGVD29
Depth:	502	Depth to casing:	200.00
Casing dia:	12.00	Casing matl:	Not Reported
Depth to top:	200.00	Depth to bot:	502.00
Opening type:	X	Constr date:	1923
Discharge:	34.72	Prim use:	P
Aquifer code:	120FLRDU	Edr id:	000001919

G24
NE
1 - 2 Miles
Lower

GA WELLS 612

Id:	612	Water source id:	25M0301
Name:	CITY OF PORT WENTWORTH	Latitude:	32.1550
Longitude:	81.1639	Source:	G
Gw mgd:	0.29	Sw mgd:	0.00
Status:	1	Gwsi id:	36K010
Population:	3,947	County:	CHATHAM
County fips:	51	Ggs:	1

G25
NE
1 - 2 Miles
Lower

GA WELLS 000001918

County code:	051	Well num:	36R010
Remarks:	PORT WENTWORTH, GA 1	Lat:	320918
Lon:	0810950	Latlon datum:	NAD27
Alt:	16.00	Alt datum:	NGVD29
Depth:	650	Depth to casing:	254.00
Casing dia:	12.00	Casing matl:	S
Depth to top:	254.00	Depth to bot:	650.00
Opening type:	X	Constr date:	19420930
Discharge:	525.00	Prim use:	P
Aquifer code:	Not Reported	Edr id:	000001918

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

G26
NE
1 - 2 Miles
Lower

FED USGS USGS40000259634

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R010	Type:	Well
Description:	PORT WENTWORTH, GA 1	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19420930
Well Depth:	650	Well Depth Units:	ft
Well Hole Depth:	650	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1973-08-01
Feet below surface:	61.00	Feet to sea level:	Not Reported
Note:	Not Reported		

27
SSW
1 - 2 Miles
Higher

GA WELLS 615

Id:	615	Water source id:	25M4B17
Name:	CITY OF SAVANNAH-TRAVIS F	Latitude:	32.1241
Longitude:	81.1961	Source:	G
Gw mgd:	0.67	Sw mgd:	0.00
Status:	1	Gwsi id:	Not Reported
Population:	0	County:	CHATHAM
County fips:	51	Ggs:	1

G28
ENE
1 - 2 Miles
Lower

FRDS PWS GA0510002

Epa region:	04	State:	GA
Pwsid:	GA0510002	Pwsname:	PORT WENTWORTH
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13051
Status:	Active	Retpopsrvd:	7985
Pwssvconn:	1800	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt
Contact:	CLAXTON, PHILLIP	Contactorgname:	CLAXTON, PHILLIP
Contactphone:	912-964-4379	Contactaddress1:	305 SOUTH COASTAL HWY.
Contactaddress2:	Not Reported	Contactcity:	PORT WENTWORTH
Contactstate:	GA	Contactzip:	31407
Pwsactivitycode:	A		

Pwsid:	GA0510002	Facid:	17602
Facname:	WELL #3 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		

Pwsid:	GA0510002	Facid:	17602
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Facname:	WELL #3 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	other
Trtprocess:	fluoridation	Factypecode:	TP
Pwsid:	GA0510002	Facid:	2633
Facname:	ANTRIM ST WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		
Pwsid:	GA0510002	Facid:	2633
Facname:	ANTRIM ST WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	other
Trtprocess:	fluoridation	Factypecode:	TP
Pwsid:	GA0510002	Facid:	388
Facname:	APPLEBY RD WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		
Pwsid:	GA0510002	Facid:	388
Facname:	APPLEBY RD WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	other
Trtprocess:	fluoridation	Factypecode:	TP
PWS ID:	GA0510002	PWS name:	PORT WENTWORTH
Address:	305 SOUTH COASTAL HIGHWAY	Care of:	CITY OF PORT WENTWORTH
City:	PORT WENTWORTH	State:	GA
Zip:	31407	Owner:	PORT WENTWORTH
Source code:	Ground water	Population:	3349
PWS ID:	GA0510002	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	PORT WENTWORTH
PWS type code:	C	Retail population served:	7985
Contact:	CLAXTON, PHILLIP	Contact address:	305 SOUTH COASTAL HWY.
Contact address:	PORT WENTWORTH	Contact city:	GA
Contact state:	31	Contact zip:	912-964-43
Contact telephone:	Not Reported		
County:	CHATHAM	Source:	Ground water
Treatment Objective:	DISINFECTION	Process:	HYPOCHLORINATION, POST
Population:	3349		
PWS ID:	GA0510002	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00002639	System name:	PORT WENTWORTH
System address:	CITY OF PORT WENTWORTH	System address:	305 SOUTH COASTAL HWY.
System city:	PORT WENTWORTH	System state:	GA
System zip:	31407		
Population served:	2,501 - 3,300 Persons	Treatment:	Treated
Latitude:	320916	Longitude:	0810948
Latitude:	320916	Longitude:	0810946
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	16.0000
Longitude degrees:	81	Longitude minutes:	9

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude seconds:	46.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	16.0000
Longitude degrees:	81	Longitude minutes:	9
Longitude seconds:	48.0000		
Violation id:	20205	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		
Violation id:	20410	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	09/01/2009
Cmp edt:	09/30/2009		
Violation id:	20613	Orig code:	S
State:	GA	Violation Year:	2013
Contamination code:	2950	Contamination Name:	TTHM
Violation code:	02	Violation name:	MCL, Average
Rule code:	210	Rule name:	St1 DBP
Violation measur:	0.118	Unit of measure:	UG/L
State mcl:	0.08	Cmp bdt:	01/01/2013
Cmp edt:	03/31/2013		
Violation ID:	20205	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	20205	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/05/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20410	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/22/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20410	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	11/16/2009
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20410	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/22/2009
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20613	Orig Code:	S
Enforcemnt FY:	2014	Enforcement Action:	02/25/2014
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20613	Orig Code:	S
Enforcemnt FY:	2014	Enforcement Action:	02/25/2014

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
PWS name:	PORT WENTWORTH	Population served:	7985
PWS type code:	C	Violation ID:	20205
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	7/5/2005 0:00:00
Enforcement date:	7/1/2005 0:00:00	Enforcement action:	State Intentional no-action
Violation measurement:	Not Reported		
PWS name:	PORT WENTWORTH	Population served:	7985
PWS type code:	C	Violation ID:	20205
Contaminant:	7000	Violation type:	71
Compliance start date:	7/1/2005 0:00:00	Compliance end date:	7/5/2005 0:00:00
Enforcement date:	7/5/2005 0:00:00	Enforcement action:	State Compliance Achieved
Violation measurement:	Not Reported		

**G29
NE
1 - 2 Miles
Lower**

FED USGS USGS40000259635

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R013	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

**G30
ENE
1 - 2 Miles
Lower**

FRDS PWS GA0510002

Epa region:	04	State:	GA
Pwsid:	GA0510002	Pwsname:	PORT WENTWORTH
Cityserved:	Not Reported	Stateserved:	GA
Zipserved:	Not Reported	Fipscounty:	13051
Status:	Active	Retpopsrvd:	7985
Pwssvconn:	1800	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt
Contact:	CLAXTON, PHILLIP	Contactorgname:	CLAXTON, PHILLIP
Contactphone:	912-964-4379	Contactaddress1:	305 SOUTH COASTAL HWY.
Contactaddress2:	Not Reported	Contactcity:	PORT WENTWORTH
Contactstate:	GA	Contactzip:	31407
Pwsactivitycode:	A		
Pwsid:	GA0510002	Facid:	17602
Facname:	WELL #3 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		
Pwsid:	GA0510002	Facid:	17602
Facname:	WELL #3 PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	other
Trtprocess:	fluoridation	Factypecode:	TP

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Pwsid:	GA0510002	Facid:	2633
Facname:	ANTRIM ST WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		
Pwsid:	GA0510002	Facid:	2633
Facname:	ANTRIM ST WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	other
Trtprocess:	fluoridation	Factypecode:	TP
Pwsid:	GA0510002	Facid:	388
Facname:	APPLEBY RD WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	disinfection
Trtprocess:	gaseous chlorination, post		
Factypecode:	TP		
Pwsid:	GA0510002	Facid:	388
Facname:	APPLEBY RD WELL PLANT	Factype:	Treatment_plant
Facactivitycode:	A	Trtobjective:	other
Trtprocess:	fluoridation	Factypecode:	TP
PWS ID:	GA0510002	PWS name:	PORT WENTWORTH
Address:	305 SOUTH COASTAL HIGHWAY	Care of:	CITY OF PORT WENTWORTH
City:	PORT WENTWORTH	State:	GA
Zip:	31407	Owner:	PORT WENTWORTH
Source code:	Ground water	Population:	3349
PWS ID:	GA0510002	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	PORT WENTWORTH
PWS type code:	C	Retail population served:	7985
Contact:	CLAXTON, PHILLIP	Contact address:	305 SOUTH COASTAL HWY.
Contact address:	PORT WENTWORTH	Contact city:	GA
Contact state:	31	Contact zip:	912-964-43
Contact telephone:	Not Reported		
County:	CHATHAM	Source:	Ground water
Treatment Objective:	DISINFECTION	Process:	HYPOCHLORINATION, POST
Population:	3349		
PWS ID:	GA0510002	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00002639	System name:	PORT WENTWORTH
System address:	CITY OF PORT WENTWORTH	System address:	305 SOUTH COASTAL HWY.
System city:	PORT WENTWORTH	System state:	GA
System zip:	31407		
Population served:	2,501 - 3,300 Persons	Treatment:	Treated
Latitude:	320916	Longitude:	0810948
Latitude:	320916	Longitude:	0810946
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	16.0000
Longitude degrees:	81	Longitude minutes:	9
Longitude seconds:	46.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	16.0000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Longitude degrees:	81	Longitude minutes:	9
Longitude seconds:	48.0000		
Violation id:	20205	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		
Violation id:	20410	Orig code:	S
State:	GA	Violation Year:	2009
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	09/01/2009
Cmp edt:	09/30/2009		
Violation id:	20613	Orig code:	S
State:	GA	Violation Year:	2013
Contamination code:	2950	Contamination Name:	TTHM
Violation code:	02	Violation name:	MCL, Average
Rule code:	210	Rule name:	St1 DBP
Violation measur:	0.118	Unit of measure:	UG/L
State mcl:	0.08	Cmp bdt:	01/01/2013
Cmp edt:	03/31/2013		
Violation ID:	20205	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/01/2005
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	20205	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	07/05/2005
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20410	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/22/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20410	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	11/16/2009
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20410	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/22/2009
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20613	Orig Code:	S
Enforcemnt FY:	2014	Enforcement Action:	02/25/2014
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20613	Orig Code:	S
Enforcemnt FY:	2014	Enforcement Action:	02/25/2014
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
PWS name:	PORT WENTWORTH	Population served:	7985
PWS type code:	C	Violation ID:	20205

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contaminant: 7000
 Compliance start date: 7/1/2005 0:00:00
 Enforcement date: 7/1/2005 0:00:00
 Violation measurement: Not Reported

Violation type: 71
 Compliance end date: 7/5/2005 0:00:00
 Enforcement action: State Intentional no-action

PWS name: PORT WENTWORTH
 PWS type code: C
 Contaminant: 7000
 Compliance start date: 7/1/2005 0:00:00
 Enforcement date: 7/5/2005 0:00:00
 Violation measurement: Not Reported

Population served: 7985
 Violation ID: 20205
 Violation type: 71
 Compliance end date: 7/5/2005 0:00:00
 Enforcement action: State Compliance Achieved

**H31
 North
 1 - 2 Miles
 Lower**

FED USGS USGS40000259658

Organization ID: USGS-GA
 Monitor Location: 36R021
 Description: Not Reported
 Drainage Area: Not Reported
 Contrib Drainage Area: Not Reported
 Aquifer: Not Reported
 Aquifer Type: Not Reported
 Well Depth: Not Reported
 Well Hole Depth: Not Reported

Organization Name: USGS Georgia Water Science Center
 Type: Well
 HUC: 03060109
 Drainage Area Units: Not Reported
 Contrib Drainage Area Unts: Not Reported
 Formation Type: Not Reported
 Construction Date: Not Reported
 Well Depth Units: Not Reported
 Well Hole Depth Units: Not Reported

**H32
 North
 1 - 2 Miles
 Lower**

FRDS PWS GA0510136

Epa region: 04
 Pwsid: GA0510136
 Cityserved: Not Reported
 Zipserved: Not Reported
 Status: Closed
 Pwssvconn: 31
 Pwstype: CWS
 Contact: RAHN, CHARLES B
 Contactphone: 912-964-8106
 Contactaddress2: Not Reported
 Contactstate: GA
 Pwsactivitycode: I

State: GA
 Pwsname: C & S MOBILE ESTATES
 Stateserved: GA
 Fipscounty: 13051
 Retpopsrvd: 80
 Psource longname: Groundwater
 Owner: Private
 Contactorgname: Not Reported
 Contactaddress1: POB 7865
 Contactcity: GARDEN CITY
 Contactzip: 314187865

PWS ID: GA0510136
 Address: POB 7865
 City: GARDEN CITY
 Zip: 314187865
 Source code: Ground water

PWS name: C & S MOBILE ESTATES
 Care of: C & S MOBILE ESTATES
 State: GA
 Owner: C & S MOBILE ESTATES
 Population: 80

PWS ID: GA0510136
 PWS name: Not Reported
 PWS city: Not Reported
 PWS zip: Not Reported
 Activity status: Active
 Date system deactivated: Not Reported
 System name: C & S MOBILE ESTATES
 System address: POB 7865

PWS type: Not Reported
 PWS address: Not Reported
 PWS state: Not Reported
 PWS ID: GA0510136
 Date system activated: Not Reported
 Retail population: 00000080
 System address: C & S MOBILE ESTATES
 System city: GARDEN CITY

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System state:	GA	System zip:	314187865
Population served:	Under 101 Persons	Treatment:	Untreated
Latitude:	320953	Longitude:	0811056
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	53.0000
Longitude degrees:	81	Longitude minutes:	10
Longitude seconds:	56.0000		
Violation id:	20101	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	04/01/2001
Cmp edt:	04/30/2001		
Violation id:	20301	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	0	Unit of measure:	Not Reported
State mcl:	0	Cmp bdt:	06/01/2001
Cmp edt:	06/30/2001		
Violation id:	20401	Orig code:	S
State:	GA	Violation Year:	2001
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2001
Cmp edt:	Not Reported		
Violation id:	20602	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	07/31/2002		
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	05/24/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20101	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	05/24/2001
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20301	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/31/2001
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	20301	Orig Code:	S

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Enforcemnt FY:	2001	Enforcement Action:	07/31/2001
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20401	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	09/04/2001
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	20401	Orig Code:	S
Enforcemnt FY:	2001	Enforcement Action:	07/02/2001
Enforcement Detail:	St Intentional no-action	Enforcement Category:	Resolving
Violation ID:	20602	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	09/11/2002
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	20602	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	08/27/2002
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	20602	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	08/27/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		

I33
SE
1 - 2 Miles
Lower

FED USGS USGS40000259537

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R019	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

H34
North
1 - 2 Miles
Lower

FED USGS USGS40000259661

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R024	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

J35
SSW
1 - 2 Miles
Lower

FED USGS USGS40000259527

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36Q293	Type:	Well
Description:	SAVANNAH, GA, 17	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Floridan aquifer system	Formation Type:	Floridan Aquifer System
Aquifer Type:	Confined multiple aquifer	Construction Date:	Not Reported
Well Depth:	652	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

J36
SSW
1 - 2 Miles
Lower

GA WELLS 0000001899

County code:	051	Well num:	36Q293
Remarks:	SAVANNAH, GA, 17	Lat:	320716
Lon:	0811137	Latlon datum:	NAD27
Alt:	38.93	Alt datum:	NGVD29
Depth:	652	Depth to casing:	272
Casing dia:	10	Casing matl:	Not Reported
Depth to top:	272	Depth to bot:	652
Opening type:	X	Constr date:	194208
Discharge:	Not Reported	Prim use:	P
Aquifer code:	120FLRD	Edr id:	0000001899

J37
SSW
1 - 2 Miles
Lower

FED USGS USGS40000259528

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36Q364	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

H38
North
1 - 2 Miles
Lower

FRDS PWS GA0510137

Epa region:	04	State:	GA
Pwsid:	GA0510137	Pwsname:	BARNWELL GARDENS SUBDIVISION
Cityserved:	Not Reported	Stateserved:	GA
Zipsserved:	Not Reported	Fipscounty:	13051

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Status:	Active	Retpopsrvd:	97
Pwssvconn:	38	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Private
Contact:	THOMPSON, VINCE	Contactorgname:	THOMPSON, VINCE
Contactphone:	912-964-4770	Contactaddress1:	8144 OLD HWY. 21
Contactaddress2:	Not Reported	Contactcity:	PORT WENTWORTH
Contactstate:	GA	Contactzip:	31407
Pwsactivitycode:	A		
PWS ID:	GA0510137	PWS name:	BARNWELL GARDENS SUBDIVISION
Address:	6594 HIGHWAY 21	Care of:	BARNWELL GARDENS MHP
City:	PORT WENTWORTH	State:	GA
Zip:	31407	Owner:	BARNWELL GARDENS SUBDIVISION
Source code:	Ground water	Population:	99
PWS ID:	GA0510137	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS name:	BARNWELL GARDENS SUBDIVISION
PWS type code:	C	Retail population served:	97
Contact:	THOMPSON, VINCE	Contact address:	8144 OLD HWY. 21
Contact address:	PORT WENTWORTH	Contact city:	GA
Contact state:	31	Contact zip:	912-964-47
Contact telephone:	Not Reported		
PWS ID:	GA0510137	Activity status:	Active
Date system activated:	Not Reported	Date system deactivated:	Not Reported
Retail population:	00000071	System name:	BARNWELL GARDENS SUBDIVISION
System address:	BARNWELL GARDENS S/D	System address:	6594 HIGHWAY 21
System city:	PORT WENTWORTH	System state:	GA
System zip:	31407		
Population served:	Under 101 Persons	Treatment:	Untreated
Latitude:	320958	Longitude:	0811058
State:	GA	Latitude degrees:	32
Latitude minutes:	9	Latitude seconds:	58.0000
Longitude degrees:	81	Longitude minutes:	10
Longitude seconds:	58.0000		
Violation id:	10102	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2002
Cmp edt:	Not Reported		
Violation id:	10303	Orig code:	S
State:	GA	Violation Year:	2002
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	25	Violation name:	Monitoring, Repeat Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	12/01/2002
Cmp edt:	12/31/2002		
Violation id:	10503	Orig code:	S
State:	GA	Violation Year:	2003
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2003
Cmp edt:	Not Reported		
Violation id:	10604	Orig code:	S
State:	GA	Violation Year:	2004
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2004
Cmp edt:	Not Reported		
Violation id:	10705	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	05/01/2005
Cmp edt:	05/31/2005		
Violation id:	10805	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2005
Cmp edt:	Not Reported		
Violation id:	10906	Orig code:	S
State:	GA	Violation Year:	2005
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	12/01/2005
Cmp edt:	12/31/2005		
Violation id:	11006	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	01/01/2006
Cmp edt:	01/31/2006		
Violation id:	11106	Orig code:	S
State:	GA	Violation Year:	2006
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2006
Cmp edt:	Not Reported		
Violation id:	11207	Orig code:	S
State:	GA	Violation Year:	2007

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2007
Cmp edt:	Not Reported		
Violation id:	11308	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	23	Violation name:	Monitoring, Routine Major (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	03/01/2008
Cmp edt:	03/31/2008		
Violation id:	11408	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	7000	Contamination Name:	Consumer Confidence Rule
Violation code:	71	Violation name:	CCR Complete Failure to Report
Rule code:	420	Rule name:	CCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	Not Reported		
Violation id:	11508	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	26	Violation name:	Monitoring, Repeat Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	06/01/2008
Cmp edt:	06/30/2008		
Violation id:	11608	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	24	Violation name:	Monitoring, Routine Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	07/01/2008
Cmp edt:	07/31/2008		
Violation id:	11709	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	22	Violation name:	MCL, Monthly (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	09/01/2008
Cmp edt:	09/30/2008		
Violation id:	11809	Orig code:	S
State:	GA	Violation Year:	2008
Contamination code:	3100	Contamination Name:	Coliform (TCR)
Violation code:	24	Violation name:	Monitoring, Routine Minor (TCR)
Rule code:	110	Rule name:	TCR
Violation measur:	Not Reported	Unit of measure:	Not Reported
State mcl:	Not Reported	Cmp bdt:	10/01/2008
Cmp edt:	10/31/2008		
Violation id:	11909	Orig code:	S

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

State: GA
 Contamination code: 1040
 Violation code: 03
 Rule code: 331
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: 12/31/2008

Violation Year: 2008
 Contamination Name: Nitrate
 Violation name: Monitoring, Regular
 Rule name: Nitrates
 Unit of measure: Not Reported
 Cmp bdt: 01/01/2008

Violation id: 12009
 State: GA
 Contamination code: 7000
 Violation code: 71
 Rule code: 420
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2009
 Contamination Name: Consumer Confidence Rule
 Violation name: CCR Complete Failure to Report
 Rule name: CCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2009

Violation id: 12109
 State: GA
 Contamination code: 3100
 Violation code: 24
 Rule code: 110
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: 07/31/2009

Orig code: S
 Violation Year: 2009
 Contamination Name: Coliform (TCR)
 Violation name: Monitoring, Routine Minor (TCR)
 Rule name: TCR
 Unit of measure: Not Reported
 Cmp bdt: 07/01/2009

Violation id: 12210
 State: GA
 Contamination code: 5000
 Violation code: 52
 Rule code: 350
 Violation measur: Not Reported
 State mcl: Not Reported
 Cmp edt: Not Reported

Orig code: S
 Violation Year: 2009
 Contamination Name: Lead and Copper Rule
 Violation name: Follow-up Or Routine LCR Tap M/R
 Rule name: LCR
 Unit of measure: Not Reported
 Cmp bdt: 10/01/2009

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9200001
 PWS telephone: Not Reported
 Violation type: Max Contaminant Level, Monthly (TCR)
 Violation start date: 040192
 Violation period (months): 001
 Major violator: Not Reported
 Number of required samples: Not Reported
 Analysis method: Not Reported

Violation source ID: Not Reported
 Contaminant: COLIFORM (TCR)
 Violation end date: 043092
 Violation awareness date: Not Reported
 Maximum contaminant level: Not Reported
 Number of samples taken: Not Reported
 Analysis result: Not Reported

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID: 9200002
 PWS telephone: Not Reported
 Violation type: Monitoring, Repeat Minor (TCR)
 Violation start date: 040192
 Violation period (months): 001
 Major violator: No
 Number of required samples: Not Reported
 Analysis method: Not Reported

Violation source ID: Not Reported
 Contaminant: COLIFORM (TCR)
 Violation end date: 043092
 Violation awareness date: Not Reported
 Maximum contaminant level: Not Reported
 Number of samples taken: Not Reported
 Analysis result: Not Reported

Violation ID: 100
 Enforcemnt FY: 2000
 Enforcement Detail: St Public Notif requested

Orig Code: S
 Enforcement Action: 02/17/2000
 Enforcement Category: Informal

Violation ID: 100

Orig Code: S

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Enforcemnt FY:	2000	Enforcement Action:	02/17/2000
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	100	Orig Code:	S
Enforcemnt FY:	2000	Enforcement Action:	03/27/2000
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	10102	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/18/2002
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10102	Orig Code:	S
Enforcemnt FY:	2002	Enforcement Action:	07/02/2002
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10303	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	01/21/2003
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	10303	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	01/21/2003
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10503	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	08/11/2003
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	10503	Orig Code:	S
Enforcemnt FY:	2003	Enforcement Action:	09/17/2003
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10604	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	09/14/2004
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10604	Orig Code:	S
Enforcemnt FY:	2004	Enforcement Action:	08/20/2004
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/21/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	06/27/2005
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/14/2006
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	05/30/2006
Enforcement Detail:	St Compliance Meeting conducted		
Enforcement Category:	Informal		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	05/09/2006
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	03/15/2007
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	10705	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	06/27/2005
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/14/2006
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2005	Enforcement Action:	08/01/2005
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	03/15/2007
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/29/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	10805	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	10/03/2005
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	01/23/2006
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	05/09/2006
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	05/30/2006
Enforcement Detail:	St Compliance Meeting conducted		
Enforcement Category:	Informal		
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2007	Enforcement Action:	03/15/2007
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	08/21/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	07/14/2006
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	10906	Orig Code:	S
Enforcemnt FY:	2006	Enforcement Action:	01/23/2006
Enforcement Detail:	St Violation/Reminder Notice		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Enforcement Category:	Informal		
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	02/22/2006
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	02/22/2006
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	05/09/2006
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	05/30/2006
Enforcement Detail:	St Compliance Meeting conducted		
Enforcement Category:	Informal		
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	08/21/2006
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2007	Enforcement Action:	03/15/2007
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	11006	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	07/14/2006
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11106	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	08/15/2006
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	11106	Orig Code:	S
Enforcement FY:	2007	Enforcement Action:	03/15/2007
Enforcement Detail:	St Formal NOV issued	Enforcement Category:	Informal
Violation ID:	11106	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	08/20/2006
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	11106	Orig Code:	S
Enforcement FY:	2006	Enforcement Action:	07/14/2006
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11207	Orig Code:	S
Enforcement FY:	2007	Enforcement Action:	09/28/2007
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	11207	Orig Code:	S
Enforcement FY:	2007	Enforcement Action:	08/31/2007
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	11308	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	02/20/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	11308	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/23/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11308	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	04/18/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11308	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	04/18/2008
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	11408	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	03/30/2010
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11408	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	05/03/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	11408	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/12/2008
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	11508	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	07/18/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11508	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	07/18/2008
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	11508	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/20/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11508	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/23/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11608	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/20/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11608	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/23/2008
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	11608	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/23/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11608	Orig Code:	S
Enforcemnt FY:	2008	Enforcement Action:	08/23/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11709	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/23/2009

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Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11709	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	10/06/2008
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	11709	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/20/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11709	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	10/06/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11809	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	11/20/2008
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	11809	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/20/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11809	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	11/20/2008
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11809	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	02/23/2009
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	03/30/2010
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2011	Enforcement Action:	10/12/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	04/07/2010
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	03/20/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	11909	Orig Code:	S
Enforcemnt FY:	2009	Enforcement Action:	03/20/2009
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	12009	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	05/03/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	12009	Orig Code:	S
Enforcemnt FY:	2010	Enforcement Action:	10/07/2009
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID:	12009	Orig Code:	S
Enforcement FY:	2010	Enforcement Action:	03/30/2010
Enforcement Detail:	St AO (w/penalty) issued	Enforcement Category:	Formal
Violation ID:	12009	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	08/05/2009
Enforcement Detail:	State CCR Follow-up Notice		
Enforcement Category:	Informal		
Violation ID:	12109	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	08/19/2009
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
Violation ID:	12109	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	09/03/2009
Enforcement Detail:	St Public Notif received	Enforcement Category:	Informal
Violation ID:	12109	Orig Code:	S
Enforcement FY:	2009	Enforcement Action:	08/19/2009
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	12210	Orig Code:	S
Enforcement FY:	2010	Enforcement Action:	09/14/2010
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Resolving
Violation ID:	12210	Orig Code:	S
Enforcement FY:	2010	Enforcement Action:	05/12/2010
Enforcement Detail:	St Public Notif requested	Enforcement Category:	Informal
Violation ID:	12210	Orig Code:	S
Enforcement FY:	2010	Enforcement Action:	05/12/2010
Enforcement Detail:	St Violation/Reminder Notice		
Enforcement Category:	Informal		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10102	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2002 0:00:00
Compliance end date:	7/18/2002 0:00:00	Enforcement date:	7/18/2002 0:00:00
Enforcement action:	State Compliance Achieved	Violation measurement:	Not Reported
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10102	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2002 0:00:00
Compliance end date:	7/18/2002 0:00:00	Enforcement date:	7/2/2002 0:00:00
Enforcement action:	State Violation/Reminder Notice		
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10303	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Repeat Major (TCR)		
Compliance start date:	12/1/2002 0:00:00	Compliance end date:	12/31/2002 0:00:00
Enforcement date:	1/21/2003 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10303	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Repeat Major (TCR)		

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Compliance start date:	12/1/2002 0:00:00	Compliance end date:	12/31/2002 0:00:00
Enforcement date:	1/21/2003 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10503	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2003 0:00:00
Compliance end date:	9/17/2003 0:00:00	Enforcement date:	8/11/2003 0:00:00
Enforcement action:	SII	Violation measurement:	Not Reported

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10503	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2003 0:00:00
Compliance end date:	9/17/2003 0:00:00	Enforcement date:	9/17/2003 0:00:00
Enforcement action:	State Compliance Achieved	Violation measurement:	Not Reported

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10604	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2004 0:00:00
Compliance end date:	9/14/2004 0:00:00	Enforcement date:	8/20/2004 0:00:00
Enforcement action:	SII	Violation measurement:	Not Reported

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10604	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2004 0:00:00
Compliance end date:	9/14/2004 0:00:00	Enforcement date:	9/14/2004 0:00:00
Enforcement action:	State Compliance Achieved	Violation measurement:	Not Reported

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	3/15/2007 0:00:00	Enforcement action:	State Formal NOV Issued
Violation measurement:	Not Reported		

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	5/30/2006 0:00:00	Enforcement action:	State Compliance Meeting Conducted
Violation measurement:	Not Reported		

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	5/9/2006 0:00:00	Enforcement action:	State Formal NOV Issued
Violation measurement:	Not Reported		

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	6/27/2005 0:00:00	Enforcement action:	State Violation/Reminder Notice

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	6/27/2005 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	7/14/2006 0:00:00	Enforcement action:	State AO (w/penalty) Issued
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10705	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	5/1/2005 0:00:00	Compliance end date:	5/31/2005 0:00:00
Enforcement date:	8/21/2006 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10805	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2005 0:00:00
Compliance end date:	8/29/2006 0:00:00	Enforcement date:	10/3/2005 0:00:00
Enforcement action:	SII	Violation measurement:	Not Reported
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10805	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2005 0:00:00
Compliance end date:	8/29/2006 0:00:00	Enforcement date:	3/15/2007 0:00:00
Enforcement action:	State Formal NOV Issued	Violation measurement:	Not Reported
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10805	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2005 0:00:00
Compliance end date:	8/29/2006 0:00:00	Enforcement date:	7/14/2006 0:00:00
Enforcement action:	State AO (w/penalty) Issued		
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10805	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2005 0:00:00
Compliance end date:	8/29/2006 0:00:00	Enforcement date:	8/1/2005 0:00:00
Enforcement action:	SII	Violation measurement:	Not Reported
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	10805	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2005 0:00:00
Compliance end date:	8/29/2006 0:00:00	Enforcement date:	8/29/2006 0:00:00
Enforcement action:	State Compliance Achieved	Violation measurement:	Not Reported

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PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 1/23/2006 0:00:00 Enforcement action: State Violation/Reminder Notice
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 1/23/2006 0:00:00 Enforcement action: State Public Notif Requested
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 3/15/2007 0:00:00 Enforcement action: State Formal NOV Issued
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 5/30/2006 0:00:00 Enforcement action: State Compliance Meeting Conducted
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 5/9/2006 0:00:00 Enforcement action: State Formal NOV Issued
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 7/14/2006 0:00:00 Enforcement action: State AO (w/penalty) Issued
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 10906 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 12/1/2005 0:00:00 Compliance end date: 12/31/2005 0:00:00
 Enforcement date: 8/21/2006 0:00:00 Enforcement action: State Public Notif Received
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11006 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 1/1/2006 0:00:00 Compliance end date: 1/31/2006 0:00:00
 Enforcement date: 2/22/2006 0:00:00 Enforcement action: State Violation/Reminder Notice

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Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11006	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	1/1/2006 0:00:00	Compliance end date:	1/31/2006 0:00:00
Enforcement date:	2/22/2006 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11006	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	1/1/2006 0:00:00	Compliance end date:	1/31/2006 0:00:00
Enforcement date:	3/15/2007 0:00:00	Enforcement action:	State Formal NOV Issued
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11006	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	1/1/2006 0:00:00	Compliance end date:	1/31/2006 0:00:00
Enforcement date:	5/30/2006 0:00:00	Enforcement action:	State Compliance Meeting Conducted
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11006	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	1/1/2006 0:00:00	Compliance end date:	1/31/2006 0:00:00
Enforcement date:	5/9/2006 0:00:00	Enforcement action:	State Formal NOV Issued
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11006	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	1/1/2006 0:00:00	Compliance end date:	1/31/2006 0:00:00
Enforcement date:	7/14/2006 0:00:00	Enforcement action:	State AO (w/penalty) Issued
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11006	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Compliance start date:	1/1/2006 0:00:00	Compliance end date:	1/31/2006 0:00:00
Enforcement date:	8/21/2006 0:00:00	Enforcement action:	State Public Notif Received
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11106	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2006 0:00:00
Compliance end date:	8/20/2006 0:00:00	Enforcement date:	3/15/2007 0:00:00
Enforcement action:	State Formal NOV Issued	Violation measurement:	Not Reported
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11106	Contaminant:	7000
Violation type:	71	Compliance start date:	7/1/2006 0:00:00
Compliance end date:	8/20/2006 0:00:00	Enforcement date:	7/14/2006 0:00:00

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Enforcement action: State AO (w/penalty) Issued
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11106 Contaminant: 7000
 Violation type: 71 Compliance start date: 7/1/2006 0:00:00
 Compliance end date: 8/20/2006 0:00:00 Enforcement date: 8/15/2006 0:00:00
 Enforcement action: SII Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11106 Contaminant: 7000
 Violation type: 71 Compliance start date: 7/1/2006 0:00:00
 Compliance end date: 8/20/2006 0:00:00 Enforcement date: 8/20/2006 0:00:00
 Enforcement action: State Compliance Achieved Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11207 Contaminant: 7000
 Violation type: 71 Compliance start date: 7/1/2007 0:00:00
 Compliance end date: 9/28/2007 0:00:00 Enforcement date: 8/31/2007 0:00:00
 Enforcement action: SII Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11207 Contaminant: 7000
 Violation type: 71 Compliance start date: 7/1/2007 0:00:00
 Compliance end date: 9/28/2007 0:00:00 Enforcement date: 9/28/2007 0:00:00
 Enforcement action: State Compliance Achieved Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11308 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 3/1/2008 0:00:00 Compliance end date: 3/31/2008 0:00:00
 Enforcement date: 4/18/2008 0:00:00 Enforcement action: State Violation/Reminder Notice
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11308 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Routine Major (TCR)
 Compliance start date: 3/1/2008 0:00:00 Compliance end date: 3/31/2008 0:00:00
 Enforcement date: 4/18/2008 0:00:00 Enforcement action: State Public Notif Requested
 Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11408 Contaminant: 7000
 Violation type: 71 Compliance start date: 7/1/2008 0:00:00
 Compliance end date: 12/31/2025 0:00:00 Enforcement date: 8/12/2008 0:00:00
 Enforcement action: SII Violation measurement: Not Reported

PWS name: BARNWELL GARDENS SUBDIVISION
 Population served: 97 PWS type code: C
 Violation ID: 11508 Contaminant: COLIFORM (TCR)
 Violation type: Monitoring, Repeat Minor (TCR)
 Compliance start date: 6/1/2008 0:00:00 Compliance end date: 6/30/2008 0:00:00
 Enforcement date: 7/18/2008 0:00:00 Enforcement action: State Violation/Reminder Notice
 Violation measurement: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11508	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Repeat Minor (TCR)		
Compliance start date:	6/1/2008 0:00:00	Compliance end date:	6/30/2008 0:00:00
Enforcement date:	7/18/2008 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11608	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Minor (TCR)		
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	7/31/2008 0:00:00
Enforcement date:	8/23/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11608	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Minor (TCR)		
Compliance start date:	7/1/2008 0:00:00	Compliance end date:	7/31/2008 0:00:00
Enforcement date:	8/23/2008 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11709	Contaminant:	COLIFORM (TCR)
Violation type:	Max Contaminant Level, Monthly (TCR)		
Compliance start date:	9/1/2008 0:00:00	Compliance end date:	9/30/2008 0:00:00
Enforcement date:	10/6/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11709	Contaminant:	COLIFORM (TCR)
Violation type:	Max Contaminant Level, Monthly (TCR)		
Compliance start date:	9/1/2008 0:00:00	Compliance end date:	9/30/2008 0:00:00
Enforcement date:	10/6/2008 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11809	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Minor (TCR)		
Compliance start date:	10/1/2008 0:00:00	Compliance end date:	10/31/2008 0:00:00
Enforcement date:	11/20/2008 0:00:00	Enforcement action:	State Violation/Reminder Notice
Violation measurement:	Not Reported		
PWS name:	BARNWELL GARDENS SUBDIVISION		
Population served:	97	PWS type code:	C
Violation ID:	11809	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Minor (TCR)		
Compliance start date:	10/1/2008 0:00:00	Compliance end date:	10/31/2008 0:00:00
Enforcement date:	11/20/2008 0:00:00	Enforcement action:	State Public Notif Requested
Violation measurement:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

I39
SE
1 - 2 Miles
Lower

FRDS PWS GA0510162

Epa region:	04	State:	GA
Pwsid:	GA0510162	Pwsname:	BUILDERS TRANSPORT INC.
Cityserved:	Not Reported	Stateserved:	GA
Ziperved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	65
Pwssvconn:	3	Psource longname:	Groundwater
Pwstype:	NTNCWS	Owner:	Private
Contact:	BUILDERS TRANSPORT INC.	Contactorgname:	Not Reported
Contactphone:	912-964-1313	Contactaddress1:	BUILDER'S TRANSPORT INC.
Contactaddress2:	POB 2726	Contactcity:	SAVANNAH
Contactstate:	GA	Contactzip:	314982726
Pwsactivitycode:	I		

PWS ID:	GA0510162	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510162
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00000050
System name:	BUILDERS TRANSPORT INC.	System address:	BUILDERS TRANSPORT, INC.
System address:	POB 7005	System city:	CAMDEN
System state:	SC	System zip:	290207005

Population served:	Under 101 Persons	Treatment:	Untreated
Latitude:	341447	Longitude:	0803625
Latitude:	320724	Longitude:	0811005

PWS currently has or had major violation(s) or enforcement:Yes

Violation ID:	9200001	Violation source ID:	Not Reported
PWS telephone:	Not Reported	Contaminant:	COLIFORM (TCR)
Violation type:	Monitoring, Routine Major (TCR)		
Violation start date:	070192	Violation end date:	093092
Violation period (months):	003	Violation awareness date:	Not Reported
Major violator:	Yes	Maximum contaminant level:	Not Reported
Number of required samples:	Not Reported	Number of samples taken:	Not Reported
Analysis method:	Not Reported	Analysis result:	Not Reported

J40
SSW
1 - 2 Miles
Lower

FRDS PWS GA0510102

Epa region:	04	State:	GA
Pwsid:	GA0510102	Pwsname:	SAVANNAH-TRAVIS FIELD
Cityserved:	Not Reported	Stateserved:	GA
Ziperved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	304
Pwssvconn:	117	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt
Contact:	JUE, HARRY	Contactorgname:	Not Reported
Contactphone:	912-651-4241	Contactaddress1:	POB 1027

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contactaddress2:	Not Reported	Contactcity:	SAVANNAH
Contactstate:	GA	Contactzip:	314021027
Pwsactivitycode:	I		
Pwsid:	GA0510102	Facid:	3972
Facname:	WELL #17 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA0510102	Facid:	3979
Facname:	WELL #18 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA0510102	Facid:	3985
Facname:	WELL #19 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
PWS ID:	GA0510102	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510102
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00001100
System name:	SAVANNAH-TRAVIS FIELD	System address:	SAVANNAH-TRAVIS FIELD
System address:	702 STILES AVE	System city:	SAVANNAH
System state:	GA	System zip:	31402
Population served:	1,001 - 2,500 Persons	Treatment:	Treated
Latitude:	320731	Longitude:	0811140
Latitude:	320705	Longitude:	0811140
Latitude:	320710	Longitude:	0811136
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	5.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	40.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	10.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	36.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	31.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	40.0000		

J41
SSW
1 - 2 Miles
Lower

FED USGS USGS40000259520

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36Q013	Type:	Well
Description:	SAVANNAH, GA 18	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Floridan aquifer system	Formation Type:	Upper Floridan Aquifer
Aquifer Type:	Confined multiple aquifer	Construction Date:	19420901
Well Depth:	681	Well Depth Units:	ft
Well Hole Depth:	681	Well Hole Depth Units:	ft

Ground water levels, Number of Measurements:	18	Level reading date:	1998-05-25
Feet below surface:	92.88	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1988-05-25	Feet below surface:	99.41
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1985-05-21	Feet below surface:	95.52
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1984-10-31	Feet below surface:	93.30
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1984-04-30	Feet below surface:	86.65
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1983-11-04	Feet below surface:	91.80
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1982-11-02	Feet below surface:	87.50
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1981-10-26	Feet below surface:	90.42
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1981-05-21	Feet below surface:	90.25
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1980-05-19	Feet below surface:	85.90
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1979-10-29	Feet below surface:	90.00
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1978-12-04	Feet below surface:	91.10
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1977-11-07	Feet below surface:	91.40
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1976-12-14	Feet below surface:	83.90
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1976-01-12	Feet below surface:	76.60
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1975-05-02	Feet below surface:	81.80
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1973-11-29	Feet below surface:	86.50
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1942-10-09	Feet below surface:	40.26
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

J42
SSW
1 - 2 Miles
Lower

GA WELLS 000001897

County code:	051	Well num:	36Q013
Remarks:	SAVANNAH, GA 18	Lat:	320710
Lon:	0811143	Latlon datum:	NAD27
Alt:	34.27	Alt datum:	NGVD29
Depth:	681	Depth to casing:	269.00
Casing dia:	10.00	Casing matl:	Not Reported
Depth to top:	269.00	Depth to bot:	681.00
Opening type:	X	Constr date:	194209
Discharge:	825.00	Prim use:	P
Aquifer code:	120FLRDU	Edr id:	000001897

43
North
1 - 2 Miles
Lower

FED USGS USGS40000259664

Organization ID:	USGS-GA	Organization Name:	USGS Georgia Water Science Center
Monitor Location:	36R025	Type:	Well
Description:	Not Reported	HUC:	03060109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

K44
SSW
1 - 2 Miles
Lower

GA WELLS 617

Id:	617	Water source id:	25M4B18
Name:	CITY OF SAVANNAH-TRAVIS F	Latitude:	32.1192
Longitude:	81.1953	Source:	G
Gw mgd:	0.67	Sw mgd:	0.00
Status:	1	Gwsi id:	36Q013
Population:	0	County:	CHATHAM
County fips:	51	Ggs:	1

K45
SSW
1 - 2 Miles
Lower

FRDS PWS GA0510102

Epa region:	04	State:	GA
Pwsid:	GA0510102	Pwsname:	SAVANNAH-TRAVIS FIELD
Cityserved:	Not Reported	Stateserved:	GA
Zipsserved:	Not Reported	Fipscounty:	13051
Status:	Closed	Retpopsrvd:	304
Pwssvconn:	117	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contact:	JUE, HARRY	Contactorgname:	Not Reported
Contactphone:	912-651-4241	Contactaddress1:	POB 1027
Contactaddress2:	Not Reported	Contactcity:	SAVANNAH
Contactstate:	GA	Contactzip:	314021027
Pwsactivitycode:	I		
Pwsid:	GA0510102	Facid:	3972
Facname:	WELL #17 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA0510102	Facid:	3979
Facname:	WELL #18 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
Pwsid:	GA0510102	Facid:	3985
Facname:	WELL #19 PLANT	Factype:	Treatment_plant
Facactivitycode:	I	Trtobjective:	disinfection
Trtprocess:	hypochlorination, post	Factypecode:	TP
PWS ID:	GA0510102	PWS type:	Not Reported
PWS name:	Not Reported	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	GA0510102
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00001100
System name:	SAVANNAH-TRAVIS FIELD	System address:	SAVANNAH-TRAVIS FIELD
System address:	702 STILES AVE	System city:	SAVANNAH
System state:	GA	System zip:	31402
Population served:	1,001 - 2,500 Persons	Treatment:	Treated
Latitude:	320731	Longitude:	0811140
Latitude:	320705	Longitude:	0811140
Latitude:	320710	Longitude:	0811136
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	5.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	40.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	10.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	36.0000		
State:	GA	Latitude degrees:	32
Latitude minutes:	7	Latitude seconds:	31.0000
Longitude degrees:	81	Longitude minutes:	11
Longitude seconds:	40.0000		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for CHATHAM County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level \geq 2 pCi/L and \leq 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for CHATHAM COUNTY, GA

Number of sites tested: 21

<u>Area</u>	<u>Average Activity</u>	<u>% <4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% >20 pCi/L</u>
Living Area - 1st Floor	0.881 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Georgia GIS Clearinghouse

Telephone: 706-542-1581

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

A listing of Private Water Well locations

Georgia Department of Public Health

Telephone: (404) 657-2700

A listing of Private Water Well locations

Georgia Public Supply Wells

Source: Georgia Department of Community Affairs

Telephone: 404-894-0127

USGS Georgia Water Wells

Source: USGS, Georgia District Office

Telephone: 770-903-9100

DNR Managed Lands

Source: Department of Natural Resources

Telephone: 706-557-3032

This dataset provides 1:24,000-scale data depicting boundaries of land parcels making up the public lands managed by the Georgia Department of Natural Resources (GDNR). It includes polygon representations of State Parks, State Historic Parks, State Conservation Parks, State Historic Sites, Wildlife Management Areas, Public Fishing Areas, Fish Hatcheries, Natural Areas and other specially-designated areas. The data were collected and located by the Georgia Department of Natural Resources. Boundaries were digitized from survey plats or other information.

RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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APPENDIX C

Statistical Analyses

Grumman Road Private Industrial Landfill
Chatham County, Georgia
2022 Semiannual Groundwater Monitoring and Corrective Action Report

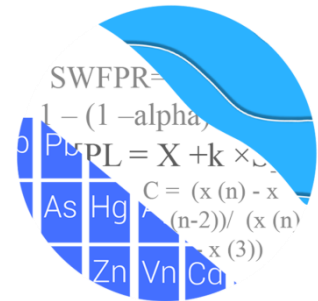
APPENDIX C

*Statistical Analysis Report
August 2022 Monitoring Event*

GROUNDWATER STATS CONSULTING

February 28, 2023

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308



Re: Plant Kraft's Grumman Road Landfill
Statistical Analysis – August/September 2022 Sample Event

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the groundwater statistical analysis of the August/September 2022 sample event for Georgia Power Company's Plant Kraft's Grumman Road Landfill. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for the Coal Combustion Residuals (CCR) program in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed at most wells for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** GWA-7 and GWA-8
- **Downgradient wells:** GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-2, GWC-9, GWC-11, GWC-12, GWC-13, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21, and GWC-22
- **Assessment wells:** MW-23D, MW-24D, and MW-25D

Assessment wells were installed in late 2020 and were first sampled in early 2021 for all constituents except mercury, which was first sampled in September 2021. These assessment wells currently have limited samples available; however, data are evaluated

with confidence intervals for well/constituent pairs when a minimum of four observations are available. Note that sampling has ceased at assessment wells MW-26D and MW-27D; therefore, no analysis was required.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to Groundwater Stats Consulting.

The program monitors the constituents listed below. Georgia EPD Appendix II and CCR Appendix IV constituents overlap with the exception of vanadium and zinc, which are required for Georgia EPD. The terms "parameters" and "constituents" are used interchangeably throughout.

- **Georgia EPD Appendix I** (Detection Monitoring) – antimony, arsenic, barium, chromium, lead, selenium, vanadium, and zinc
- **CCR Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Georgia EPD Appendix II/CCR Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, vanadium, and zinc

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs containing 100% non-detects follows this letter.

Time series plots for all parameters at each well are provided for the purpose of screening data at these wells (Figure A). Additionally, time series plots of all parameters at upgradient wells are included to more easily display concentrations upgradient of the facility (Figure A). A separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Due to varying detection limits in background data sets as a result of improved laboratory practices, a substitution of the most recent reporting limit is used for all non-detects. Of particular note is the reporting limits for metals at upgradient well GWA-7. Due to higher dilutions required for some metal analyses for this well, the reporting limits may vary

between sampling events and are sometimes considerably higher than corresponding reporting limits for other wells. In the case of cobalt, a high reporting limit of 0.025 mg/L was observed during the 1st SA 2022 analysis for well GWA-7, but the most recent reporting limit of 0.001 mg/L was substituted in order to maintain conservative (i.e., lower) statistical limits. On the other hand, some detected observations are recorded at extremely low concentrations for this well, below the MCL of 0.01 mg/L for arsenic, as an example. Therefore, the most recent reporting limit substitution of 0.005 mg/L is used for this well as for all other wells.

Data at all wells were originally evaluated during 2019 for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells. Power curves were provided along with the previous screening and demonstrated that the selected statistical methods comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods – Detection Monitoring

Georgia EPD Appendix I Constituents:

Semi-Annual Sampling

Interwell Prediction Limits with 1 of 2 resample plan

Constituents Downgradient: 8

Downgradient wells: 16

CCR Appendix III Constituents:

Semi-Annual Sampling

Interwell Prediction Limits with 1 of 2 resample plan

Constituents Downgradient: 7

Downgradient wells: 16

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual rate of 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background

sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits, along with the following methodology for handling non-detects:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory. Due to varying detection limits, the following substitution of 0.03 mg/L was made for lithium.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, an earlier portion of data may require deselection prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Georgia EPD Appendix I Constituents – Conducted in August 2019

Outlier Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey's box plot method, several outliers were identified. A summary of those findings was submitted with the August 2019 report. As a general rule, when the most recent values are identified as outliers, values are not flagged in the database (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Additionally, values that were not identified by Tukey's test but that are much higher than the remaining measurements were flagged as appropriate in order to obtain conservative prediction limits that are capable of detecting future changes. As mentioned above, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Testing

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. This step would apply to upgradient wells GWA-7 and GWA-8 only since pooled data from these wells are used to

construct interwell prediction limits. While this was not required, when any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits. A summary of the trend analyses was submitted with the screening report.

Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for all constituents which would suggest intrawell methods as the most appropriate statistical method. However, interwell methods are currently constructed in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

Summary of Background Screening – CCR Appendices III and IV Parameters – Conducted in March 2019

Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified. A summary of those findings was included with the screening report. When the most recent values are identified as outliers, values were not flagged in the database at this time (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will

be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Of the outliers identified by Tukey's method, several values were flagged in the database, and the remaining values were similar to other measurements within a given well or neighboring wells or were reported non-detects. A summary of all flagged values follows this letter (Figure C).

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Tests

The results of the Sen's Slope/Mann Kendall trend analyses showed a number of statistically significant increasing and decreasing trends for the Appendix III parameters. Most of the statistically significant trends identified, particularly those in upgradient wells GWA-7 and GWA-8 from which data are used in construction of the interwell prediction limits, were relatively low in magnitude when compared to average concentrations. Also, the background period was short in 2019, making it difficult to determine whether an apparent trend represents a long-term change or simply normal year-to-year variation; therefore, no adjustments were made to the data sets.

Appendix III – Determination of Spatial Variation

The ANOVA identified no variation among upgradient well data for fluoride, making interwell analyses the most appropriate statistical method for this constituent. Variation was noted for boron, calcium, chloride, pH, sulfate, and TDS which suggests the use of intrawell methods as the most appropriate statistical method. However, interwell methods are currently constructed in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

Statistical Analysis of Georgia EPD Appendix I Constituents – August/September 2022

All Appendix I parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged as shown in the outlier summary following this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed from carefully screened pooled upgradient well data through September 2022 for antimony, arsenic, barium, chromium, lead, selenium, vanadium, and zinc (Figure D). The August/September 2022 sample at each downgradient well is compared to these background limits.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result, and therefore, no further action is necessary. If no resample is collected, the initial exceedance is automatically confirmed. A summary table and complete graphical results of the interwell prediction limits follow this letter and include a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Arsenic: GWC-15, GWC-16, and GWC-20

Trend Tests – Appendix I Exceedances

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. When trends are present in upgradient wells it is an indication of natural variability in groundwater quality unrelated to practices at the site. Statistically significant trends were noted for the following well/constituent pairs:

Increasing Trends:

- Arsenic: GWC-15

Decreasing Trends:

- Arsenic: GWA-7 and GWA-8 (both upgradient)

Note that while the trend test identified statistically significant decreasing trends for arsenic in upgradient well GWA-8, the slope is displayed as zero which represents the median slopes of all the possible pairwise slopes. The zero median slopes result from the large number of non-detects in the record, and the negative test statistics result from a few trace values being recorded in the latter part of the records. Both a summary and complete graphical presentation of the trend test results follow this letter.

Statistical Analysis of CCR Appendix III Parameters – August/September 2022

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged as shown in the outlier summary following this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using pooled upgradient well data through September 2022 to develop background limits for boron, calcium, chloride, fluoride, pH, sulfate, and TDS (Figure F). In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. The August/September 2022 sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Summary tables of the prediction limits follow this letter. Exceedances were identified for the following well/constituent pairs:

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, and GWC-21
- Chloride: GWC-17
- Fluoride: GWC-17
- pH: GWC-12 (lower limit) and GWC-15 (upper limit)

- Sulfate: GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, and GWC-21

Trend Tests – Appendix III Exceedances

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen’s Slope/Mann Kendall trend test 99% confidence level along with upgradient wells for the same constituents (Figure G). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-16, and GWC-20
- Sulfate: GWB-5R, GWB-6R, GWC-11, and GWC-16

Decreasing trends:

- Calcium: GWA-7 (upgradient) and GWC-12
- Chloride: GWA-7 (upgradient)
- Fluoride: GWA-8 (upgradient)
- pH: GWA-7 (upgradient)
- Sulfate: GWA-7, GWA-8 (both upgradient), and GWC-12

Statistical Analysis of Georgia EPD Appendix II and CCR Appendix IV – August/September 2022

For Appendix II and IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix II and IV parameters are reassessed for outliers during each analysis. A historically high reporting limit of 0.025 mg/L for cobalt at upgradient well GWA-7 was flagged in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective and are more representative of present-day groundwater quality conditions. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell upper tolerance limits (UTLs) are calculated using Sanitas software, from all historical pooled upgradient well data for Appendix II and IV constituents (Figure H). The UTLs serve as site-specific background limits for each constituent. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution, i.e., fluoride and lead. When data contain greater than 50% non-detects or do not follow a normal or transformed-normal distribution, non-parametric tolerance limits are used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix II and IV constituents for this sample event (Figure I).

Confidence Intervals

To complete the statistical comparison of current sampling data to GWPS, confidence intervals were constructed using Sanitas software using data from 2016 through the present for each of the Appendix II and IV constituents in each downgradient well (Figure J). As mentioned above, any well/constituent pairs containing 100% non-detects since 2016 were not required for statistical analyses. The confidence intervals were then compared to the GWPS as described above. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level

(SSL) exceedance is identified. A summary of the confidence intervals follows this letter and exceedances were identified for the following well/constituent pairs:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWC-16 and GWC-20

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test at the 99% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable (Figure K). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:

- Arsenic: GWC-15

Decreasing trends:

- None

SUMMARY

Based on the statistical analyses described in this letter, the following statistical exceedances were noted:

Prediction Limits (Detection Monitoring Parameters)

Georgia EPD Appendix I:

- Arsenic: GWC-15, GWC-16, and GWC-20

CCR Appendix III:

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, and GWC-21
- Chloride: GWC-17
- Fluoride: GWC-17
- pH: GWC-12 (lower limit) and GWC-15 (upper limit)
- Sulfate: GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, and GWC-21

Confidence Intervals (Assessment Monitoring Parameters)

Georgia EPD Appendix II and CCR Appendix IV:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWC-16 and GWC-20

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Kraft's Grumman Road Landfill. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew Collins
Project Manager



Kristina Rayner
Senior Statistician

100% Non-Detects: Appendix I Downgradient

Analysis Run 9/28/2022 10:38 AM View: Appendix I

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Arsenic (mg/L)
GWC-11

Selenium (mg/L)
GWC-13

100% Non-Detects: Appendix II & IV Downgradient & Assessment

Analysis Run 11/5/2022 5:57 PM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Antimony (mg/L)

GWC-14, GWC-16, MW-23D, MW-24D, MW-25D

Arsenic (mg/L)

GWC-11, MW-23D, MW-24D

Beryllium (mg/L)

GWC-1, GWC-15, GWC-20, GWC-21, MW-23D, MW-24D

Cadmium (mg/L)

GWB-5R, GWB-6R, GWC-12, GWC-13, GWC-15, GWC-16, GWC-17, GWC-2, GWC-21, GWC-9, MW-24D

Chromium (mg/L)

MW-23D

Cobalt (mg/L)

GWC-1, GWC-13, GWC-15, GWC-16, GWC-20, GWC-21, MW-23D, MW-24D, MW-25D

Fluoride (mg/L)

GWC-11, MW-24D

Lithium (mg/L)

GWB-6R, GWC-1, GWC-11, GWC-14, GWC-15, GWC-16, GWC-2, GWC-20, GWC-21, GWC-22, MW-23D, MW-24D, MW-25D

Molybdenum (mg/L)

GWC-2, GWC-22, GWC-9, MW-23D

Selenium (mg/L)

GWC-13, GWC-9, MW-23D, MW-24D, MW-25D

Thallium (mg/L)

GWB-6R, GWC-13, GWC-15, GWC-20, GWC-9, MW-23D, MW-24D, MW-25D

Vanadium (mg/L)

MW-23D

Appendix I Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.0287	n/a	8/31/2022	0.259	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	9/1/2022	0.0987	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	8/30/2022	0.465	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2

Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-5R	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-6R	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-1	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-13	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-14	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-15	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-16	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-17	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-2	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-22	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-4R	0.0287	n/a	8/30/2022	0.0049J	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-5R	0.0287	n/a	8/30/2022	0.00253J	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-6R	0.0287	n/a	8/30/2022	0.00716	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-1	0.0287	n/a	9/1/2022	0.00568	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-12	0.0287	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-13	0.0287	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-14	0.0287	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-15	0.0287	n/a	8/31/2022	0.259	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	9/1/2022	0.0987	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-17	0.0287	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-2	0.0287	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	8/30/2022	0.465	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-21	0.0287	n/a	8/30/2022	0.0271	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-22	0.0287	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-9	0.0287	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Barium (mg/L)	GWB-4R	0.22	n/a	8/30/2022	0.134	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-5R	0.22	n/a	8/30/2022	0.051	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-6R	0.22	n/a	8/30/2022	0.0266	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-1	0.22	n/a	9/1/2022	0.0583	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-11	0.22	n/a	8/31/2022	0.115	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-12	0.22	n/a	8/30/2022	0.0275	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-13	0.22	n/a	8/31/2022	0.0379	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-14	0.22	n/a	8/30/2022	0.0773	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-15	0.22	n/a	8/31/2022	0.055	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-16	0.22	n/a	9/1/2022	0.165	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-17	0.22	n/a	8/31/2022	0.0375	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.22	n/a	9/1/2022	0.0508	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-20	0.22	n/a	8/30/2022	0.21	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-21	0.22	n/a	8/30/2022	0.191	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-22	0.22	n/a	8/31/2022	0.0741	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-9	0.22	n/a	9/1/2022	0.151	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWB-4R	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-5R	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-6R	0.068	n/a	8/30/2022	0.00356J	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-11	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-12	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-13	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-14	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2

Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	GWC-15	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-16	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-17	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-20	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-21	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-22	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-9	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-4R	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-5R	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-6R	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-1	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-11	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-12	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-13	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-14	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-15	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-16	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-17	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-20	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-21	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-22	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-9	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-4R	0.0438	n/a	8/30/2022	0.00265J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-5R	0.0438	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-6R	0.0438	n/a	8/30/2022	0.00277J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-1	0.0438	n/a	9/1/2022	0.00252J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.0438	n/a	8/31/2022	0.00344J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.0438	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-14	0.0438	n/a	8/30/2022	0.00544	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-15	0.0438	n/a	8/31/2022	0.00192J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-16	0.0438	n/a	9/1/2022	0.00334J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-17	0.0438	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-2	0.0438	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.0438	n/a	8/30/2022	0.00192J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.0438	n/a	8/30/2022	0.00648	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-22	0.0438	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.0438	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-4R	0.425	n/a	8/30/2022	0.00943J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-5R	0.425	n/a	8/30/2022	0.0138J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-6R	0.425	n/a	8/30/2022	0.0192J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.425	n/a	9/1/2022	0.00748J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-11	0.425	n/a	8/31/2022	0.00481J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-12	0.425	n/a	8/30/2022	0.00949J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-13	0.425	n/a	8/31/2022	0.02ND	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-14	0.425	n/a	8/30/2022	0.00933J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-15	0.425	n/a	8/31/2022	0.00476J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-16	0.425	n/a	9/1/2022	0.0065J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-17	0.425	n/a	8/31/2022	0.00599J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.425	n/a	9/1/2022	0.0045J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-20	0.425	n/a	8/30/2022	0.00647J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-21	0.425	n/a	8/30/2022	0.00715J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-22	0.425	n/a	8/31/2022	0.00396J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-9	0.425	n/a	9/1/2022	0.00514J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2

Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWB-4R	0.16	n/a	8/30/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-5R	0.16	n/a	8/30/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-6R	0.16	n/a	8/30/2022	0.0132J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.16	n/a	9/1/2022	0.00578J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-11	0.16	n/a	8/31/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-12	0.16	n/a	8/30/2022	0.0262	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-13	0.16	n/a	8/31/2022	0.0266	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-14	0.16	n/a	8/30/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-15	0.16	n/a	8/31/2022	0.00395J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-16	0.16	n/a	9/1/2022	0.0119J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-17	0.16	n/a	8/31/2022	0.0068J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.16	n/a	9/1/2022	0.0125J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-20	0.16	n/a	8/30/2022	0.0171J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-21	0.16	n/a	8/30/2022	0.00814J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-22	0.16	n/a	8/31/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-9	0.16	n/a	9/1/2022	0.0163J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2

Appendix I Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:43 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0004514	-4.07	-2.58	Yes	53	56.6	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-2.799	-2.58	Yes	74	91.89	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.005378	8.362	2.58	Yes	54	46.3	n/a	n/a	0.01	NP

Appendix I Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:43 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0004514	-4.07	-2.58	Yes	53	56.6	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-2.799	-2.58	Yes	74	91.89	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.005378	8.362	2.58	Yes	54	46.3	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	-0.000927	-2.349	-2.58	No	73	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.009885	118	167	No	33	3.03	n/a	n/a	0.01	NP

Appendix III Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	8/30/2022	79.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	8/30/2022	70.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	8/30/2022	81.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/1/2022	46.9	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	8/31/2022	115	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	8/30/2022	70.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	8/30/2022	144	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	8/31/2022	135	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/1/2022	255	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	8/31/2022	102	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	8/30/2022	193	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-21	35.8	n/a	8/30/2022	131	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	8/31/2022	694	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4247	n/a	8/31/2022	0.442	Yes	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	8/30/2022	3.92	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	8/31/2022	6.57	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	8/30/2022	379	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	8/30/2022	403	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	8/30/2022	978	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	8/31/2022	653	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	8/30/2022	415	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	8/30/2022	410	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/1/2022	1140	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	8/31/2022	721	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	8/30/2022	606	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-21	160	n/a	8/30/2022	451	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	8/30/2022	4.95	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	8/30/2022	4.66	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	8/30/2022	7.13	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	9/1/2022	0.728	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	8/31/2022	1.65	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	8/30/2022	8.21	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	8/31/2022	0.231	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	8/30/2022	0.046	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	8/31/2022	0.719	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	9/1/2022	15.9	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	8/31/2022	2.51	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	9/1/2022	0.0204	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	8/30/2022	8.14	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	8/30/2022	5.08	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	8/31/2022	0.271	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	9/1/2022	0.0187	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-4R	35.8	n/a	8/30/2022	79.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	8/30/2022	70.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	8/30/2022	81.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/1/2022	46.9	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	8/31/2022	115	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	8/30/2022	70.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-13	35.8	n/a	8/31/2022	2.54	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	8/30/2022	144	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	8/31/2022	135	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/1/2022	255	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	8/31/2022	102	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2	35.8	n/a	9/1/2022	0.236	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	8/30/2022	193	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-21	35.8	n/a	8/30/2022	131	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-22	35.8	n/a	8/31/2022	23.2	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	9/1/2022	5	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	8/30/2022	65	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	8/30/2022	76.8	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	8/30/2022	52	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	9/1/2022	9.17	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	8/31/2022	110	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	8/30/2022	58.4	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	8/31/2022	6.69	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	8/30/2022	26.7	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	8/31/2022	4.83	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	9/1/2022	57.2	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	8/31/2022	694	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2	260	n/a	9/1/2022	6.59	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	8/30/2022	24.4	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	8/30/2022	29.4	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	8/31/2022	51.2	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	9/1/2022	17.6	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-5R	0.4247	n/a	8/30/2022	0.0428J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-6R	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-1	0.4247	n/a	9/1/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-11	0.4247	n/a	8/31/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-12	0.4247	n/a	8/30/2022	0.273	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-13	0.4247	n/a	8/31/2022	0.051J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-14	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-15	0.4247	n/a	8/31/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-16	0.4247	n/a	9/1/2022	0.0374J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-17	0.4247	n/a	8/31/2022	0.442	Yes	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-2	0.4247	n/a	9/1/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-22	0.4247	n/a	8/31/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.4247	n/a	9/1/2022	0.0783J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWB-4R	6.43	4.23	8/30/2022	5.67	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWB-5R	6.43	4.23	8/30/2022	5.22	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWB-6R	6.43	4.23	8/30/2022	5.55	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-1	6.43	4.23	9/1/2022	5.8	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-11	6.43	4.23	8/31/2022	4.85	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-12	6.43	4.23	8/30/2022	3.92	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-13	6.43	4.23	8/31/2022	4.76	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-14	6.43	4.23	8/30/2022	5.86	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	8/31/2022	6.57	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-16	6.43	4.23	9/1/2022	5.37	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-17	6.43	4.23	8/31/2022	4.33	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-2	6.43	4.23	9/1/2022	4.73	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-20	6.43	4.23	8/30/2022	6.01	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-21	6.43	4.23	8/30/2022	5.76	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-22	6.43	4.23	8/31/2022	4.68	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-9	6.43	4.23	9/1/2022	4.6	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	8/30/2022	379	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	8/30/2022	403	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	8/30/2022	978	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1	160	n/a	9/1/2022	44	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	8/31/2022	653	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	8/30/2022	415	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-13	160	n/a	8/31/2022	29	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	8/30/2022	410	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-15	160	n/a	8/31/2022	88.5	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/1/2022	1140	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	8/31/2022	721	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2	160	n/a	9/1/2022	10.3	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	8/30/2022	606	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-21	160	n/a	8/30/2022	451	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-22	160	n/a	8/31/2022	45.3	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-9	160	n/a	9/1/2022	28.7	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	8/30/2022	882	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	8/30/2022	886	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	8/30/2022	1810	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	9/1/2022	228	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	8/31/2022	1240	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	8/30/2022	713	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	8/31/2022	55	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	8/30/2022	720	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	8/31/2022	530	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	9/1/2022	1720	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	8/31/2022	2050	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	9/1/2022	9J	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	8/30/2022	1210	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	8/30/2022	807	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	8/31/2022	163	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	9/1/2022	85	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 11:11 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.6724	-93	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	13.74	86	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	10.79	85	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	5.768	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	6.631	84	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	16.98	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-10.48	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	26.5	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	31.64	64	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-22.35	-89	-63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01163	-79	-74	Yes	19	15.79	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.05	-76	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-3.991	-78	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-8 (bg)	-10.42	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	57.5	74	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	98.19	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	91.12	86	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-130.7	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	114.5	88	63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 11:11 AM

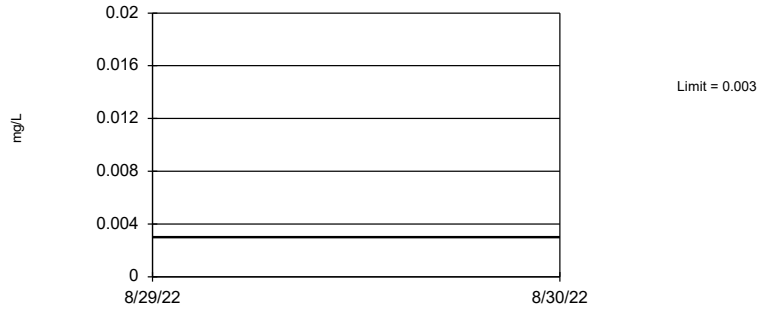
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.6724	-93	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWA-8 (bg)	-0.485	-13	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	13.74	86	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	10.79	85	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	5.768	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	6.631	84	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	16.98	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-10.48	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-14	3.68	8	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-15	1.953	15	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	26.5	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-17	-3.105	-18	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	31.64	64	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-21	16.62	57	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-22.35	-89	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-8 (bg)	-0.1945	-17	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-17	-61.65	-37	-63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-7 (bg)	-0.004548	-23	-74	No	19	31.58	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01163	-79	-74	Yes	19	15.79	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWC-17	-0.1299	-65	-74	No	19	5.263	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.05	-76	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GWA-8 (bg)	0.02069	35	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GWC-12	-0.007247	-14	-74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GWC-15	0.04875	39	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-3.991	-78	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-8 (bg)	-10.42	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-4R	4.182	18	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	57.5	74	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	98.19	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	91.12	86	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-130.7	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-14	-30.55	-34	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	114.5	88	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-17	-8.669	-7	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-20	112.8	42	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-21	25.95	49	63	No	17	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 9:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	127	n/a	n/a	95.28	n/a	n/a	0.001482	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0287	n/a	n/a	n/a	n/a	127	n/a	n/a	77.17	n/a	n/a	0.001482	NP Inter(NDs)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	125	n/a	n/a	0	n/a	n/a	0.001642	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0017	n/a	n/a	n/a	n/a	47	n/a	n/a	51.06	n/a	n/a	0.08974	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	45	n/a	n/a	95.56	n/a	n/a	0.09944	NP Inter(NDs)
Chromium (mg/L)	n/a	0.068	n/a	n/a	n/a	n/a	126	n/a	n/a	61.9	n/a	n/a	0.00156	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0102	n/a	n/a	n/a	n/a	45	n/a	n/a	48.89	n/a	n/a	0.09944	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	12.22	n/a	n/a	n/a	n/a	31	1.952	0.6987	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.4072	n/a	n/a	n/a	n/a	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.05	Inter
Lead (mg/L)	n/a	0.013	n/a	n/a	n/a	n/a	123	n/a	n/a	75.61	n/a	n/a	0.00182	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	34	n/a	n/a	73.53	n/a	n/a	0.1748	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	28	n/a	n/a	82.14	n/a	n/a	0.2378	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0098	n/a	n/a	n/a	n/a	34	n/a	n/a	88.24	n/a	n/a	0.1748	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0438	n/a	n/a	n/a	n/a	127	n/a	n/a	83.46	n/a	n/a	0.001482	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	66	n/a	n/a	93.94	n/a	n/a	0.03387	NP Inter(NDs)
Vanadium (mg/L)	n/a	0.425	n/a	n/a	n/a	n/a	121	n/a	n/a	61.98	n/a	n/a	0.002016	NP Inter(NDs)
Zinc (mg/L)	n/a	0.16	n/a	n/a	n/a	n/a	119	n/a	n/a	28.57	n/a	n/a	0.002234	NP Inter(normality)

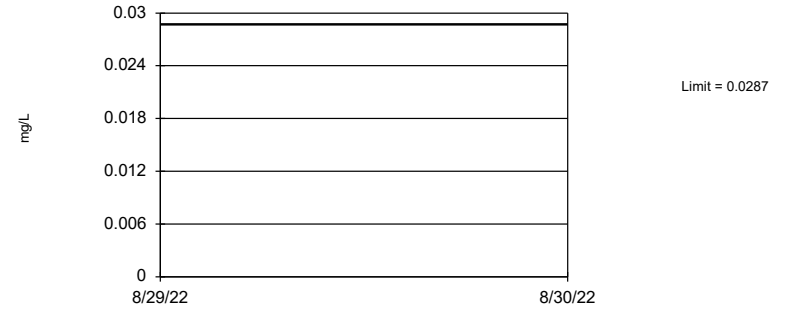
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 127 background values. 95.28% NDs. 96.29% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001482.

Constituent: Antimony Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

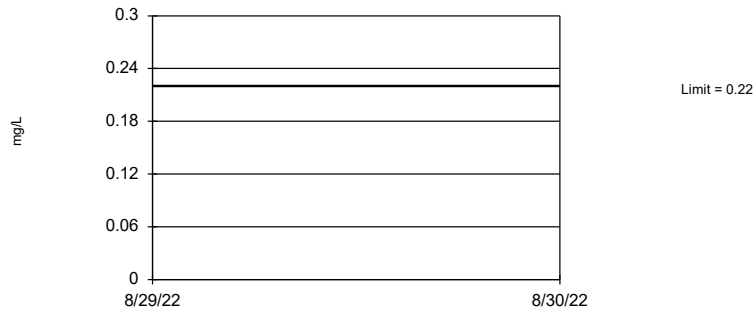
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 127 background values. 77.17% NDs. 96.29% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001482.

Constituent: Arsenic Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

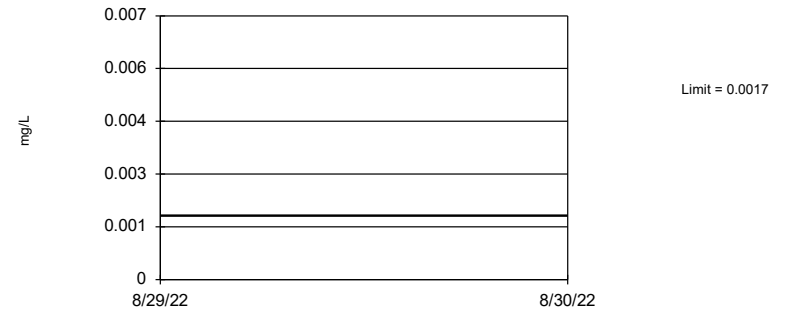
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 125 background values. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001642.

Constituent: Barium Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

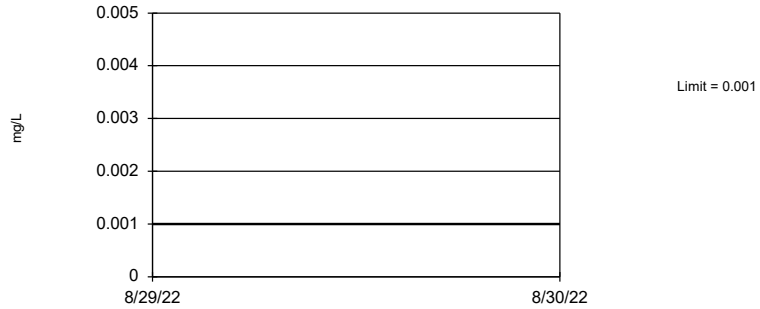
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 47 background values. 51.06% NDs. 90.82% coverage at alpha=0.01; 93.95% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.08974.

Constituent: Beryllium Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

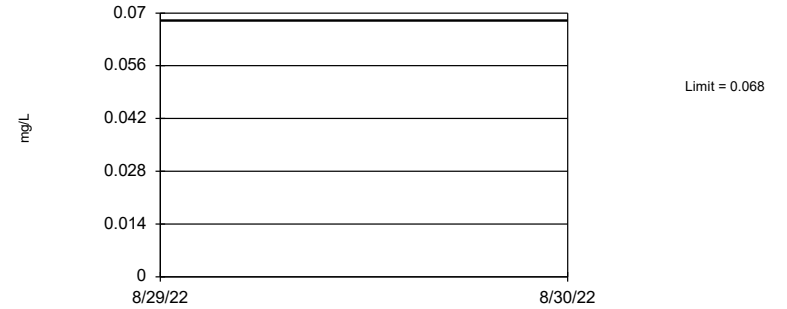
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 45 background values. 95.56% NDs. 90.43% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.09944.

Constituent: Cadmium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 126 background values. 61.9% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.00156.

Constituent: Chromium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 45 background values. 48.89% NDs. 90.43% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.09944.

Constituent: Cobalt Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Parametric



95% coverage. Background Data Summary (based on square root transformation): Mean=1.952, Std. Dev.=0.6987, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9115, critical = 0.902. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

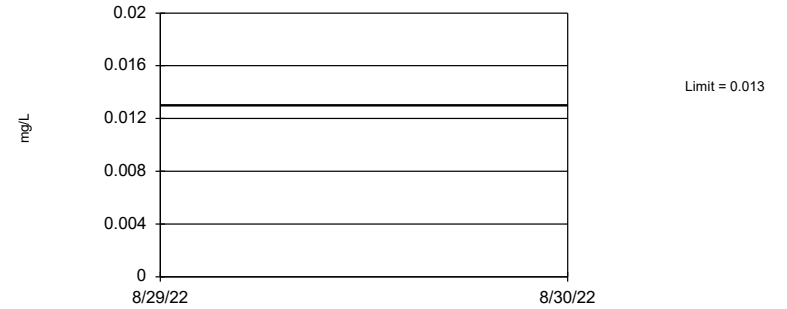
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.348, Std. Dev.=0.6768, n=38, 23.68% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9171, critical = 0.916. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 123 background values. 75.61% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.00182.

Constituent: Lead Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

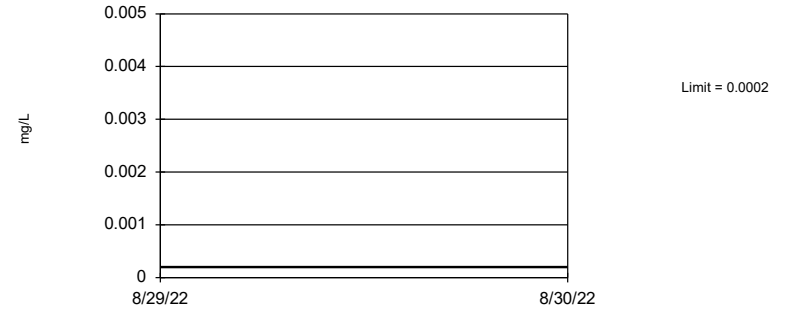
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 34 background values. 73.53% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Lithium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

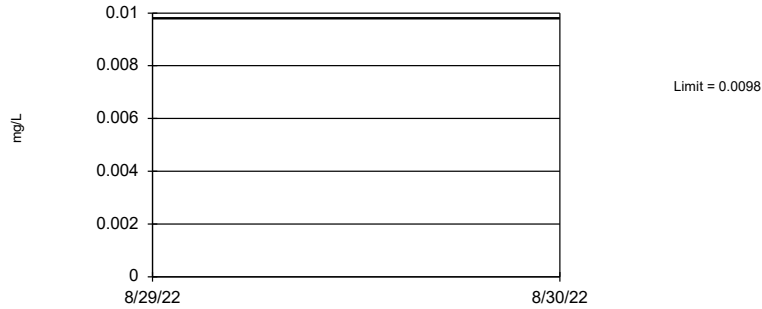
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 28 background values. 82.14% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Mercury Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

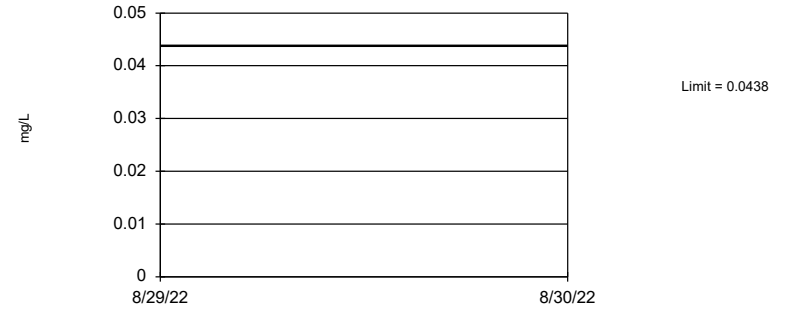
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 34 background values. 88.24% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Molybdenum Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 127 background values. 83.46% NDs. 96.29% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001482.

Constituent: Selenium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

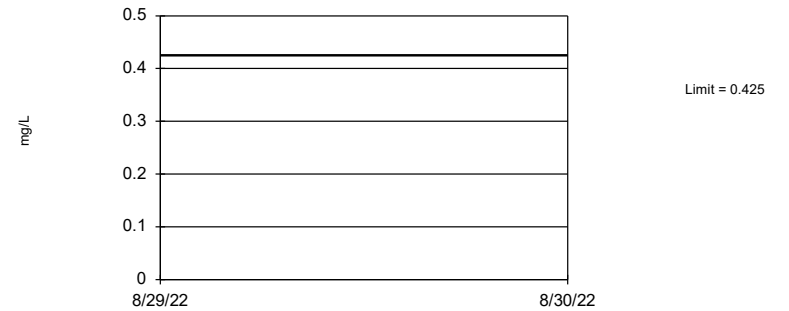
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 66 background values. 93.94% NDs. 93.16% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03387.

Constituent: Thallium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 121 background values. 61.98% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.002016.

Constituent: Vanadium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 119 background values. 28.57% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.002234.

Constituent: Zinc Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

GRUMMAN ROAD LANDFILL GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.029	0.029
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.0017	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.068	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0102	0.0102
Combined Radium, Total (pCi/L)	5		12.22	12.22
Fluoride, Total (mg/L)	4		0.41	4
Lead, Total (mg/L)	n/a	0.015	0.013	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.044	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002
Vanadium, Total (mg/L)	n/a		0.43	0.43
Zinc, Total (mg/L)	n/a		0.16	0.16

**Highlighted cells indicated Background is higher than MCLs*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

Confidence Intervals - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.176	0.08366	0.029	Yes	21	0.1298	0.08372	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.08264	0.06341	0.029	Yes	22	0.07303	0.01792	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-20	0.3604	0.2763	0.029	Yes	21	0.3184	0.07621	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.2078	0.1293	0.1	Yes	17	0.1686	0.06266	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-20	0.3536	0.137	0.1	Yes	17	0.2629	0.1946	0	None	sqrt(x)	0.01	Param.

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	0.0003	0.006	No	21	0.002871	0.0005892	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-5R	0.003	0.0013	0.006	No	21	0.002673	0.0008364	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-6R	0.003	0.00059	0.006	No	21	0.002756	0.0007715	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-1	0.003	0.0016	0.006	No	21	0.002583	0.0009051	80.95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-11	0.003	0.0006	0.006	No	21	0.00186	0.00123	52.38	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-12	0.003	0.0003	0.006	No	21	0.002871	0.0005892	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-13	0.003	0.0006	0.006	No	21	0.002886	0.0005237	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-15	0.003	0.0018	0.006	No	21	0.002943	0.0002619	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-17	0.003	0.0014	0.006	No	21	0.0028	0.000653	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-2	0.003	0.0016	0.006	No	21	0.002852	0.0004686	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-20	0.003	0.0019	0.006	No	21	0.002836	0.0005552	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-21	0.003	0.00033	0.006	No	21	0.002873	0.0005826	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-22	0.003	0.0022	0.006	No	21	0.00253	0.0009363	76.19	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-9	0.003	0.0016	0.006	No	21	0.002806	0.0006442	90.48	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWB-4R	0.003338	0.002047	0.029	No	21	0.002693	0.00117	9.524	None	No	0.01	Param.
Arsenic (mg/L)	GWB-5R	0.001983	0.001062	0.029	No	21	0.002535	0.001726	23.81	Kaplan-Meier	x^(1/3)	0.01	Param.
Arsenic (mg/L)	GWB-6R	0.004092	0.001557	0.029	No	21	0.003714	0.002361	23.81	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	GWC-1	0.00526	0.002364	0.029	No	20	0.004764	0.00551	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-12	0.005	0.0016	0.029	No	21	0.004233	0.001628	80.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-13	0.005	0.0025	0.029	No	21	0.004461	0.001397	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-14	0.002219	0.001636	0.029	No	22	0.002615	0.001262	18.18	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-15	0.176	0.08366	0.029	Yes	21	0.1298	0.08372	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.08264	0.06341	0.029	Yes	22	0.07303	0.01792	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-17	0.005	0.0011	0.029	No	21	0.002853	0.00192	42.86	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-2	0.005	0.00094	0.029	No	21	0.004378	0.001565	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-20	0.3604	0.2763	0.029	Yes	21	0.3184	0.07621	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-21	0.0059	0.0029	0.029	No	21	0.006271	0.006103	33.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-22	0.005	0.0011	0.029	No	21	0.00336	0.001997	57.14	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-9	0.005	0.00084	0.029	No	21	0.004802	0.0009078	95.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-25D	0.005	0.00092	0.029	No	5	0.004184	0.001825	80	None	No	0.031	NP (NDs)
Barium (mg/L)	GWB-4R	0.098	0.076	2	No	21	0.09233	0.02394	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWB-5R	0.1426	0.0869	2	No	21	0.1184	0.05621	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWB-6R	0.106	0.014	2	No	21	0.0674	0.04169	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1	0.05704	0.05117	2	No	21	0.0541	0.005314	0	None	No	0.01	Param.
Barium (mg/L)	GWC-11	0.1216	0.07385	2	No	21	0.09771	0.04325	0	None	No	0.01	Param.
Barium (mg/L)	GWC-12	0.023	0.017	2	No	21	0.01983	0.004585	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-13	0.02905	0.02171	2	No	21	0.02538	0.006658	0	None	No	0.01	Param.
Barium (mg/L)	GWC-14	0.067	0.025	2	No	22	0.04429	0.02732	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-15	0.05018	0.04022	2	No	21	0.0452	0.009027	0	None	No	0.01	Param.
Barium (mg/L)	GWC-16	0.1648	0.07656	2	No	20	0.1207	0.07768	0	None	No	0.01	Param.
Barium (mg/L)	GWC-17	0.1004	0.04728	2	No	21	0.0791	0.05487	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2	0.053	0.05	2	No	20	0.05294	0.007254	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-20	0.2024	0.1006	2	No	21	0.1746	0.1195	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GWC-21	0.1145	0.05692	2	No	21	0.09323	0.06186	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	GWC-22	0.09072	0.0587	2	No	21	0.07471	0.02902	0	None	No	0.01	Param.
Barium (mg/L)	GWC-9	0.2461	0.1791	2	No	21	0.2126	0.06074	0	None	No	0.01	Param.
Barium (mg/L)	MW-23D	0.079	0.076	2	No	4	0.07688	0.001436	0	None	No	0.0625	NP (normality)
Barium (mg/L)	MW-24D	0.05583	0.01802	2	No	4	0.03693	0.008328	0	None	No	0.01	Param.
Barium (mg/L)	MW-25D	0.03304	0.01676	2	No	4	0.0249	0.003583	0	None	No	0.01	Param.
Beryllium (mg/L)	GWB-4R	0.0005	0.0001	0.004	No	17	0.0003765	0.0001855	64.71	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWB-5R	0.0001657	0.00008436	0.004	No	17	0.0002436	0.000165	23.53	Kaplan-Meier	x^(1/3)	0.01	Param.
Beryllium (mg/L)	GWB-6R	0.0005	0.00005	0.004	No	17	0.0004468	0.0001501	88.24	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-11	0.0005	0.000047	0.004	No	17	0.0004734	0.0001099	94.12	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-12	0.0007522	0.0005148	0.004	No	17	0.0006514	0.0002157	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	GWC-13	0.0005	0.000058	0.004	No	17	0.000474	0.0001072	94.12	None	No	0.01	NP (NDs)

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	GWC-14	0.0005	0.0001	0.004	No	17	0.0004266	0.0001636	82.35	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-16	0.0005	0.00008	0.004	No	17	0.000255	0.0002116	41.18	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-17	0.00262	0.001628	0.004	No	17	0.002181	0.0008605	0	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	GWC-2	0.0005	0.000088	0.004	No	18	0.0003709	0.0001944	66.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-22	0.0005	0.00009	0.004	No	17	0.0003433	0.0001961	58.82	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-9	0.0003	0.00019	0.004	No	17	0.0002529	0.00008122	5.882	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-25D	0.0005	0.000084	0.004	No	4	0.000396	0.000208	75	None	No	0.0625	NP (NDs)
Cadmium (mg/L)	GWB-4R	0.001	0.0002	0.005	No	17	0.0007988	0.0003748	76.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-1	0.001	0.0001	0.005	No	17	0.0008924	0.0003039	88.24	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-11	0.0006077	0.000276	0.005	No	17	0.0004418	0.0002647	5.882	None	No	0.01	Param.
Cadmium (mg/L)	GWC-14	0.001	0.00017	0.005	No	17	0.0006582	0.0004219	58.82	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-20	0.001	0.0002	0.005	No	17	0.0008535	0.0003264	82.35	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-22	0.001	0.00012	0.005	No	17	0.0005324	0.0004155	41.18	None	No	0.01	NP (normality)
Cadmium (mg/L)	MW-23D	0.001	0.00027	0.005	No	4	0.0008175	0.000365	75	None	No	0.0625	NP (NDs)
Cadmium (mg/L)	MW-25D	0.001	0.00019	0.005	No	4	0.0007975	0.000405	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	GWB-4R	0.0101	0.0022	0.1	No	21	0.006514	0.004437	4.762	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-5R	0.003715	0.001047	0.1	No	21	0.008143	0.01523	28.57	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	GWB-6R	0.006407	0.002325	0.1	No	21	0.005174	0.005004	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	GWC-1	0.0024	0.0017	0.1	No	21	0.002929	0.002547	9.524	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-11	0.01	0.00091	0.1	No	21	0.004813	0.004589	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-12	0.0028	0.00091	0.1	No	21	0.003316	0.003853	23.81	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-13	0.01	0.00077	0.1	No	21	0.006108	0.004612	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-14	0.01	0.0008	0.1	No	22	0.00503	0.004648	45.45	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-15	0.01	0.0013	0.1	No	21	0.004343	0.004122	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-16	0.01	0.001	0.1	No	22	0.005121	0.004563	40.91	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-17	0.01	0.00096	0.1	No	21	0.004262	0.004269	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2	0.01	0.0008	0.1	No	21	0.006482	0.004596	61.9	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-20	0.01	0.0009	0.1	No	21	0.004576	0.004398	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-21	0.01	0.00067	0.1	No	21	0.005583	0.004749	47.62	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-22	0.01	0.0006	0.1	No	21	0.00597	0.004768	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-9	0.01	0.0011	0.1	No	21	0.004604	0.00435	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	MW-24D	0.01	0.00069	0.1	No	4	0.007672	0.004655	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	MW-25D	0.01	0.0016	0.1	No	4	0.0079	0.0042	75	None	No	0.0625	NP (NDs)
Cobalt (mg/L)	GWB-4R	0.001418	0.0008127	0.0102	No	17	0.001188	0.0006122	11.76	None	ln(x)	0.01	Param.
Cobalt (mg/L)	GWB-5R	0.00401	0.00056	0.0102	No	17	0.003782	0.005909	41.18	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-6R	0.0049	0.00038	0.0102	No	17	0.007993	0.01955	76.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-11	0.001	0.000646	0.0102	No	17	0.0008656	0.0002376	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-12	0.001239	0.000785	0.0102	No	17	0.001012	0.0003624	0	None	No	0.01	Param.
Cobalt (mg/L)	GWC-14	0.001	0.0003	0.0102	No	17	0.0009588	0.0001698	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-17	0.005438	0.002894	0.0102	No	17	0.004305	0.002077	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	GWC-2	0.0011	0.00036	0.0102	No	18	0.0008544	0.0002951	72.22	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-22	0.001	0.00077	0.0102	No	17	0.0009082	0.0001762	64.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-9	0.0017	0.00096	0.0102	No	17	0.00132	0.0004016	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-4R	5	2.44	12.22	No	17	3.468	1.248	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-5R	3.835	2.314	12.22	No	17	3.141	1.362	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWB-6R	4.788	2.83	12.22	No	17	3.809	1.562	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-1	2.147	1.447	12.22	No	17	1.797	0.5585	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-11	6.438	3.399	12.22	No	17	4.918	2.425	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-12	2.849	1.731	12.22	No	17	2.29	0.8921	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-13	1.468	0.8765	12.22	No	17	1.172	0.4722	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-14	1.467	0.7077	12.22	No	17	1.088	0.6063	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-15	1.879	1.065	12.22	No	17	1.472	0.6494	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-16	2.705	1.753	12.22	No	17	2.279	0.847	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-17	3.853	2.7	12.22	No	17	3.276	0.92	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2	1.09	0.725	12.22	No	17	0.8945	0.3858	0	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GWC-20	4.759	2.321	12.22	No	17	3.54	1.945	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-21	2.443	1.317	12.22	No	17	1.88	0.8982	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-22	6.161	3.134	12.22	No	17	4.825	2.333	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-9	3.524	2.026	12.22	No	17	2.947	1.554	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-23D	2.044	0.9313	12.22	No	4	1.488	0.245	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-24D	4.691	-1.605	12.22	No	4	1.543	1.386	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-25D	1.504	-0.2912	12.22	No	4	0.6065	0.3954	0	None	No	0.01	Param.
Fluoride (mg/L)	GWB-4R	0.17	0.08	4	No	19	0.1671	0.26	63.16	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWB-5R	0.11	0.05	4	No	19	0.0872	0.03977	47.37	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-6R	0.13	0.09	4	No	19	0.1173	0.05903	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-1	0.18	0.051	4	No	19	0.1048	0.03827	78.95	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-12	0.7212	0.2723	4	No	19	0.4968	0.3833	5.263	None	No	0.01	Param.
Fluoride (mg/L)	GWC-13	0.55	0.09	4	No	19	0.1181	0.1057	78.95	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-14	0.25	0.1	4	No	19	0.1674	0.124	68.42	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-15	0.13	0.06	4	No	19	0.1295	0.09513	73.68	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-16	0.2	0.1	4	No	19	0.1767	0.2046	57.89	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-17	1.162	0.5173	4	No	19	0.8964	0.5551	5.263	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GWC-2	0.17	0.08	4	No	19	0.1233	0.1224	63.16	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-20	0.14	0.043	4	No	19	0.09174	0.02744	78.95	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-21	0.1	0.071	4	No	19	0.09847	0.006653	94.74	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-22	0.12	0.1	4	No	19	0.09316	0.02358	68.42	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-9	0.2313	0.09769	4	No	19	0.2058	0.2196	10.53	None	ln(x)	0.01	Param.
Fluoride (mg/L)	MW-23D	0.1	0.0791	4	No	5	0.09582	0.009347	80	None	No	0.031	NP (NDs)
Fluoride (mg/L)	MW-25D	0.1881	0.04793	4	No	5	0.118	0.04182	0	None	No	0.01	Param.
Lead (mg/L)	GWB-4R	0.004315	0.001028	0.015	No	20	0.003249	0.002759	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	GWB-5R	0.002	0.0002	0.015	No	21	0.001221	0.0008915	42.86	None	No	0.01	NP (normality)
Lead (mg/L)	GWB-6R	0.002	0.0002	0.015	No	21	0.001118	0.0008882	47.62	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-1	0.002	0.00012	0.015	No	21	0.001636	0.0007683	80.95	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-11	0.00042	0.00021	0.015	No	21	0.0006767	0.0007619	23.81	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-12	0.002	0.000081	0.015	No	21	0.0009953	0.001073	38.1	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-13	0.002	0.00013	0.015	No	21	0.001028	0.0008476	38.1	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-14	0.002	0.00051	0.015	No	22	0.001672	0.0007159	81.82	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-15	0.002	0.0001	0.015	No	21	0.00112	0.0009478	52.38	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-16	0.002	0.0001	0.015	No	22	0.0009847	0.0009495	45.45	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-17	0.002	0.00014	0.015	No	21	0.00132	0.0009033	61.9	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-2	0.002	0.0002	0.015	No	21	0.001471	0.000859	71.43	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-20	0.002	0.0002	0.015	No	21	0.001553	0.0008197	76.19	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-21	0.002	0.0001	0.015	No	21	0.001286	0.0009331	61.9	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-22	0.0007979	0.0002964	0.015	No	21	0.0009176	0.0008104	19.05	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	GWC-9	0.002	0.0001	0.015	No	21	0.00122	0.0009321	57.14	Kaplan-Meier	No	0.01	NP (NDs)
Lead (mg/L)	MW-23D	0.002	0.000057	0.015	No	4	0.001514	0.0009715	75	Kaplan-Meier	No	0.0625	NP (NDs)
Lead (mg/L)	MW-24D	0.002	0.000094	0.015	No	4	0.001524	0.000953	75	Kaplan-Meier	No	0.0625	NP (NDs)
Lead (mg/L)	MW-25D	0.002	0.000095	0.015	No	4	0.001524	0.0009525	75	None	No	0.0625	NP (NDs)
Lithium (mg/L)	GWB-4R	0.015	0.0042	0.04	No	17	0.009871	0.005	0	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-5R	0.03	0.0041	0.04	No	17	0.01921	0.01331	58.82	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-12	0.03	0.00094	0.04	No	17	0.01293	0.01472	41.18	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-13	0.03	0.00087	0.04	No	17	0.02657	0.009691	88.24	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-17	0.006758	0.005122	0.04	No	17	0.00594	0.001306	0	None	No	0.01	Param.
Lithium (mg/L)	GWC-9	0.0022	0.0017	0.04	No	16	0.003662	0.007026	6.25	None	No	0.01	NP (normality)
Mercury (mg/L)	GWB-4R	0.0002	0.0001	0.002	No	14	0.0001821	0.00004666	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-5R	0.0002	0.0001	0.002	No	15	0.0001858	0.00003755	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-6R	0.0002	0.0001	0.002	No	14	0.0001816	0.00004798	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-1	0.0002	0.0001	0.002	No	14	0.0001814	0.00004865	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-11	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-12	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	GWC-13	0.0002	0.00013	0.002	No	14	0.0001879	0.00003142	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-14	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-15	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-16	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-17	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2	0.0002	0.0001	0.002	No	15	0.0001933	0.00002582	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-20	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-21	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-22	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-9	0.0002	0.00011	0.002	No	14	0.0001829	0.00004514	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-4R	0.13	0.024	0.1	No	17	0.07922	0.05491	0	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWB-5R	0.0012	0.001	0.1	No	17	0.001012	0.00004851	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-6R	0.0013	0.001	0.1	No	17	0.001081	0.0004098	64.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-1	0.146	0.06224	0.1	No	17	0.1041	0.06687	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-11	0.0018	0.00077	0.1	No	17	0.001005	0.0002412	82.35	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-12	0.001	0.000205	0.1	No	17	0.0009532	0.0001928	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-13	0.0056	0.001	0.1	No	17	0.001271	0.001116	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-14	0.01488	0.004383	0.1	No	17	0.01072	0.009545	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GWC-15	0.1091	0.08978	0.1	No	17	0.09946	0.01545	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.2078	0.1293	0.1	Yes	17	0.1686	0.06266	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-17	0.0038	0.001	0.1	No	17	0.002214	0.001477	47.06	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWC-20	0.3536	0.137	0.1	Yes	17	0.2629	0.1946	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GWC-21	0.05718	0.02102	0.1	No	17	0.0391	0.02886	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-24D	0.003964	0.000932	0.1	No	5	0.002448	0.0009047	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-25D	0.001454	0.0006211	0.1	No	5	0.001093	0.0002428	40	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-4R	0.003863	0.0026	0.05	No	21	0.004131	0.001264	42.86	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-5R	0.006	0.0033	0.05	No	21	0.004924	0.0009823	80.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWB-6R	0.005	0.0023	0.05	No	21	0.00617	0.01014	57.14	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-1	0.0026	0.0018	0.05	No	21	0.003491	0.004609	9.524	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-11	0.007591	0.003421	0.05	No	21	0.007207	0.005946	19.05	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	GWC-12	0.005	0.003	0.05	No	21	0.004495	0.001084	80.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-14	0.004476	0.003098	0.05	No	22	0.003787	0.001284	4.545	None	No	0.01	Param.
Selenium (mg/L)	GWC-15	0.004932	0.002125	0.05	No	21	0.005101	0.002916	42.86	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-16	0.005345	0.003529	0.05	No	22	0.004437	0.001692	4.545	None	No	0.01	Param.
Selenium (mg/L)	GWC-17	0.005	0.0016	0.05	No	21	0.003619	0.001743	57.14	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-2	0.005	0.0035	0.05	No	21	0.004786	0.0007171	90.48	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-20	0.005	0.00192	0.05	No	21	0.003868	0.001656	66.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-21	0.01972	0.0105	0.05	No	21	0.01511	0.008357	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-22	0.005	0.0023	0.05	No	21	0.004376	0.00134	80.95	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-4R	0.002	0.00007	0.002	No	17	0.001773	0.000641	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-5R	0.002	0.00031	0.002	No	17	0.001786	0.0006049	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-1	0.002	0.000054	0.002	No	17	0.001656	0.0007652	82.35	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-11	0.002	0.0001	0.002	No	17	0.001125	0.000958	52.94	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-12	0.002	0.00014	0.002	No	17	0.001146	0.0009346	52.94	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-14	0.002	0.00007	0.002	No	17	0.001772	0.0006426	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-16	0.002	0.00006	0.002	No	17	0.001771	0.0006459	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-17	0.002	0.000076	0.002	No	17	0.001323	0.0009444	64.71	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-2	0.002	0.00011	0.002	No	18	0.001895	0.0004455	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-21	0.002	0.00005	0.002	No	17	0.001885	0.0004729	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-22	0.002	0.0001	0.002	No	17	0.00144	0.0008944	70.59	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWB-4R	0.0388	0.0031	0.43	No	16	0.01918	0.01676	6.25	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-5R	0.01088	0.004351	0.43	No	16	0.008994	0.00808	6.25	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWB-6R	0.02669	0.008142	0.43	No	16	0.02263	0.02488	0	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-1	0.008409	0.00372	0.43	No	16	0.006849	0.005337	12.5	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-11	0.00481	0.0021	0.43	No	16	0.005832	0.007061	18.75	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Vanadium (mg/L)	GWC-12	0.008356	0.003653	0.43	No	16	0.006837	0.005433	12.5	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-13	0.02	0.0019	0.43	No	16	0.01482	0.008138	68.75	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-14	0.01685	0.008245	0.43	No	19	0.01406	0.007586	15.79	Kaplan-Meier	No	0.01	Param.
Vanadium (mg/L)	GWC-15	0.02	0.0022	0.43	No	18	0.00837	0.008492	33.33	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-16	0.0065	0.0026	0.43	No	19	0.006719	0.007108	21.05	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-17	0.02	0.0024	0.43	No	16	0.0105	0.008699	43.75	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-2	0.02	0.0045	0.43	No	16	0.01793	0.005666	87.5	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-20	0.02	0.0025	0.43	No	18	0.007865	0.007799	27.78	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-21	0.02	0.0029	0.43	No	16	0.007603	0.007491	25	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-22	0.02	0.0016	0.43	No	16	0.01237	0.008989	56.25	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-9	0.02	0.00514	0.43	No	16	0.01675	0.00704	81.25	None	No	0.01	NP (NDs)
Vanadium (mg/L)	MW-24D	0.02	0.00414	0.43	No	4	0.01603	0.00793	75	None	No	0.0625	NP (NDs)
Vanadium (mg/L)	MW-25D	0.02	0.0024	0.43	No	4	0.0156	0.0088	75	None	No	0.0625	NP (NDs)
Zinc (mg/L)	GWB-4R	0.008677	0.004539	0.16	No	16	0.01116	0.006702	31.25	Kaplan-Meier	x^(1/3)	0.01	Param.
Zinc (mg/L)	GWB-5R	0.02	0.0023	0.16	No	16	0.01588	0.007495	75	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-6R	0.02	0.0032	0.16	No	16	0.01415	0.007714	56.25	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-1	0.02	0.0057	0.16	No	16	0.01526	0.007441	68.75	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-11	0.02	0.0031	0.16	No	16	0.01487	0.007904	68.75	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-12	0.02	0.0025	0.16	No	16	0.009019	0.008732	25	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-13	0.039	0.0027	0.16	No	16	0.02045	0.01819	0	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-14	0.02	0.01	0.16	No	19	0.01682	0.006502	78.95	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-15	0.032	0.0051	0.16	No	18	0.01895	0.005959	83.33	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-16	0.02	0.0031	0.16	No	19	0.01362	0.008076	57.89	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-17	0.01465	0.008288	0.16	No	16	0.01147	0.004888	12.5	None	No	0.01	Param.
Zinc (mg/L)	GWC-2	0.056	0.0018	0.16	No	16	0.01656	0.01312	56.25	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-20	0.031	0.0171	0.16	No	18	0.01869	0.005951	77.78	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-21	0.02	0.002	0.16	No	16	0.01437	0.007802	62.5	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-22	0.02	0.0031	0.16	No	16	0.01322	0.007473	50	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-9	0.02	0.0026	0.16	No	16	0.009862	0.008504	25	None	No	0.01	NP (normality)
Zinc (mg/L)	MW-23D	0.01308	0.004223	0.16	No	4	0.01432	0.006744	50	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	MW-24D	0.01509	-0.002391	0.16	No	4	0.01317	0.008485	50	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	MW-25D	0.06176	-0.02013	0.16	No	4	0.02312	0.01958	25	Kaplan-Meier	No	0.01	Param.

Appendix IV Trend Tests - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/5/2022, 6:52 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.03505	172	87	Yes	21	0	n/a	n/a	0.01	NP

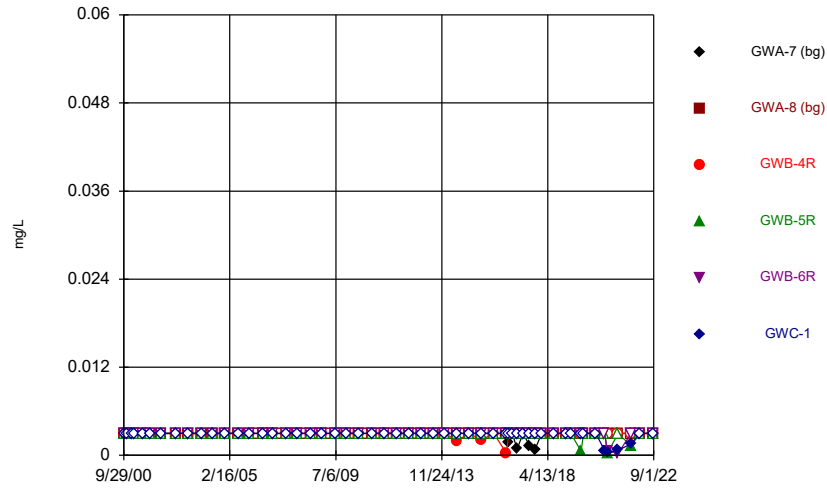
Appendix IV Trend Tests - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/5/2022, 6:52 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0005488	-25	-87	No	21	28.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	28	92	No	22	72.73	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.03505	172	87	Yes	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	0.003681	65	92	No	22	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.003801	24	87	No	21	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-7 (bg)	0	9	63	No	17	76.47	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-8 (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-16	0.01903	57	63	No	17	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-20	0.005248	4	63	No	17	0	n/a	n/a	0.01	NP

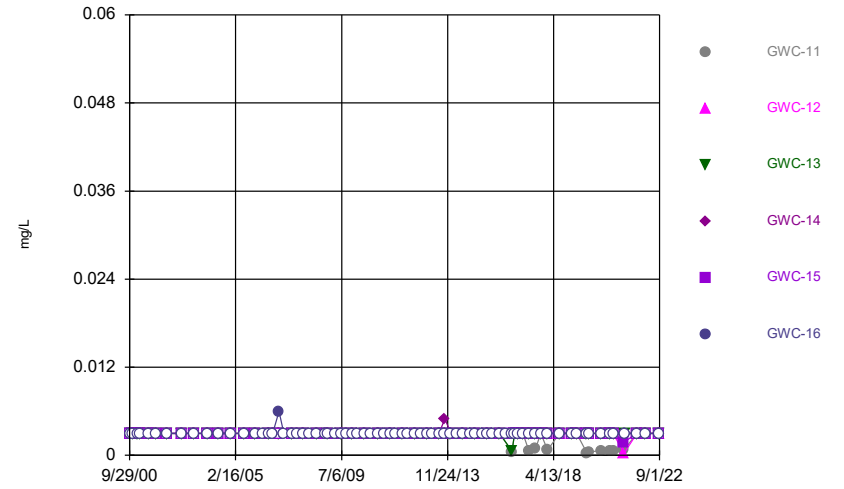
FIGURE A.

Time Series



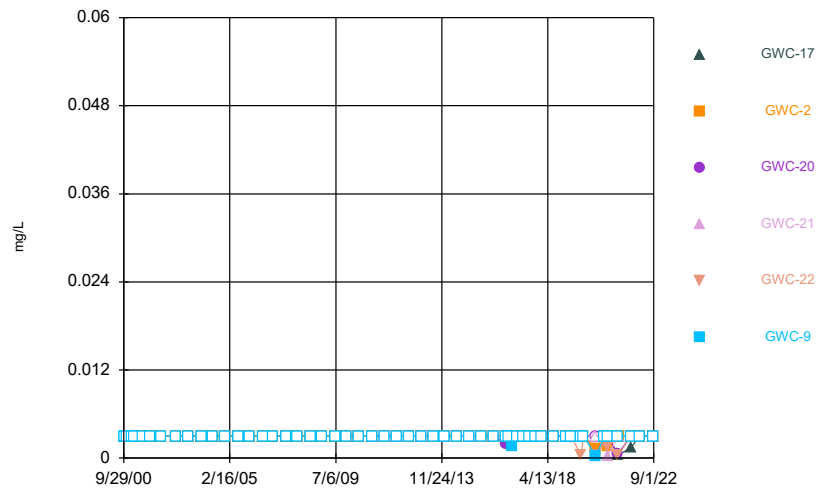
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



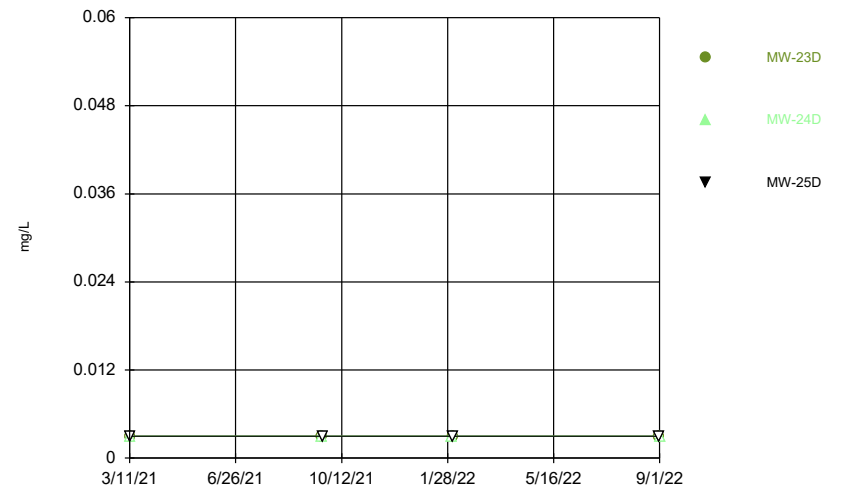
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Time Series



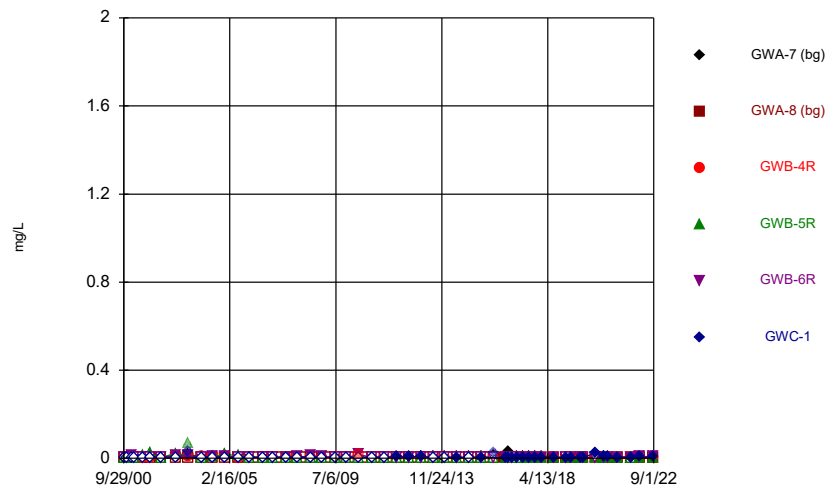
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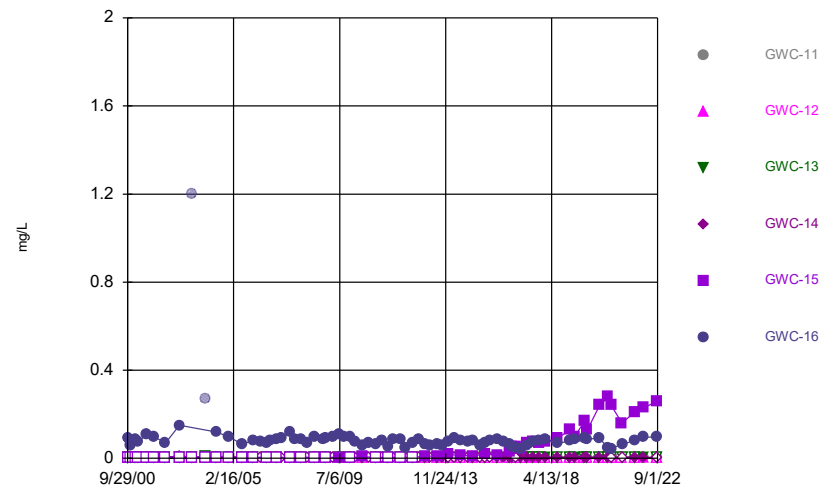
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Time Series



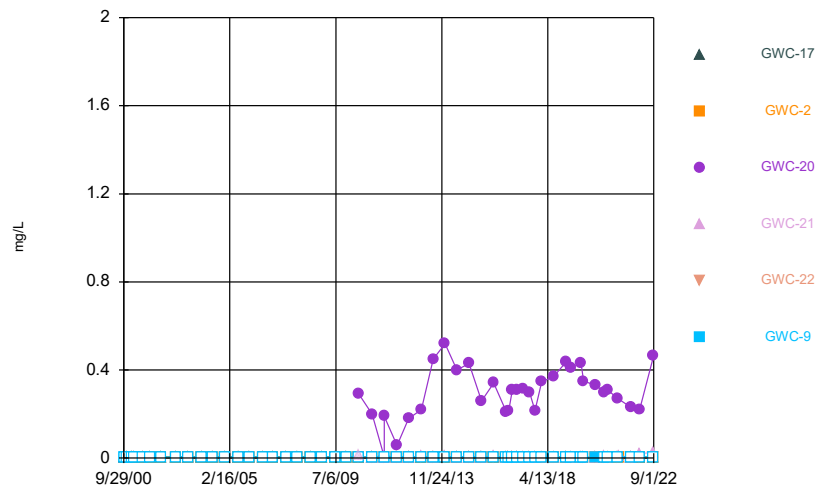
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Time Series



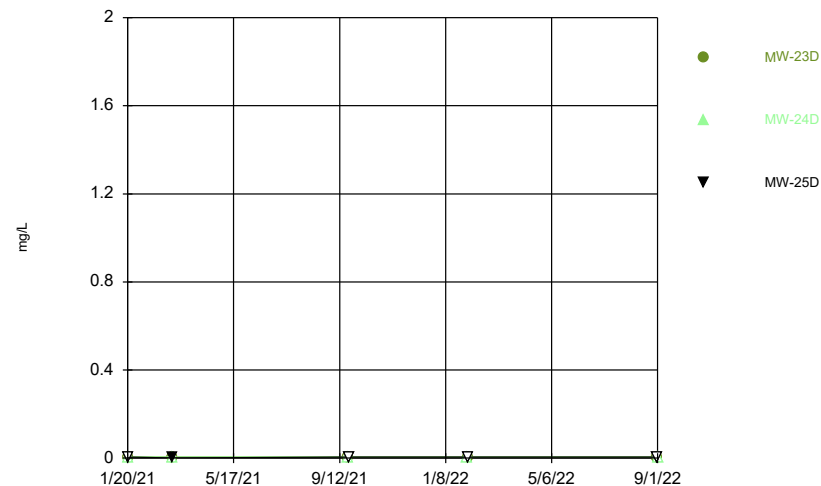
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Time Series



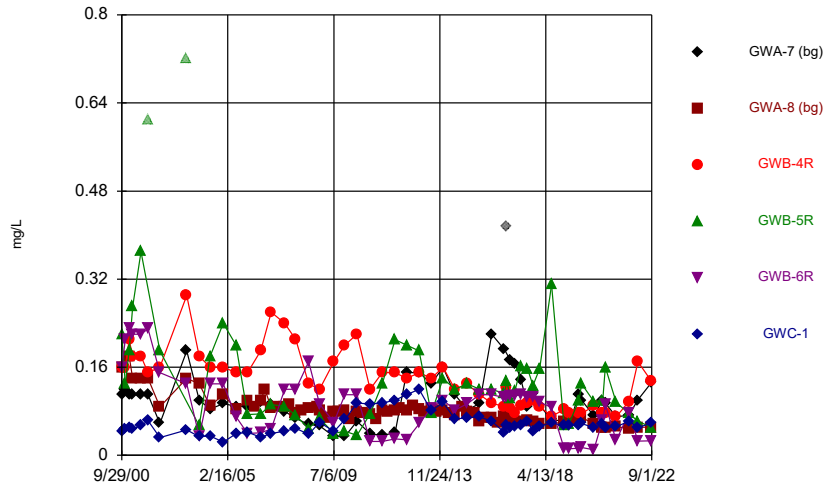
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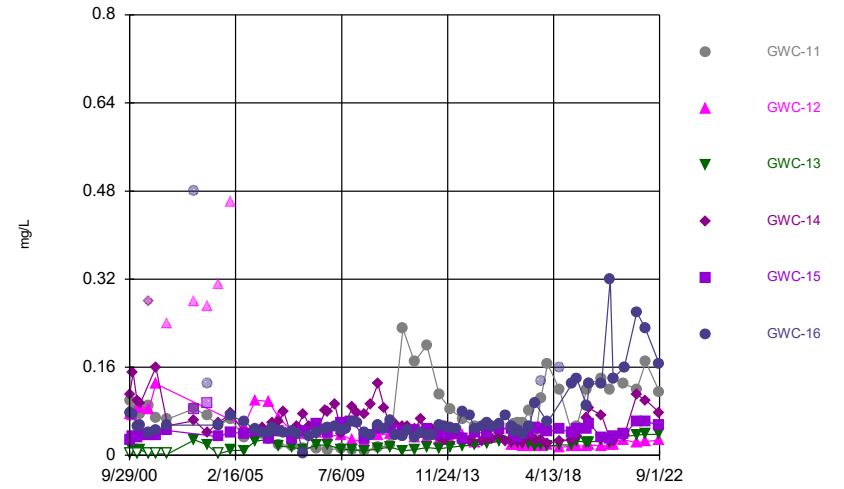
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Time Series



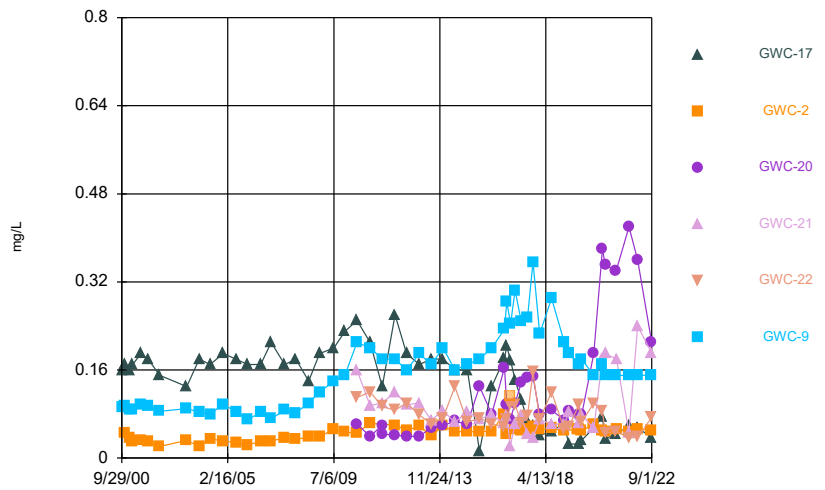
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Time Series



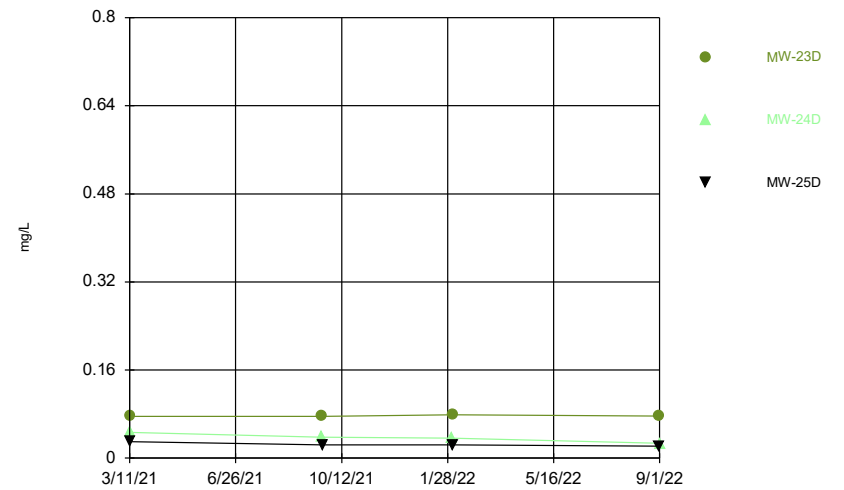
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Time Series



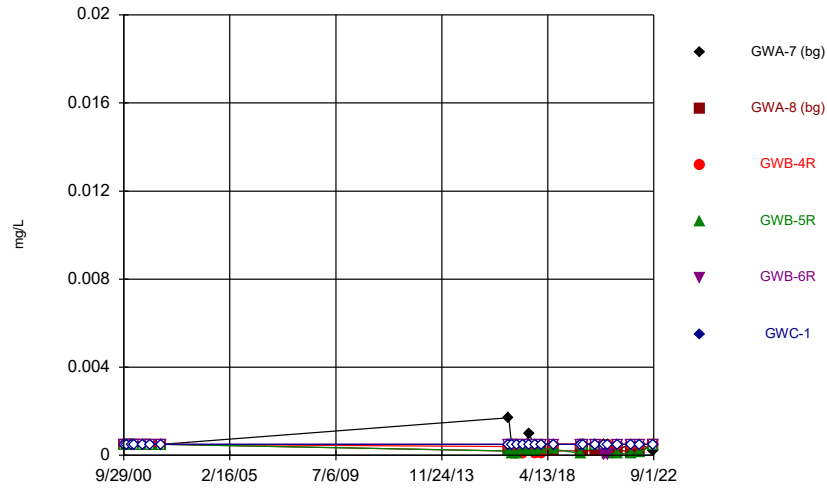
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Time Series



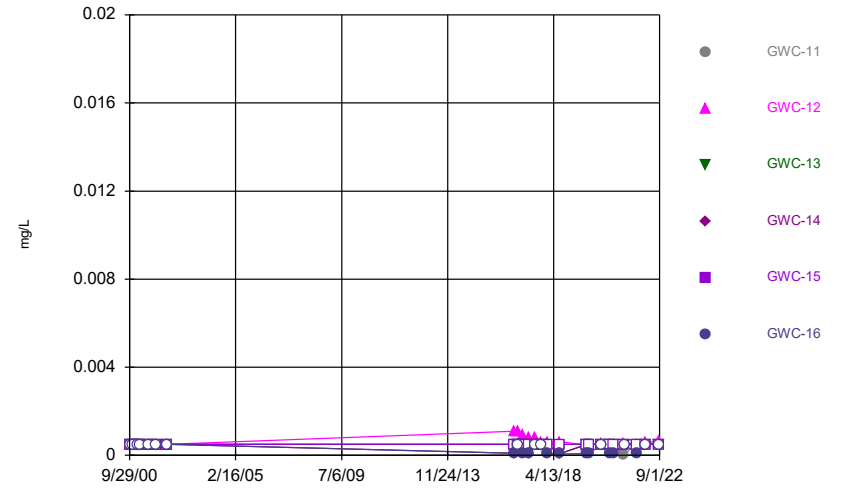
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Time Series



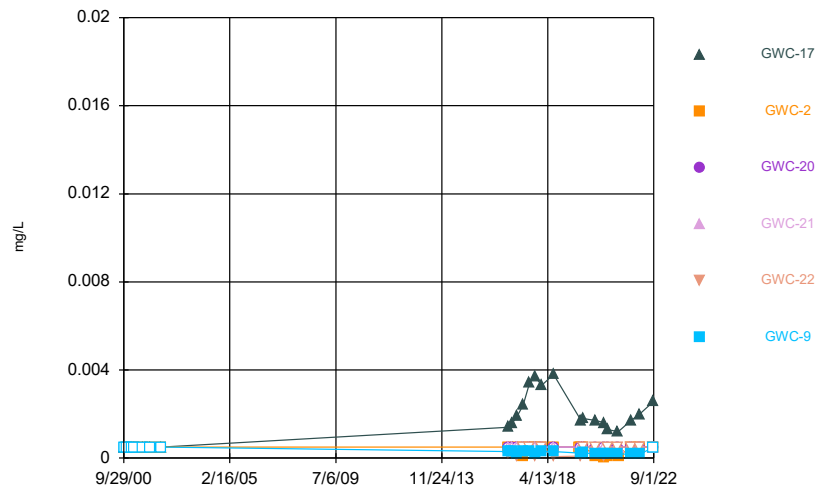
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Time Series



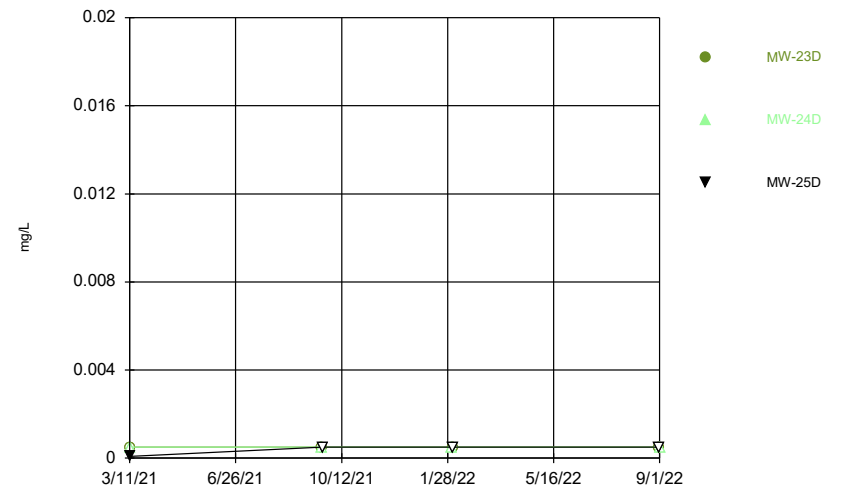
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Time Series



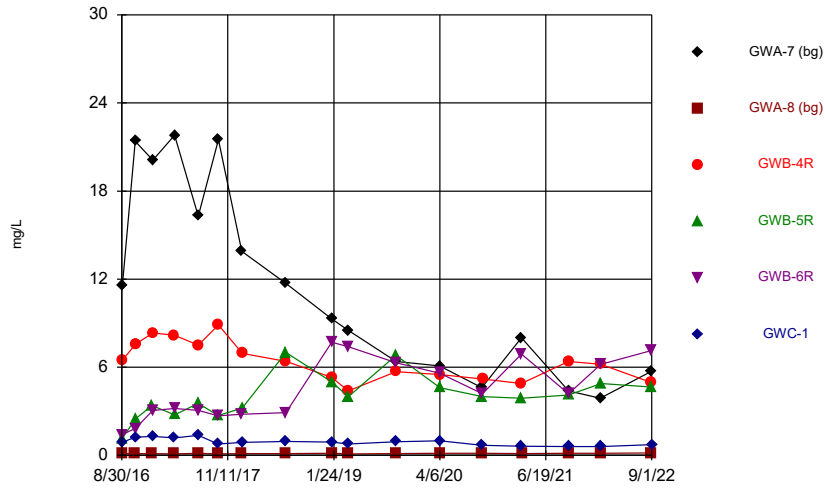
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Time Series



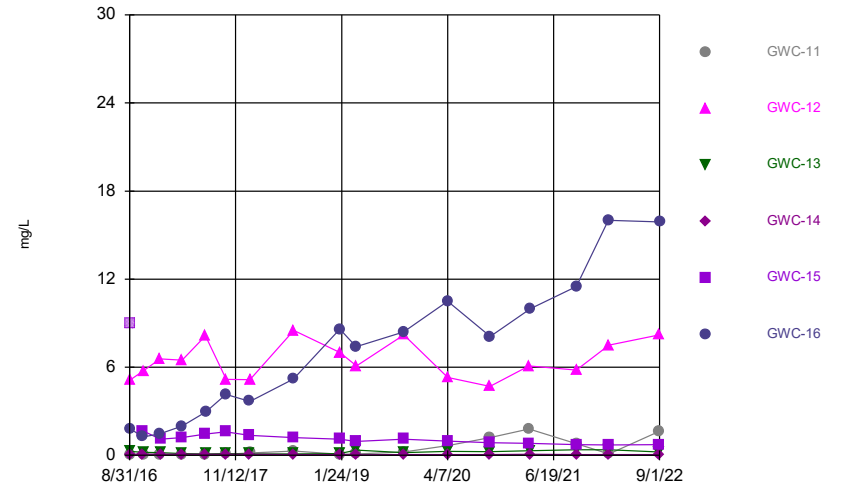
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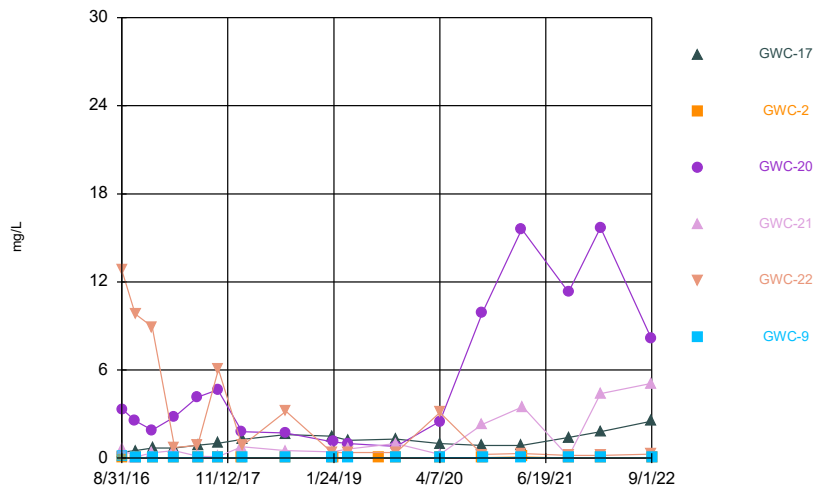
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Time Series



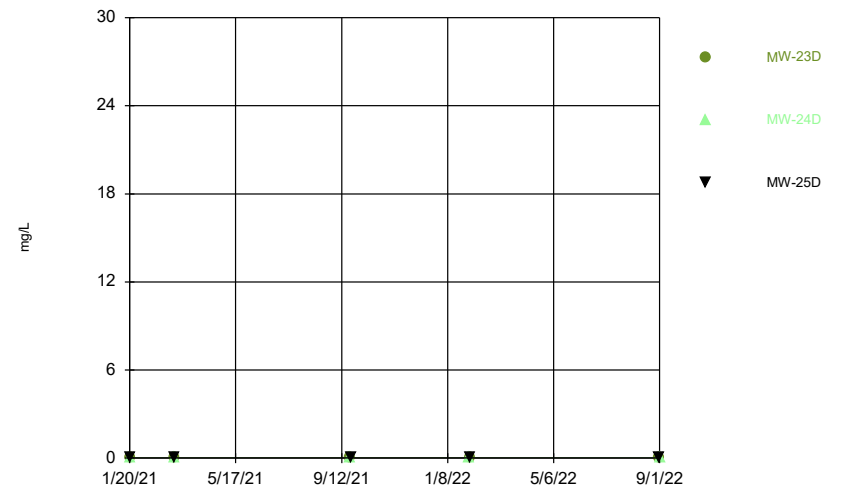
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Time Series



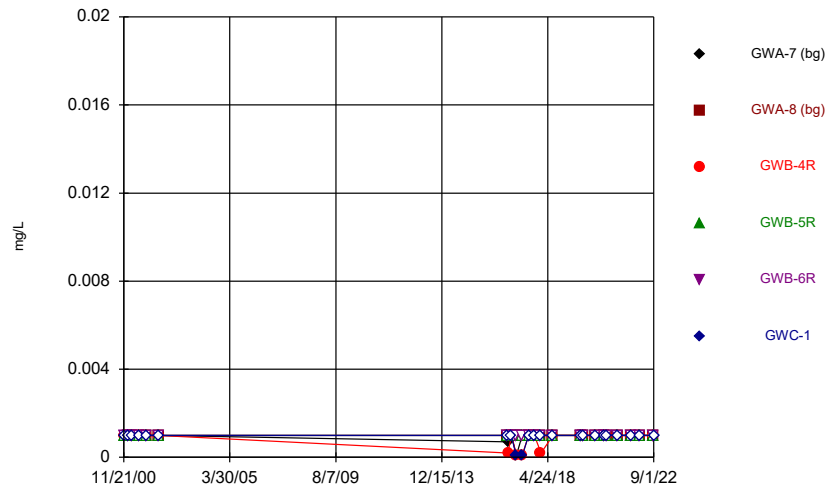
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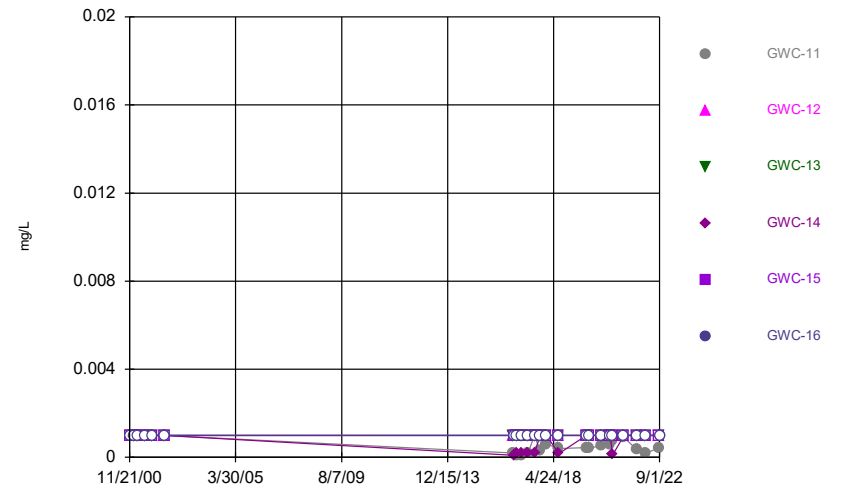
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Time Series



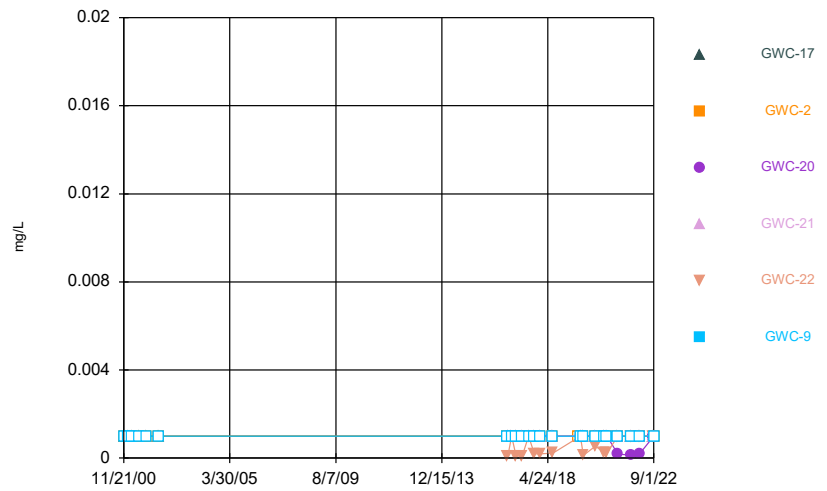
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Time Series



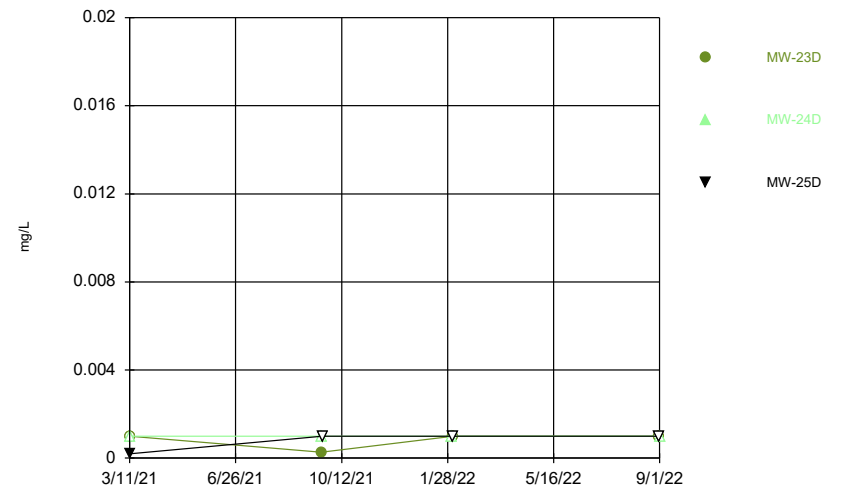
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Time Series



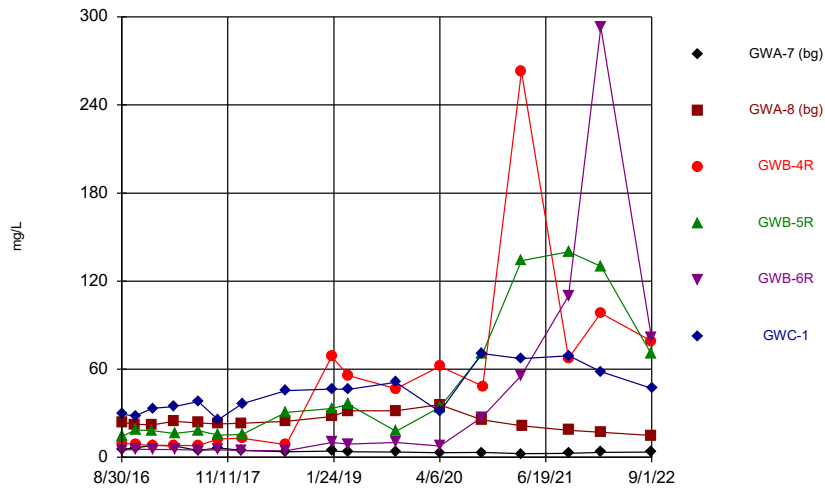
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Time Series



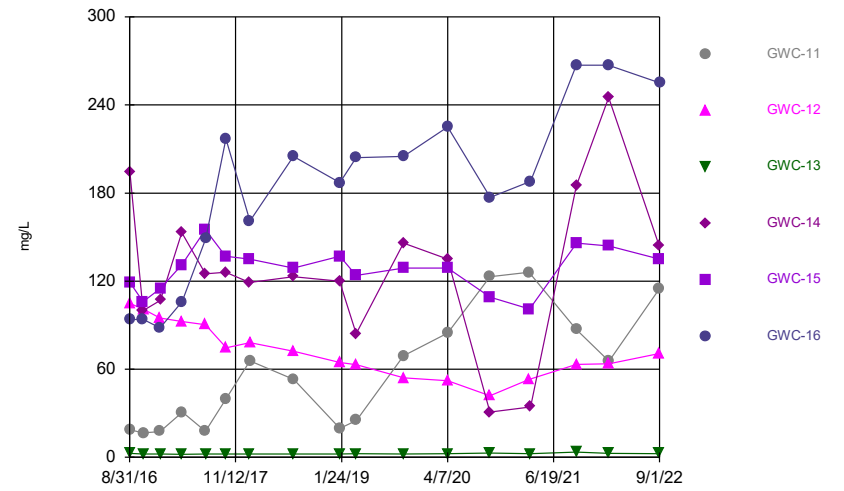
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Time Series



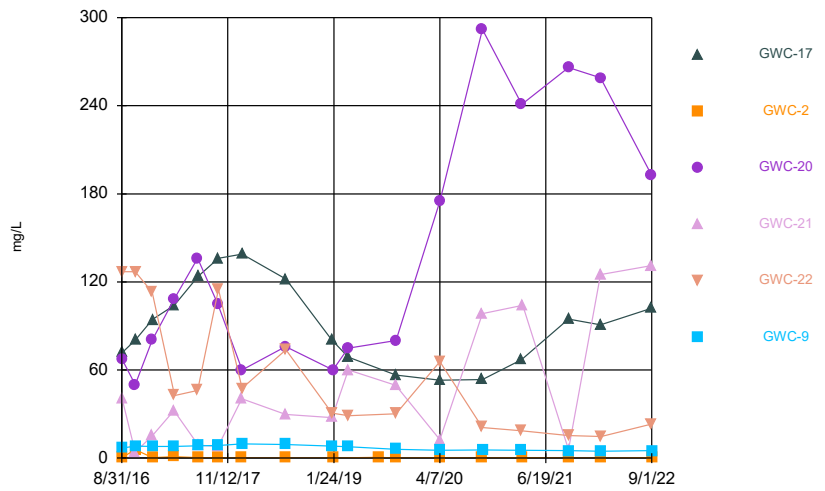
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Time Series



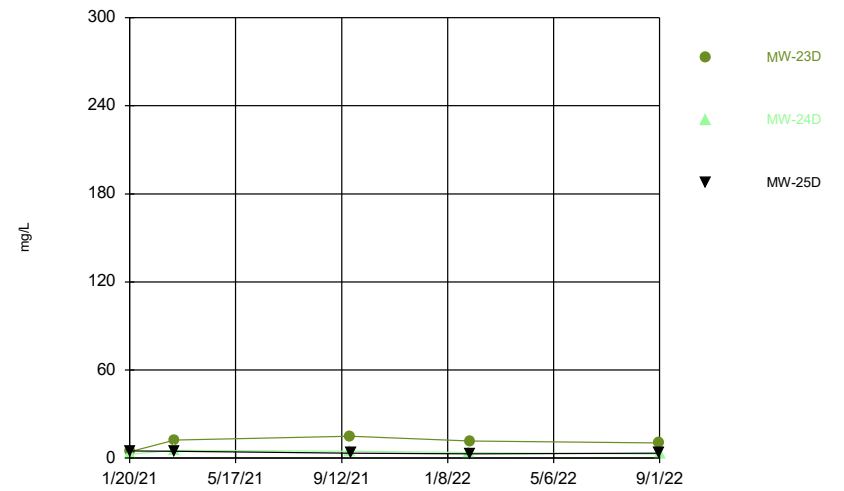
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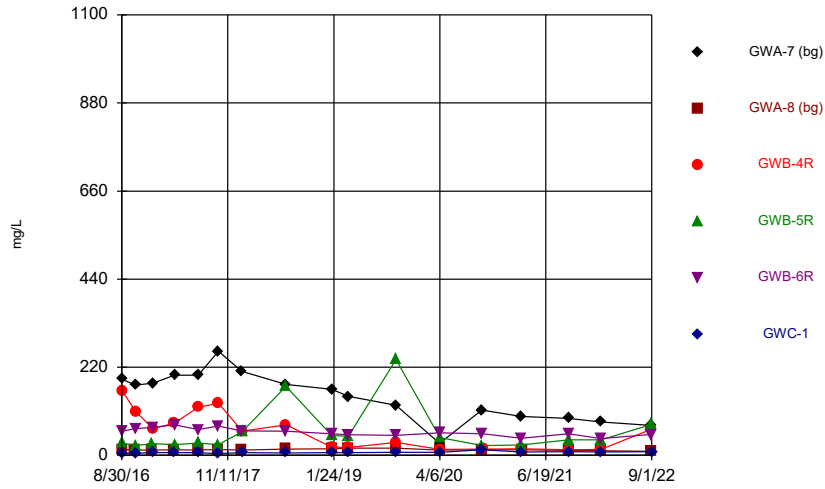
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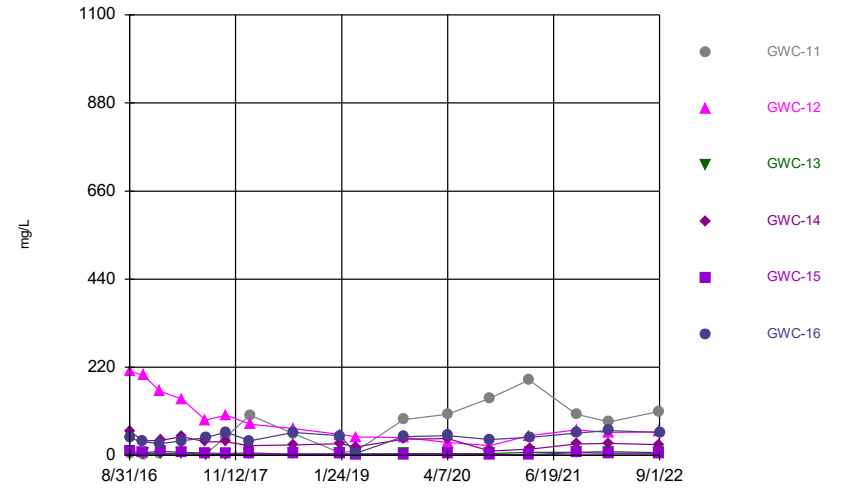
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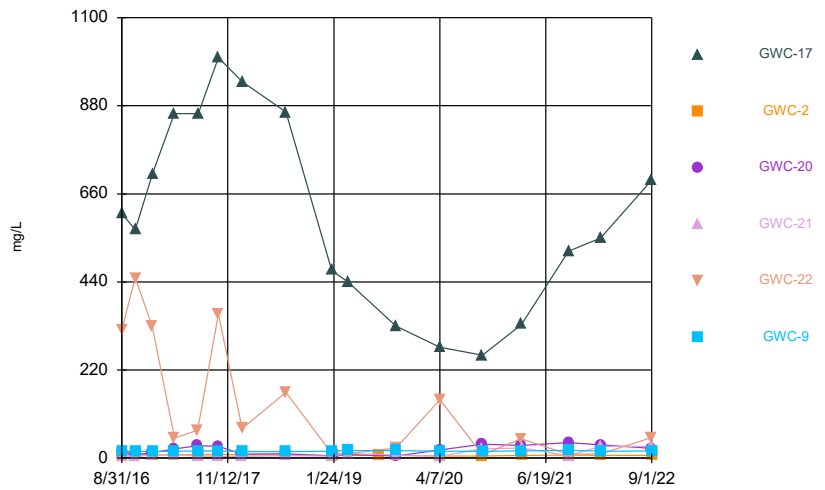
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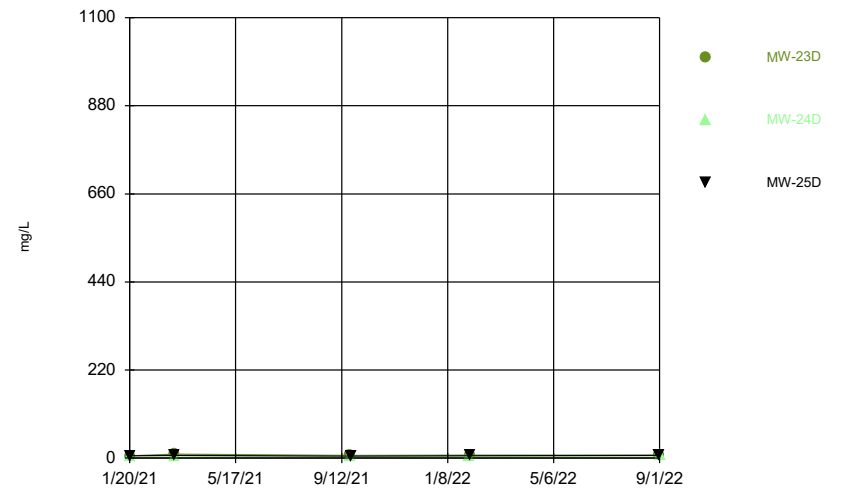
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Time Series



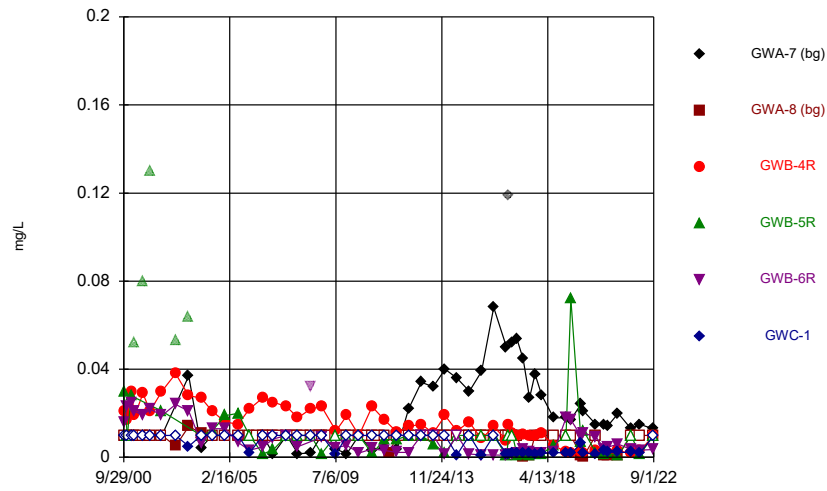
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Time Series



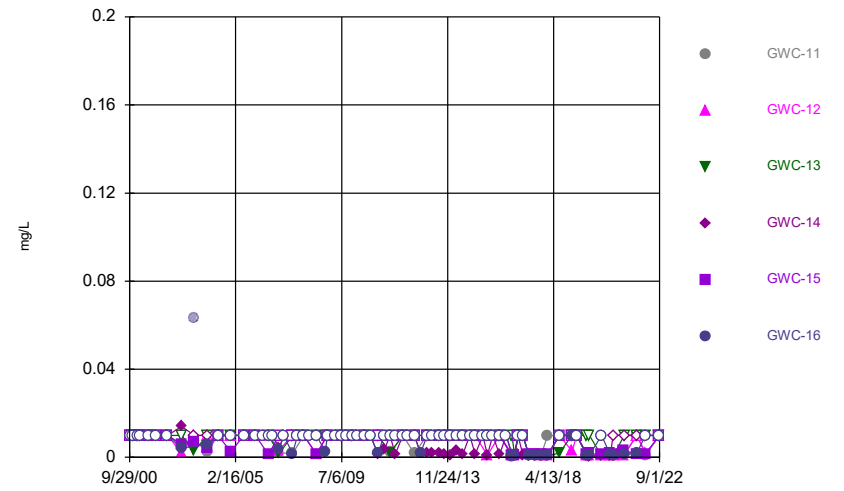
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Time Series



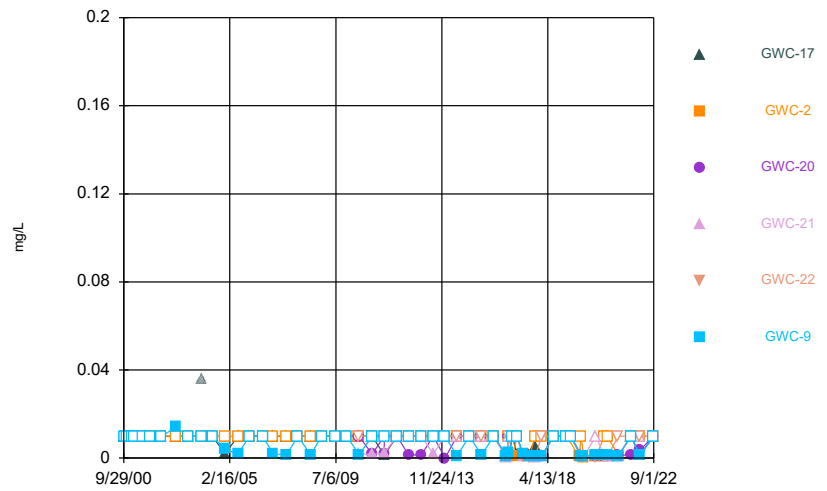
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Time Series



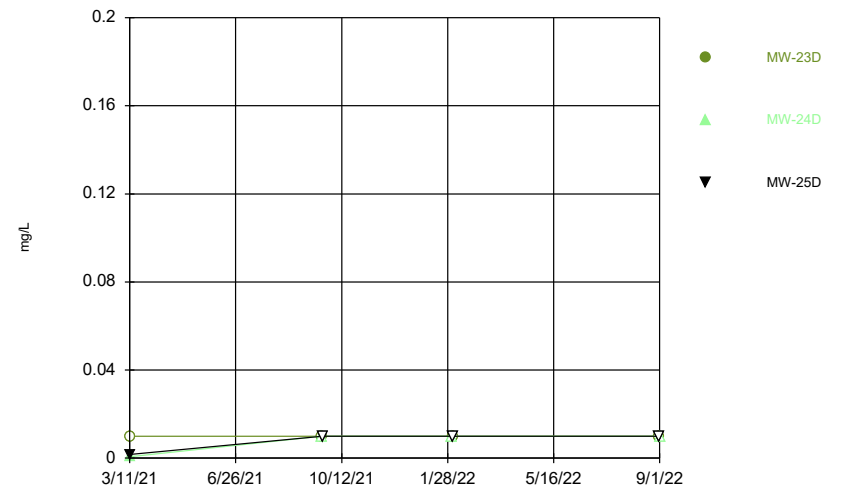
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Time Series



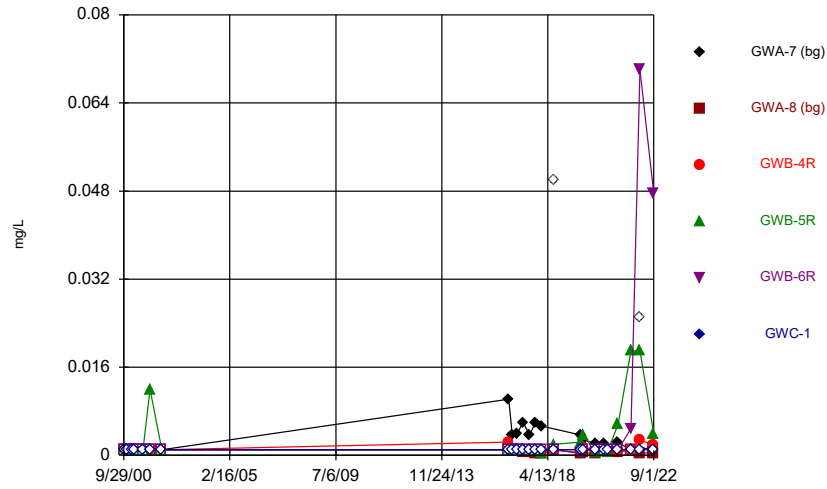
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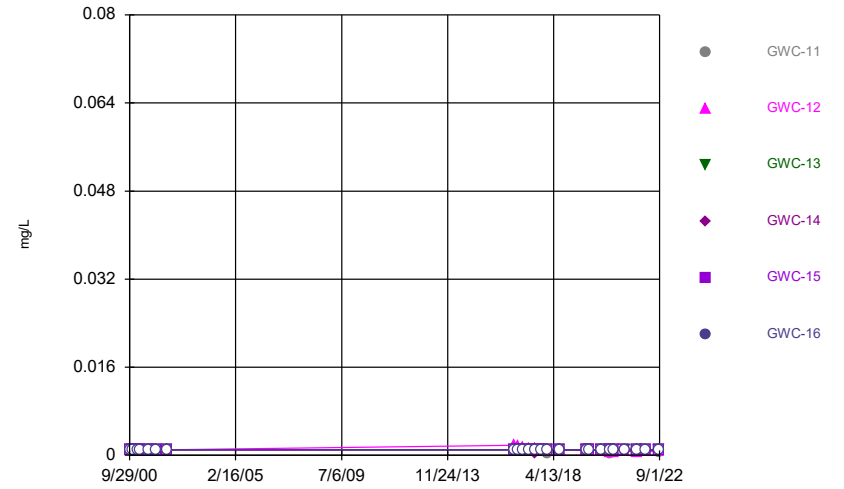
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Time Series



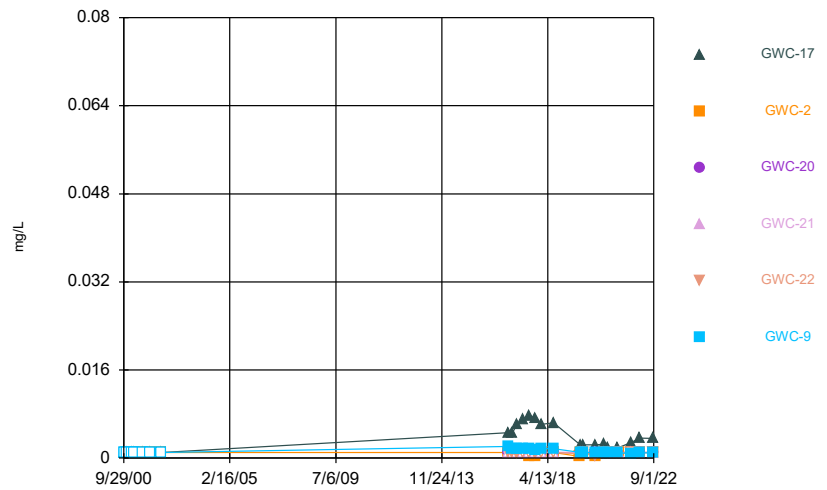
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Time Series



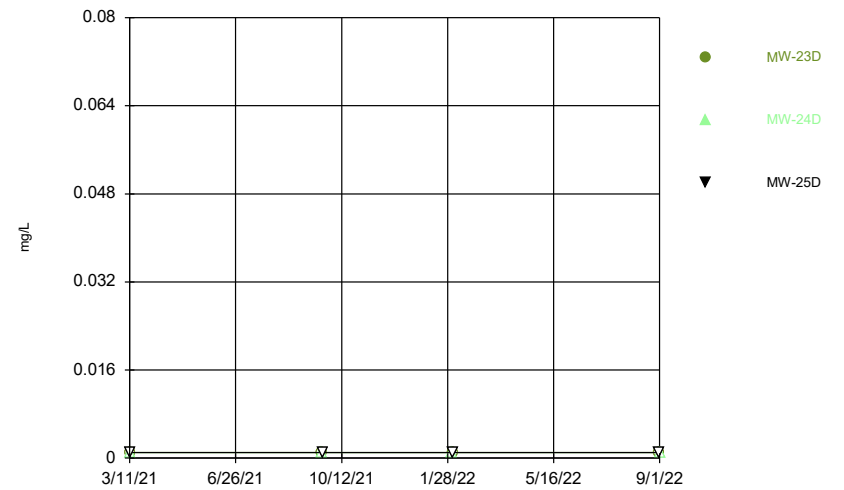
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Time Series



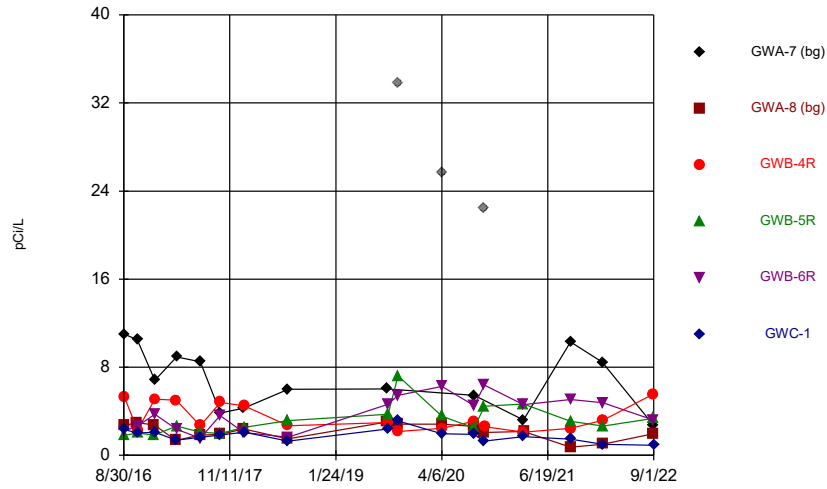
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Time Series



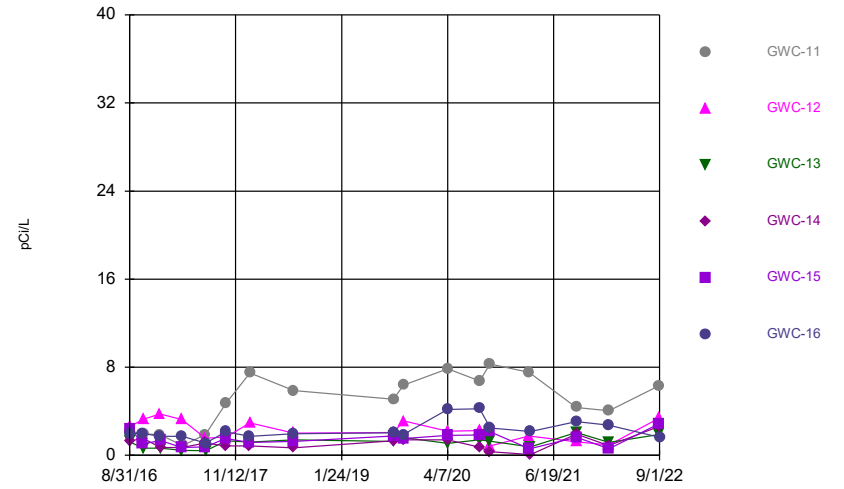
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Time Series



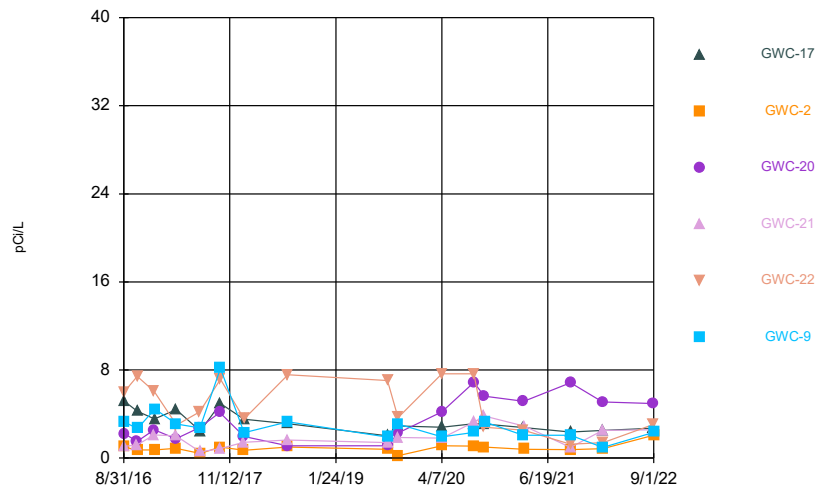
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Time Series



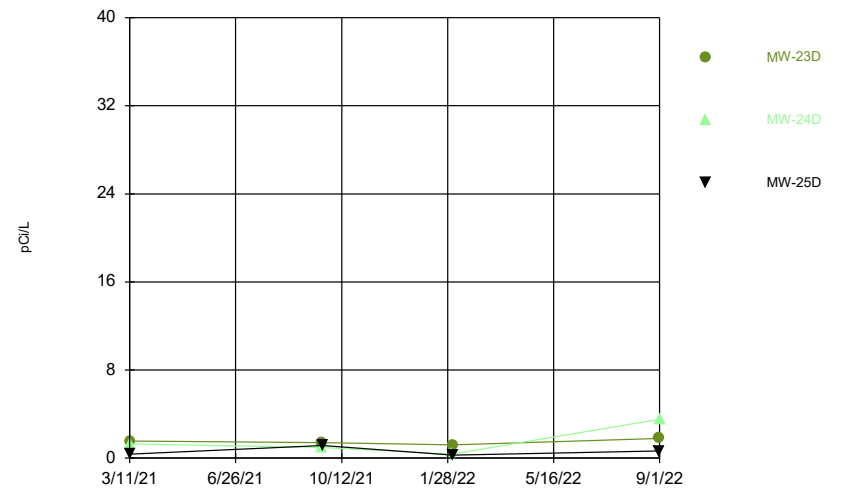
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Time Series



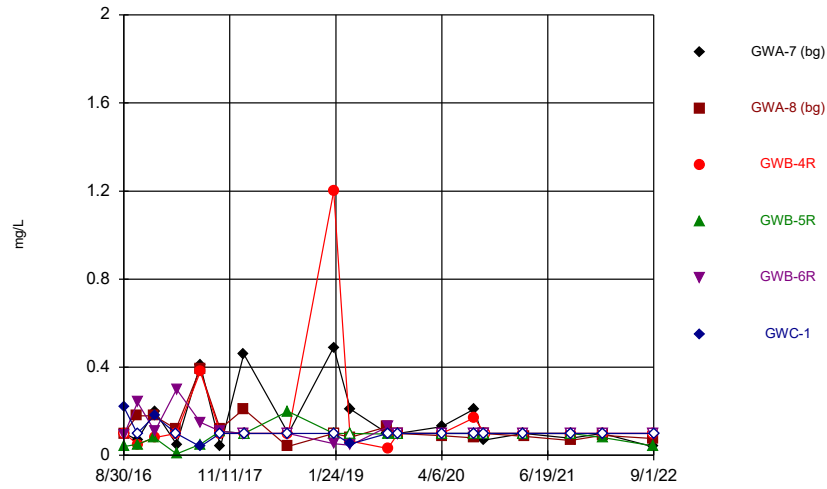
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Time Series



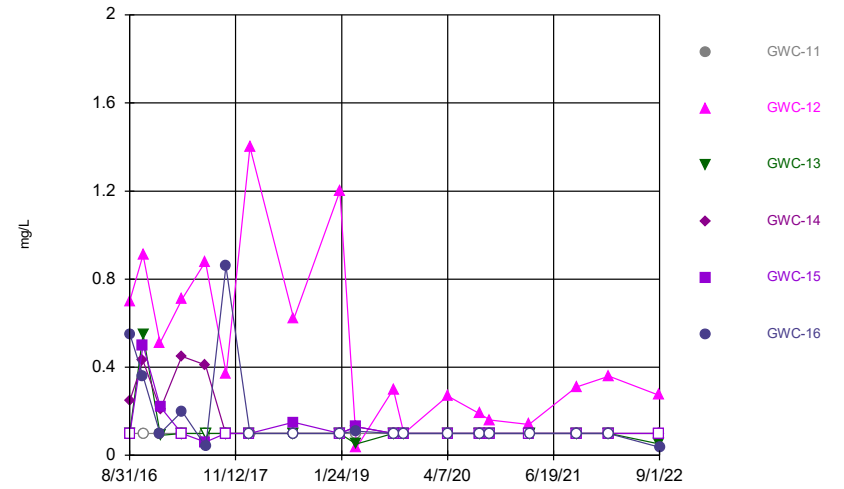
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



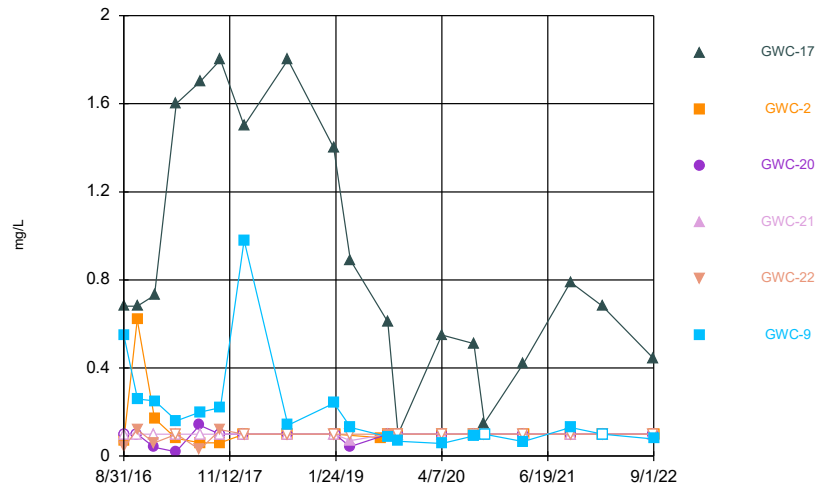
Constituent: Fluoride Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



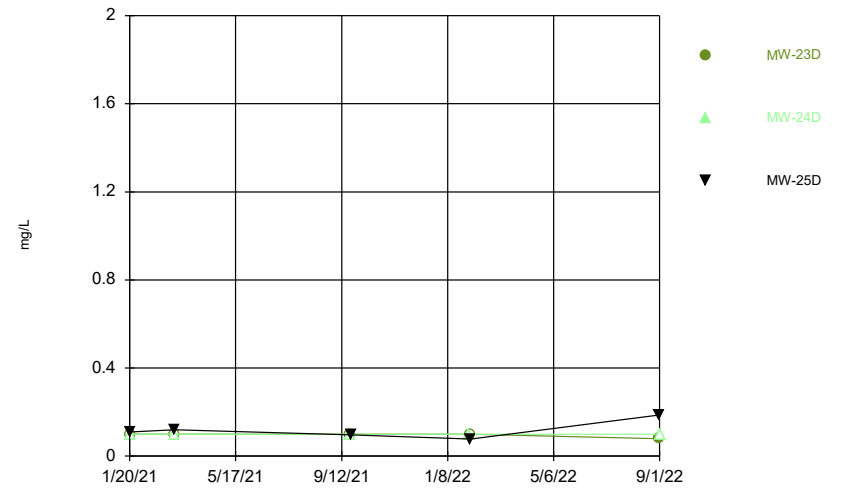
Constituent: Fluoride Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



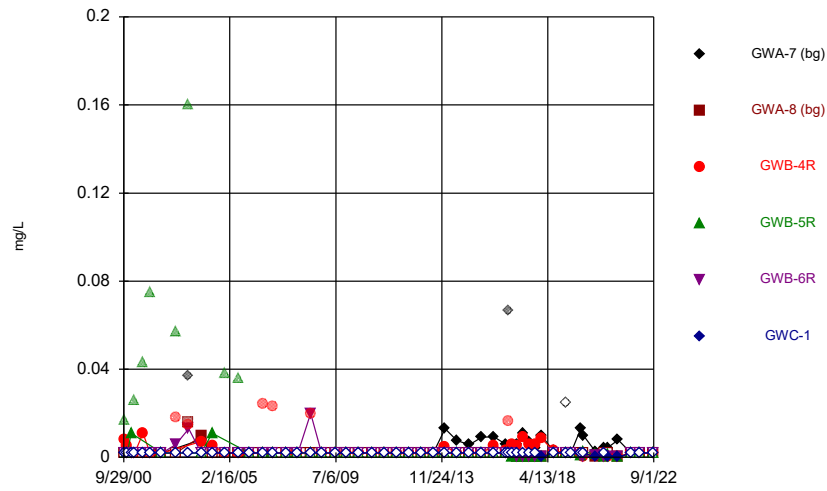
Constituent: Fluoride Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



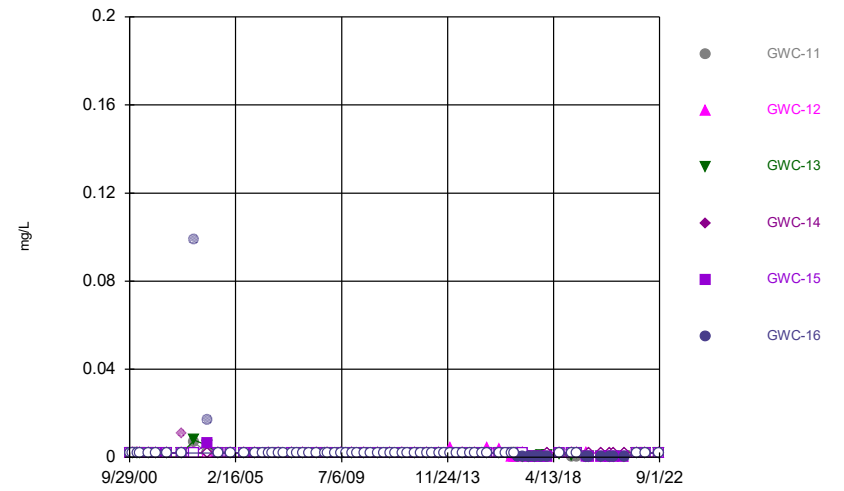
Constituent: Fluoride Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



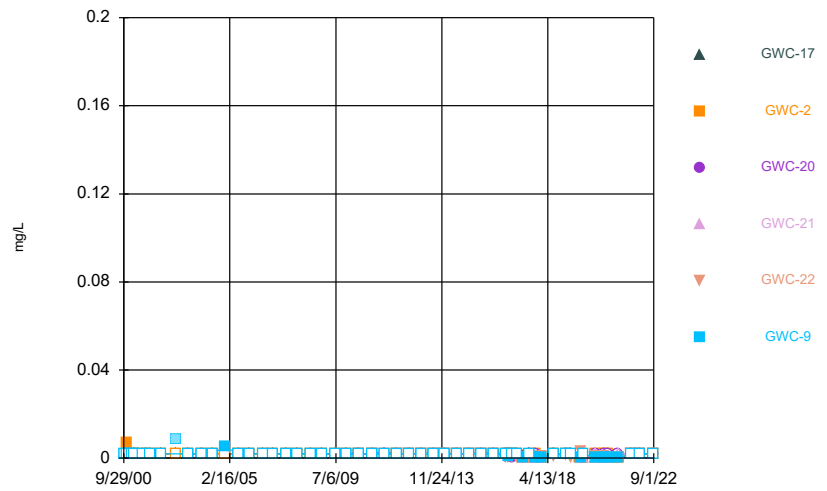
Constituent: Lead Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



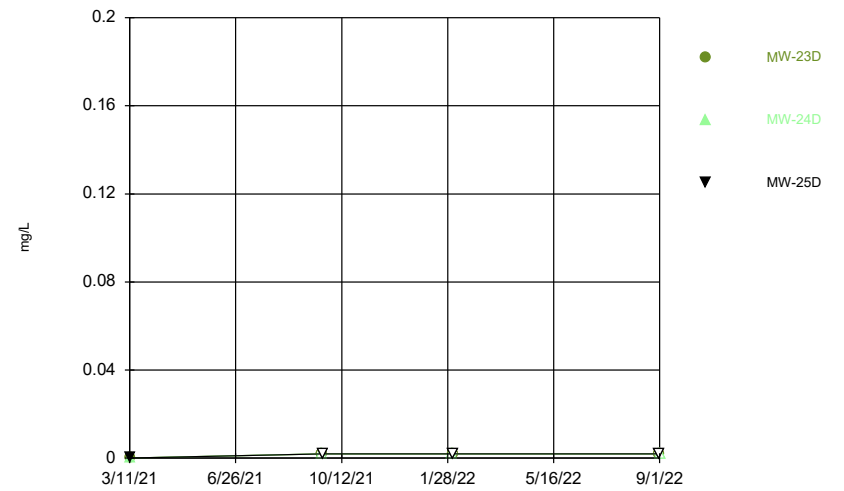
Constituent: Lead Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



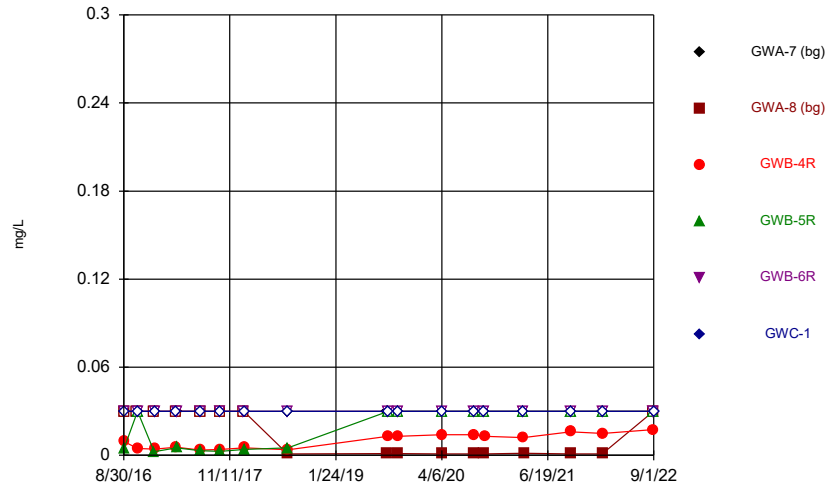
Constituent: Lead Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



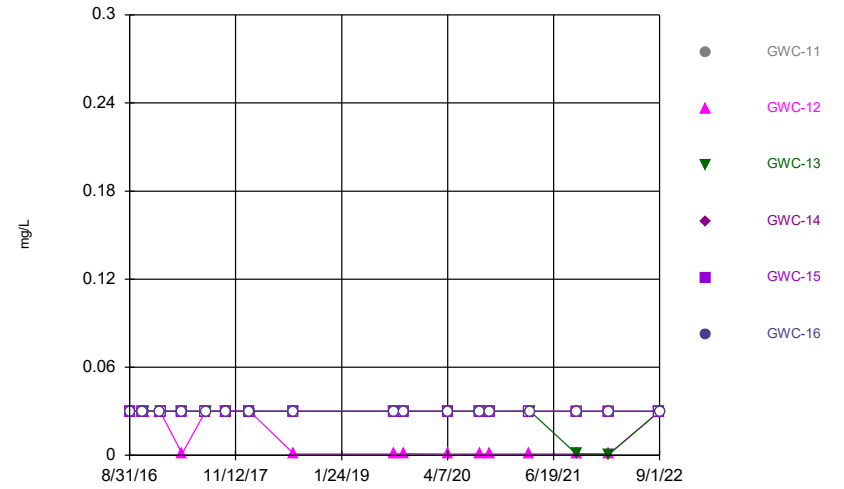
Constituent: Lead Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



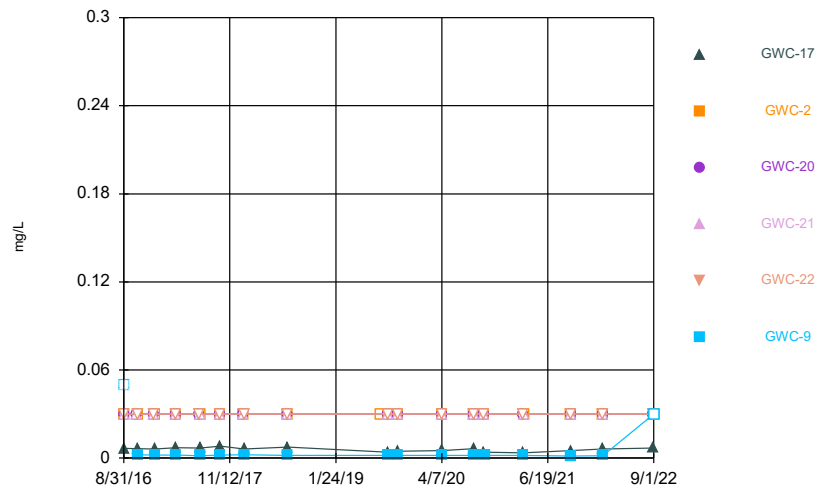
Constituent: Lithium Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



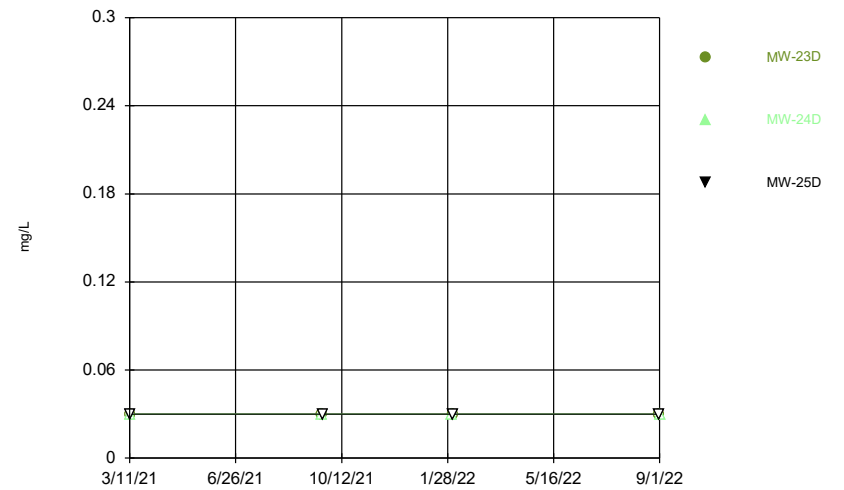
Constituent: Lithium Analysis Run 11/6/2022 9:44 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



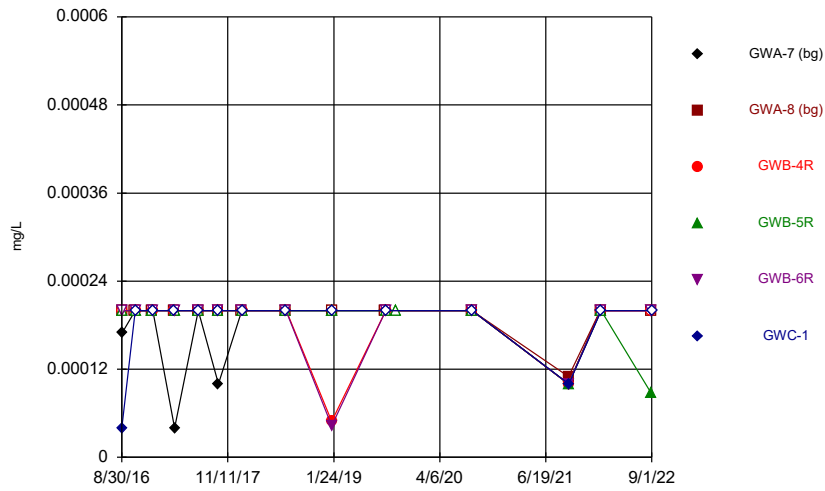
Constituent: Lithium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



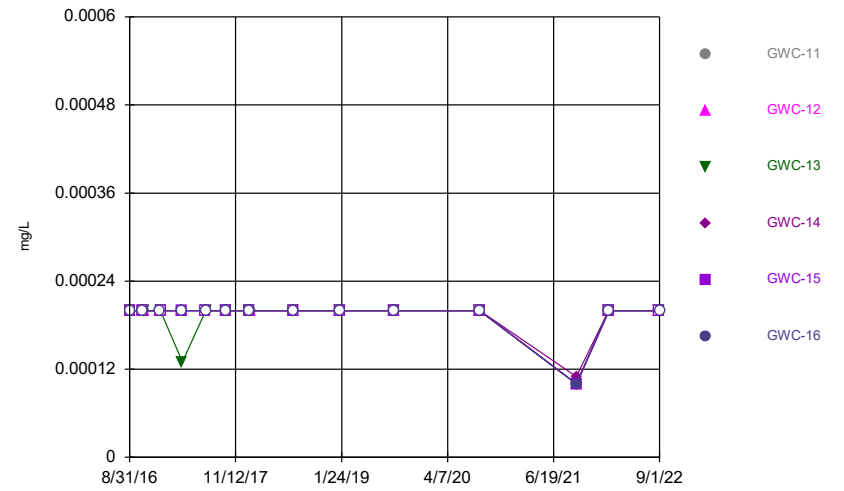
Constituent: Lithium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



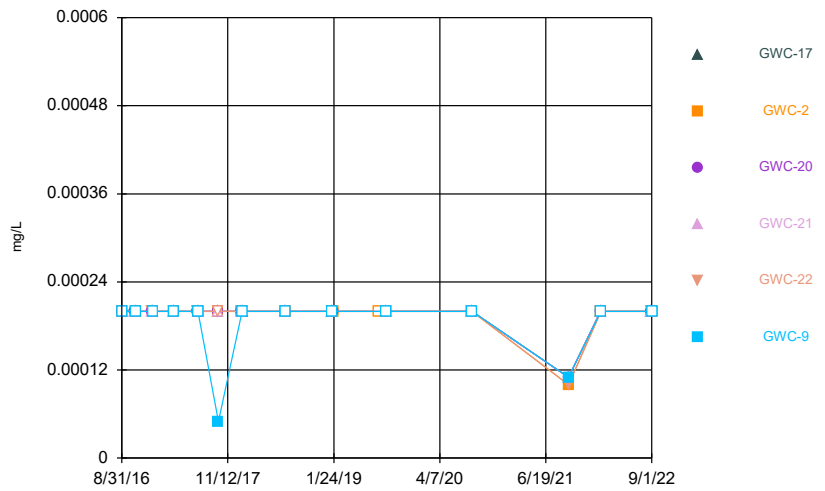
Constituent: Mercury Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



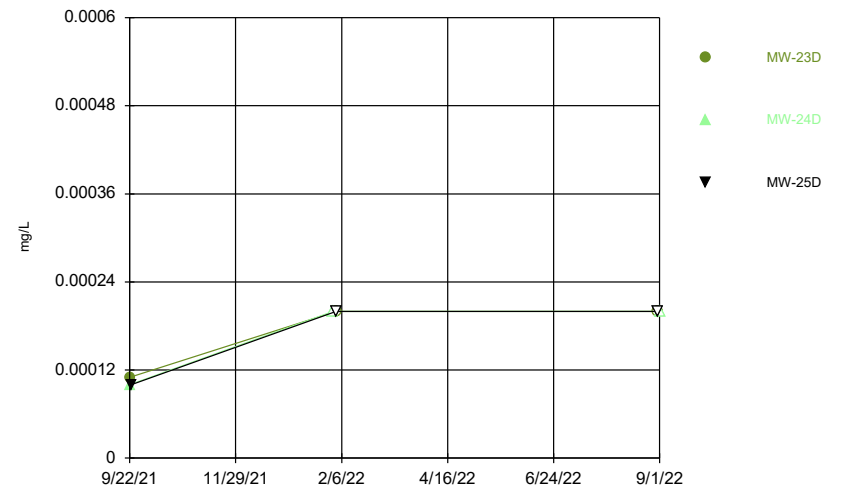
Constituent: Mercury Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



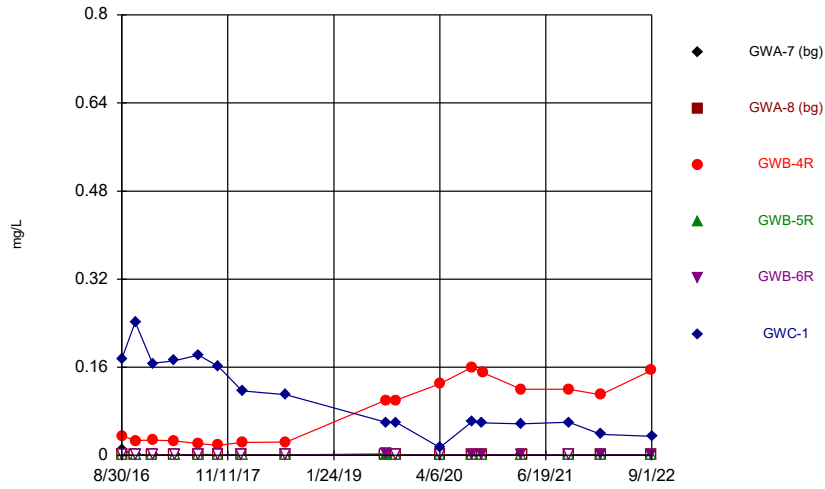
Constituent: Mercury Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



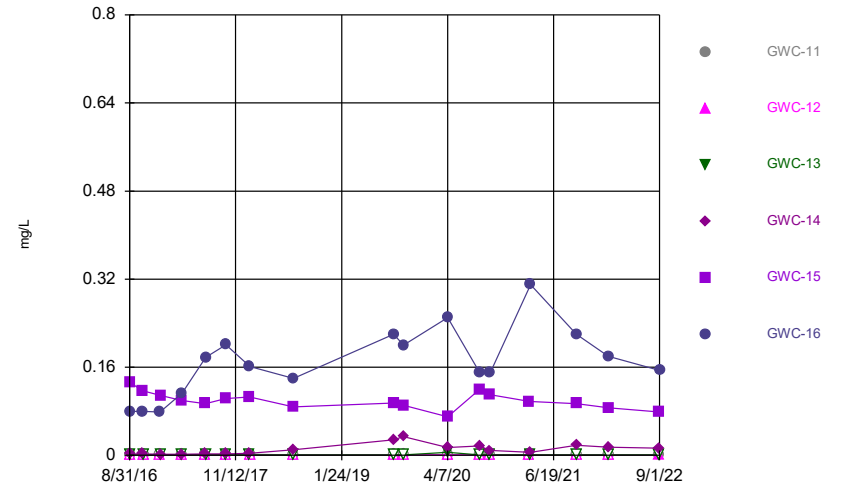
Constituent: Mercury Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



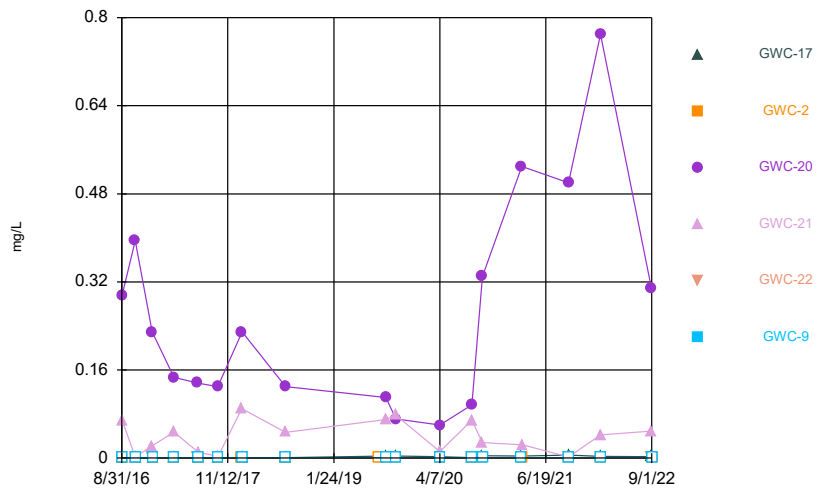
Constituent: Molybdenum Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



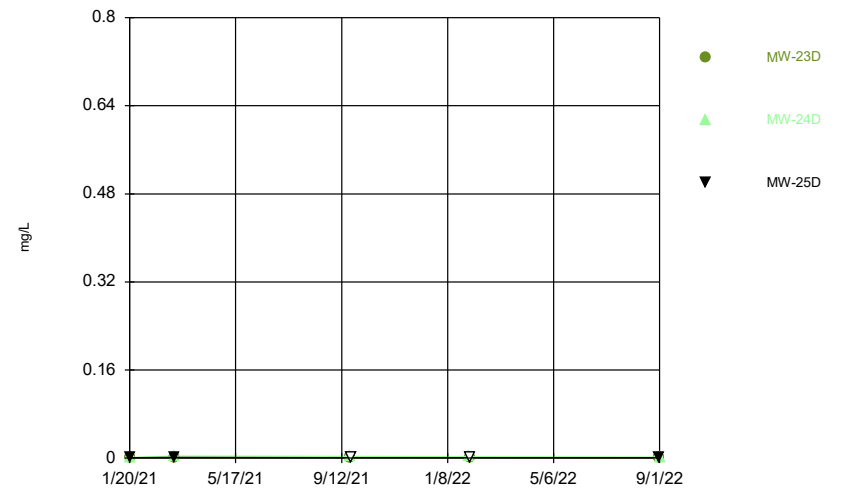
Constituent: Molybdenum Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



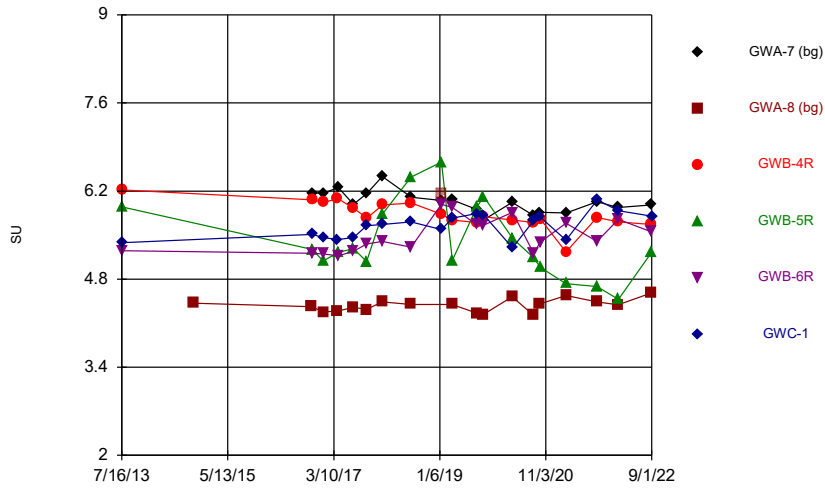
Constituent: Molybdenum Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



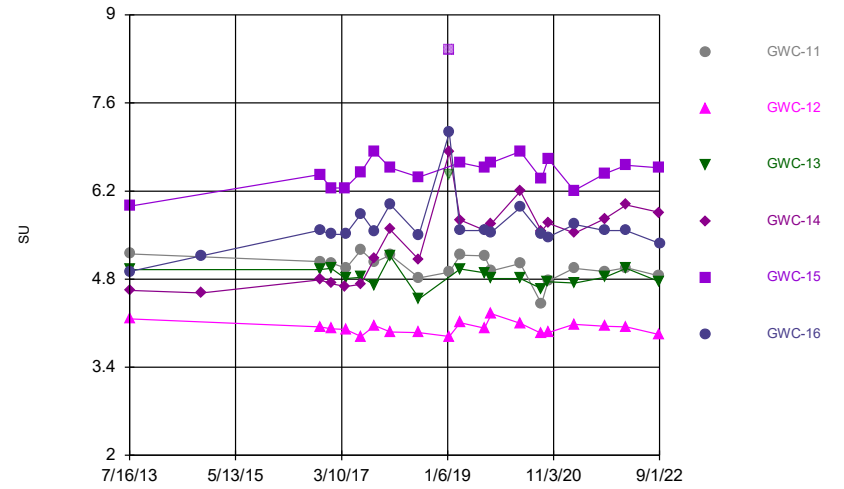
Constituent: Molybdenum Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



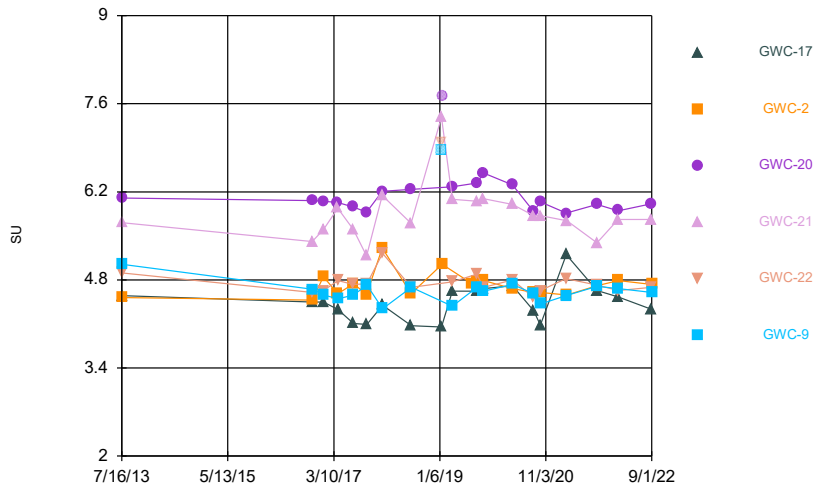
Constituent: pH Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



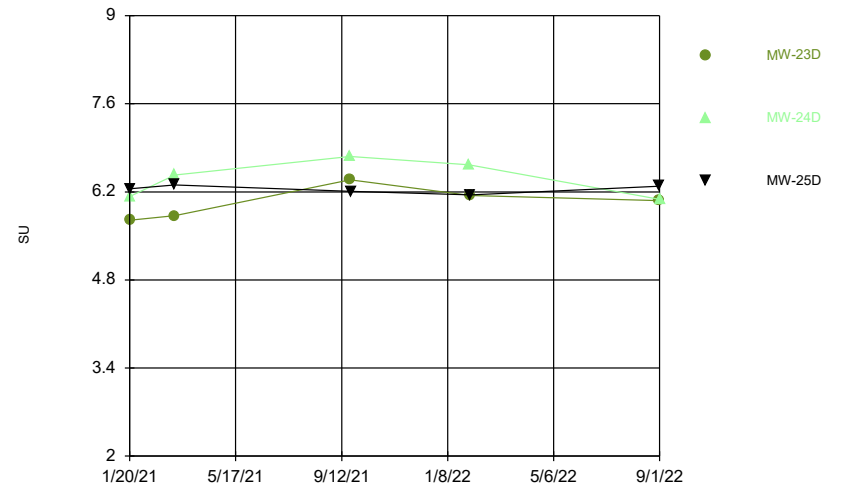
Constituent: pH Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



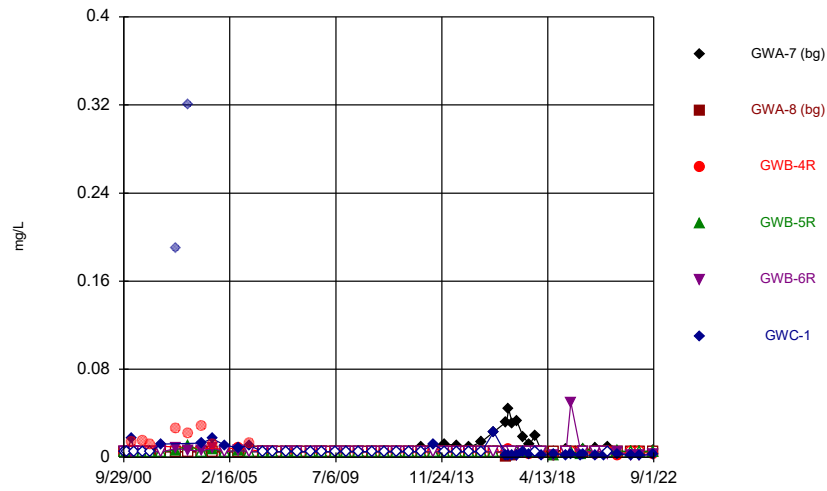
Constituent: pH Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



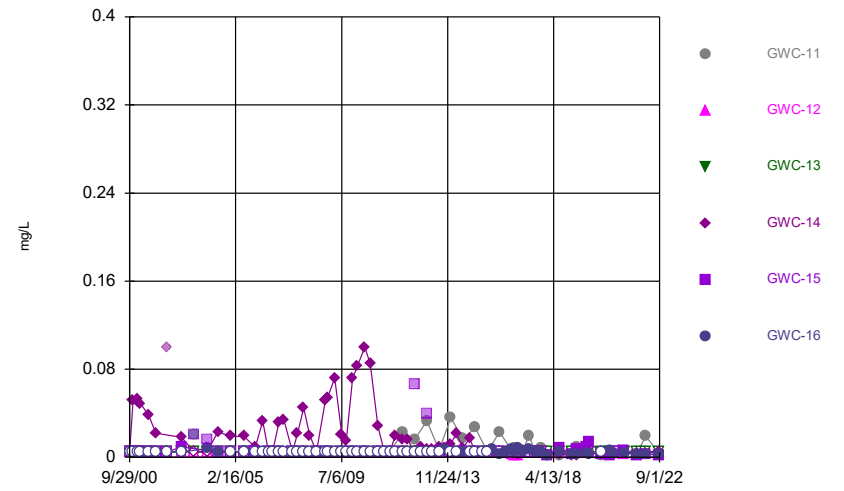
Constituent: pH Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



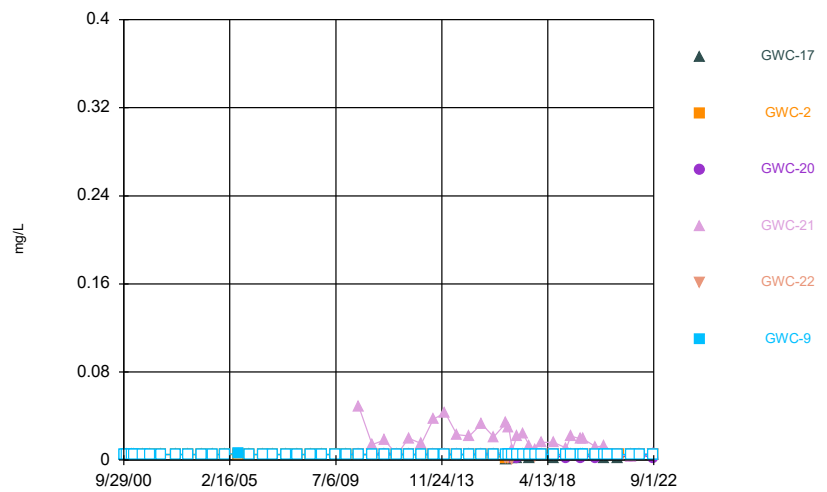
Constituent: Selenium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



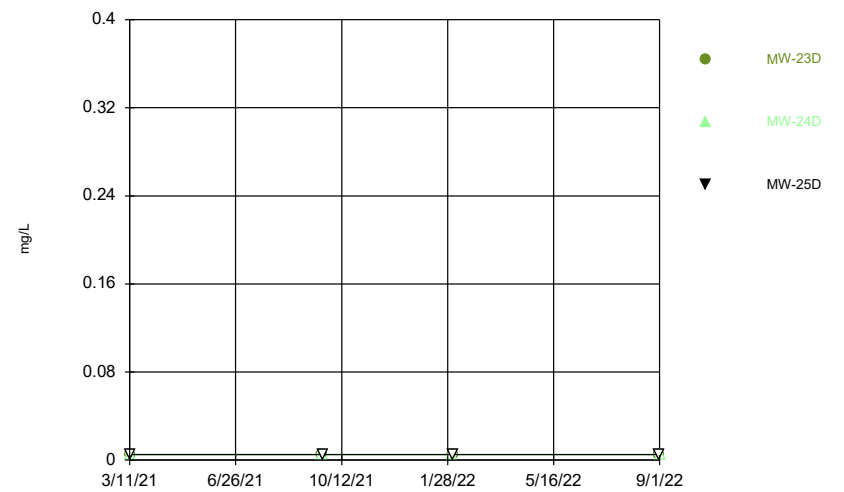
Constituent: Selenium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



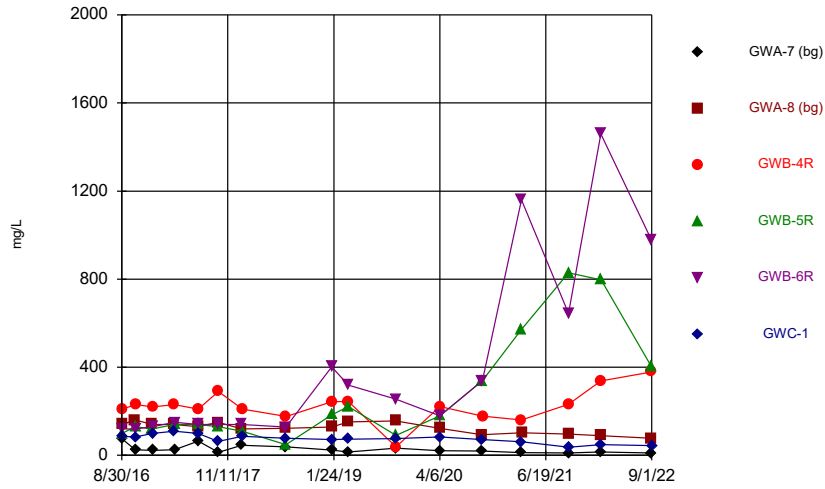
Constituent: Selenium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



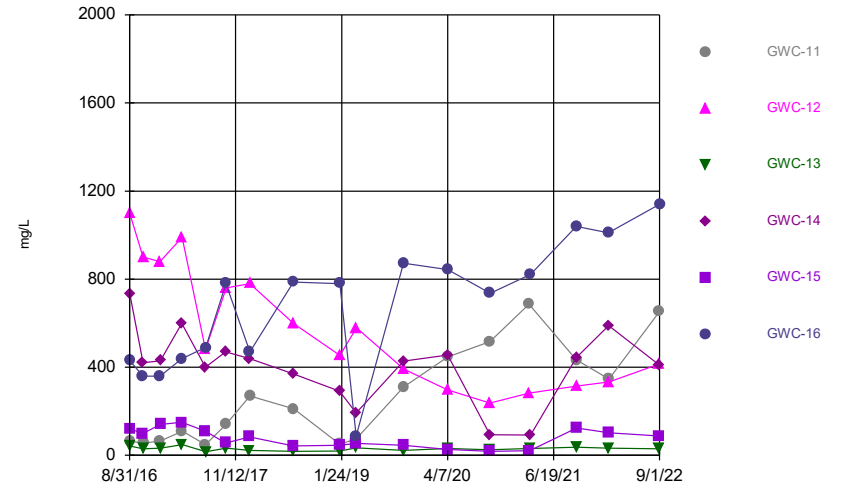
Constituent: Selenium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



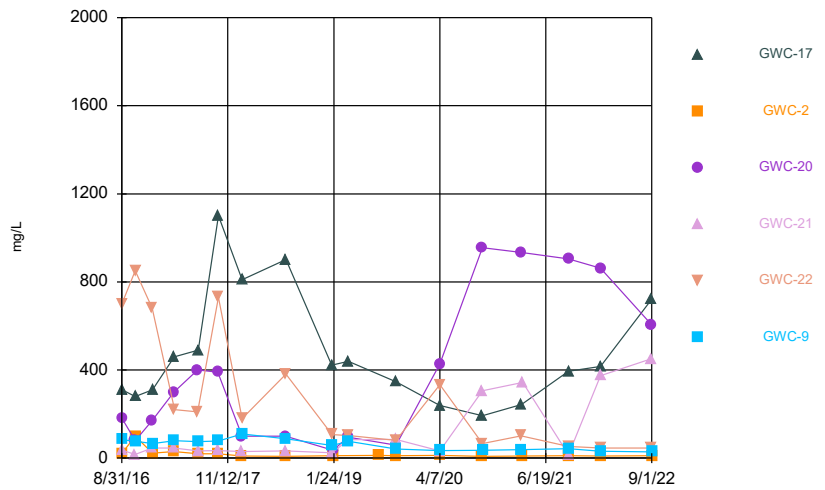
Constituent: Sulfate Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



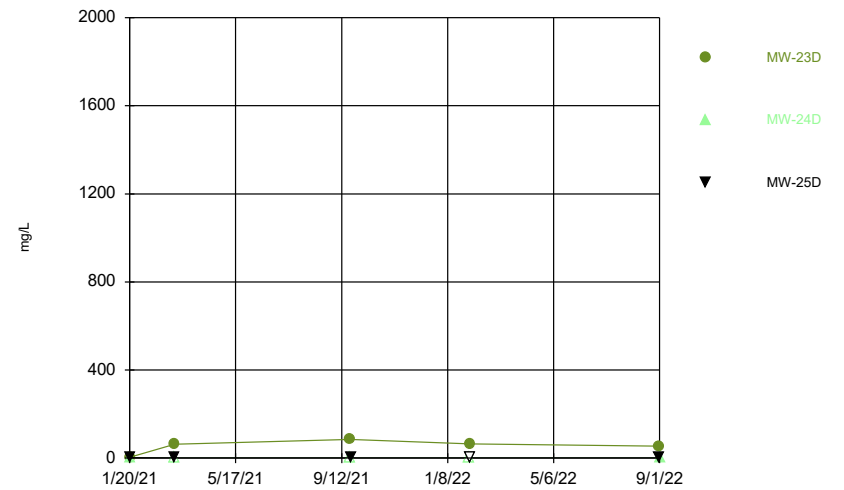
Constituent: Sulfate Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



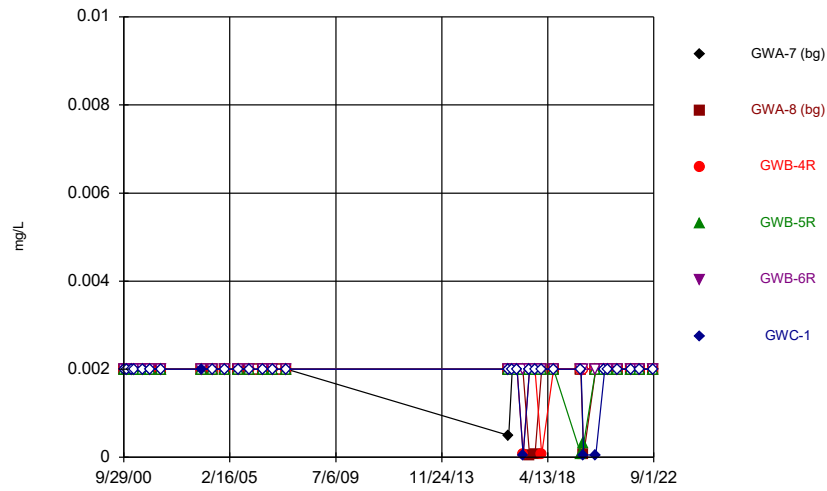
Constituent: Sulfate Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



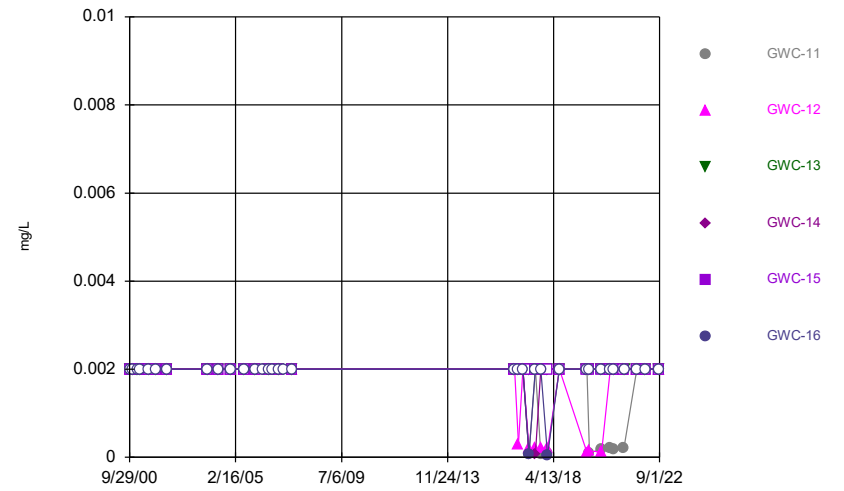
Constituent: Sulfate Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



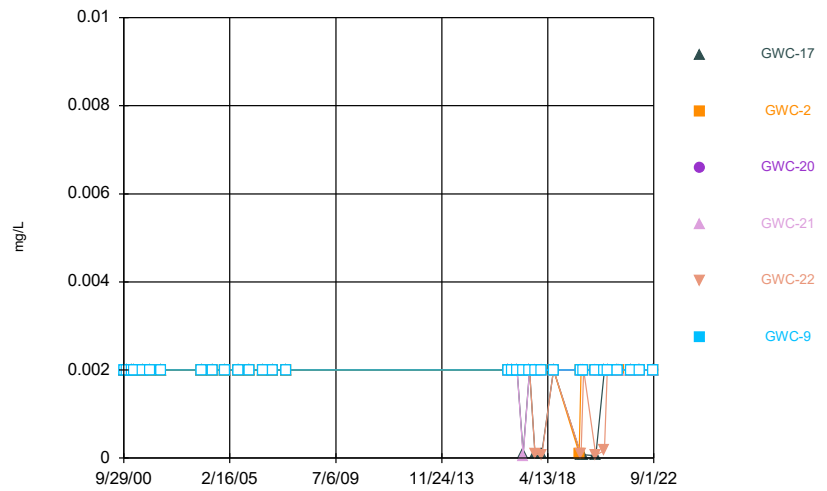
Constituent: Thallium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



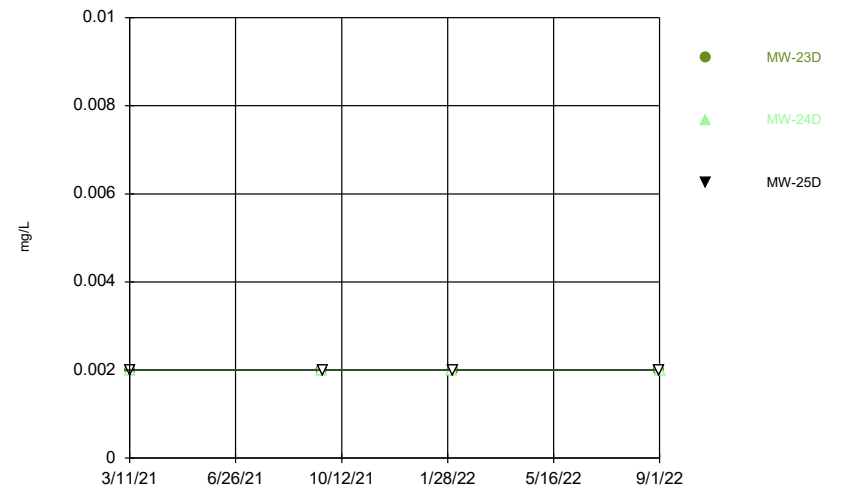
Constituent: Thallium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



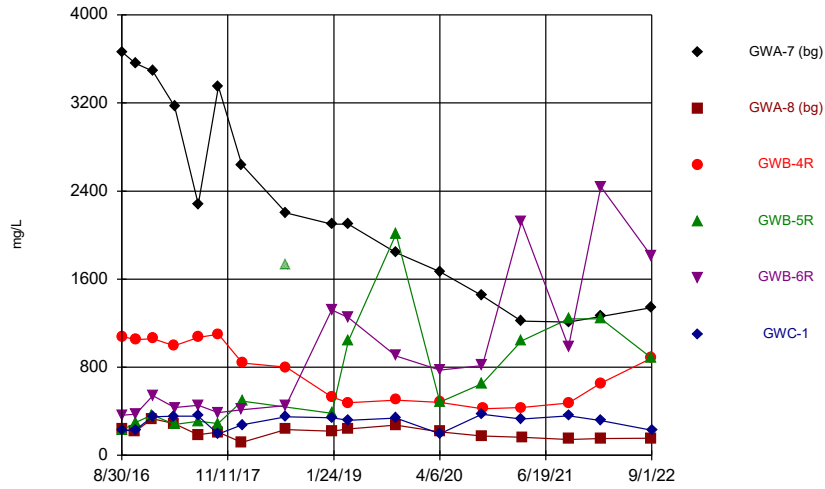
Constituent: Thallium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Thallium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

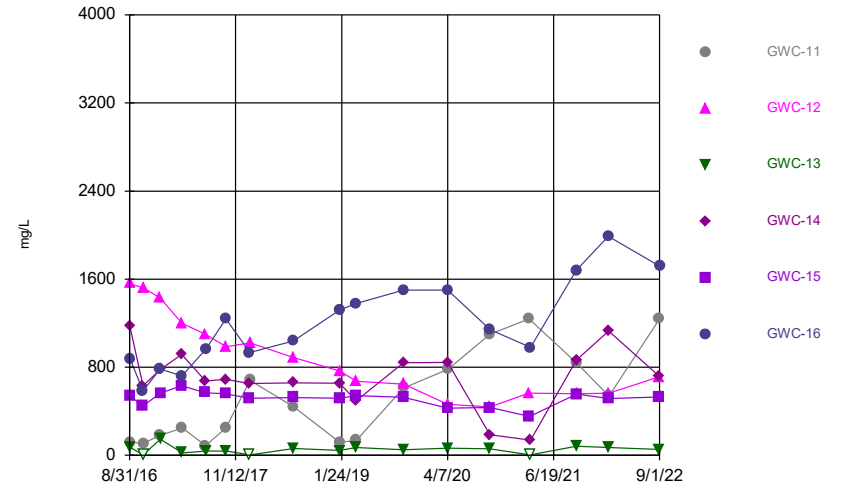
Time Series



Constituent: Total Dissolved Solids Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

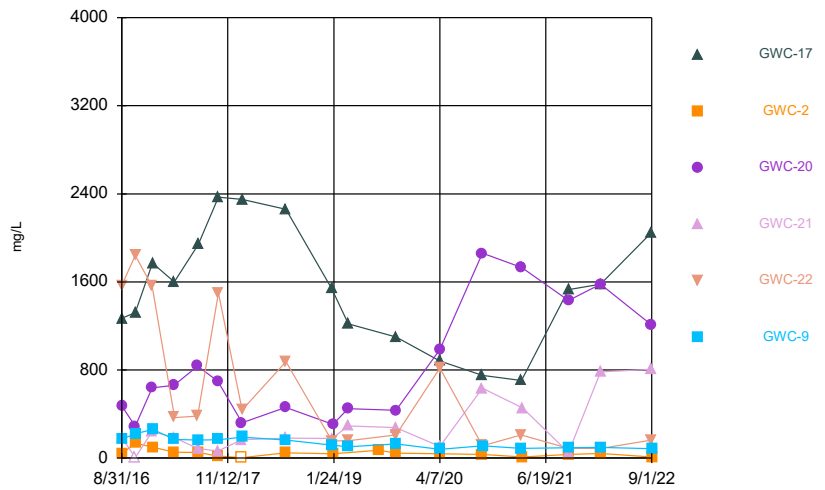
Time Series



Constituent: Total Dissolved Solids Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

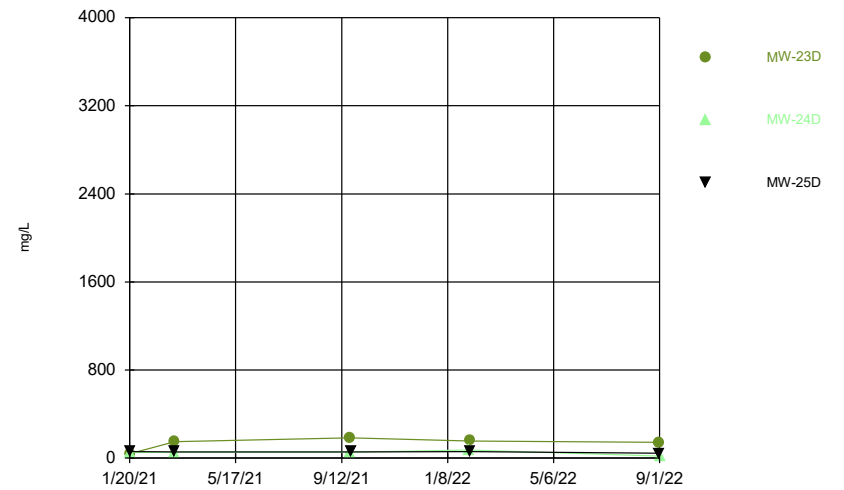
Hollow symbols indicate censored values.

Time Series



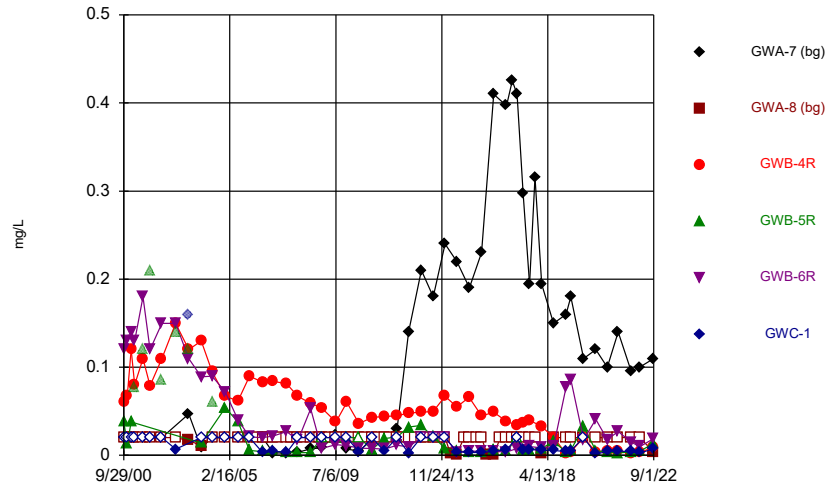
Constituent: Total Dissolved Solids Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



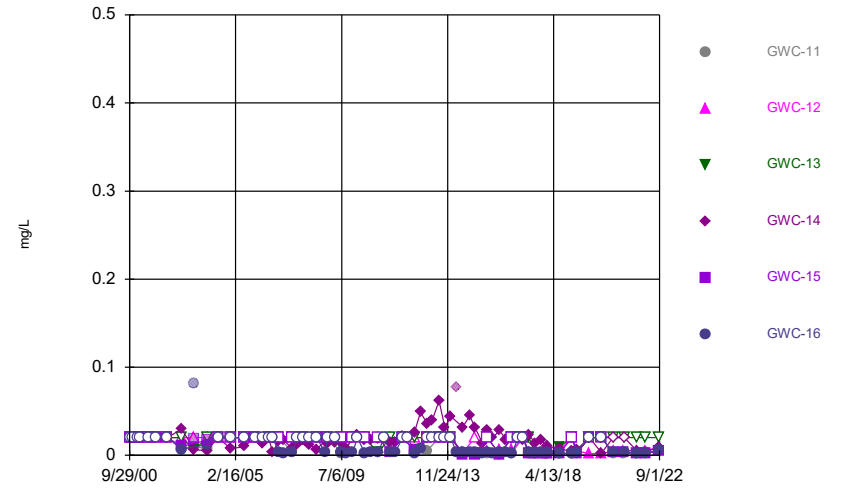
Constituent: Total Dissolved Solids Analysis Run 11/6/2022 9:45 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



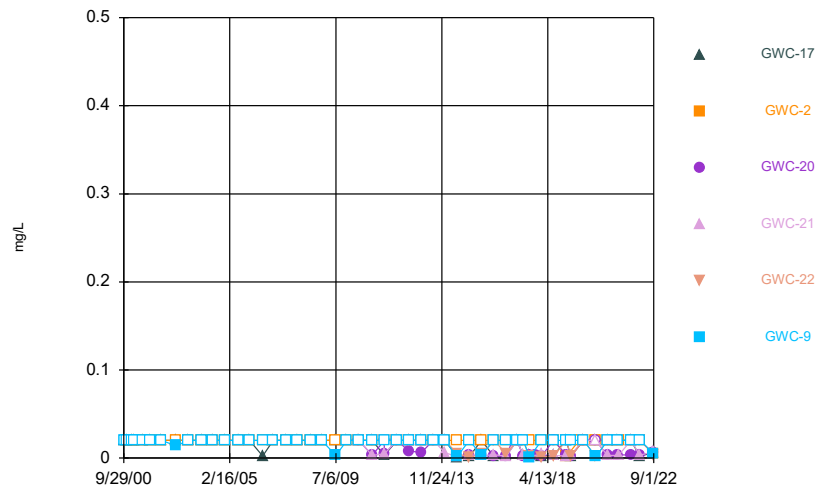
Constituent: Vanadium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



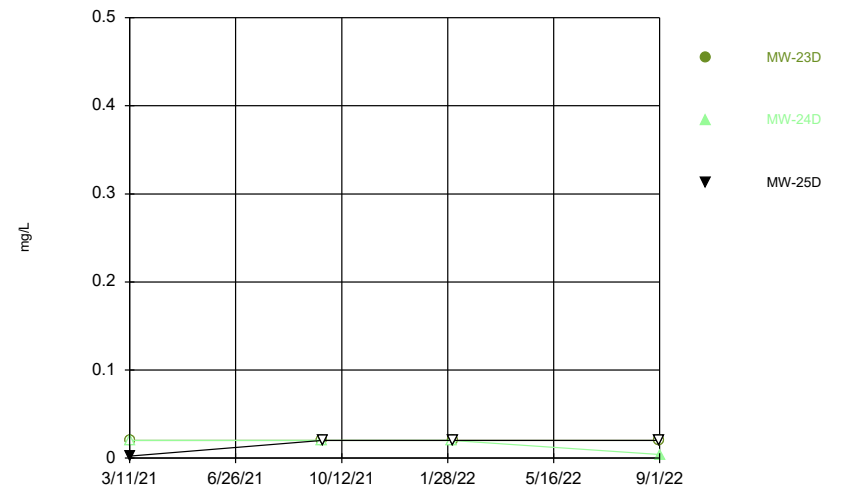
Constituent: Vanadium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



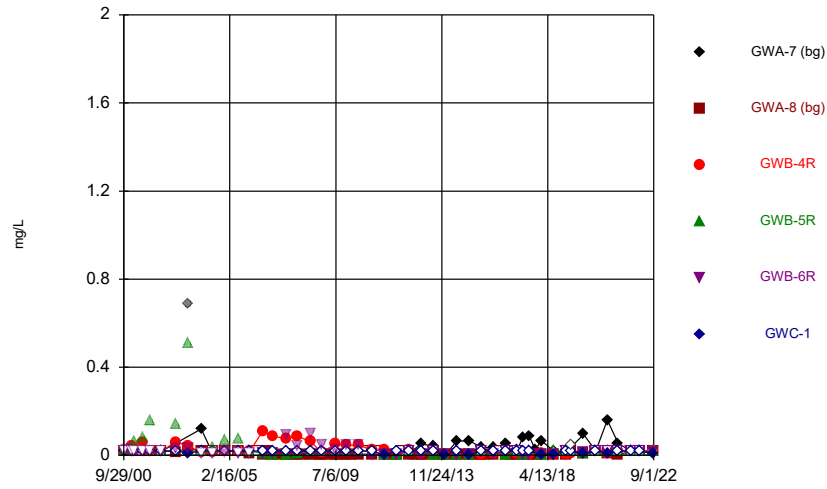
Constituent: Vanadium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



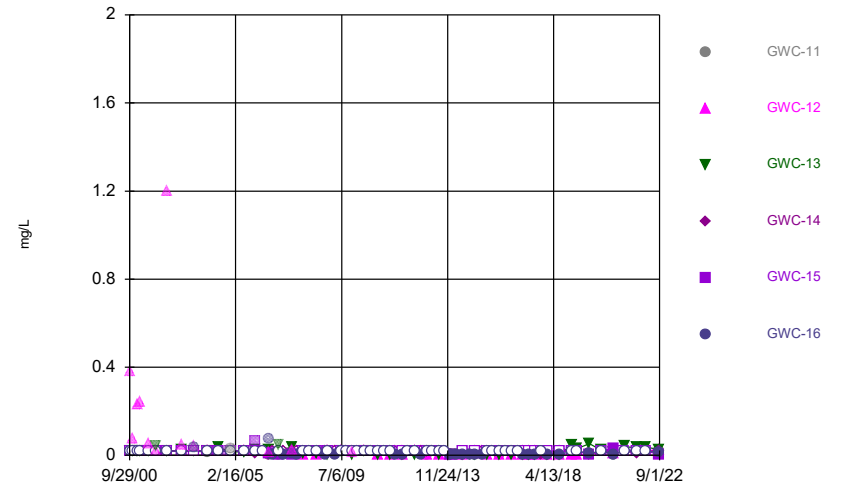
Constituent: Vanadium Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



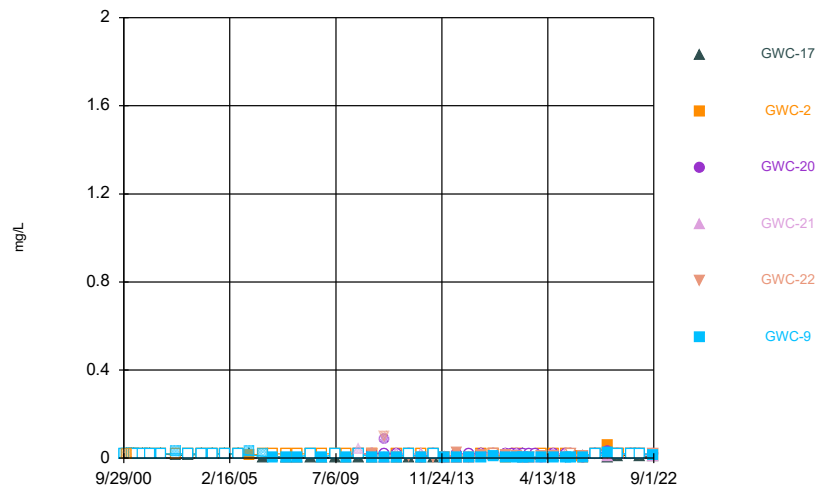
Constituent: Zinc Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



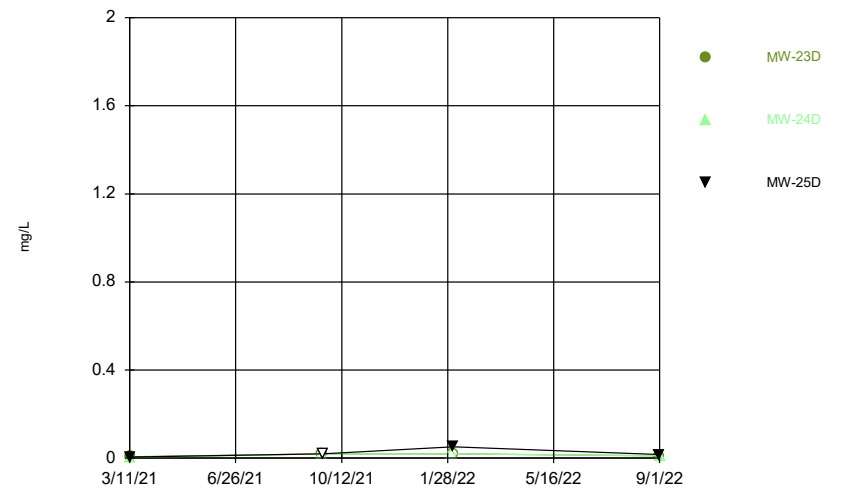
Constituent: Zinc Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Zinc Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Zinc Analysis Run 11/6/2022 9:45 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003		<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002		<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006		<0.003				
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006		<0.003				
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/15/2007		<0.003				
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007		<0.003				
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008		<0.003				
6/23/2008	<0.003	<0.003				
6/24/2008			<0.003	<0.003	<0.003	<0.003
11/3/2008		<0.003				
12/4/2008	<0.003	<0.003				
12/5/2008			<0.003	<0.003	<0.003	<0.003
3/25/2009		<0.003				
7/7/2009	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/14/2009		<0.003				
12/20/2009	<0.003	<0.003				<0.003
12/21/2009			<0.003	<0.003	<0.003	
3/4/2010		<0.003				
6/20/2010	<0.003	<0.003		<0.003	<0.003	<0.003
6/21/2010			<0.003			
9/14/2010		<0.003				
1/6/2011				<0.003		<0.003
1/7/2011	<0.003	<0.003	<0.003		<0.003	
4/15/2011		<0.003				
7/7/2011	<0.003	<0.003		<0.003	<0.003	<0.003
7/8/2011			<0.003			
9/25/2011		<0.003				
1/17/2012	<0.003	<0.003		<0.003		<0.003
1/18/2012			<0.003		<0.003	
4/4/2012		<0.003				
7/9/2012	<0.003			<0.003		<0.003
7/10/2012		<0.003	<0.003		<0.003	
10/9/2012		<0.003				
1/17/2013				<0.003		<0.003
1/18/2013	<0.003	<0.003	<0.003		<0.003	
4/5/2013		<0.003				

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.003		<0.003
7/17/2013	<0.003	<0.003	<0.003		<0.003	
10/11/2013		<0.003				
1/13/2014	<0.003			<0.003		<0.003
1/14/2014		<0.003	<0.003		<0.003	
4/3/2014		<0.003				
7/9/2014	0.0022 (J)	<0.003	0.002 (J)	<0.003	<0.003	<0.003
10/24/2014		<0.003				
1/12/2015			<0.003			
1/13/2015	<0.003			<0.003		<0.003
1/14/2015		<0.003			<0.003	
5/10/2015		<0.003				
7/16/2015	0.0028 (J)		0.0021 (J)	<0.003		<0.003
7/17/2015		<0.003			<0.003	
10/6/2015		<0.003				
1/17/2016						<0.003
1/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003	
4/26/2016		<0.003				
7/27/2016	<0.003			<0.003		<0.003
7/28/2016		<0.003			<0.003	
7/29/2016			0.0003 (J)			
8/30/2016		<0.003		<0.003	<0.003	<0.003
9/1/2016	0.0017 (J)		<0.003			
10/24/2016		<0.003				
10/25/2016	<0.003					<0.003
10/26/2016			<0.003	<0.003	<0.003	
1/3/2017		<0.003		<0.003		
1/4/2017						<0.003
1/5/2017					<0.003	
1/6/2017	0.0009 (J)		<0.003			
4/3/2017		<0.003				
4/4/2017			<0.003			<0.003
4/6/2017	<0.003			<0.003	<0.003	
7/11/2017		<0.003				
7/12/2017			<0.003	<0.003	<0.003	<0.003
7/13/2017	0.0013 (J)					
10/2/2017		<0.003				
10/3/2017				<0.003	<0.003	<0.003
10/4/2017	0.0008 (J)		<0.003			
1/9/2018	<0.003	<0.003			<0.003	
1/10/2018				<0.003		<0.003
1/11/2018			<0.003			
7/9/2018		<0.003				
7/10/2018				<0.003	<0.003	<0.003
7/11/2018	<0.003		<0.003			
1/16/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/25/2019	<0.003	<0.003	<0.003			
3/26/2019				<0.003	<0.003	<0.003
8/26/2019	<0.003	<0.003				
8/27/2019			<0.003		<0.003	<0.003
8/28/2019				0.00054 (J)		
10/7/2019		<0.003				

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	<0.003					
10/9/2019			<0.003	<0.003	<0.003	<0.003
4/6/2020	<0.003	<0.003				
4/7/2020			<0.003	<0.003	<0.003	<0.003
8/17/2020		<0.003				
8/19/2020	<0.003		<0.003	<0.003	<0.003	0.00061 (J)
9/28/2020	<0.003	<0.003				0.00035 (J)
9/30/2020				0.0003 (J)	0.00059 (J)	
10/1/2020			<0.003			
3/10/2021			<0.003	<0.003	0.00029 (J)	0.00069 (J)
3/11/2021	<0.003					
3/12/2021		<0.003				
9/21/2021	<0.003	<0.003	<0.003	0.0013 (J)	<0.003	
9/23/2021						0.0016 (J)
1/31/2022	<0.003	<0.003				
2/2/2022			<0.003		<0.003	
2/3/2022				<0.003		<0.003
8/30/2022	<0.003	<0.003	<0.003	<0.003	<0.003	
9/1/2022						<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006				<0.003		<0.003
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006				<0.003		<0.003
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	0.006
2/15/2007				<0.003		<0.003
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007				<0.003		<0.003
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008				<0.003		<0.003
6/23/2008	<0.003	<0.003	<0.003			
6/24/2008				<0.003	<0.003	<0.003
11/3/2008				<0.003		<0.003
12/4/2008	<0.003	<0.003	<0.003	<0.003		
12/5/2008					<0.003	<0.003
3/25/2009				<0.003		<0.003
7/8/2009	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/14/2009				<0.003		<0.003
12/20/2009				<0.003	<0.003	<0.003
12/21/2009	<0.003	<0.003	<0.003			
3/4/2010				<0.003		<0.003
6/20/2010	<0.003	<0.003	<0.003	<0.003	<0.003	
6/21/2010						<0.003
9/14/2010				<0.003		<0.003
1/6/2011	<0.003		<0.003			
1/7/2011		<0.003		<0.003	<0.003	<0.003
4/15/2011				<0.003		<0.003
7/7/2011	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/25/2011				<0.003		<0.003
1/17/2012	<0.003	<0.003	<0.003	<0.003	<0.003	
1/18/2012						<0.003
4/4/2012				<0.003		<0.003
7/9/2012	<0.003	<0.003	<0.003	<0.003	<0.003	
7/10/2012						<0.003
10/9/2012				<0.003		<0.003
1/17/2013	<0.003	<0.003	<0.003			
1/18/2013				<0.003	<0.003	<0.003
4/5/2013				<0.003		<0.003
7/16/2013	<0.003	<0.003	<0.003			

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.003	<0.003	<0.003
10/11/2013				0.005		<0.003
1/13/2014	<0.003	<0.003	<0.003		<0.003	
1/14/2014				<0.003		<0.003
4/3/2014				<0.003		<0.003
7/8/2014	<0.003	<0.003	<0.003			
7/9/2014				<0.003	<0.003	<0.003
10/24/2014				<0.003		<0.003
1/13/2015	<0.003	<0.003	<0.003		<0.003	
1/14/2015				<0.003		<0.003
5/10/2015				<0.003		
5/11/2015						<0.003
7/16/2015	<0.003	<0.003	<0.003		<0.003	<0.003
7/17/2015				<0.003		
10/6/2015				<0.003		<0.003
1/17/2016				<0.003	<0.003	<0.003
1/18/2016		<0.003	<0.003			
1/19/2016	<0.003					
4/26/2016				<0.003		<0.003
7/26/2016	0.0005 (J)		0.0006 (J)			
7/27/2016		<0.003		<0.003	<0.003	
7/28/2016						<0.003
8/31/2016	<0.003	<0.003	<0.003			
9/1/2016				<0.003	<0.003	<0.003
10/25/2016				<0.003	<0.003	<0.003
10/26/2016	<0.003	<0.003	<0.003			
1/4/2017	<0.003	<0.003				<0.003
1/5/2017			<0.003	<0.003	<0.003	
4/3/2017					<0.003	
4/4/2017				<0.003		
4/5/2017		<0.003				<0.003
4/6/2017	0.0006 (J)		<0.003			
7/10/2017		<0.003				
7/11/2017	0.0009 (J)			<0.003	<0.003	
7/12/2017			<0.003			<0.003
10/2/2017				<0.003	<0.003	
10/3/2017	<0.003					<0.003
10/4/2017		<0.003	<0.003			
1/9/2018				<0.003	<0.003	
1/10/2018			<0.003			<0.003
1/11/2018	0.0007 (J)	<0.003				
7/9/2018				<0.003		
7/10/2018					<0.003	<0.003
7/11/2018	<0.003	<0.003	<0.003			
1/16/2019			<0.003	<0.003		
1/17/2019	<0.003	<0.003			<0.003	<0.003
3/26/2019			<0.003	<0.003	<0.003	<0.003
3/27/2019	<0.003	<0.003				
8/27/2019	0.00033 (J)	<0.003	<0.003	<0.003	<0.003	
8/28/2019						<0.003
10/8/2019	0.00046 (J)		<0.003	<0.003	<0.003	<0.003
10/9/2019		<0.003				

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	0.00066 (J)	<0.003		<0.003	<0.003	<0.003
4/8/2020			<0.003			
8/17/2020		<0.003	<0.003			
8/18/2020	0.00064 (J)			<0.003	<0.003	<0.003
9/28/2020			<0.003			
9/29/2020	0.00051 (J)	<0.003		<0.003		
9/30/2020					<0.003	<0.003
3/10/2021	0.00076 (J)	0.0003 (J)				
3/12/2021					0.0018 (J)	
3/15/2021			<0.003			
3/16/2021				<0.003		<0.003
9/21/2021	<0.003	<0.003	<0.003			
9/22/2021				<0.003		<0.003
9/23/2021					<0.003	
2/1/2022						<0.003
2/2/2022				<0.003		
2/3/2022	<0.003	<0.003	<0.003		<0.003	
8/30/2022		<0.003		<0.003		
8/31/2022	<0.003		<0.003		<0.003	
9/1/2022						<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.003					<0.003
11/21/2000	<0.003	<0.003				<0.003
1/20/2001	<0.003	<0.003				<0.003
3/14/2001	<0.003	<0.003				<0.003
7/16/2001	<0.003	<0.003				<0.003
11/1/2001	<0.003	<0.003				<0.003
4/25/2002	<0.003	<0.003				<0.003
11/20/2002	<0.003	<0.003				<0.003
6/6/2003	<0.003	<0.003				<0.003
12/12/2003	<0.003	<0.003				<0.003
5/26/2004	<0.003	<0.003				<0.003
12/7/2004	<0.003	<0.003				<0.003
6/21/2005	<0.003	<0.003				<0.003
12/12/2005	<0.003	<0.003				<0.003
6/27/2006	<0.003	<0.003				<0.003
12/4/2006	<0.003	<0.003				<0.003
6/23/2007	<0.003	<0.003				<0.003
12/11/2007	<0.003	<0.003				<0.003
6/23/2008						<0.003
6/24/2008	<0.003	<0.003				
12/4/2008		<0.003				<0.003
12/5/2008	<0.003					
7/8/2009	<0.003	<0.003				<0.003
12/20/2009		<0.003				
12/21/2009	<0.003					<0.003
6/20/2010		<0.003				<0.003
6/21/2010	<0.003		<0.003	<0.003	<0.003	
1/6/2011		<0.003				
1/7/2011	<0.003		<0.003	<0.003	<0.003	<0.003
7/7/2011			<0.003			
7/8/2011	<0.003		<0.003	<0.003	<0.003	<0.003
1/17/2012		<0.003				
1/18/2012	<0.003		<0.003	<0.003	<0.003	<0.003
7/9/2012		<0.003				
7/10/2012	<0.003		<0.003	<0.003	<0.003	<0.003
1/17/2013		<0.003				
1/18/2013	<0.003		<0.003	<0.003	<0.003	<0.003
7/17/2013	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/13/2014		<0.003				
1/14/2014	<0.003		<0.003	<0.003	<0.003	<0.003
7/9/2014	<0.003	<0.003		<0.003		<0.003
7/10/2014			<0.003		<0.003	
1/12/2015			<0.003			
1/13/2015		<0.003				
1/14/2015	<0.003			<0.003	<0.003	<0.003
7/16/2015		<0.003				
7/17/2015				<0.003		<0.003
7/18/2015	<0.003		<0.003		<0.003	
1/17/2016		<0.003	<0.003	<0.003		
1/18/2016	<0.003				<0.003	<0.003
7/27/2016		<0.003				
7/28/2016			0.0019 (J)	<0.003		<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	<0.003				<0.003	
8/31/2016		<0.003			<0.003	<0.003
9/1/2016	<0.003		<0.003	<0.003		
10/25/2016			<0.003	<0.003		
10/26/2016	<0.003	<0.003			<0.003	
10/27/2016						0.0016 (J)
1/4/2017			<0.003	<0.003	<0.003	
1/5/2017	<0.003	<0.003				
1/6/2017						<0.003
4/4/2017		<0.003	<0.003	<0.003		
4/5/2017	<0.003					
4/6/2017					<0.003	<0.003
7/11/2017			<0.003		<0.003	
7/12/2017						<0.003
7/13/2017	<0.003	<0.003		<0.003		
10/2/2017			<0.003			
10/3/2017		<0.003		<0.003		
10/4/2017	<0.003				<0.003	<0.003
1/9/2018				<0.003		
1/10/2018		<0.003	<0.003			
1/11/2018	<0.003				<0.003	<0.003
7/9/2018			<0.003			
7/10/2018		<0.003		<0.003		
7/11/2018	<0.003				<0.003	<0.003
1/16/2019	<0.003					
1/17/2019				<0.003		
1/18/2019					<0.003	<0.003
1/21/2019		<0.003	<0.003			
3/25/2019			<0.003			
3/26/2019	<0.003			<0.003		
3/27/2019					<0.003	<0.003
7/30/2019		<0.003				
8/27/2019		<0.003			0.00045 (J)	
8/28/2019	<0.003		<0.003	<0.003		<0.003
10/8/2019				<0.003		
10/9/2019	<0.003	<0.003	<0.003		<0.003	<0.003
4/7/2020				<0.003	0.00049 (J)	
4/8/2020	<0.003	0.0013 (J)	<0.003			0.00033 (J)
8/18/2020	<0.003	<0.003	<0.003	<0.003	0.0022 (J)	
8/19/2020						<0.003
9/29/2020		0.0016 (J)				
9/30/2020	<0.003		<0.003	0.00033 (J)	0.0016 (J)	
10/1/2020						<0.003
3/10/2021					0.0004 (J)	<0.003
3/11/2021	0.00039 (J)					
3/12/2021			0.00065 (J)			
3/15/2021		<0.003				
3/16/2021				<0.003		
9/21/2021					<0.003	
9/22/2021	0.0014 (J)	<0.003	<0.003	<0.003		<0.003
2/1/2022	<0.003		<0.003	<0.003		
2/2/2022		<0.003				<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.003	
8/30/2022			<0.003	<0.003		
8/31/2022	<0.003				<0.003	
9/1/2022		<0.003				<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.003	<0.003	<0.003
9/22/2021	<0.003	<0.003	
9/23/2021			<0.003
2/1/2022		<0.003	
2/3/2022	<0.003		<0.003
8/31/2022	<0.003		<0.003
9/1/2022		<0.003	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.01	<0.005	0.014	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	0.014	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	0.023	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		<0.005	0.0096	0.022	0.014	<0.005
6/6/2003	0.02	<0.005	0.0076	0.07 (O)	0.014	0.03 (O)
12/12/2003	<0.005	<0.005	0.0058	<0.005	<0.005	<0.005
5/26/2004	<0.005	<0.005	0.0068	0.0074	0.0082	<0.005
12/7/2004	<0.005	<0.005	0.0066	0.017	0.0062	<0.005
6/21/2005	<0.005	<0.005	<0.005	0.013	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006		<0.005				
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005				
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007		<0.005				
6/23/2007	<0.005	<0.005	<0.005	<0.005	0.0053	<0.005
9/11/2007		<0.005				
12/11/2007	<0.005	<0.005	<0.005	<0.005	0.0057	<0.005
3/11/2008		<0.005				
6/23/2008	<0.005	<0.005				
6/24/2008			0.005	<0.005	0.012	<0.005
11/3/2008		<0.005				
12/4/2008	<0.005	<0.005				
12/5/2008			<0.005	<0.005	0.0064	<0.005
3/25/2009		<0.005				
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/14/2009		<0.005				
12/20/2009	<0.005	<0.005				<0.005
12/21/2009			<0.005	<0.005	<0.005	
3/4/2010		<0.005				
6/20/2010	<0.005	<0.005		<0.005	0.017	<0.005
6/21/2010			0.018 (O)			
9/14/2010		<0.005				
1/6/2011				<0.005		<0.005
1/7/2011	<0.005	<0.005	<0.005		<0.005	
4/15/2011		<0.005				
7/7/2011	<0.005	<0.005		<0.005	<0.005	<0.005
7/8/2011			<0.005			
9/25/2011		<0.005				
1/17/2012	<0.005	<0.005		<0.005		0.0071
1/18/2012			<0.005		<0.005	
4/4/2012		<0.005				
7/9/2012	0.0052			<0.005		0.0076
7/10/2012		<0.005	0.0052		<0.005	
10/9/2012		<0.005				
1/17/2013				<0.005		0.0086
1/18/2013	0.0087	<0.005	<0.005		<0.005	
4/5/2013		<0.005				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.005		<0.005
7/17/2013	0.0084	<0.005	<0.005		<0.005	
10/11/2013		<0.005				
1/13/2014	0.009			<0.005		<0.005
1/14/2014		<0.005	<0.005		<0.005	
4/3/2014		<0.005				
7/9/2014	0.008	<0.005	0.0023 (J)	<0.005	<0.005	0.0022 (J)
10/24/2014		<0.005				
1/12/2015			0.0028 (J)			
1/13/2015	0.0077			<0.005		<0.005
1/14/2015		<0.005			<0.005	
5/10/2015		<0.005				
7/16/2015	0.0077		<0.005	<0.005		0.0037 (J)
7/17/2015		<0.005			<0.005	
10/6/2015		<0.005				
1/17/2016						0.024 (O)
1/18/2016	0.014	<0.005	<0.005	<0.005	<0.005	
4/26/2016		0.0011 (J)				
7/27/2016	0.0111			0.0008 (J)		0.0046 (J)
7/28/2016		<0.005			0.0009 (J)	
7/29/2016			0.0014 (J)			
8/30/2016		<0.005		<0.005	<0.005	0.0023 (J)
9/1/2016	0.0287		0.0033 (J)			
10/24/2016		<0.005				
10/25/2016	0.0069					0.0035 (J)
10/26/2016			0.0016 (J)	<0.005	<0.005	
1/3/2017		<0.005		<0.005		
1/4/2017						0.0018 (J)
1/5/2017					0.0021 (J)	
1/6/2017	0.0097		<0.005			
4/3/2017		0.0006 (J)				
4/4/2017			0.0021 (J)			0.0015 (J)
4/6/2017	0.0104			0.0006 (J)	0.0011 (J)	
7/11/2017		0.0006 (J)				
7/12/2017			0.0015 (J)	0.0009 (J)	0.0014 (J)	0.0015 (J)
7/13/2017	0.0064					
10/2/2017		0.0006 (J)				
10/3/2017				0.001 (J)	0.0014 (J)	0.0013 (J)
10/4/2017	0.0078		0.0018 (J)			
1/9/2018	0.0091 (J)	0.0009 (J)			0.0017 (J)	
1/10/2018				0.0012 (J)		0.0023 (J)
1/11/2018			0.0015 (J)			
7/9/2018		<0.005				
7/10/2018				0.0016 (J)	0.00063 (J)	0.0031 (J)
7/11/2018	<0.005		0.00095 (J)			
1/16/2019	<0.005	<0.005	0.0024 (J)	0.0011 (J)	<0.005	0.0023 (J)
3/25/2019	0.0029 (J)	<0.005	0.0029 (J)			
3/26/2019				0.0014 (J)	0.0029 (J)	0.0032 (J)
8/26/2019	0.0041 (J)	<0.005				
8/27/2019			0.0023 (J)		0.0035 (J)	0.0022 (J)
8/28/2019				0.0023 (J)		
10/7/2019		<0.005				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.003 (J)					
10/9/2019			0.0024 (J)	0.0053 (J)	0.0018 (J)	0.0042 (J)
4/6/2020	<0.005	0.00045 (J)				
4/7/2020			0.0027 (J)	0.0011 (J)	<0.005	0.027
8/17/2020		<0.005				
8/19/2020	0.006 (J)		0.0033 (J)	0.0019 (J)	0.0036 (J)	0.007
9/28/2020	<0.005	<0.005				0.0058
9/30/2020				0.0017 (J)	0.004 (J)	
10/1/2020			0.0027 (J)			
3/10/2021			0.0025 (J)	0.0019 (J)	0.0054	0.0055
3/11/2021	0.0047 (J)					
3/12/2021		<0.005				
9/21/2021	<0.005	<0.005	0.0027 (J)	<0.005	0.0054	
9/23/2021						0.0048 (J)
1/31/2022	<0.005	<0.005				
2/2/2022			0.0036 (J)		0.01	
2/3/2022				0.0029 (J)		0.0057
8/30/2022	0.00321 (J)	<0.005	0.0049 (J)	0.00253 (J)	0.00716	
9/1/2022						0.00568

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	0.094
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	0.059
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.087
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.075
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.11
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.098
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	0.071
11/20/2002	<0.005	<0.005	<0.005	0.011	<0.005	0.15
6/6/2003	<0.005	<0.005	<0.005	<0.005	<0.005	1.2 (O)
12/12/2003	<0.005	<0.005	0.0064	<0.005	<0.005	0.27 (O)
5/26/2004	<0.005	<0.005	<0.005	<0.005	<0.005	0.12
12/7/2004	<0.005	<0.005	<0.005	<0.005	<0.005	0.098
6/21/2005	<0.005	<0.005	<0.005	<0.005	<0.005	0.065
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	0.081
4/4/2006				<0.005		0.077
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	0.071
8/30/2006				<0.005		0.08
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	0.085
2/15/2007				<0.005		0.09
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	0.12
9/11/2007				<0.005		0.088
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	0.088
3/11/2008				<0.005		0.071
6/23/2008	<0.005	<0.005	<0.005			
6/24/2008				<0.005	<0.005	0.097
11/3/2008				<0.005		0.089
12/4/2008	<0.005	<0.005	<0.005	<0.005		
12/5/2008					<0.005	0.092
3/25/2009				<0.005		0.095
7/8/2009	<0.005	<0.005	<0.005	<0.005	0.0052	0.11
9/14/2009				<0.005		0.099
12/20/2009				<0.005	<0.005	0.1
12/21/2009	<0.005	<0.005	<0.005			
3/4/2010				<0.005		0.074
6/20/2010	<0.005	<0.005	<0.005	<0.005	0.0068	
6/21/2010						0.056
9/14/2010				<0.005		0.067
1/6/2011	<0.005		<0.005			
1/7/2011		<0.005		<0.005	<0.005	0.066
4/15/2011				<0.005		0.08
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	0.054
9/25/2011				<0.005		0.085
1/17/2012	<0.005	<0.005	<0.005	<0.005	<0.005	
1/18/2012						0.089
4/4/2012				<0.005		0.0473
7/9/2012	<0.005	<0.005	<0.005	<0.005	<0.005	
7/10/2012						0.07
10/9/2012				<0.005		0.088
1/17/2013	<0.005	<0.005	<0.005			
1/18/2013				<0.005	0.0089	0.063
4/5/2013				<0.005		0.06
7/16/2013	<0.005	<0.005	<0.005			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.005	0.011	0.063
10/11/2013				0.005		0.059
1/13/2014	<0.005	<0.005	<0.005		0.017	
1/14/2014				<0.005		0.077
4/3/2014				<0.005		0.091
7/8/2014	<0.005	<0.005	<0.005			
7/9/2014				<0.005	0.014	0.08
10/24/2014				<0.005		0.073
1/13/2015	<0.005	<0.005	<0.005		0.011	
1/14/2015				<0.005		0.079
5/10/2015				<0.005		
5/11/2015						0.058
7/16/2015	<0.005	<0.005	<0.005		0.02	0.068
7/17/2015				<0.005		
10/6/2015				<0.005		0.078
1/17/2016				0.002 (J)	0.014	0.089
1/18/2016		<0.005	<0.005			
1/19/2016	<0.005					
4/26/2016				0.00183 (J)		0.0731
7/26/2016	<0.005		<0.005			
7/27/2016		<0.005		0.0021 (J)	0.0303	
7/28/2016						0.0627
8/31/2016	<0.005	<0.005	<0.005			
9/1/2016				0.0024 (J)	0.0533	0.0551
10/25/2016				<0.005	0.0551	0.0466
10/26/2016	<0.005	<0.005	<0.005			
1/4/2017	<0.005	<0.005				0.0444
1/5/2017			<0.005	0.0024 (J)	0.0437	
4/3/2017					0.0713	
4/4/2017				0.003 (J)		
4/5/2017		0.0006 (J)				0.0591
4/6/2017	<0.005		<0.005			
7/10/2017		0.0008 (J)				
7/11/2017	<0.005			0.0019 (J)	0.0745	
7/12/2017			<0.005			0.0776
10/2/2017				0.0026 (J)	0.0723	
10/3/2017	<0.005					0.0813
10/4/2017		0.0009 (J)	<0.005			
1/9/2018				0.0021 (J)	0.0731	
1/10/2018			0.0006 (J)			0.085
1/11/2018	<0.005	<0.005				
7/9/2018				0.0019 (J)		
7/10/2018					0.09	0.067
7/11/2018	<0.005	<0.005	<0.005			
1/16/2019			<0.005	0.0016 (J)		
1/17/2019	<0.005	<0.005			0.13	0.079
3/26/2019			0.00058 (J)	0.0023 (J)	0.1	0.089
3/27/2019	<0.005	<0.005				
8/27/2019	<0.005	<0.005	<0.005	0.0017 (J)	0.17	
8/28/2019						0.091
10/8/2019	<0.005		<0.005	0.0017 (J)	0.13	0.088
10/9/2019		<0.005				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	<0.005	<0.005		0.0018 (J)	0.24	0.091
4/8/2020			<0.005			
8/17/2020		<0.005	<0.005			
8/18/2020	<0.005			0.0012 (J)	0.28	0.045
9/28/2020			<0.005			
9/29/2020	<0.005	<0.005		<0.005		
9/30/2020					0.24	0.044
3/10/2021	<0.005	<0.005				
3/12/2021					0.16	
3/15/2021			<0.005			
3/16/2021				<0.005		0.064
9/21/2021	<0.005	<0.005	<0.005			
9/22/2021				0.0014 (J)		0.081
9/23/2021					0.21	
2/1/2022						0.095
2/2/2022				0.0036 (J)		
2/3/2022	<0.005	0.0016 (J)	0.0025 (J)		0.23	
8/30/2022		<0.005		<0.005		
8/31/2022	<0.005		<0.005		0.259	
9/1/2022						0.0987

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005					<0.005
11/21/2000	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005				<0.005
11/20/2002	<0.005	<0.005				<0.005
6/6/2003	<0.005	<0.005				<0.005
12/12/2003	<0.005	<0.005				<0.005
5/26/2004	<0.005	<0.005				<0.005
12/7/2004	<0.005	<0.005				<0.005
6/21/2005	<0.005	<0.005				<0.005
12/12/2005	<0.005	<0.005				<0.005
6/27/2006	<0.005	<0.005				<0.005
12/4/2006	<0.005	<0.005				<0.005
6/23/2007	<0.005	<0.005				<0.005
12/11/2007	<0.005	<0.005				<0.005
6/23/2008						<0.005
6/24/2008	<0.005	<0.005				
12/4/2008		<0.005				<0.005
12/5/2008	<0.005					
7/8/2009	<0.005	<0.005				<0.005
12/20/2009		<0.005				
12/21/2009	<0.005					<0.005
6/20/2010		<0.005				<0.005
6/21/2010	<0.005		0.29	0.013 (O)	<0.005	
1/6/2011		<0.005				
1/7/2011	<0.005		0.2	<0.005	<0.005	<0.005
7/7/2011			<0.005			
7/8/2011	<0.005		0.19	<0.005	<0.005	<0.005
1/17/2012		<0.005				
1/18/2012	<0.005		0.058	<0.005	<0.005	<0.005
7/9/2012		<0.005				
7/10/2012	<0.005		0.18	<0.005	<0.005	<0.005
1/17/2013		<0.005				
1/18/2013	<0.005		0.22	0.0061	<0.005	<0.005
7/17/2013	<0.005	<0.005	0.45	<0.005	<0.005	<0.005
1/13/2014		<0.005				
1/14/2014	<0.005		0.52	0.006	<0.005	<0.005
7/9/2014	<0.005	<0.005		<0.005		<0.005
7/10/2014			0.4		0.0027 (J)	
1/12/2015			0.43			
1/13/2015		<0.005				
1/14/2015	<0.005			<0.005	<0.005	<0.005
7/16/2015		<0.005				
7/17/2015				<0.005		<0.005
7/18/2015	<0.005		0.26		<0.005	
1/17/2016		<0.005	0.34	0.0065		
1/18/2016	<0.005				<0.005	<0.005
7/27/2016		<0.005				
7/28/2016			0.209	<0.005		<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0009 (J)				0.002 (J)	
8/31/2016		<0.005			0.0017 (J)	<0.005
9/1/2016	<0.005		0.215	0.0039 (J)		
10/25/2016			0.307	<0.005		
10/26/2016	<0.005	<0.005			<0.005	
10/27/2016						<0.005
1/4/2017			0.311	<0.005	<0.005	
1/5/2017	<0.005	<0.005				
1/6/2017						<0.005
4/4/2017		<0.005	0.317	0.0031 (J)		
4/5/2017	0.0011 (J)					
4/6/2017					0.0006 (J)	<0.005
7/11/2017			0.299		0.0012 (J)	
7/12/2017						<0.005
7/13/2017	0.0016 (J)	<0.005		<0.005		
10/2/2017			0.216			
10/3/2017		<0.005		<0.005		
10/4/2017	0.0019 (J)				0.0025 (J)	<0.005
1/9/2018				0.0033 (J)		
1/10/2018		0.0006 (J)	0.347			
1/11/2018	0.0015 (J)				0.0006 (J)	<0.005
7/9/2018			0.37			
7/10/2018		<0.005		0.0027 (J)		
7/11/2018	0.00082 (J)				0.0011 (J)	<0.005
1/16/2019	<0.005					
1/17/2019				0.0022 (J)		
1/18/2019					<0.005	<0.005
1/21/2019		<0.005	0.44			
3/25/2019			0.41			
3/26/2019	0.0015 (J)			0.0045 (J)		
3/27/2019					<0.005	<0.005
7/30/2019		0.00039 (J)				
8/27/2019		<0.005			0.00044 (J)	
8/28/2019	0.0011 (J)		0.43	0.002 (J)		<0.005
10/8/2019				0.0028 (J)		
10/9/2019	0.0011 (J)	<0.005	0.35		<0.005	<0.005
4/7/2020				<0.005	0.00043 (J)	
4/8/2020	0.0013 (J)	0.00094 (J)	0.33			0.00084 (J)
8/18/2020	<0.005	<0.005	0.3	0.0059	<0.005	
8/19/2020						<0.005
9/29/2020		<0.005				
9/30/2020	0.0012 (J)		0.31	0.0029 (J)	<0.005	
10/1/2020						<0.005
3/10/2021					<0.005	<0.005
3/11/2021	0.0009 (J)					
3/12/2021			0.27			
3/15/2021		<0.005				
3/16/2021				0.0098		
9/21/2021					<0.005	
9/22/2021	<0.005	<0.005	0.23	<0.005		<0.005
2/1/2022	<0.005		0.22	0.02		
2/2/2022		<0.005				<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.005	
8/30/2022			0.465	0.0271		
8/31/2022	<0.005				<0.005	
9/1/2022		<0.005				<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			<0.005
1/21/2021	<0.005	<0.005	
3/11/2021	<0.005	<0.005	0.00092 (J)
9/22/2021	<0.005	<0.005	
9/23/2021			<0.005
2/1/2022		<0.005	
2/3/2022	<0.005		<0.005
8/31/2022	<0.005		<0.005
9/1/2022		<0.005	

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	0.11	0.16	0.16	0.22	0.16	0.044
11/21/2000	0.12		0.16	0.13	0.21	0.047
1/20/2001	0.11	0.18	0.21	0.19	0.23	0.051
3/14/2001	0.11	0.14	0.18	0.27	0.22	0.048
7/16/2001	0.11	0.14	0.18	0.37	0.22	0.054
11/1/2001	0.11	0.14	0.15	0.61 (O)	0.23	0.063
4/25/2002	0.058	0.088	0.16	0.19	0.15	0.032
6/6/2003	0.19	0.14	0.29	0.72 (O)	0.13	0.046
12/12/2003	0.1	0.13	0.18	0.054	0.034	0.034
5/26/2004	0.084	0.09	0.16	0.18	0.13	0.035
12/7/2004	0.094	0.11	0.16	0.24	0.13	0.024
6/21/2005	0.089	0.084	0.15	0.2	0.07	0.039
12/12/2005	0.089	0.1	0.15	0.074	0.04	0.042
4/4/2006		0.089				
6/27/2006	0.096	0.1	0.19	0.075	0.041	0.033
8/30/2006		0.12				
12/4/2006	0.092	0.086	0.26	0.092	0.048	0.04
2/15/2007		0.088				
6/23/2007	0.08	0.089	0.24	0.089	0.12	0.044
9/11/2007		0.092				
12/11/2007	0.067	0.077	0.21	0.072	0.12	0.049
3/11/2008		0.082				
6/23/2008	0.056	0.086				
6/24/2008			0.13	0.049	0.17	0.038
11/3/2008		0.088				
12/4/2008	0.054	0.081				
12/5/2008			0.12	0.067	0.093	0.06
3/25/2009		0.069				
7/7/2009	0.034	0.078	0.17	0.04	0.06	0.043
9/14/2009		0.079				
12/20/2009	0.034	0.081				0.065
12/21/2009			0.2	0.044	0.11	
3/4/2010		0.065				
6/20/2010	0.062	0.078		0.036	0.11	0.095
6/21/2010			0.22			
9/14/2010		0.076				
1/6/2011				0.075		0.093
1/7/2011	0.039	0.074	0.12		0.025	
4/15/2011		0.065				
7/7/2011	0.036	0.081		0.13	0.025	0.095
7/8/2011			0.15			
9/25/2011		0.078				
1/17/2012	0.041	0.082		0.21		0.1
1/18/2012			0.15		0.03	
4/4/2012		0.0861				
7/9/2012	0.15			0.2		0.11
7/10/2012		0.082	0.14		0.028	
10/9/2012		0.09				
1/17/2013				0.19		0.12
1/18/2013	0.15	0.083	0.15		0.058	
4/5/2013		0.078				
7/16/2013				0.076		0.081

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/17/2013	0.13	0.083	0.14		0.086	
10/11/2013		0.078				
1/13/2014	0.16			0.14		0.096
1/14/2014		0.081	0.16		0.1	
4/3/2014		0.077				
7/9/2014	0.11	0.073	0.12	0.12	0.082	0.066
10/24/2014		0.087				
1/12/2015			0.13			
1/13/2015	0.083			0.13		0.068
1/14/2015		0.079			0.094	
5/10/2015		0.076				
7/16/2015	0.094		0.11	0.12		0.07
7/17/2015		0.061			0.11	
10/6/2015		0.067				
1/17/2016						0.062
1/18/2016	0.22	0.068	0.095	0.12	0.11	
4/26/2016		0.0596				
7/27/2016	0.192			0.112		0.0417
7/28/2016		0.0701			0.105	
7/29/2016			0.0883			
8/30/2016		0.0687		0.135	0.106	0.0545
9/1/2016	0.415 (O)		0.123			
10/24/2016		0.07				
10/25/2016	0.173					0.0504
10/26/2016			0.0863	0.103	0.107	
1/3/2017		0.061		0.118		
1/4/2017						0.0534
1/5/2017					0.107	
1/6/2017	0.167		0.0758			
4/3/2017		0.0612				
4/4/2017			0.091			0.0549
4/6/2017	0.136			0.162	0.111	
7/11/2017		0.0624				
7/12/2017			0.0941	0.157	0.106	0.0614
7/13/2017	0.0891					
10/2/2017		0.0618				
10/3/2017				0.127	0.105	0.0436
10/4/2017	0.113		0.0994			
1/9/2018	0.0901	0.0574			0.0969	
1/10/2018				0.158		0.053
1/11/2018			0.088			
7/9/2018		0.056				
7/10/2018				0.31	0.087	0.059
7/11/2018	0.065		0.071			
1/16/2019	0.062	0.062	0.083	0.054	0.013 (J)	0.054
3/25/2019	0.054	0.064	0.077			
3/26/2019				0.057	0.012 (J)	0.055
8/26/2019	0.11	0.065				
8/27/2019			0.076		0.013	0.054
8/28/2019				0.1		
10/7/2019		0.069				
10/8/2019	0.1					

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/9/2019			0.076	0.13	0.014 (J)	0.058
4/6/2020	0.072	0.057				
4/7/2020			0.09	0.098	0.01 (J)	0.05
8/17/2020		0.051				
8/19/2020	0.1		0.076	0.1	0.064	0.057
9/28/2020	0.095	0.05				0.051
9/30/2020				0.16	0.092	
10/1/2020			0.077			
3/10/2021			0.07	0.096	0.027	0.052
3/11/2021	0.07					
3/12/2021		0.052				
9/21/2021	0.073	0.049	0.098	0.076	0.077	
9/23/2021						0.062
1/31/2022	0.1	0.051				
2/2/2022			0.17		0.026	
2/3/2022				0.062		0.051
8/30/2022	0.133	0.0512	0.134	0.051	0.0266	
9/1/2022						0.0583

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	0.1	0.075	<0.005	0.11	0.028	0.076
11/21/2000	0.082	0.072	0.01	0.15	0.035	0.075
1/20/2001	0.083	0.086	<0.005	0.1	0.032	0.053
3/14/2001	0.075	0.088	0.01	0.095	0.036	0.055
7/16/2001	0.091	0.084	<0.005	0.28 (O)	0.036	0.041
11/1/2001	0.068	0.13	<0.005	0.16	0.036	0.045
4/25/2002	0.066	0.24 (O)	<0.005	0.054	0.045	0.055
6/6/2003	0.085	0.28 (O)	0.028	0.063	0.083 (O)	0.48 (O)
12/12/2003	0.072	0.27 (O)	0.019	0.041	0.094 (O)	0.13 (O)
5/26/2004	0.055	0.31 (O)	<0.005	0.059	0.034	0.055
12/7/2004	0.066	0.46 (O)	0.009	0.076	0.042	0.072
6/21/2005	0.033	0.053	0.0089	0.042	0.039	0.061
12/12/2005	0.034	0.1	0.026	0.048	0.043	0.047
4/4/2006				0.05		0.042
6/27/2006	0.029	0.098	0.029	0.036	0.031	0.042
8/30/2006				0.059		0.05
12/4/2006	0.02	0.068	0.017	0.062	0.043	0.044
2/15/2007				0.079		0.041
6/23/2007	0.017	0.042	0.014	0.03	0.031	0.044
9/11/2007				0.053		0.04
12/11/2007	0.013	0.04	0.011	0.075	0.044	0.0035
3/11/2008				0.052		0.034
6/23/2008	0.012	0.041	0.018			
6/24/2008				0.039	0.057	0.042
11/3/2008				0.082		0.049
12/4/2008	0.011	0.035	0.019	0.079		
12/5/2008					0.041	0.05
3/25/2009				0.093		0.052
7/8/2009	0.012	0.036	0.011	0.039	0.058	0.046
9/14/2009				0.061		0.048
12/20/2009				0.088	0.062	0.062
12/21/2009	0.011	0.028	0.01			
3/4/2010				0.077		0.058
6/20/2010	0.0089	0.025	0.0081	0.075	0.03	
6/21/2010						0.041
9/14/2010				0.093		0.036
1/6/2011	0.014		0.012			
1/7/2011		0.037		0.13	0.049	0.054
4/15/2011				0.086		0.049
7/7/2011	0.018	0.039	0.015	0.051	0.05	0.063
9/25/2011				0.056		0.037
1/17/2012	0.23	0.045	0.0086	0.052	0.044	
1/18/2012						0.034
4/4/2012				0.0519		0.0446
7/9/2012	0.17	0.032	0.01	0.048	0.045	
7/10/2012						0.033
10/9/2012				0.065		0.041
1/17/2013	0.2	0.033	0.014			
1/18/2013				0.045	0.049	0.036
4/5/2013				0.047		0.036
7/16/2013	0.11	0.027	0.012			
7/17/2013				0.032	0.039	0.054

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
10/11/2013				0.028		0.052
1/13/2014	0.083	0.027	0.015		0.038	
1/14/2014				0.036		0.051
4/3/2014				0.038		0.047
7/8/2014	0.066	0.037	0.017			
7/9/2014				0.03	0.031	0.08
10/24/2014				0.025		0.072
1/13/2015	0.053	0.023	0.019		0.041	
1/14/2015				0.04		0.047
5/10/2015				0.026		
5/11/2015						0.053
7/16/2015	0.052	0.03	0.022		0.041	0.059
7/17/2015				0.029		
10/6/2015				0.03		0.053
1/17/2016				0.038	0.048	0.056
1/18/2016		0.032	0.026			
1/19/2016	0.048					
4/26/2016				0.025		0.0721
7/26/2016	0.051		0.0236			
7/27/2016		0.0191		0.0248	0.0487	
7/28/2016						0.0534
8/31/2016	0.0565	0.019	0.0273			
9/1/2016				0.0346	0.0403	0.0445
10/25/2016				0.0248	0.0329	0.0464
10/26/2016	0.0591	0.0197	0.0238			
1/4/2017	0.0598	0.0174				0.0379
1/5/2017			0.0218	0.0245	0.0392	
4/3/2017					0.0439	
4/4/2017				0.0342		
4/5/2017		0.0174				0.0534
4/6/2017	0.0813		0.0204			
7/10/2017		0.0172				
7/11/2017	0.0302			0.0276	0.051	
7/12/2017			0.0161			0.0944
10/2/2017				0.0274	0.047	
10/3/2017	0.103					0.135 (O)
10/4/2017		0.0162	0.0185			
1/9/2018				0.0222	0.0431	
1/10/2018			0.0166			0.0603
1/11/2018	0.166	0.018				
7/9/2018				0.026		
7/10/2018					0.047	0.16 (O)
7/11/2018	0.12	0.014	0.019			
1/16/2019			0.019	0.028		
1/17/2019	0.039	0.017			0.042	0.13
3/26/2019			0.026	0.034	0.047	0.14
3/27/2019	0.053	0.017				
8/27/2019	0.12	0.017	0.024	0.067	0.049	
8/28/2019						0.09
10/8/2019	0.13		0.024	0.085	0.057	0.13
10/9/2019		0.019				
4/7/2020	0.14	0.017		0.073	0.033	0.13

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/8/2020			0.027			
8/17/2020		0.018	0.024			
8/18/2020	0.12			0.028	0.03	0.32
9/28/2020			0.029			
9/29/2020	0.14	0.018		0.026		
9/30/2020					0.034	0.14
3/10/2021	0.13	0.028				
3/12/2021					0.038	
3/15/2021			0.034			
3/16/2021				0.037		0.16
9/21/2021	0.12	0.023	0.037			
9/22/2021				0.11		0.26
9/23/2021					0.062	
2/1/2022						0.23
2/2/2022				0.1		
2/3/2022	0.17	0.025	0.038		0.061	
8/30/2022		0.0275		0.0773		
8/31/2022	0.115		0.0379		0.055	
9/1/2022						0.165

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	0.16					0.093
11/21/2000	0.17	0.046				0.095
1/20/2001	0.16	0.036				0.089
3/14/2001	0.17	0.03				0.088
7/16/2001	0.19	0.032				0.096
11/1/2001	0.18	0.029				0.094
4/25/2002	0.15	0.021				0.085
6/6/2003	0.13	0.032				0.09
12/12/2003	0.18	0.021				0.084
5/26/2004	0.17	0.035				0.08
12/7/2004	0.19	0.031				0.098
6/21/2005	0.18	0.028				0.084
12/12/2005	0.17	0.024				0.07
6/27/2006	0.17	0.03				0.083
12/4/2006	0.21	0.031				0.072
6/23/2007	0.17	0.037				0.087
12/11/2007	0.18	0.034				0.082
6/23/2008						0.1
6/24/2008	0.14	0.038				
12/4/2008		0.038				0.12
12/5/2008	0.19					
7/8/2009	0.2	0.053				0.14
12/20/2009		0.047				
12/21/2009	0.23					0.15
6/20/2010		0.046				0.21
6/21/2010	0.25		0.062	0.16	0.11	
1/6/2011		0.063				
1/7/2011	0.21		0.039	0.095	0.12	0.2
7/7/2011			0.06			
7/8/2011	0.13		0.043	0.1	0.094	0.18
1/17/2012		0.06				
1/18/2012	0.26		0.042	0.12	0.087	0.18
7/9/2012		0.05				
7/10/2012	0.19		0.039	0.097	0.1	0.16
1/17/2013		0.058				
1/18/2013	0.17		0.04	0.1	0.078	0.19
7/17/2013	0.18	0.041	0.055	0.069	0.062	0.17
1/13/2014		0.058				
1/14/2014	0.18		0.059	0.086	0.073	0.2
7/9/2014	0.16	0.048		0.065		0.16
7/10/2014			0.067		0.13	
1/12/2015			0.061			
1/13/2015		0.048				
1/14/2015	0.16			0.084	0.065	0.17
7/16/2015		0.048				
7/17/2015				0.071		0.18
7/18/2015	0.012		0.13		0.073	
1/17/2016		0.049	0.08	0.079		
1/18/2016	0.13				0.062	0.2
7/27/2016		0.0796				
7/28/2016			0.164	0.0626		0.234
7/29/2016	0.181				0.0575	

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.0429			0.0693	0.284
9/1/2016	0.203		0.0976	0.077		
10/25/2016			0.0702	0.0217		
10/26/2016	0.177	0.113 (O)			0.0966	
10/27/2016						0.244
1/4/2017			0.0999	0.0617	0.0975	
1/5/2017	0.142	0.0526				
1/6/2017						0.305
4/4/2017		0.0503	0.136	0.0761		
4/5/2017	0.106					
4/6/2017					0.064	0.249
7/11/2017			0.145		0.0778	
7/12/2017						0.256
7/13/2017	0.0686	0.0529		0.0428		
10/2/2017			0.148			
10/3/2017		0.057		0.0376		
10/4/2017	0.0589				0.156	0.356
1/9/2018				0.0704		
1/10/2018		0.0527	0.0788			
1/11/2018	0.0412				0.0702	0.226
7/9/2018			0.087			
7/10/2018		0.054		0.061		
7/11/2018	0.049				0.12	0.29
1/16/2019	0.063					
1/17/2019				0.061		
1/18/2019					0.052	0.21
1/21/2019		0.05	0.069			
3/25/2019			0.085			
3/26/2019	0.025			0.084		
3/27/2019					0.057	0.19
7/30/2019		0.052				
8/27/2019		0.053			0.097	
8/28/2019	0.026		0.078	0.063		0.17
10/8/2019				0.079		
10/9/2019	0.032	0.05	0.078		0.065	0.18
4/7/2020				0.054	0.1	
4/8/2020	0.055	0.061	0.19			0.15
8/18/2020	0.074	0.05	0.38	0.18	0.085	
8/19/2020						0.17
9/29/2020		0.049				
9/30/2020	0.035		0.35	0.19	0.045	
10/1/2020						0.15
3/10/2021					0.049	0.15
3/11/2021	0.044					
3/12/2021			0.34			
3/15/2021		0.053				
3/16/2021				0.18		
9/21/2021					0.036	
9/22/2021	0.058	0.047	0.42	0.046		0.15
2/1/2022	0.055		0.36	0.24		
2/2/2022		0.052				0.15
2/3/2022					0.038	

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/30/2022			0.21	0.191		
8/31/2022	0.0375				0.0741	
9/1/2022		0.0508				0.151

Time Series

Constituent: Barium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	0.076	0.047	0.03
9/22/2021	0.076	0.038	
9/23/2021			0.024
2/1/2022		0.036	
2/3/2022	0.079		0.024
8/31/2022	0.0765		0.0216
9/1/2022		0.0267	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/21/2000	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/30/2016		0.0002 (J)		0.0002 (J)	<0.0005	<0.0005
9/1/2016	0.0017 (J)		0.0004 (J)			
10/24/2016		<0.0005				
10/25/2016	0.0002 (J)					<0.0005
10/26/2016			0.0001 (J)	0.0001 (J)	<0.0005	
1/3/2017		0.0002 (J)		0.0001 (J)		
1/4/2017						<0.0005
1/5/2017					<0.0005	
1/6/2017	0.0003 (J)		0.0001 (J)			
4/3/2017		0.0002 (J)				
4/4/2017			0.0001 (J)			<0.0005
4/6/2017	0.0004 (J)			0.0003 (J)	<0.0005	
7/11/2017		0.0002 (J)				
7/12/2017			<0.0005	0.0002 (J)	<0.0005	<0.0005
7/13/2017	0.001 (J)					
10/2/2017		0.0002 (J)				
10/3/2017				0.0002 (J)	<0.0005	<0.0005
10/4/2017	0.0002 (J)		0.0001 (J)			
1/9/2018	<0.0005	0.0002 (J)			<0.0005	
1/10/2018				0.0003 (J)		<0.0005
1/11/2018			0.0001 (J)			
7/9/2018		0.0002 (J)				
7/10/2018				0.00028 (J)	<0.0005	<0.0005
7/11/2018	<0.0005		<0.0005			
8/26/2019	<0.0005	0.00021 (J)				
8/27/2019			<0.0005		<0.0005	<0.0005
8/28/2019				7.6E-05 (J)		
10/7/2019		0.00024 (J)				
10/8/2019	<0.0005					
10/9/2019			<0.0005	<0.0005	<0.0005	<0.0005
4/6/2020	<0.0005	0.00017 (J)				
4/7/2020			<0.0005	<0.0005	<0.0005	<0.0005
8/17/2020		0.00019 (J)				
8/19/2020	<0.0005		<0.0005	<0.0005	5E-05 (J)	<0.0005
9/28/2020	<0.0005	0.00021 (J)				<0.0005
9/30/2020				6.5E-05 (J)	4.6E-05 (J)	
10/1/2020			<0.0005			
3/10/2021			<0.0005	8.2E-05 (J)	<0.0005	<0.0005
3/11/2021	0.00028 (J)					
3/12/2021		0.00023 (J)				
9/21/2021	<0.0005	0.00016 (J)	<0.0005	9.9E-05 (J)	<0.0005	
9/23/2021						<0.0005
1/31/2022	<0.0005	0.00016 (J)				
2/2/2022			<0.0005		<0.0005	
2/3/2022				0.00014 (J)		<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2022	0.000219 (J)	<0.0005	<0.0005	<0.0005	<0.0005	
9/1/2022						<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/21/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/31/2016	<0.0005	0.0011 (J)	<0.0005			
9/1/2016				0.0001 (J)	<0.0005	0.0001 (J)
10/25/2016				<0.0005	<0.0005	<0.0005
10/26/2016	<0.0005	0.0011 (J)	<0.0005			
1/4/2017	<0.0005	0.0009 (J)				9E-05 (J)
1/5/2017			<0.0005	<0.0005	<0.0005	
4/3/2017					<0.0005	
4/4/2017				9E-05 (J)		
4/5/2017		0.0008 (J)				9E-05 (J)
4/6/2017	<0.0005		<0.0005			
7/10/2017		0.0008 (J)				
7/11/2017	<0.0005			<0.0005	<0.0005	
7/12/2017			<0.0005			<0.0005
10/2/2017				<0.0005	<0.0005	
10/3/2017	<0.0005					<0.0005
10/4/2017		0.0006 (J)	<0.0005			
1/9/2018				<0.0005	<0.0005	
1/10/2018			<0.0005			0.0001 (J)
1/11/2018	<0.0005	0.0006 (J)				
7/9/2018				6.2E-05 (J)		
7/10/2018					<0.0005	6E-05 (J)
7/11/2018	<0.0005	0.00061 (J)	5.8E-05 (J)			
8/27/2019	<0.0005	0.00047 (J)	<0.0005	<0.0005	<0.0005	
8/28/2019						8E-05 (J)
10/8/2019	<0.0005		<0.0005	<0.0005	<0.0005	9.8E-05 (J)
10/9/2019		0.00046 (J)				
4/7/2020	<0.0005	0.00051 (J)		<0.0005	<0.0005	<0.0005
4/8/2020			<0.0005			
8/17/2020		0.00046 (J)	<0.0005			
8/18/2020	<0.0005			<0.0005	<0.0005	6.8E-05 (J)
9/28/2020			<0.0005			
9/29/2020	<0.0005	0.00043 (J)		<0.0005		
9/30/2020					<0.0005	8.9E-05 (J)
3/10/2021	4.7E-05 (J)	0.00054				
3/12/2021					<0.0005	
3/15/2021			<0.0005			
3/16/2021				<0.0005		<0.0005
9/21/2021	<0.0005	0.00047 (J)	<0.0005			
9/22/2021				<0.0005		6E-05 (J)
9/23/2021					<0.0005	
2/1/2022						<0.0005
2/2/2022				<0.0005		
2/3/2022	<0.0005	0.00056	<0.0005		<0.0005	
8/30/2022		0.000663		<0.0005		
8/31/2022	<0.0005		<0.0005		<0.0005	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/1/2022						<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.0005					<0.0005
11/21/2000	<0.0005	<0.0005				<0.0005
1/20/2001	<0.0005	<0.0005				<0.0005
3/14/2001	<0.0005	<0.0005				<0.0005
7/16/2001	<0.0005	<0.0005				<0.0005
11/1/2001	<0.0005	<0.0005				<0.0005
4/25/2002	<0.0005	<0.0005				<0.0005
8/31/2016		<0.0005			0.0002 (J)	0.0003 (J)
9/1/2016	0.0014 (J)		<0.0005	<0.0005		
10/25/2016			<0.0005	<0.0005		
10/26/2016	0.0016 (J)	0.0003 (J)			0.0002 (J)	
10/27/2016						0.0003 (J)
1/4/2017			<0.0005	<0.0005	0.0001 (J)	
1/5/2017	0.0019 (J)	<0.0005				
1/6/2017						0.0002 (J)
4/4/2017		9E-05 (J)	<0.0005	<0.0005		
4/5/2017	0.0024 (J)					
4/6/2017					<0.0005	0.0003 (J)
7/11/2017			<0.0005		<0.0005	
7/12/2017						0.0003 (J)
7/13/2017	0.0034	<0.0005		<0.0005		
10/2/2017			<0.0005			
10/3/2017		<0.0005		<0.0005		
10/4/2017	0.0037				0.0001 (J)	0.0002 (J)
1/9/2018				<0.0005		
1/10/2018		<0.0005	<0.0005			
1/11/2018	0.0033				<0.0005	0.0003 (J)
7/9/2018			<0.0005			
7/10/2018		<0.0005		<0.0005		
7/11/2018	0.0038				7E-05 (J)	0.0003 (J)
7/30/2019		<0.0005				
8/27/2019		<0.0005			9E-05 (J)	
8/28/2019	0.0017 (J)		<0.0005	<0.0005		0.00022 (J)
10/8/2019				<0.0005		
10/9/2019	0.0018 (J)	<0.0005	<0.0005		<0.0005	0.00023 (J)
4/7/2020				<0.0005	<0.0005	
4/8/2020	0.0017 (J)	8.8E-05 (J)	<0.0005			0.00019 (J)
8/18/2020	0.0016 (J)	5.1E-05 (J)	<0.0005	<0.0005	7.6E-05 (J)	
8/19/2020						0.00022 (J)
9/29/2020		7.5E-05 (J)				
9/30/2020	0.0013 (J)		<0.0005	<0.0005	<0.0005	
10/1/2020						0.0002 (J)
3/10/2021					<0.0005	0.00019 (J)
3/11/2021	0.0012					
3/12/2021			<0.0005			
3/15/2021		7.3E-05 (J)				
3/16/2021				<0.0005		
9/21/2021					<0.0005	
9/22/2021	0.0017	<0.0005	<0.0005	<0.0005		0.00017 (J)
2/1/2022	0.002		<0.0005	<0.0005		
2/2/2022		<0.0005				0.00018 (J)
2/3/2022					<0.0005	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/30/2022			<0.0005	<0.0005		
8/31/2022	0.00258				<0.0005	
9/1/2022		<0.0005				<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.0005	<0.0005	8.4E-05 (J)
9/22/2021	<0.0005	<0.0005	
9/23/2021			<0.0005
2/1/2022		<0.0005	
2/3/2022	<0.0005		<0.0005
8/31/2022	<0.0005		<0.0005
9/1/2022		<0.0005	

Time Series

Constituent: Boron (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		0.117		1.09	1.41	0.875
9/1/2016	11.6		6.48			
10/24/2016		0.126				
10/25/2016	21.4					1.22
10/26/2016			7.57	2.5	1.83	
1/3/2017		0.124		3.39		
1/4/2017						1.3
1/5/2017					3.07	
1/6/2017	20.1		8.34			
4/3/2017		0.105				
4/4/2017			8.18			1.19
4/6/2017	21.8			2.76	3.19	
7/11/2017		0.136				
7/12/2017			7.51	3.55	3.06	1.37
7/13/2017	16.3					
10/2/2017		0.107				
10/3/2017				2.72	2.69	0.765
10/4/2017	21.5		8.88			
1/9/2018	13.9	0.123			2.81	
1/10/2018				3.21		0.876
1/11/2018			6.95			
7/9/2018		0.11				
7/10/2018				7	2.9	0.94
7/11/2018	11.7		6.4			
1/16/2019	9.3	0.13	5.3	5	7.7	0.91
3/25/2019	8.5	0.098	4.4			
3/26/2019				4	7.4	0.77
10/7/2019		0.12				
10/8/2019	6.4					
10/9/2019			5.7	6.8	6.3	0.93
4/6/2020	6.1	0.14				
4/7/2020			5.5	4.6	5.6	1
9/28/2020	4.6	0.15				0.69
9/30/2020				4	4.2	
10/1/2020			5.2			
3/10/2021			4.9	3.9	6.9	0.63
3/11/2021	8					
3/12/2021		0.11				
9/21/2021	4.4	0.13	6.4	4.1	4.2	
9/23/2021						0.59
1/31/2022	3.9	0.13				
2/2/2022			6.2		6.2	
2/3/2022				4.9		0.59
8/30/2022	5.72	0.152	4.95	4.66	7.13	
9/1/2022						0.728

Time Series

Constituent: Boron (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	0.0688 (J)	5.1	0.261			
9/1/2016				0.071 (J)	9.01 (O)	1.82
10/25/2016				0.0819 (J)	1.66	1.26
10/26/2016	0.083 (J)	5.74	0.211			
1/4/2017	0.0738	6.56				1.46
1/5/2017			0.179	0.0813	1.1	
4/3/2017					1.21	
4/4/2017				0.0723		
4/5/2017		6.49				2
4/6/2017	0.0754		0.112			
7/10/2017		8.13				
7/11/2017	0.0614			0.0734	1.44	
7/12/2017			0.0882			2.95
10/2/2017				0.0748	1.59	
10/3/2017	0.0838					4.15
10/4/2017		5.18	0.116			
1/9/2018				0.0679	1.35	
1/10/2018			0.101			3.68
1/11/2018	0.169	5.16				
7/9/2018				0.061		
7/10/2018					1.2	5.2
7/11/2018	0.3	8.5	0.098			
1/16/2019			0.11	0.046		
1/17/2019	0.065	7			1.1	8.6
3/26/2019			0.35	0.037 (J)	0.95	7.4
3/27/2019	0.089	6.1				
10/8/2019	0.22		0.18	0.048	1.1	8.4
10/9/2019		8.2				
4/7/2020	0.67	5.3		0.061 (J)	0.96	10.5
4/8/2020			0.28			
9/28/2020			0.24			
9/29/2020	1.2	4.7		0.053		
9/30/2020					0.86	8.1
3/10/2021	1.8	6.1				
3/12/2021					0.81	
3/15/2021			0.31			
3/16/2021				0.08		10
9/21/2021	0.8	5.8	0.38			
9/22/2021				0.052		11.5
9/23/2021					0.72	
2/1/2022						16
2/2/2022				0.044		
2/3/2022	0.1	7.5	0.37		0.71	
8/30/2022		8.21		0.046		
8/31/2022	1.65		0.231		0.719	
9/1/2022						15.9

Time Series

Constituent: Boron (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.0196 (J)			12.8	0.096 (JO)
9/1/2016	0.408		3.34	0.62		
10/25/2016			2.54	0.0658 (J)		
10/26/2016	0.5	0.05 (J)			9.81	
10/27/2016						0.0281 (J)
1/4/2017			1.91	0.36	8.94	
1/5/2017	0.676	0.0162 (J)				
1/6/2017						0.0189 (J)
4/4/2017		0.019 (J)	2.77	0.509		
4/5/2017	0.69					
4/6/2017					0.733	0.0181 (J)
7/11/2017			4.14		0.852	
7/12/2017						0.0211 (J)
7/13/2017	0.888	0.023 (J)		0.126		
10/2/2017			4.65			
10/3/2017		0.0266 (J)		0.1		
10/4/2017	1.02				6.05	0.0254 (J)
1/9/2018				0.783		
1/10/2018		0.0203 (J)	1.79			
1/11/2018	1.28				0.838	0.018 (J)
7/9/2018			1.7			
7/10/2018		0.026 (J)		0.5		
7/11/2018	1.6				3.2	0.02 (J)
1/16/2019	1.5					
1/17/2019				0.43		
1/18/2019					0.37	0.018 (J)
1/21/2019		0.018 (J)	1.1			
3/25/2019			1			
3/26/2019	1.2			0.61		
3/27/2019					0.37	0.016 (J)
7/30/2019		0.02 (J)				
10/8/2019				1		
10/9/2019	1.3	0.024 (J)	0.79		0.39	0.019 (J)
4/7/2020				0.24	3.1	
4/8/2020	0.99	0.031 (J)	2.5			0.023 (J)
9/29/2020		0.024 (J)				
9/30/2020	0.86		9.9	2.3	0.25	
10/1/2020						0.028 (J)
3/10/2021					0.32	0.022 (J)
3/11/2021	0.85					
3/12/2021			15.6			
3/15/2021		0.084				
3/16/2021				3.5		
9/21/2021					0.19	
9/22/2021	1.4	0.017 (J)	11.3	0.095		0.015 (J)
2/1/2022	1.8		15.7	4.4		
2/2/2022		0.023 (J)				0.011 (J)
2/3/2022					0.18	
8/30/2022			8.14	5.08		
8/31/2022	2.51				0.271	
9/1/2022		0.0204				0.0187

Time Series

Constituent: Boron (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			0.013 (J)
1/21/2021	0.018 (J)	0.014 (J)	
3/11/2021	0.03 (J)	0.019 (J)	0.017 (J)
9/22/2021	0.033 (J)	0.014 (J)	
9/23/2021			0.012 (J)
2/1/2022		0.014 (J)	
2/3/2022	0.03 (J)		0.013 (J)
8/31/2022	0.0283		0.0166
9/1/2022		0.0303	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
11/21/2000	<0.001		<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2016		<0.001		<0.001	<0.001	<0.001
9/1/2016	0.0007 (J)		0.0002 (J)			
10/24/2016		<0.001				
10/25/2016	<0.001					<0.001
10/26/2016			<0.001	<0.001	<0.001	
1/3/2017		<0.001		<0.001		
1/4/2017						0.0001 (J)
1/5/2017					<0.001	
1/6/2017	0.0001 (J)		9E-05 (J)			
4/3/2017		<0.001				
4/4/2017			9E-05 (J)			7E-05 (J)
4/6/2017	<0.001			<0.001	<0.001	
7/11/2017		<0.001				
7/12/2017			<0.001	<0.001	<0.001	<0.001
7/13/2017	<0.001					
10/2/2017		<0.001				
10/3/2017				<0.001	<0.001	<0.001
10/4/2017	<0.001		<0.001			
1/9/2018	<0.001	<0.001			<0.001	
1/10/2018				<0.001		<0.001
1/11/2018			0.0002 (J)			
7/9/2018		<0.001				
7/10/2018				<0.001	<0.001	<0.001
7/11/2018	<0.001		<0.001			
8/26/2019	<0.001	<0.001				
8/27/2019			<0.001		<0.001	<0.001
8/28/2019				<0.001		
10/7/2019		<0.001				
10/8/2019	<0.001					
10/9/2019			<0.001	<0.001	<0.001	<0.001
4/6/2020	<0.001	<0.001				
4/7/2020			<0.001	<0.001	<0.001	<0.001
8/17/2020		<0.001				
8/19/2020	<0.001		<0.001	<0.001	<0.001	<0.001
9/28/2020	<0.001	<0.001				<0.001
9/30/2020				<0.001	<0.001	
10/1/2020			<0.001			
3/10/2021			<0.001	<0.001	<0.001	<0.001
3/11/2021	<0.001					
3/12/2021		<0.001				
9/21/2021	<0.001	<0.001	<0.001	<0.001	<0.001	
9/23/2021						<0.001
1/31/2022	<0.001	<0.001				
2/2/2022			<0.001		<0.001	
2/3/2022				<0.001		<0.001
8/30/2022	<0.001	<0.001	<0.001	<0.001	<0.001	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/1/2022						<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/31/2016	0.0002 (J)	<0.001	<0.001			
9/1/2016				0.0001 (J)	<0.001	<0.001
10/25/2016				0.0002 (J)	<0.001	<0.001
10/26/2016	0.0001 (J)	<0.001	<0.001			
1/4/2017	0.0001 (J)	<0.001				<0.001
1/5/2017			<0.001	0.0002 (J)	<0.001	
4/3/2017					<0.001	
4/4/2017				0.0002 (J)		
4/5/2017		<0.001				<0.001
4/6/2017	0.0002 (J)		<0.001			
7/10/2017		<0.001				
7/11/2017	<0.001			0.0002 (J)	<0.001	
7/12/2017			<0.001			<0.001
10/2/2017				<0.001	<0.001	
10/3/2017	0.0003 (J)					<0.001
10/4/2017		<0.001	<0.001			
1/9/2018				<0.001	<0.001	
1/10/2018			<0.001			<0.001
1/11/2018	0.0006 (J)	<0.001				
7/9/2018				0.00017 (J)		
7/10/2018					<0.001	<0.001
7/11/2018	0.0004 (J)	<0.001	<0.001			
8/27/2019	0.00044 (J)	<0.001	<0.001	<0.001	<0.001	
8/28/2019						<0.001
10/8/2019	0.00043 (J)		<0.001	<0.001	<0.001	<0.001
10/9/2019		<0.001				
4/7/2020	0.00051 (J)	<0.001		<0.001	<0.001	<0.001
4/8/2020			<0.001			
8/17/2020		<0.001	<0.001			
8/18/2020	0.00058 (J)			<0.001	<0.001	<0.001
9/28/2020			<0.001			
9/29/2020	0.00077 (J)	<0.001		0.00012 (J)		
9/30/2020					<0.001	<0.001
3/10/2021	0.0009	<0.001				
3/12/2021					<0.001	
3/15/2021			<0.001			
3/16/2021				<0.001		<0.001
9/21/2021	0.00036 (J)	<0.001	<0.001			
9/22/2021				<0.001		<0.001
9/23/2021					<0.001	
2/1/2022						<0.001
2/2/2022				<0.001		
2/3/2022	0.00019 (J)	<0.001	<0.001		<0.001	
8/30/2022		<0.001		<0.001		
8/31/2022	0.000431 (J)		<0.001		<0.001	
9/1/2022						<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
11/21/2000	<0.001	<0.001				<0.001
1/20/2001	<0.001	<0.001				<0.001
3/14/2001	<0.001	<0.001				<0.001
7/16/2001	<0.001	<0.001				<0.001
11/1/2001	<0.001	<0.001				<0.001
4/25/2002	<0.001	<0.001				<0.001
8/31/2016		<0.001			8E-05 (J)	<0.001
9/1/2016	<0.001		<0.001	<0.001		
10/25/2016			<0.001	<0.001		
10/26/2016	<0.001	<0.001			<0.001	
10/27/2016						<0.001
1/4/2017			<0.001	<0.001	0.0001 (J)	
1/5/2017	<0.001	<0.001				
1/6/2017						<0.001
4/4/2017		<0.001	<0.001	<0.001		
4/5/2017	<0.001					
4/6/2017					0.0001 (J)	<0.001
7/11/2017			<0.001		<0.001	
7/12/2017						<0.001
7/13/2017	<0.001	<0.001		<0.001		
10/2/2017			<0.001			
10/3/2017		<0.001		<0.001		
10/4/2017	<0.001				0.0002 (J)	<0.001
1/9/2018				<0.001		
1/10/2018		<0.001	<0.001			
1/11/2018	<0.001				0.0002 (J)	<0.001
7/9/2018			<0.001			
7/10/2018		<0.001		<0.001		
7/11/2018	<0.001				0.00023 (J)	<0.001
7/30/2019		<0.001				
8/27/2019		<0.001			<0.001	
8/28/2019	<0.001		<0.001	<0.001		<0.001
10/8/2019				<0.001		
10/9/2019	<0.001	<0.001	<0.001		0.00012 (J)	<0.001
4/7/2020				<0.001	0.00054 (J)	
4/8/2020	<0.001	<0.001	<0.001			<0.001
8/18/2020	<0.001	<0.001	<0.001	<0.001	0.00024 (J)	
8/19/2020						<0.001
9/29/2020		<0.001				
9/30/2020	<0.001		<0.001	<0.001	0.00024 (J)	
10/1/2020						<0.001
3/10/2021					<0.001	<0.001
3/11/2021	<0.001					
3/12/2021			0.00018 (J)			
3/15/2021		<0.001				
3/16/2021				<0.001		
9/21/2021					<0.001	
9/22/2021	<0.001	<0.001	0.00013 (J)	<0.001		<0.001
2/1/2022	<0.001		0.0002 (J)	<0.001		
2/2/2022		<0.001				<0.001
2/3/2022					<0.001	
8/30/2022			<0.001	<0.001		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2022	<0.001				<0.001	
9/1/2022		<0.001				<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.001	<0.001	0.00019 (J)
9/22/2021	0.00027 (J)	<0.001	
9/23/2021			<0.001
2/1/2022		<0.001	
2/3/2022	<0.001		<0.001
8/31/2022	<0.001		<0.001
9/1/2022		<0.001	

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		23.8		14.3	4.68	29.4
9/1/2016	5.59		9.91			
10/24/2016		22.5				
10/25/2016	6.43					28.3
10/26/2016			8.56	18.6	5.45	
1/3/2017		22.1		18.1		
1/4/2017						33.4
1/5/2017					5.35	
1/6/2017	8.13		8.18			
4/3/2017		24.6 (J)				
4/4/2017			8.12			34.6
4/6/2017	7.72			16.2	5.41	
7/11/2017		23.5				
7/12/2017			8	18.1	4.81	38
7/13/2017	4.57					
10/2/2017		22.7				
10/3/2017				15.2	5.17	25.5
10/4/2017	6.41		12.5			
1/9/2018	4.68	23.2			4.73	
1/10/2018				15.5		36.5
1/11/2018			12.9			
7/9/2018		24.6 (J)				
7/10/2018				30.6	4.5	45.5
7/11/2018	3.9		8.6			
1/16/2019	4.3	27.7	68.8	33.3	10.1	46.5
3/25/2019	3.9	31.7	55.6			
3/26/2019				36.1	9	46.3
10/7/2019		31.6				
10/8/2019	3.5					
10/9/2019			46.7	17.7	10.1	51.2
4/6/2020	3.1	35.8				
4/7/2020			62.1	34.1	7.8	31.1
9/28/2020	3.3	25.6				70.7
9/30/2020				70.4	27.5	
10/1/2020			48.4			
3/10/2021			263	134	55.9	67.2
3/11/2021	2.4					
3/12/2021		21.4				
9/21/2021	2.7	18.5	67.5	140	110	
9/23/2021						69.1
1/31/2022	3.4	17.2				
2/2/2022			98.2		293	
2/3/2022				130		58.2
8/30/2022	3.56	15	79.3	70.3	81.8	
9/1/2022						46.9

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	18.8	105	2.77			
9/1/2016				194	119	93.8
10/25/2016				100	106	94.1
10/26/2016	16.6	101	2.25			
1/4/2017	17.6	94.9				88.2
1/5/2017			2.27	107	115	
4/3/2017					131	
4/4/2017				153		
4/5/2017		92.5				106
4/6/2017	30.9		2.04			
7/10/2017		90.3				
7/11/2017	17.7			125	155	
7/12/2017			2.25			149
10/2/2017				126	137	
10/3/2017	39.8					217
10/4/2017		74.6	2.19			
1/9/2018				119	135	
1/10/2018			2.28			161
1/11/2018	65.6	78.1				
7/9/2018				123		
7/10/2018					129	205
7/11/2018	53	72.2	2.3			
1/16/2019			2.3	120		
1/17/2019	19.8 (J)	64.7			137	187
3/26/2019			2.4	84.2	124	204
3/27/2019	25.1	63.1				
10/8/2019	69.2		2.3	146	129	205
10/9/2019		54.2				
4/7/2020	84.7	52.1		135	129	225
4/8/2020			2.5			
9/28/2020			2.9			
9/29/2020	123	42		30.8		
9/30/2020					109	177
3/10/2021	126	53.1				
3/12/2021					101	
3/15/2021			2.4			
3/16/2021				34.4		188
9/21/2021	87	63.4	3.6			
9/22/2021				185		267
9/23/2021					146	
2/1/2022						267
2/2/2022				245		
2/3/2022	65.4	63.7	2.7		144	
8/30/2022		70.8		144		
8/31/2022	115		2.54		135	
9/1/2022						255

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.371 (J)			127	6.9
9/1/2016	71.9		67.2	40.5		
10/25/2016			50.1	3.91		
10/26/2016	80.3	5.84			127	
10/27/2016						8.2
1/4/2017			80.4	15.2	113	
1/5/2017	94.4	0.379 (J)				
1/6/2017						7.97
4/4/2017		0.993	108	32.3		
4/5/2017	104					
4/6/2017					42.7	7.95
7/11/2017			136		46	
7/12/2017						8.37
7/13/2017	124	0.388 (J)		8.92		
10/2/2017			105			
10/3/2017		0.251 (J)		7.88		
10/4/2017	136				115	8.57
1/9/2018				40.5		
1/10/2018		0.177 (J)	60.1			
1/11/2018	139				47.6	9.78
7/9/2018			75.9			
7/10/2018		0.17 (J)		29.8		
7/11/2018	122				73.7	9.2
1/16/2019	80.5					
1/17/2019				27.6		
1/18/2019					30.6	8.1
1/21/2019		0.19 (J)	60			
3/25/2019			74.8			
3/26/2019	68.8			60.1		
3/27/2019					28.8	7.7
7/30/2019		0.43				
10/8/2019				49.5		
10/9/2019	56.6	0.18	80.1		30.1	6
4/7/2020				12.5	65.7	
4/8/2020	53.1	0.24 (J)	175			5.3
9/29/2020		0.18 (J)				
9/30/2020	53.5		292	98.4	20.9	
10/1/2020						5.5
3/10/2021					18.7	5.3
3/11/2021	67					
3/12/2021			241			
3/15/2021		0.22 (J)				
3/16/2021				104		
9/21/2021					15.3	
9/22/2021	94.6	0.19 (J)	266	5.8		5
2/1/2022	90.8		259	125		
2/2/2022		0.16 (J)				4.6
2/3/2022					14.6	
8/30/2022			193	131		
8/31/2022	102				23.2	
9/1/2022		0.236				5

Time Series

Constituent: Calcium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			4.9
1/21/2021	4.4	2.8	
3/11/2021	12.4	5.4	4.7
9/22/2021	14.9	4.7	
9/23/2021			3.4
2/1/2022		3.7	
2/3/2022	11.6		3
8/31/2022	10.3		3.38
9/1/2022		2.75	

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		15		31	60	5.5
9/1/2016	190		160			
10/24/2016		13				
10/25/2016	175 (D)					5.1
10/26/2016			110	24	67	
1/3/2017		13		29		
1/4/2017						6.9
1/5/2017					70	
1/6/2017	180		67			
4/3/2017		14				
4/4/2017			80			6.5
4/6/2017	200			27	76	
7/11/2017		13				
7/12/2017			120	31	64	6.5
7/13/2017	200					
10/2/2017		15				
10/3/2017				27	73	4.5
10/4/2017	260		130			
1/9/2018	210	13			61	
1/10/2018				59		6.9
1/11/2018			60			
7/9/2018		15.4				
7/10/2018				172	60.2	6.2
7/11/2018	177		75.9			
1/16/2019	165	16	20.2	49.7	54.1	6.6
3/25/2019	147	17.7	19.7			
3/26/2019				47.9	51.8	7
10/7/2019		18				
10/8/2019	125					
10/9/2019			32.1	239	49.7	7.2
4/6/2020	30.2	13.5				
4/7/2020			14.5	44.3	56.4	7.7
9/28/2020	113	13.7				13.8
9/30/2020				24.1	53.9	
10/1/2020			15.7			
3/10/2021			16	25.7	42.4	8.5
3/11/2021	96.7					
3/12/2021		14.1				
9/21/2021	92.2	12.2	13.9	38.8	53.8	
9/23/2021						8.8
1/31/2022	83.4	11.2				
2/2/2022			14.5		42.3	
2/3/2022				38.5		8
8/30/2022	74.4	9.93	65	76.8	52	
9/1/2022						9.17

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	3.5	210	4.3			
9/1/2016				60	10	43
10/25/2016				36	6.5	34
10/26/2016	2.5	200	4.9			
1/4/2017	3.8	160				29
1/5/2017			4.1	37	10	
4/3/2017					7.3	
4/4/2017				47		
4/5/2017		140				36
4/6/2017	7.1		3.7			
7/10/2017		88				
7/11/2017	3.1			34	5.7	
7/12/2017			2.6			44
10/2/2017				34	4.4	
10/3/2017	46					58
10/4/2017		100	3			
1/9/2018				24	5.7	
1/10/2018			3.4			36
1/11/2018	100	78				
7/9/2018				25.9		
7/10/2018					3.1	57
7/11/2018	53.7	66.9	3.2			
1/16/2019			3.8	29.2		
1/17/2019	6.6	52			3.2	48.9
3/26/2019			3.2	21.1	3	5.1
3/27/2019	11.9	45.6				
10/8/2019	89		4	40.2	2.9	46.4
10/9/2019		44.1				
4/7/2020	103	32.5		41.6	3.4	49.3
4/8/2020			4.5			
9/28/2020			4.3			
9/29/2020	143	24.3		10.6		
9/30/2020					1.7	39.6
3/10/2021	188	48.7				
3/12/2021					2.3	
3/15/2021			7.6			
3/16/2021				15.8		44.9
9/21/2021	103	63.8	7.9			
9/22/2021				28		55.8
9/23/2021					7.1	
2/1/2022						61.5
2/2/2022				29.6		
2/3/2022	83.4	57	8.8		5.1	
8/30/2022		58.4		26.7		
8/31/2022	110		6.69		4.83	
9/1/2022						57.2

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		7.8			320	17
9/1/2016	610		16	5.9		
10/25/2016			8.1	4.4		
10/26/2016	570	12			450	
10/27/2016						17
1/4/2017			13	7.7	330	
1/5/2017	710	7.4				
1/6/2017						16
4/4/2017		8.7	23	8		
4/5/2017	860					
4/6/2017					50	17
7/11/2017			31		70	
7/12/2017						18
7/13/2017	860	8.3		5.4		
10/2/2017			30			
10/3/2017		9		4.4		
10/4/2017	1000				360	18
1/9/2018				4.4		
1/10/2018		8.2	9.7			
1/11/2018	940				74	16
7/9/2018			10.8			
7/10/2018		7.3		6.3		
7/11/2018	864				164	16.2
1/16/2019	469					
1/17/2019				5.4		
1/18/2019					11	17.5
1/21/2019		6.9	5.1			
3/25/2019			9.4			
3/26/2019	439			11.9		
3/27/2019					11.5	18.9
7/30/2019		7.1				
10/8/2019				7.8		
10/9/2019	330	7	5.4		25.3	19
4/7/2020				4.7	146	
4/8/2020	277	5.2	20.2			16.9
9/29/2020		5.4				
9/30/2020	257		34.9	23.7	8.5	
10/1/2020						16.8
3/10/2021					48.2	18.3
3/11/2021	334					
3/12/2021			31.9			
3/15/2021		6.4				
3/16/2021				25.3		
9/21/2021					9.4	
9/22/2021	517	7.4	38.9	6		19.3
2/1/2022	549		33.4	29.3		
2/2/2022		6.9				17.5
2/3/2022					10.8	
8/30/2022			24.4	29.4		
8/31/2022	694				51.2	
9/1/2022		6.59				17.6

Time Series

Constituent: Chloride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			6.1
1/21/2021	6.1	6.1	
3/11/2021	9.9	6	6.4
9/22/2021	7.1	4.9	
9/23/2021			5.5
2/1/2022		5.4	
2/3/2022	7.5		6.3
8/31/2022	7.84		6.6
9/1/2022		6.3	

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.01	<0.01	0.021	0.03	0.016	<0.01
11/21/2000	<0.01		0.017	<0.01	0.023	<0.01
1/20/2001	<0.01	<0.01	0.03	0.028	0.025	<0.01
3/14/2001	<0.01	<0.01	0.019	0.052 (O)	0.021	<0.01
7/16/2001	<0.01	<0.01	0.029	0.08 (O)	0.019	<0.01
11/1/2001	<0.01	<0.01	0.021	0.13 (O)	0.022	<0.01
4/25/2002	<0.01	<0.01	0.03	0.021	0.019	<0.01
11/20/2002		0.0051	0.038	0.053 (O)	0.024	<0.01
6/6/2003	0.037	0.014	0.028	0.064 (O)	0.021	0.005
12/12/2003	0.0044	0.011	0.027	<0.01	0.0066	<0.01
5/26/2004	<0.01	<0.01	0.021	0.012	0.013	<0.01
12/7/2004	<0.01	<0.01	0.016	0.019	0.013	<0.01
6/21/2005	<0.01	<0.01	0.015	0.02	0.0067	<0.01
12/12/2005	<0.01	<0.01	0.022	<0.01	0.0033	0.002
4/4/2006		<0.01				
6/27/2006	<0.01	<0.01	0.027	0.0015	0.0047	<0.01
8/30/2006		<0.01				
12/4/2006	0.0015	<0.01	0.025	0.0034	0.0084	<0.01
2/15/2007		<0.01				
6/23/2007	<0.01	<0.01	0.023	<0.01	0.01	<0.01
9/11/2007		<0.01				
12/11/2007	0.0016	<0.01	0.018	<0.01	0.0049	<0.01
3/11/2008		<0.01				
6/23/2008	0.0019	<0.01				
6/24/2008			0.022	<0.01	0.032 (O)	<0.01
11/3/2008		<0.01				
12/4/2008	<0.01	<0.01				
12/5/2008			0.023	0.0016	0.009	<0.01
3/25/2009		<0.01				
7/7/2009	0.0037	<0.01	0.012	<0.01	0.0044	0.0013
9/14/2009		<0.01				
12/20/2009	0.0016	<0.01				<0.01
12/21/2009			0.019	<0.01	0.0055	
3/4/2010		<0.01				
6/20/2010	<0.01	<0.01		<0.01	0.002	<0.01
6/21/2010			0.01			
9/14/2010		<0.01				
1/6/2011				0.0017		<0.01
1/7/2011	0.0033	<0.01	0.023		0.0039	
4/15/2011		<0.01				
7/7/2011	0.0044	<0.01		0.008	0.0031	<0.01
7/8/2011			0.017			
9/25/2011		0.0021				
1/17/2012	0.0038	<0.01		0.0082		<0.01
1/18/2012			0.0114		0.0023	
4/4/2012		<0.01				
7/9/2012	0.022			0.01		<0.01
7/10/2012		<0.01	0.014		0.0022	
10/9/2012		<0.01				
1/17/2013				0.01		<0.01
1/18/2013	0.034	<0.01	0.015		<0.01	
4/5/2013		<0.01				

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				0.0061		<0.01
7/17/2013	0.032	<0.01	0.011		<0.01	
10/11/2013		<0.01				
1/13/2014	0.04			0.002		<0.01
1/14/2014		<0.01	0.019		0.0013	
4/3/2014		<0.01				
7/9/2014	0.036	<0.01	0.012	<0.01	<0.01	0.0011 (J)
10/24/2014		<0.01				
1/12/2015			0.016			
1/13/2015	0.03			<0.01		<0.01
1/14/2015		<0.01			0.0015	
5/10/2015		<0.01				
7/16/2015	0.039		0.0084	<0.01		0.0011 (J)
7/17/2015		<0.01			0.0011 (J)	
10/6/2015		<0.01				
1/17/2016						<0.01
1/18/2016	0.068	<0.01	0.014	<0.01	0.0011 (J)	
4/26/2016		<0.01				
7/27/2016	0.05			0.0006 (J)		0.0016 (J)
7/28/2016		<0.01			0.001 (J)	
7/29/2016			0.0077 (J)			
8/30/2016		<0.01		<0.01	0.0013 (J)	0.0015 (J)
9/1/2016	0.119 (O)		0.015			
10/24/2016		<0.01				
10/25/2016	0.0519					0.0018 (J)
10/26/2016			0.0106	<0.01	0.0014 (J)	
1/3/2017		<0.01		0.001 (J)		
1/4/2017						0.0021 (J)
1/5/2017					0.002 (J)	
1/6/2017	0.0536		0.0098 (J)			
4/3/2017		0.0004 (J)				
4/4/2017			0.0101			0.002 (J)
4/6/2017	0.0447 (J)			0.0013 (J)	0.0034 (J)	
7/11/2017		0.0006 (J)				
7/12/2017			0.0096 (J)	0.0011 (J)	0.0024 (J)	0.0021 (J)
7/13/2017	0.0269					
10/2/2017		<0.01				
10/3/2017				0.0012 (J)	0.0022 (J)	0.0014 (J)
10/4/2017	0.0378		0.0097 (J)			
1/9/2018	0.0283 (J)	<0.01			0.0019 (J)	
1/10/2018				0.0016 (J)		0.0017 (J)
1/11/2018			0.0109			
7/9/2018		<0.01				
7/10/2018				0.0055 (J)	0.0023 (J)	0.0021 (J)
7/11/2018	0.018 (J)		0.0055 (J)			
1/16/2019	0.018 (J)	<0.01	0.0024 (J)	<0.01	0.018 (J)	0.0021 (J)
3/25/2019	0.017 (J)	<0.01	0.002 (J)			
3/26/2019				0.072	0.017 (J)	0.0018 (J)
8/26/2019	0.024 (J)	0.001 (J)				
8/27/2019			0.0027 (J)		0.0097 (J)	0.0062 (J)
8/28/2019				0.0071 (J)		
10/7/2019		0.00052 (J)				

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.021 (J)					
10/9/2019			0.002 (J)	0.012 (J)	0.011 (J)	0.0019 (J)
4/6/2020	0.015 (J)	<0.01				
4/7/2020			0.0028 (J)	0.0022 (J)	0.0094 (J)	0.0015 (J)
8/17/2020		0.00082 (J)				
8/19/2020	0.015 (J)		0.0022 (J)	0.0012 (J)	0.0037 (J)	0.0028 (J)
9/28/2020	0.014 (J)	0.00071 (J)				0.0024 (J)
9/30/2020				0.0018 (J)	0.0045 (J)	
10/1/2020			0.002 (J)			
3/10/2021			0.003 (J)	0.001 (J)	0.006	0.0023 (J)
3/11/2021	0.02 (J)					
3/12/2021		0.00074 (J)				
9/21/2021	0.013 (J)	<0.01	0.0018 (J)	<0.01	0.0035 (J)	
9/23/2021						0.0023 (J)
1/31/2022	0.015 (J)	<0.01				
2/2/2022			0.003 (J)		0.0033 (J)	
2/3/2022				0.0014 (J)		0.0019 (J)
8/30/2022	0.0129	<0.01	<0.01	<0.01	0.00356 (J)	
9/1/2022						<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/20/2002	0.006	0.002	<0.01	0.014	0.0058	0.0041
6/6/2003	0.0082	<0.01	0.003	<0.01	0.0068	0.063 (O)
12/12/2003	0.0023	<0.01	<0.01	<0.01	0.0041	0.0059
5/26/2004	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
12/7/2004	<0.01	<0.01	<0.01	<0.01	0.0026	<0.01
6/21/2005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
12/12/2005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/4/2006				<0.01		<0.01
6/27/2006	<0.01	<0.01	<0.01	<0.01	0.0013	<0.01
8/30/2006				<0.01		<0.01
12/4/2006	0.0021	0.0032	0.0017	0.0042	<0.01	0.0036
2/15/2007				<0.01		<0.01
6/23/2007	0.0017	<0.01	<0.01	<0.01	<0.01	0.0016
9/11/2007				<0.01		<0.01
12/11/2007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/11/2008				<0.01		<0.01
6/23/2008	<0.01	0.0016	<0.01			
6/24/2008				<0.01	0.0014	<0.01
11/3/2008				<0.01		0.0025
12/4/2008	<0.01	<0.01	<0.01	<0.01		
12/5/2008					<0.01	<0.01
3/25/2009				<0.01		<0.01
7/8/2009	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/14/2009				<0.01		<0.01
12/20/2009				<0.01	<0.01	<0.01
12/21/2009	<0.01	<0.01	<0.01			
3/4/2010				<0.01		<0.01
6/20/2010	<0.01	<0.01	<0.01	<0.01	<0.01	
6/21/2010						<0.01
9/14/2010				<0.01		<0.01
1/6/2011	<0.01		<0.01			
1/7/2011		<0.01		0.0016	<0.01	0.0018
4/15/2011				0.0034		<0.01
7/7/2011	0.0023	<0.01	0.0019	<0.01	<0.01	<0.01
9/25/2011				0.0013		<0.01
1/17/2012	<0.01	<0.01	<0.01	<0.01	<0.01	
1/18/2012						<0.01
4/4/2012				<0.01		<0.01
7/9/2012	0.0017	<0.01	<0.01	<0.01	<0.01	
7/10/2012						<0.01
10/9/2012				0.0019		0.0018
1/17/2013	<0.01	<0.01	<0.01			
1/18/2013				0.0017	<0.01	<0.01
4/5/2013				0.0019		<0.01
7/16/2013	<0.01	<0.01	<0.01			

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				0.0017	<0.01	<0.01
10/11/2013				0.0013		<0.01
1/13/2014	<0.01	<0.01	<0.01		<0.01	
1/14/2014				0.001		<0.01
4/3/2014				0.0031		<0.01
7/8/2014	<0.01	<0.01	<0.01			
7/9/2014				0.0012 (J)	<0.01	<0.01
10/24/2014				<0.01		<0.01
1/13/2015	<0.01	<0.01	<0.01		<0.01	
1/14/2015				0.0013		<0.01
5/10/2015				<0.01		
5/11/2015						<0.01
7/16/2015	<0.01	0.001 (J)	<0.01		<0.01	<0.01
7/17/2015				0.001 (J)		
10/6/2015				<0.01		<0.01
1/17/2016				0.0012 (J)	<0.01	<0.01
1/18/2016		<0.01	<0.01			
1/19/2016	<0.01					
4/26/2016				<0.01		<0.01
7/26/2016	0.0005 (J)		<0.01			
7/27/2016		0.0014 (J)		0.0008 (J)	0.0007 (J)	
7/28/2016						0.0006 (J)
8/31/2016	0.001 (J)	0.0012 (J)	0.0011 (J)			
9/1/2016				0.0015 (J)	0.0011 (J)	0.0011 (J)
10/25/2016				<0.01	<0.01	<0.01
10/26/2016	<0.01	0.0012 (J)	<0.01			
1/4/2017	<0.01	0.0012 (J)				<0.01
1/5/2017			<0.01	0.001 (J)	<0.01	
4/3/2017					0.0015 (J)	
4/4/2017				0.001 (J)		
4/5/2017		0.0013 (J)				0.001 (J)
4/6/2017	0.0007 (J)		0.0011 (J)			
7/10/2017		0.0014 (J)				
7/11/2017	0.0006 (J)			0.0008 (J)	0.0013 (J)	
7/12/2017			0.0007 (J)			0.0011 (J)
10/2/2017				0.0009 (J)	0.0013 (J)	
10/3/2017	0.0007 (J)					0.0009 (J)
10/4/2017		0.0011 (J)	0.0008 (J)			
1/9/2018				0.0006 (J)	0.0012 (J)	
1/10/2018			0.0007 (J)			0.0007 (J)
1/11/2018	0.0098 (J)	0.001 (J)				
7/9/2018				<0.01		
7/10/2018					<0.01	<0.01
7/11/2018	<0.01	<0.01	0.0019 (J)			
1/16/2019			<0.01	<0.01		
1/17/2019	<0.01	0.0028 (J)			<0.01	0.01 (J)
3/26/2019			<0.01	<0.01	<0.01	<0.01
3/27/2019	<0.01	<0.01				
8/27/2019	0.00092 (J)	0.00085 (J)	<0.01	0.001 (J)	0.0016 (J)	
8/28/2019						0.0011 (J)
10/8/2019	0.00091 (J)		<0.01	0.00053 (J)	0.0017 (J)	0.00099 (J)
10/9/2019		0.00081 (J)				

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	0.00094 (J)	0.00082 (J)		0.00074 (J)	0.0014 (J)	<0.01
4/8/2020			0.00058 (J)			
8/17/2020		0.001 (J)	0.00077 (J)			
8/18/2020	0.0015 (J)			0.00059 (J)	0.0018 (J)	0.0012 (J)
9/28/2020			0.00062 (J)			
9/29/2020	0.0011 (J)	0.00085 (J)		<0.01		
9/30/2020					0.0016 (J)	0.00098 (J)
3/10/2021	0.0013 (J)	0.00091 (J)				
3/12/2021					0.0031 (J)	
3/15/2021			<0.01			
3/16/2021				<0.01		0.0012 (J)
9/21/2021	<0.01	<0.01	<0.01			
9/22/2021				<0.01		0.0018 (J)
9/23/2021					0.0013 (J)	
2/1/2022						<0.01
2/2/2022				<0.01		
2/3/2022	0.0011 (J)	0.0018 (J)	<0.01		0.0016 (J)	
8/30/2022		<0.01		<0.01		
8/31/2022	<0.01		<0.01		<0.01	
9/1/2022						<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.01					<0.01
11/21/2000	<0.01	<0.01				<0.01
1/20/2001	<0.01	<0.01				<0.01
3/14/2001	<0.01	<0.01				<0.01
7/16/2001	<0.01	<0.01				<0.01
11/1/2001	<0.01	<0.01				<0.01
4/25/2002	<0.01	<0.01				<0.01
11/20/2002	<0.01	<0.01				0.014
6/6/2003	<0.01	<0.01				<0.01
12/12/2003	0.036 (O)	<0.01				<0.01
5/26/2004	<0.01	<0.01				<0.01
12/7/2004	0.0021	<0.01				0.0039
6/21/2005	<0.01	<0.01				0.002
12/12/2005	<0.01	<0.01				<0.01
6/27/2006	<0.01	<0.01				<0.01
12/4/2006	<0.01	<0.01				0.0019
6/23/2007	<0.01	<0.01				0.0015
12/11/2007	<0.01	<0.01				<0.01
6/23/2008						0.0015
6/24/2008	<0.01	<0.01				
12/4/2008		<0.01				<0.01
12/5/2008	<0.01					
7/8/2009	<0.01	<0.01				<0.01
12/20/2009		<0.01				
12/21/2009	<0.01					<0.01
6/20/2010		<0.01				0.0015
6/21/2010	<0.01		<0.01	0.0019	<0.01	
1/6/2011		<0.01				
1/7/2011	<0.01		0.0018	0.0017	<0.01	<0.01
7/7/2011			<0.01			
7/8/2011	0.0013		0.0019	0.0023	<0.01	<0.01
1/17/2012		<0.01				
1/18/2012	<0.01		<0.01	<0.01	<0.01	<0.01
7/9/2012		<0.01				
7/10/2012	<0.01		0.0013	<0.01	<0.01	<0.01
1/17/2013		<0.01				
1/18/2013	<0.01		0.0015	<0.01	<0.01	<0.01
7/17/2013	<0.01	<0.01	<0.01	0.0019	<0.01	<0.01
1/13/2014		<0.01				
1/14/2014	<0.01		0	<0.01	<0.01	<0.01
7/9/2014	<0.01	<0.01		<0.01		0.0011 (J)
7/10/2014			<0.01		<0.01	
1/12/2015			<0.01			
1/13/2015		<0.01				
1/14/2015	<0.01			<0.01	<0.01	<0.01
7/16/2015		<0.01				
7/17/2015				<0.01		0.0013
7/18/2015	<0.01		<0.01		<0.01	
1/17/2016		<0.01	<0.01	<0.01		
1/18/2016	<0.01				<0.01	<0.01
7/27/2016		0.0008 (J)				
7/28/2016			0.0007 (J)	0.0005 (J)		0.0011 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0009 (J)				0.0007 (J)	
8/31/2016		<0.01			<0.01	0.0024 (J)
9/1/2016	0.0011 (J)		<0.01	<0.01		
10/25/2016			<0.01	<0.01		
10/26/2016	<0.01	0.001 (J)			<0.01	
10/27/2016						<0.01
1/4/2017			<0.01	<0.01	<0.01	
1/5/2017	0.0012 (J)	<0.01				
1/6/2017						<0.01
4/4/2017		0.0008 (J)	0.0011 (J)	0.0008 (J)		
4/5/2017	0.0015 (J)					
4/6/2017					0.0006 (J)	0.0019 (J)
7/11/2017			0.0009 (J)		0.0005 (J)	
7/12/2017						0.0011 (J)
7/13/2017	0.0012 (J)	0.0006 (J)		0.0006 (J)		
10/2/2017			0.0009 (J)			
10/3/2017		<0.01		0.0005 (J)		
10/4/2017	0.0055 (J)				0.0006 (J)	0.0011 (J)
1/9/2018				0.0007 (J)		
1/10/2018		<0.01	0.0008 (J)			
1/11/2018	0.0009 (J)				<0.01	0.001 (J)
7/9/2018			<0.01			
7/10/2018		<0.01		<0.01		
7/11/2018	<0.01				<0.01	<0.01
1/16/2019	<0.01					
1/17/2019				0.01		
1/18/2019					<0.01	<0.01
1/21/2019		<0.01	<0.01			
3/25/2019			<0.01			
3/26/2019	<0.01			<0.01		
3/27/2019					<0.01	<0.01
7/30/2019		0.00065 (J)				
8/27/2019		<0.01			0.00057 (J)	
8/28/2019	0.0013 (J)		0.00089 (J)	0.00087 (J)		0.00089 (J)
10/8/2019				0.00065 (J)		
10/9/2019	0.00081 (J)	0.00049 (J)	0.0011 (J)		0.00072 (J)	0.0009 (J)
4/7/2020				<0.01	0.00049 (J)	
4/8/2020	0.00073 (J)	0.00069 (J)	0.001 (J)			0.0015 (J)
8/18/2020	0.0011 (J)	<0.01	0.0011 (J)	0.0012 (J)	0.00056 (J)	
8/19/2020						0.0013 (J)
9/29/2020		<0.01				
9/30/2020	0.00096 (J)		0.0013 (J)	0.00067 (J)	0.00064 (J)	
10/1/2020						0.0012 (J)
3/10/2021					<0.01	0.0011 (J)
3/11/2021	0.0009 (J)					
3/12/2021			0.0014 (J)			
3/15/2021		0.0011 (J)				
3/16/2021				0.00075 (J)		
9/21/2021					<0.01	
9/22/2021	<0.01	<0.01	0.0013 (J)	<0.01		<0.01
2/1/2022	0.0014 (J)		0.0036 (J)	<0.01		
2/2/2022		<0.01				0.0012 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.01	
8/30/2022			<0.01	<0.01		
8/31/2022	<0.01				<0.01	
9/1/2022		<0.01				<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.01	0.00069 (J)	0.0016 (J)
9/22/2021	<0.01	<0.01	
9/23/2021			<0.01
2/1/2022		<0.01	
2/3/2022	<0.01		<0.01
8/31/2022	<0.01		<0.01
9/1/2022		<0.01	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001		<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	0.012	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2016		<0.001		<0.001	<0.001	<0.001
9/1/2016	0.0102		0.0024 (J)			
10/24/2016		<0.001				
10/25/2016	0.0037 (J)					<0.001
10/26/2016			0.0011 (J)	<0.001	<0.001	
1/3/2017		<0.001		<0.001		
1/4/2017						<0.001
1/5/2017					<0.001	
1/6/2017	0.0039 (J)		0.001 (J)			
4/3/2017		0.0005 (J)				
4/4/2017			0.001 (J)			<0.001
4/6/2017	0.006 (J)			<0.001	<0.001	
7/11/2017		0.0005 (J)				
7/12/2017			0.0008 (J)	<0.001	<0.001	<0.001
7/13/2017	0.0037 (J)					
10/2/2017		0.0004 (J)				
10/3/2017				<0.001	<0.001	<0.001
10/4/2017	0.0058 (J)		0.001 (J)			
1/9/2018	0.0053 (J)	0.0004 (J)			<0.001	
1/10/2018				0.0004 (J)		<0.001
1/11/2018			0.0008 (J)			
7/9/2018		<0.001				
7/10/2018				0.002 (J)	<0.001	<0.001
7/11/2018	<0.05 (O)		<0.001			
8/26/2019	0.0037 (J)	0.00042 (J)				
8/27/2019			0.0011 (J)		0.00038 (J)	<0.001
8/28/2019				0.0024 (J)		
10/7/2019		0.00046 (J)				
10/8/2019	0.0028 (J)					
10/9/2019			0.0015 (J)	0.0037 (J)	<0.001	<0.001
4/6/2020	0.0021 (J)	0.00036 (J)				
4/7/2020			0.0009 (J)	0.00053 (J)	<0.001	<0.001
8/17/2020		<0.001				
8/19/2020	0.0021 (J)		0.00072 (J)	<0.001	<0.001	<0.001
9/28/2020	<0.001	<0.001				<0.001
9/30/2020				0.00056 (J)	<0.001	
10/1/2020			0.0005 (J)			
3/10/2021			0.00069 (J)	0.0057	<0.001	<0.001
3/11/2021	0.0023 (J)					
3/12/2021		0.00058 (J)				
9/21/2021	<0.001	<0.001	<0.001	0.019	0.0049 (J)	
9/23/2021						<0.001
1/31/2022	<0.025 (o)	0.00044 (J)				
2/2/2022			0.0027 (J)		0.07	
2/3/2022				0.019		<0.001

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2022	0.00134	0.00042 (J)	0.00198	0.00401	0.0476	
9/1/2022						<0.001

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/31/2016	<0.001	0.0018 (J)	<0.001			
9/1/2016				<0.001	<0.001	<0.001
10/25/2016				<0.001	<0.001	<0.001
10/26/2016	<0.001	0.0016 (J)	<0.001			
1/4/2017	<0.001	0.0014 (J)				<0.001
1/5/2017			<0.001	<0.001	<0.001	
4/3/2017					<0.001	
4/4/2017				<0.001		
4/5/2017		0.0013 (J)				<0.001
4/6/2017	<0.001		<0.001			
7/10/2017		0.0013 (J)				
7/11/2017	<0.001			0.0003 (J)	<0.001	
7/12/2017			<0.001			<0.001
10/2/2017				<0.001	<0.001	
10/3/2017	<0.001					<0.001
10/4/2017		0.0011 (J)	<0.001			
1/9/2018				<0.001	<0.001	
1/10/2018			<0.001			<0.001
1/11/2018	0.0003 (J)	0.0011 (J)				
7/9/2018				<0.001		
7/10/2018					<0.001	<0.001
7/11/2018	<0.001	0.00096 (J)	<0.001			
8/27/2019	<0.001	0.0009 (J)	<0.001	<0.001	<0.001	
8/28/2019						<0.001
10/8/2019	<0.001		<0.001	<0.001	<0.001	<0.001
10/9/2019		0.00094 (J)				
4/7/2020	<0.001	0.00077 (J)		<0.001	<0.001	<0.001
4/8/2020			<0.001			
8/17/2020		0.0006 (J)	<0.001			
8/18/2020	0.0004 (J)			<0.001	<0.001	<0.001
9/28/2020			<0.001			
9/29/2020	0.00055 (J)	0.00057 (J)		<0.001		
9/30/2020					<0.001	<0.001
3/10/2021	0.00082 (J)	0.00071 (J)				
3/12/2021					<0.001	
3/15/2021			<0.001			
3/16/2021				<0.001		<0.001
9/21/2021	<0.001	0.00065 (J)	<0.001			
9/22/2021				<0.001		<0.001
9/23/2021					<0.001	
2/1/2022						<0.001
2/2/2022				<0.001		
2/3/2022	<0.001	0.00072 (J)	<0.001		<0.001	
8/30/2022		0.000786 (J)		<0.001		
8/31/2022	0.000646 (J)		<0.001		<0.001	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/1/2022						<0.001

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.001					<0.001
11/21/2000	<0.001	<0.001				<0.001
1/20/2001	<0.001	<0.001				<0.001
3/14/2001	<0.001	<0.001				<0.001
7/16/2001	<0.001	<0.001				<0.001
11/1/2001	<0.001	<0.001				<0.001
4/25/2002	<0.001	<0.001				<0.001
8/31/2016		<0.001			0.001 (J)	0.0021 (J)
9/1/2016	0.0046 (J)		<0.001	<0.001		
10/25/2016			<0.001	<0.001		
10/26/2016	0.0046 (J)	0.0011 (J)			0.0009 (J)	
10/27/2016						0.0017 (J)
1/4/2017			<0.001	<0.001	0.0007 (J)	
1/5/2017	0.0062 (J)	<0.001				
1/6/2017						0.0017 (J)
4/4/2017		<0.001	<0.001	<0.001		
4/5/2017	0.007 (J)					
4/6/2017					<0.001	0.0017 (J)
7/11/2017			<0.001		<0.001	
7/12/2017						0.0016 (J)
7/13/2017	0.0077 (J)	0.0003 (J)		<0.001		
10/2/2017			<0.001			
10/3/2017		0.0003 (J)		<0.001		
10/4/2017	0.0073 (J)				0.0007 (J)	0.0015 (J)
1/9/2018				<0.001		
1/10/2018		<0.001	<0.001			
1/11/2018	0.0061 (J)				<0.001	0.0017 (J)
7/9/2018			<0.001			
7/10/2018		<0.001		<0.001		
7/11/2018	0.0064 (J)				<0.001	0.0017 (J)
7/30/2019		0.00032 (J)				
8/27/2019		<0.001			0.00077 (J)	
8/28/2019	0.0023 (J)		<0.001	<0.001		0.00099 (J)
10/8/2019				<0.001		
10/9/2019	0.0024 (J)	<0.001	<0.001		<0.001	0.00099 (J)
4/7/2020				<0.001	0.00037 (J)	
4/8/2020	0.0024 (J)	0.00036 (J)	<0.001			0.001 (J)
8/18/2020	0.0025 (J)	<0.001	<0.001	<0.001	<0.001	
8/19/2020						0.0011 (J)
9/29/2020		<0.001				
9/30/2020	0.0018 (J)		<0.001	<0.001	<0.001	
10/1/2020						0.00099 (J)
3/10/2021					<0.001	0.00096 (J)
3/11/2021	0.0019 (J)					
3/12/2021			<0.001			
3/15/2021		<0.001				
3/16/2021				<0.001		
9/21/2021					<0.001	
9/22/2021	0.0028 (J)	<0.001	<0.001	<0.001		0.00082 (J)
2/1/2022	0.0036 (J)		<0.001	<0.001		
2/2/2022		<0.001				0.00096 (J)
2/3/2022					<0.001	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/30/2022			<0.001	<0.001		
8/31/2022	0.00358				<0.001	
9/1/2022		<0.001				0.00093 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.001	<0.001	<0.001
9/22/2021	<0.001	<0.001	
9/23/2021			<0.001
2/1/2022		<0.001	
2/3/2022	<0.001		<0.001
8/31/2022	<0.001		<0.001
9/1/2022		<0.001	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		2.72		1.81	2.19	2.36
9/1/2016	11		5.27			
10/24/2016		2.96				
10/25/2016	10.5					2.02
10/26/2016			2.32	2.03	2.67	
1/3/2017		2.76		1.85		
1/4/2017						2.1
1/5/2017					3.74	
1/6/2017	6.81		5.1			
4/3/2017		1.36				
4/4/2017			5			1.39 (U)
4/6/2017	8.93			2.66	2.36	
7/11/2017		1.85				
7/12/2017			2.69	2.1	1.54	1.63
7/13/2017	8.51					
10/2/2017		1.9				
10/3/2017				2	3.63	1.84
10/4/2017	3.85		4.82			
1/9/2018	4.28	2.39			2.07	
1/10/2018				2.55		2.11
1/11/2018			4.48			
7/9/2018		1.49				
7/10/2018				3.14	1.63	1.29
7/11/2018	5.99		2.69			
8/26/2019	6.03	3.03				
8/27/2019			2.97		4.63	2.41
8/28/2019				3.74		
10/7/2019		2.83				
10/8/2019	33.8 (o)					
10/9/2019			2.17	7.23	5.45	3.13
4/6/2020	25.7 (o)	2.83				
4/7/2020			2.44	3.57	6.25	1.97
8/17/2020		2.63				
8/19/2020	5.45		3.1	2.49	4.53	1.91
9/28/2020	22.4 (o)	2.08				1.29
9/30/2020				4.45	6.39	
10/1/2020			2.6			
3/10/2021			2.11	4.67	4.61	1.7
3/11/2021	3.22					
3/12/2021		2.17				
9/21/2021	10.3	0.73 (U)	2.45	3.1	5.07	
9/23/2021						1.48
1/31/2022	8.46 (U)	1.01				
2/2/2022			3.17		4.79	
2/3/2022				2.65		1
8/30/2022	2.75	1.97	5.57	3.36	3.2	
9/1/2022						0.911 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	2.2	2.61	1.23			
9/1/2016				1.28	2.45	1.99
10/25/2016				1.54	1.04 (U)	1.98
10/26/2016	1.96	3.28	0.641 (U)			
1/4/2017	1.88	3.77				1.72
1/5/2017			0.657 (U)	0.715 (U)	1.36	
4/3/2017					0.697 (U)	
4/4/2017				0.699 (U)		
4/5/2017		3.25				1.72
4/6/2017			0.439 (U)			
4/8/2017	0.893 (U)					
7/10/2017		1.55				
7/11/2017	1.89			1.12	0.754 (U)	
7/12/2017			0.414 (U)			1.11
10/2/2017				0.855 (U)	1.52	
10/3/2017	4.73					2.13
10/4/2017		1.68	1.33			
1/9/2018				0.861 (U)	1.17	
1/10/2018			1.21			1.74
1/11/2018	7.49	2.94				
7/9/2018				0.693 (U)		
7/10/2018					1.26	1.97
7/11/2018	5.88	2.03	1.4 (U)			
8/27/2019	5.09	2.09	1.27	1.32	1.75	
8/28/2019						2.04
10/8/2019	6.39		1.62	1.41	1.52	1.89
10/9/2019		3.11				
4/7/2020	7.87	2.18		1.41	1.82	4.17
4/8/2020			1.08 (U)			
8/17/2020		2.25	1.42			
8/18/2020	6.76			0.731 (U)	1.84	4.24
9/28/2020			1.28			
9/29/2020	8.3	0.845 (U)		0.331 (U)		
9/30/2020					2.14	2.47
3/10/2021	7.55	1.77				
3/12/2021					0.607 (U)	
3/15/2021			0.769 (U)			
3/16/2021				0.0831 (U)		2.15
9/21/2021	4.35	1.24 (U)	2.09			
9/22/2021				1.94 (U)		3.06
9/23/2021					1.64	
2/1/2022						2.73
2/2/2022				0.881 (U)		
2/3/2022	4.04	0.957	1.18		0.58 (U)	
8/30/2022		3.37		2.62		
8/31/2022	6.34		1.9		2.88	
9/1/2022						1.64 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		1.01			5.96	3.3
9/1/2016	5.19		2.21	1.05		
10/25/2016			1.51 (U)	1.2		
10/26/2016	4.25	0.725 (U)			7.42	
10/27/2016						2.7
1/4/2017			2.56	2.11	6.07	
1/5/2017	3.55	0.735 (U)				
1/6/2017						4.45
4/4/2017		0.87 (U)	1.77	2.02		
4/5/2017	4.39					
4/6/2017					3	3.1
7/11/2017			2.76		4.2	
7/12/2017						2.73
7/13/2017	2.44	0.42 (U)		0.576 (U)		
10/2/2017			4.15			
10/3/2017		0.995 (U)		0.86		
10/4/2017	4.95				7.16	8.16
1/9/2018				1.43		
1/10/2018		0.698 (U)	1.96			
1/11/2018	3.53				3.57	2.31
7/9/2018			1.11			
7/10/2018		1.01		1.63		
7/11/2018	3.13				7.57	3.31
8/27/2019		0.787 (U)			7.04	
8/28/2019	2.01		1.13 (U)	1.4 (U)		1.91
10/8/2019				1.88		
10/9/2019	2.91	0.22 (U)	2.28		3.68	3.09
4/7/2020				1.8	7.66	
4/8/2020	2.79	1.13 (U)	4.19			1.92
8/18/2020	3.11	1.09 (U)	6.86	3.27	7.65	
8/19/2020						2.34
9/29/2020		1 (U)				
9/30/2020	3.09		5.62	3.83	2.79	
10/1/2020						3.3
3/10/2021					2.53	2.08
3/11/2021	2.77					
3/12/2021			5.17			
3/15/2021		0.804 (U)				
3/16/2021				2.88		
9/21/2021					1.25 (U)	
9/22/2021	2.36	0.769 (U)	6.84	0.959 (U)		2.08
2/1/2022	2.51		5.11	2.51		
2/2/2022		0.854 (U)				0.967 (U)
2/3/2022					1.4	
8/30/2022			4.95	2.56		
8/31/2022	2.72				3.07	
9/1/2022		2.09				2.35

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	1.55	1.29	0.353 (U)
9/22/2021	1.4	0.982 (U)	
9/23/2021			1.15
2/1/2022		0.36 (U)	
2/3/2022	1.21		0.278 (U)
8/31/2022	1.79		0.645 (U)
9/1/2022		3.54	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		0.1 (J)		0.04 (J)	0.09 (J)	0.22 (J)
9/1/2016	<0.1		<0.1			
10/24/2016		0.18 (J)				
10/25/2016	0.07 (J)					<0.1
10/26/2016			0.05 (J)	0.05 (J)	0.24 (J)	
1/3/2017		0.18 (J)		0.08 (J)		
1/4/2017						0.18 (J)
1/5/2017					0.11 (J)	
1/6/2017	0.2 (J)		0.08 (J)			
4/3/2017		0.12 (J)				
4/4/2017			<0.1			<0.1
4/6/2017	0.05 (J)			0.006 (J)	0.3	
7/11/2017		0.39				
7/12/2017			0.38	0.05 (J)	0.15 (J)	0.04 (J)
7/13/2017	0.41					
10/2/2017		0.12 (J)				
10/3/2017				0.11 (J)	0.11 (J)	<0.1
10/4/2017	0.04 (J)		<0.1			
1/9/2018	0.46	0.21 (J)			<0.1	
1/10/2018				<0.1		<0.1
1/11/2018			<0.1			
7/9/2018		0.04 (J)				
7/10/2018				0.2 (J)	<0.1	<0.1
7/11/2018	<0.1		<0.1			
1/16/2019	0.49	<0.1	1.2	<0.1	0.053 (J)	<0.1
3/25/2019	0.21 (J)	0.082 (J)	0.064 (J)			
3/26/2019				<0.1	0.046 (J)	0.051 (J)
8/26/2019	<0.1	0.13				
8/27/2019			0.031 (J)		0.13 (J)	<0.1
8/28/2019				0.097 (J)		
10/7/2019		<0.1				
10/8/2019	<0.1					
10/9/2019			<0.1	<0.1	<0.1	<0.1
4/6/2020	0.13 (J)	0.089 (J)				
4/7/2020			<0.1	<0.1	<0.1	<0.1
8/17/2020		0.079 (J)				
8/19/2020	0.21		0.17	<0.1	<0.1	<0.1
9/28/2020	0.069 (J)	<0.1				<0.1
9/30/2020				<0.1	<0.1	
10/1/2020			<0.1			
3/10/2021			<0.1	<0.1	<0.1	<0.1
3/11/2021	<0.1					
3/12/2021		0.087 (J)				
9/21/2021	0.077 (J)	0.068 (J)	<0.1	<0.1	<0.1	
9/23/2021						<0.1
1/31/2022	<0.1	0.09 (J)				
2/2/2022			<0.1		<0.1	
2/3/2022				0.081 (J)		<0.1
8/30/2022	0.0391 (J)	0.0759 (J)	<0.1	0.0428 (J)	<0.1	
9/1/2022						<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.1	0.7	<0.1			
9/1/2016				0.25 (J)	<0.1	0.55
10/25/2016				0.43	0.5	0.36
10/26/2016	<0.1	0.91	0.55			
1/4/2017	<0.1	0.51				0.1 (J)
1/5/2017			0.09 (J)	0.21 (J)	0.22 (J)	
4/3/2017					<0.1	
4/4/2017				0.45		
4/5/2017		0.71				0.2 (J)
4/6/2017	<0.1		<0.1			
7/10/2017		0.88				
7/11/2017	<0.1			0.41	0.06 (J)	
7/12/2017			<0.1			0.04 (J)
10/2/2017				<0.1	<0.1	
10/3/2017	<0.1					0.86
10/4/2017		0.37	<0.1			
1/9/2018				<0.1	<0.1	
1/10/2018			<0.1			<0.1
1/11/2018	<0.1	1.4				
7/9/2018				<0.1		
7/10/2018					0.15 (J)	<0.1
7/11/2018	<0.1	0.62	<0.1			
1/16/2019			<0.1	<0.1		
1/17/2019	<0.1	1.2			<0.1	<0.1
3/26/2019			0.052 (J)	0.13 (J)	0.13 (J)	0.11 (J)
3/27/2019	<0.1	0.036 (J)				
8/27/2019	<0.1	0.3	<0.1	<0.1	<0.1	
8/28/2019						<0.1
10/8/2019	<0.1		<0.1	<0.1	<0.1	<0.1
10/9/2019		<0.1				
4/7/2020	<0.1	0.27 (J)		<0.1	<0.1	<0.1
4/8/2020			<0.1			
8/17/2020		0.19	<0.1			
8/18/2020	<0.1			<0.1	<0.1	<0.1
9/28/2020			<0.1			
9/29/2020	<0.1	0.16		<0.1		
9/30/2020					<0.1	<0.1
3/10/2021	<0.1	0.14				
3/12/2021					<0.1	
3/15/2021			<0.1			
3/16/2021				<0.1		<0.1
9/21/2021	<0.1	0.31	<0.1			
9/22/2021				<0.1		<0.1
9/23/2021					<0.1	
2/1/2022						<0.1
2/2/2022				<0.1		
2/3/2022	<0.1	0.36	<0.1		<0.1	
8/30/2022		0.273		<0.1		
8/31/2022	<0.1		0.051 (J)		<0.1	
9/1/2022						0.0374 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.07 (J)			0.04 (J)	0.55
9/1/2016	0.68		<0.1	<0.1		
10/25/2016			<0.1	<0.1		
10/26/2016	0.68	0.62			0.12 (J)	
10/27/2016						0.26 (J)
1/4/2017			0.04 (J)	<0.1	0.06 (J)	
1/5/2017	0.73	0.17 (J)				
1/6/2017						0.25 (J)
4/4/2017		0.08 (J)	0.02 (J)	<0.1		
4/5/2017	1.6					
4/6/2017					<0.1	0.16 (J)
7/11/2017			0.14 (J)		0.03 (J)	
7/12/2017						0.2 (J)
7/13/2017	1.7	0.06 (J)		<0.1		
10/2/2017			<0.1			
10/3/2017		0.06 (J)		<0.1		
10/4/2017	1.8				0.12 (J)	0.22 (J)
1/9/2018				<0.1		
1/10/2018		<0.1	<0.1			
1/11/2018	1.5				<0.1	0.98
7/9/2018			<0.1			
7/10/2018		<0.1		<0.1		
7/11/2018	1.8				<0.1	0.14 (J)
1/16/2019	1.4					
1/17/2019				<0.1		
1/18/2019					<0.1	0.24 (J)
1/21/2019		<0.1	<0.1			
3/25/2019			0.043 (J)			
3/26/2019	0.89			0.071 (J)		
3/27/2019					<0.1	0.13 (J)
7/30/2019		0.083 (J)				
8/27/2019		<0.1			0.1	
8/28/2019	0.61		<0.1	<0.1		0.088 (J)
10/8/2019				<0.1		
10/9/2019	<0.1	<0.1	<0.1		<0.1	0.068 (J)
4/7/2020				<0.1	<0.1	
4/8/2020	0.55	<0.1	<0.1			0.058 (J)
8/18/2020	0.51	<0.1	<0.1	<0.1	<0.1	
8/19/2020						0.092 (J)
9/29/2020		<0.1				
9/30/2020	0.15		<0.1	<0.1	<0.1	
10/1/2020						<0.1
3/10/2021					<0.1	0.066 (J)
3/11/2021	0.42					
3/12/2021			<0.1			
3/15/2021		<0.1				
3/16/2021				<0.1		
9/21/2021					<0.1	
9/22/2021	0.79	<0.1	<0.1	<0.1		0.13
2/1/2022	0.68		<0.1	<0.1		
2/2/2022		<0.1				<0.1
2/3/2022					<0.1	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/30/2022			<0.1	<0.1		
8/31/2022	0.442				<0.1	
9/1/2022		<0.1				0.0783 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			0.11
1/21/2021	<0.1	<0.1	
3/11/2021	<0.1	<0.1	0.12
9/22/2021	<0.1	<0.1	
9/23/2021			0.096 (J)
2/1/2022		<0.1	
2/3/2022	<0.1		0.077 (J)
8/31/2022	0.0791 (J)		0.187
9/1/2022		<0.1	

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.002	<0.002	0.0083	0.017 (O)	<0.002	<0.002
11/21/2000	<0.002		0.0052	<0.002	<0.002	<0.002
1/20/2001	<0.002	<0.002	<0.002	0.011	<0.002	<0.002
3/14/2001	<0.002	<0.002	<0.002	0.026 (O)	<0.002	<0.002
7/16/2001	<0.002	<0.002	0.011	0.043 (O)	<0.002	<0.002
11/1/2001	<0.002	<0.002	<0.002	0.075 (O)	<0.002	<0.002
4/25/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/20/2002		<0.002	0.018 (O)	0.057 (O)	0.0057 (J)	<0.002
6/6/2003	0.037 (O)	0.016 (O)	0.015 (O)	0.16 (O)	0.013	<0.002
12/12/2003	0.008	0.0095	0.0072	<0.002	<0.002	<0.002
5/26/2004	<0.002	<0.002	0.0055	0.011	<0.002	<0.002
12/7/2004	<0.002	<0.002	<0.002	0.038 (O)	<0.002	<0.002
6/21/2005	<0.002	<0.002	<0.002	0.036 (O)	<0.002	<0.002
12/12/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2006		<0.002				
6/27/2006	<0.002	<0.002	0.024 (O)	<0.002	<0.002	<0.002
8/30/2006		<0.002				
12/4/2006	<0.002	<0.002	0.023 (O)	<0.002	<0.002	<0.002
2/15/2007		<0.002				
6/23/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/11/2007		<0.002				
12/11/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/11/2008		<0.002				
6/23/2008	<0.002	<0.002				
6/24/2008			0.02 (O)	<0.002	0.02	<0.002
11/3/2008		<0.002				
12/4/2008	<0.002	<0.002				
12/5/2008			<0.002	<0.002	<0.002	<0.002
3/25/2009		<0.002				
7/7/2009	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/14/2009		<0.002				
12/20/2009	<0.002	<0.002				<0.002
12/21/2009			<0.002	<0.002	<0.002	
3/4/2010		<0.002				
6/20/2010	<0.002	<0.002		<0.002	<0.002	<0.002
6/21/2010			<0.002			
9/14/2010		<0.002				
1/6/2011				<0.002		<0.002
1/7/2011	<0.002	<0.002	<0.002		<0.002	
4/15/2011		<0.002				
7/7/2011	<0.002	<0.002		<0.002	<0.002	<0.002
7/8/2011			<0.002			
9/25/2011		<0.002				
1/17/2012	<0.002	<0.002		<0.002		<0.002
1/18/2012			<0.002		<0.002	
4/4/2012		<0.002				
7/9/2012	<0.002			<0.002		<0.002
7/10/2012		<0.002	<0.002		<0.002	
10/9/2012		<0.002				
1/17/2013				<0.002		<0.002
1/18/2013	<0.002	<0.002	<0.002		<0.002	
4/5/2013		<0.002				

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.002		<0.002
7/17/2013	<0.002	<0.002	<0.002		<0.002	
10/11/2013		<0.002				
1/13/2014	0.013			<0.002		<0.002
1/14/2014		<0.002	0.005		<0.002	
4/3/2014		<0.002				
7/9/2014	0.0076 (J)	<0.002	<0.002	<0.002	<0.002	<0.002
10/24/2014		<0.002				
1/12/2015			<0.002			
1/13/2015	0.0057 (J)			<0.002		<0.002
1/14/2015		<0.002			<0.002	
5/10/2015		<0.002				
7/16/2015	0.009 (J)		<0.002	<0.002		<0.002
7/17/2015		<0.002			<0.002	
10/6/2015		<0.002				
1/17/2016						<0.002
1/18/2016	0.0094 (J)	<0.002	0.0055 (J)	<0.002	<0.002	
4/26/2016		<0.002				
7/27/2016	0.0058			<0.002		<0.002
7/28/2016		<0.002			<0.002	
7/29/2016			0.003 (J)			
8/30/2016		<0.002		<0.002	<0.002	<0.002
9/1/2016	0.0663 (O)		0.0166 (O)			
10/24/2016		<0.002				
10/25/2016	0.0003 (J)					<0.002
10/26/2016			0.0057	0.0002 (J)	<0.002	
1/3/2017		0.0001 (J)		0.0001 (J)		
1/4/2017						<0.002
1/5/2017					0.0003 (J)	
1/6/2017	0.006		0.0053			
4/3/2017		0.0002 (J)				
4/4/2017			0.0092			<0.002
4/6/2017	0.0109			0.0003 (J)	0.0002 (J)	
7/11/2017		0.0001 (J)				
7/12/2017			0.006	0.0002 (J)	0.0002 (J)	<0.002
7/13/2017	0.007					
10/2/2017		0.0001 (J)				
10/3/2017				0.0002 (J)	0.0001 (J)	<0.002
10/4/2017	0.0042 (J)		0.0057			
1/9/2018	0.0098	0.0001 (J)			0.0003 (J)	
1/10/2018				0.0003 (J)		0.0001 (J)
1/11/2018			0.0085			
7/9/2018		<0.002				
7/10/2018				<0.002	<0.002	<0.002
7/11/2018	0.0028 (J)		0.0029 (J)			
1/16/2019	<0.025 (O)	<0.002	<0.002	<0.002	<0.002	<0.002
3/25/2019	0.0019 (J)	<0.002	<0.002			
3/26/2019				<0.002	<0.002	<0.002
8/26/2019	0.013 (J)	<0.002				
8/27/2019			0.001 (J)		0.0011 (J)	<0.002
8/28/2019				0.0011 (J)		
10/7/2019		<0.002				

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.0098 (J)					
10/9/2019			0.00041 (J)	0.0025 (J)	0.00033 (J)	<0.002
4/6/2020	0.0024 (J)	0.0001 (J)				
4/7/2020			0.00073 (J)	0.0014 (J)	0.00063 (J)	0.00012 (J)
8/17/2020		<0.002				
8/19/2020	0.0044 (J)		0.00048 (J)	7.9E-05 (J)	0.00014 (J)	<0.002
9/28/2020	0.0043 (J)	<0.002				4.3E-05 (J)
9/30/2020				0.0012 (J)	8E-05 (J)	
10/1/2020			0.00026 (J)			
3/10/2021			0.0003 (J)	5.2E-05 (J)	9.6E-05 (J)	0.0001 (J)
3/11/2021	0.0079					
3/12/2021		9.3E-05 (J)				
9/21/2021	<0.002	<0.002	<0.002	<0.002	<0.002	
9/23/2021						<0.002
1/31/2022	<0.002	<0.002				
2/2/2022			<0.002		<0.002	
2/3/2022				<0.002		<0.002
8/30/2022	0.0022	<0.002	<0.002	<0.002	<0.002	
9/1/2022						<0.002

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/21/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/20/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/14/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
7/16/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/1/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/25/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/20/2002	<0.002	<0.002	<0.002	0.011 (O)	<0.002	<0.002
6/6/2003	0.0068	<0.002	0.0078	<0.002	<0.002	0.099 (O)
12/12/2003	<0.002	<0.002	0.0055	<0.002	0.0065	0.017 (O)
5/26/2004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/7/2004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/21/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/12/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2006				<0.002		<0.002
6/27/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/30/2006				<0.002		<0.002
12/4/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
2/15/2007				<0.002		<0.002
6/23/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/11/2007				<0.002		<0.002
12/11/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/11/2008				<0.002		<0.002
6/23/2008	<0.002	<0.002	<0.002			
6/24/2008				<0.002	<0.002	<0.002
11/3/2008				<0.002		<0.002
12/4/2008	<0.002	<0.002	<0.002	<0.002		
12/5/2008					<0.002	<0.002
3/25/2009				<0.002		<0.002
7/8/2009	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/14/2009				<0.002		<0.002
12/20/2009				<0.002	<0.002	<0.002
12/21/2009	<0.002	<0.002	<0.002			
3/4/2010				<0.002		<0.002
6/20/2010	<0.002	<0.002	<0.002	<0.002	<0.002	
6/21/2010						<0.002
9/14/2010				<0.002		<0.002
1/6/2011	<0.002		<0.002			
1/7/2011		<0.002		<0.002	<0.002	<0.002
4/15/2011				<0.002		<0.002
7/7/2011	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9/25/2011				<0.002		<0.002
1/17/2012	<0.002	<0.002	<0.002	<0.002	<0.002	
1/18/2012						<0.002
4/4/2012				<0.002		<0.002
7/9/2012	<0.002	<0.002	<0.002	<0.002	<0.002	
7/10/2012						<0.002
10/9/2012				<0.002		<0.002
1/17/2013	<0.002	<0.002	<0.002			
1/18/2013				<0.002	<0.002	<0.002
4/5/2013				<0.002		<0.002
7/16/2013	<0.002	<0.002	<0.002			

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.002	<0.002	<0.002
10/11/2013				<0.002		<0.002
1/13/2014	<0.002	0.004	<0.002		<0.002	
1/14/2014				<0.002		<0.002
4/3/2014				<0.002		<0.002
7/8/2014	<0.002	<0.002	<0.002			
7/9/2014				<0.002	<0.002	<0.002
10/24/2014				<0.002		<0.002
1/13/2015	<0.002	<0.002	<0.002		<0.002	
1/14/2015				<0.002		<0.002
5/10/2015				<0.002		
5/11/2015						<0.002
7/16/2015	<0.002	0.0044 (J)	<0.002		<0.002	<0.002
7/17/2015				<0.002		
1/17/2016				<0.002	<0.002	<0.002
1/18/2016		0.0034 (J)	<0.002			
1/19/2016	<0.002					
4/26/2016				<0.002		<0.002
7/26/2016	0.0001 (J)		<0.002			
7/27/2016		0.0001 (J)		<0.002	<0.002	
7/28/2016						<0.002
8/31/2016	0.0002 (J)	0.0001 (J)	<0.002			
9/1/2016				<0.002	<0.002	<0.002
10/25/2016				<0.002	<0.002	0.0002 (J)
10/26/2016	0.0001 (J)	0.0001 (J)	<0.002			
1/4/2017	0.0002 (J)	<0.002				0.0001 (J)
1/5/2017			0.0002 (J)	<0.002	<0.002	
4/3/2017					0.0003 (J)	
4/4/2017				0.0001 (J)		
4/5/2017		0.0003 (J)				0.0002 (J)
4/6/2017	0.0003 (J)		0.0005 (J)			
7/10/2017		0.0003 (J)				
7/11/2017	0.0002 (J)			8E-05 (J)	0.0001 (J)	
7/12/2017			0.0005 (J)			0.0001 (J)
10/2/2017				0.0001 (J)	0.0002 (J)	
10/3/2017	0.0003 (J)					0.0001 (J)
10/4/2017		0.0001 (J)	0.0007 (J)			
1/9/2018				<0.002	0.0002 (J)	
1/10/2018			0.0009 (J)			0.0002 (J)
1/11/2018	0.0003 (J)	0.0002 (J)				
7/9/2018				<0.002		
7/10/2018					<0.002	<0.002
7/11/2018	<0.002	<0.002	0.0015 (J)			
1/16/2019			0.00061 (J)	<0.002		
1/17/2019	0.00028 (J)	<0.002			<0.002	<0.002
3/26/2019			<0.002	<0.002	<0.002	<0.002
3/27/2019	0.00029 (J)	<0.002				
8/27/2019	0.00021 (J)	<0.002	0.0001 (J)	0.00051 (J)	0.00033 (J)	
8/28/2019						0.0001 (J)
10/8/2019	0.00028 (J)		0.00013 (J)	<0.002	0.00012 (J)	0.0001 (J)
10/9/2019		6.6E-05 (J)				
4/7/2020	0.00036 (J)	8.1E-05 (J)		<0.002	8.6E-05 (J)	0.00023 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/8/2020			0.00017 (J)			
8/17/2020		4.9E-05 (J)	7.6E-05 (J)			
8/18/2020	0.00035 (J)			<0.002	9E-05 (J)	0.00017 (J)
9/28/2020			6.4E-05 (J)			
9/29/2020	0.00032 (J)	3.7E-05 (J)		<0.002		
9/30/2020					4.7E-05 (J)	9.1E-05 (J)
3/10/2021	0.00042 (J)	6.8E-05 (J)				
3/12/2021					5.3E-05 (J)	
3/15/2021			0.00013 (J)			
3/16/2021				<0.002		7.3E-05 (J)
9/21/2021	<0.002	<0.002	<0.002			
9/22/2021				<0.002		<0.002
9/23/2021					<0.002	
2/1/2022						<0.002
2/2/2022				<0.002		
2/3/2022	<0.002	<0.002	<0.002		<0.002	
8/30/2022		<0.002		<0.002		
8/31/2022	<0.002		<0.002		<0.002	
9/1/2022						<0.002

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.002					<0.002
11/21/2000	<0.002	0.0069				<0.002
1/20/2001	<0.002	<0.002				<0.002
3/14/2001	<0.002	<0.002				<0.002
7/16/2001	<0.002	<0.002				<0.002
11/1/2001	<0.002	<0.002				<0.002
4/25/2002	<0.002	<0.002				<0.002
11/20/2002	<0.002	<0.002				0.0086 (O)
6/6/2003	<0.002	<0.002				<0.002
12/12/2003	<0.002	<0.002				<0.002
5/26/2004	<0.002	<0.002				<0.002
12/7/2004	<0.002	<0.002				0.0051
6/21/2005	<0.002	<0.002				<0.002
12/12/2005	<0.002	<0.002				<0.002
6/27/2006	<0.002	<0.002				<0.002
12/4/2006	<0.002	<0.002				<0.002
6/23/2007	<0.002	<0.002				<0.002
12/11/2007	<0.002	<0.002				<0.002
6/23/2008						<0.002
6/24/2008	<0.002	<0.002				
12/4/2008		<0.002				<0.002
12/5/2008	<0.002					
7/8/2009	<0.002	<0.002				<0.002
12/20/2009		<0.002				
12/21/2009	<0.002					<0.002
6/20/2010		<0.002				<0.002
6/21/2010	<0.002		<0.002	<0.002	<0.002	
1/6/2011		<0.002				
1/7/2011	<0.002		<0.002	<0.002	<0.002	<0.002
7/7/2011			<0.002			
7/8/2011	<0.002		<0.002	<0.002	<0.002	<0.002
1/17/2012		<0.002				
1/18/2012	<0.002		<0.002	<0.002	<0.002	<0.002
7/9/2012		<0.002				
7/10/2012	<0.002		<0.002	<0.002	<0.002	<0.002
1/17/2013		<0.002				
1/18/2013	<0.002		<0.002	<0.002	<0.002	<0.002
7/17/2013	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/13/2014		<0.002				
1/14/2014	<0.002		<0.002	<0.002	<0.002	<0.002
7/9/2014	<0.002	<0.002		<0.002		<0.002
7/10/2014			<0.002		<0.002	
1/12/2015			<0.002			
1/13/2015		<0.002				
1/14/2015	<0.002			<0.002	<0.002	<0.002
7/16/2015		<0.002				
7/17/2015				<0.002		<0.002
7/18/2015	<0.002		<0.002		<0.002	
1/17/2016		<0.002	<0.002	<0.002		
1/18/2016	<0.002				<0.002	<0.002
7/27/2016		<0.002				
7/28/2016			<0.002	<0.002		<0.002

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	<0.002				0.0004 (J)	
8/31/2016		<0.002			0.0003 (J)	0.0007 (J)
9/1/2016	<0.002		<0.002	<0.002		
10/25/2016			0.0001 (J)	<0.002		
10/26/2016	<0.002	<0.002			0.0003 (J)	
10/27/2016						<0.002
1/4/2017			<0.002	<0.002	0.0003 (J)	
1/5/2017	<0.002	<0.002				
1/6/2017						<0.002
4/4/2017		0.0002 (J)	7E-05 (J)	9E-05 (J)		
4/5/2017	0.0009 (J)					
4/6/2017					0.0003 (J)	0.0001 (J)
7/11/2017			<0.002		0.0002 (J)	
7/12/2017						<0.002
7/13/2017	<0.002	0.0003 (J)		7E-05 (J)		
10/2/2017			<0.002			
10/3/2017		<0.002		0.0001 (J)		
10/4/2017	0.0001 (J)				0.0008 (J)	9E-05 (J)
1/9/2018				9E-05 (J)		
1/10/2018		8E-05 (J)	0.0002 (J)			
1/11/2018	0.0001 (J)				0.0009 (J)	0.0002 (J)
7/9/2018			<0.002			
7/10/2018		<0.002		<0.002		
7/11/2018	<0.002				0.001 (J)	<0.002
1/16/2019	<0.002					
1/17/2019				<0.002		
1/18/2019					0.0012 (J)	<0.002
1/21/2019		<0.002	<0.002			
3/25/2019			<0.002			
3/26/2019	<0.002			<0.002		
3/27/2019					0.00047 (J)	<0.002
7/30/2019		0.0002 (J)				
8/27/2019		<0.002			0.003 (J)	
8/28/2019	<0.002		6.5E-05 (J)	0.00018 (J)		6.1E-05 (J)
10/8/2019				0.00016 (J)		
10/9/2019	0.00015 (J)	6.4E-05 (J)	0.00018 (J)		0.00032 (J)	<0.002
4/7/2020				<0.002	0.00067 (J)	
4/8/2020	8.4E-05 (J)	<0.002	<0.002			0.00021 (J)
8/18/2020	0.00014 (J)	<0.002	<0.002	0.00027 (J)	0.00072 (J)	
8/19/2020						9.6E-05 (J)
9/29/2020		<0.002				
9/30/2020	6E-05 (J)		<0.002	5.4E-05 (J)	0.00023 (J)	
10/1/2020						3.8E-05 (J)
3/10/2021					0.00016 (J)	0.00012 (J)
3/11/2021	0.00019 (J)					
3/12/2021			<0.002			
3/15/2021		4.1E-05 (J)				
3/16/2021				<0.002		
9/21/2021					<0.002	
9/22/2021	<0.002	<0.002	<0.002	<0.002		<0.002
2/1/2022	<0.002		<0.002	<0.002		
2/2/2022		<0.002				<0.002

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.002	
8/30/2022			<0.002	<0.002		
8/31/2022	<0.002				<0.002	
9/1/2022		<0.002				<0.002

Time Series

Constituent: Lead (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	5.7E-05 (J)	9.4E-05 (J)	9.5E-05 (J)
9/22/2021	<0.002	<0.002	
9/23/2021			<0.002
2/1/2022		<0.002	
2/3/2022	<0.002		<0.002
8/31/2022	<0.002		<0.002
9/1/2022		<0.002	

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		<0.03		0.0042 (J)	<0.03	<0.03
9/1/2016	<0.03		0.0092 (J)			
10/24/2016		<0.03				
10/25/2016	<0.03					<0.03
10/26/2016			0.0046 (J)	<0.03	<0.03	
1/3/2017		<0.03		0.0024 (J)		
1/4/2017						<0.03
1/5/2017					<0.03	
1/6/2017	<0.03		0.0042 (J)			
4/3/2017		<0.03				
4/4/2017			0.0056 (J)			<0.03
4/6/2017	<0.03			0.0051 (J)	<0.03	
7/11/2017		<0.03				
7/12/2017			0.0035 (J)	0.0031 (J)	<0.03	<0.03
7/13/2017	<0.03					
10/2/2017		<0.03				
10/3/2017				0.0027 (J)	<0.03	<0.03
10/4/2017	<0.03		0.0041 (J)			
1/9/2018	<0.03	<0.03			<0.03	
1/10/2018				0.0041 (J)		<0.03
1/11/2018			0.0052 (J)			
7/9/2018		0.001 (J)				
7/10/2018				0.005 (J)	<0.03	<0.03
7/11/2018	<0.03		0.0039 (J)			
8/26/2019	<0.03	0.0012 (J)				
8/27/2019			0.013 (J)		<0.03	<0.03
8/28/2019				<0.03		
10/7/2019		0.0012 (J)				
10/8/2019	<0.03					
10/9/2019			0.013 (J)	<0.03	<0.03	<0.03
4/6/2020	<0.03	0.00086 (J)				
4/7/2020			0.014 (J)	<0.03	<0.03	<0.03
8/17/2020		0.001 (J)				
8/19/2020	<0.03		0.014 (J)	<0.03	<0.03	<0.03
9/28/2020	<0.03	0.001 (J)				<0.03
9/30/2020				<0.03	<0.03	
10/1/2020			0.013 (J)			
3/10/2021			0.012 (J)	<0.03	<0.03	<0.03
3/11/2021	<0.03					
3/12/2021		0.0013 (J)				
9/21/2021	<0.03	0.00092 (J)	0.016 (J)	<0.03	<0.03	
9/23/2021						<0.03
1/31/2022	<0.03	0.00091 (J)				
2/2/2022			0.015 (J)		<0.03	
2/3/2022				<0.03		<0.03
8/30/2022	<0.03	<0.03	0.0175	<0.03	<0.03	
9/1/2022						<0.03

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.03	<0.03	<0.03			
9/1/2016				<0.03	<0.03	<0.03
10/25/2016				<0.03	<0.03	<0.03
10/26/2016	<0.03	<0.03	<0.03			
1/4/2017	<0.03	<0.03				<0.03
1/5/2017			<0.03	<0.03	<0.03	
4/3/2017					<0.03	
4/4/2017				<0.03		
4/5/2017		0.0012 (J)				<0.03
4/6/2017	<0.03		<0.03			
7/10/2017		<0.03				
7/11/2017	<0.03			<0.03	<0.03	
7/12/2017			<0.03			<0.03
10/2/2017				<0.03	<0.03	
10/3/2017	<0.03					<0.03
10/4/2017		<0.03	<0.03			
1/9/2018				<0.03	<0.03	
1/10/2018			<0.03			<0.03
1/11/2018	<0.03	<0.03				
7/9/2018				<0.03		
7/10/2018					<0.03	<0.03
7/11/2018	<0.03	0.00098 (J)	<0.03			
8/27/2019	<0.03	0.00094 (J)	<0.03	<0.03	<0.03	
8/28/2019						<0.03
10/8/2019	<0.03		<0.03	<0.03	<0.03	<0.03
10/9/2019		0.0011 (J)				
4/7/2020	<0.03	0.00094 (J)		<0.03	<0.03	<0.03
4/8/2020			<0.03			
8/17/2020		0.00091 (J)	<0.03			
8/18/2020	<0.03			<0.03	<0.03	<0.03
9/28/2020			<0.03			
9/29/2020	<0.03	0.00086 (J)		<0.03		
9/30/2020					<0.03	<0.03
3/10/2021	<0.03	0.00095 (J)				
3/12/2021					<0.03	
3/15/2021			<0.03			
3/16/2021				<0.03		<0.03
9/21/2021	<0.03	0.00091 (J)	0.00087 (J)			
9/22/2021				<0.03		<0.03
9/23/2021					<0.03	
2/1/2022						<0.03
2/2/2022				<0.03		
2/3/2022	<0.03	0.001 (J)	0.00077 (J)		<0.03	
8/30/2022		<0.03		<0.03		
8/31/2022	<0.03		<0.03		<0.03	
9/1/2022						<0.03

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		<0.03			<0.03	<0.05 (O)
9/1/2016	0.0066 (J)		<0.03	<0.03		
10/25/2016			<0.03	<0.03		
10/26/2016	0.0065 (J)	<0.03			<0.03	
10/27/2016						0.0023 (J)
1/4/2017			<0.03	<0.03	<0.03	
1/5/2017	0.0062 (J)	<0.03				
1/6/2017						0.0021 (J)
4/4/2017		<0.03	<0.03	<0.03		
4/5/2017	0.007 (J)					
4/6/2017					<0.03	0.0021 (J)
7/11/2017			<0.03		<0.03	
7/12/2017						0.0017 (J)
7/13/2017	0.0069 (J)	<0.03		<0.03		
10/2/2017			<0.03			
10/3/2017		<0.03		<0.03		
10/4/2017	0.0082 (J)				<0.03	0.0021 (J)
1/9/2018				<0.03		
1/10/2018		<0.03	<0.03			
1/11/2018	0.0061 (J)				<0.03	0.0022 (J)
7/9/2018			<0.03			
7/10/2018		<0.03		<0.03		
7/11/2018	0.0075 (J)				<0.03	0.0019 (J)
7/30/2019		<0.03				
8/27/2019		<0.03			<0.03	
8/28/2019	0.0041 (J)		<0.03	<0.03		0.0018 (J)
10/8/2019				<0.03		
10/9/2019	0.0046 (J)	<0.03	<0.03		<0.03	0.0018 (J)
4/7/2020				<0.03	<0.03	
4/8/2020	0.0051 (J)	<0.03	<0.03			0.0018 (J)
8/18/2020	0.0065 (J)	<0.03	<0.03	<0.03	<0.03	
8/19/2020						0.0019 (J)
9/29/2020		<0.03				
9/30/2020	0.0041 (J)		<0.03	<0.03	<0.03	
10/1/2020						0.0019 (J)
3/10/2021					<0.03	0.0018 (J)
3/11/2021	0.0036 (J)					
3/12/2021			<0.03			
3/15/2021		<0.03				
3/16/2021				<0.03		
9/21/2021					<0.03	
9/22/2021	0.005 (J)	<0.03	<0.03	<0.03		0.0015 (J)
2/1/2022	0.0061 (J)		<0.03	<0.03		
2/2/2022		<0.03				0.0017 (J)
2/3/2022					<0.03	
8/30/2022			<0.03	<0.03		
8/31/2022	0.00688 (J)				<0.03	
9/1/2022		<0.03				<0.03

Time Series

Constituent: Lithium (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.03	<0.03	<0.03
9/22/2021	<0.03	<0.03	
9/23/2021			<0.03
2/1/2022		<0.03	
2/3/2022	<0.03		<0.03
8/31/2022	<0.03		<0.03
9/1/2022		<0.03	

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		<0.0002		<0.0002	<0.0002	4E-05 (J)
9/1/2016	0.00017 (J)		<0.0002			
10/24/2016		<0.0002				
10/25/2016	<0.0002					<0.0002
10/26/2016			<0.0002	<0.0002	<0.0002	
1/3/2017		<0.0002		<0.0002		
1/4/2017						<0.0002
1/5/2017					<0.0002	
1/6/2017	<0.0002		<0.0002			
4/3/2017		<0.0002				
4/4/2017			<0.0002			<0.0002
4/6/2017	4E-05 (J)			<0.0002	<0.0002	
7/11/2017		<0.0002				
7/12/2017			<0.0002	<0.0002	<0.0002	<0.0002
7/13/2017	<0.0002					
10/2/2017		<0.0002				
10/3/2017				<0.0002	<0.0002	<0.0002
10/4/2017	0.0001 (J)		<0.0002			
1/9/2018	<0.0002	<0.0002			<0.0002	
1/10/2018				<0.0002		<0.0002
1/11/2018			<0.0002			
7/9/2018		<0.0002				
7/10/2018				<0.0002	<0.0002	<0.0002
7/11/2018	<0.0002		<0.0002			
1/16/2019	<0.0002	<0.0002	4.9E-05 (J)	<0.0002	4.3E-05 (J)	<0.0002
8/26/2019	<0.0002	<0.0002				
8/27/2019			<0.0002		<0.0002	<0.0002
8/28/2019				<0.0002		
10/9/2019				<0.0002		
8/17/2020		<0.0002				
8/19/2020	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
9/21/2021	0.0001 (J)	0.00011 (J)	0.0001 (J)	0.0001 (J)	0.0001 (J)	
9/23/2021						0.0001 (J)
1/31/2022	<0.0002	<0.0002				
2/2/2022			<0.0002		<0.0002	
2/3/2022				<0.0002		<0.0002
8/30/2022	<0.0002	<0.0002	<0.0002	8.7E-05 (J)	<0.0002	
9/1/2022						<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.0002	<0.0002	<0.0002			
9/1/2016				<0.0002	<0.0002	<0.0002
10/25/2016				<0.0002	<0.0002	<0.0002
10/26/2016	<0.0002	<0.0002	<0.0002			
1/4/2017	<0.0002	<0.0002				<0.0002
1/5/2017			<0.0002	<0.0002	<0.0002	
4/3/2017					<0.0002	
4/4/2017				<0.0002		
4/5/2017		<0.0002				<0.0002
4/6/2017	<0.0002		0.00013 (J)			
7/10/2017		<0.0002				
7/11/2017	<0.0002			<0.0002	<0.0002	
7/12/2017			<0.0002			<0.0002
10/2/2017				<0.0002	<0.0002	
10/3/2017	<0.0002					<0.0002
10/4/2017		<0.0002	<0.0002			
1/9/2018				<0.0002	<0.0002	
1/10/2018			<0.0002			<0.0002
1/11/2018	<0.0002	<0.0002				
7/9/2018				<0.0002		
7/10/2018					<0.0002	<0.0002
7/11/2018	<0.0002	<0.0002	<0.0002			
1/16/2019			<0.0002	<0.0002		
1/17/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/27/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/28/2019						<0.0002
8/17/2020		<0.0002	<0.0002			
8/18/2020	<0.0002			<0.0002	<0.0002	<0.0002
9/21/2021	0.0001 (J)	0.0001 (J)	0.0001 (J)			
9/22/2021				0.00011 (J)		0.0001 (J)
9/23/2021					0.0001 (J)	
2/1/2022						<0.0002
2/2/2022				<0.0002		
2/3/2022	<0.0002	<0.0002	<0.0002		<0.0002	
8/30/2022		<0.0002		<0.0002		
8/31/2022	<0.0002		<0.0002		<0.0002	
9/1/2022						<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		<0.0002			<0.0002	<0.0002
9/1/2016	<0.0002		<0.0002	<0.0002		
10/25/2016			<0.0002	<0.0002		
10/26/2016	<0.0002	<0.0002			<0.0002	
10/27/2016						<0.0002
1/4/2017			<0.0002	<0.0002	<0.0002	
1/5/2017	<0.0002	<0.0002				
1/6/2017						<0.0002
4/4/2017		<0.0002	<0.0002	<0.0002		
4/5/2017	<0.0002					
4/6/2017					<0.0002	<0.0002
7/11/2017			<0.0002		<0.0002	
7/12/2017						<0.0002
7/13/2017	<0.0002	<0.0002		<0.0002		
10/2/2017			<0.0002			
10/3/2017		<0.0002		<0.0002		
10/4/2017	<0.0002				<0.0002	5E-05 (J)
1/9/2018				<0.0002		
1/10/2018		<0.0002	<0.0002			
1/11/2018	<0.0002				<0.0002	<0.0002
7/9/2018			<0.0002			
7/10/2018		<0.0002		<0.0002		
7/11/2018	<0.0002				<0.0002	<0.0002
1/16/2019	<0.0002					
1/17/2019				<0.0002		
1/18/2019					<0.0002	<0.0002
1/21/2019		<0.0002	<0.0002			
7/30/2019		<0.0002				
8/27/2019		<0.0002			<0.0002	
8/28/2019	<0.0002		<0.0002	<0.0002		<0.0002
8/18/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/19/2020						<0.0002
9/21/2021					0.0001 (J)	
9/22/2021	0.00011 (J)	0.0001 (J)	0.00011 (J)	0.00011 (J)		0.00011 (J)
2/1/2022	<0.0002		<0.0002	<0.0002		
2/2/2022		<0.0002				<0.0002
2/3/2022					<0.0002	
8/30/2022			<0.0002	<0.0002		
8/31/2022	<0.0002				<0.0002	
9/1/2022		<0.0002				<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
9/22/2021	0.00011 (J)	0.0001 (J)	
9/23/2021			0.0001 (J)
2/1/2022		<0.0002	
2/3/2022	<0.0002		<0.0002
8/31/2022	<0.0002		<0.0002
9/1/2022		<0.0002	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		<0.001		<0.001	<0.001	0.175
9/1/2016	0.0098 (J)		0.035			
10/24/2016		<0.001				
10/25/2016	<0.001					0.242
10/26/2016			0.0267	<0.001	<0.001	
1/3/2017		<0.001		<0.001		
1/4/2017						0.167
1/5/2017					<0.001	
1/6/2017	<0.001		0.0278			
4/3/2017		<0.001				
4/4/2017			0.0265			0.172
4/6/2017	<0.001			<0.001	<0.001	
7/11/2017		<0.001				
7/12/2017			0.0209	<0.001	<0.001	0.182
7/13/2017	0.0013 (J)					
10/2/2017		<0.001				
10/3/2017				<0.001	<0.001	0.162
10/4/2017	0.0013 (J)		0.0181			
1/9/2018	<0.001	<0.001			<0.001	
1/10/2018				<0.001		0.117
1/11/2018			0.0237			
7/9/2018		<0.001				
7/10/2018				<0.001	<0.001	0.11
7/11/2018	<0.001		0.024			
8/26/2019	<0.001	<0.001				
8/27/2019			0.1		0.0026 (J)	0.06
8/28/2019				0.0012 (J)		
10/7/2019		<0.001				
10/8/2019	<0.001					
10/9/2019			0.1	<0.001	<0.001	0.06
4/6/2020	<0.001	<0.001				
4/7/2020			0.13	<0.001	<0.001	0.014
8/17/2020		<0.001				
8/19/2020	<0.001		0.16	<0.001	0.001 (J)	0.061
9/28/2020	<0.001	<0.001				0.059
9/30/2020				<0.001	0.00097 (J)	
10/1/2020			0.15			
3/10/2021			0.12	<0.001	0.0013 (J)	0.057
3/11/2021	<0.001					
3/12/2021		<0.001				
9/21/2021	<0.001	<0.001	0.12	<0.001	<0.001	
9/23/2021						0.06
1/31/2022	<0.001	<0.001				
2/2/2022			0.11		0.00085 (J)	
2/3/2022				<0.001		0.038
8/30/2022	0.000453 (J)	<0.001	0.154	<0.001	0.000649 (J)	
9/1/2022						0.0343

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.001	<0.001	<0.001			
9/1/2016				0.0027 (J)	0.132	0.08
10/25/2016				0.0028 (J)	0.117	0.08
10/26/2016	<0.001	<0.001	<0.001			
1/4/2017	<0.001	<0.001				0.0786
1/5/2017			<0.001	0.0022 (J)	0.109	
4/3/2017					0.0994	
4/4/2017				0.0022 (J)		
4/5/2017		<0.001				0.113
4/6/2017	<0.001		<0.001			
7/10/2017		<0.001				
7/11/2017	<0.001			0.0024 (J)	0.0938	
7/12/2017			<0.001			0.178
10/2/2017				0.0025 (J)	0.103	
10/3/2017	<0.001					0.201
10/4/2017		<0.001	<0.001			
1/9/2018				0.0038 (J)	0.106	
1/10/2018			<0.001			0.161
1/11/2018	0.0018 (J)	<0.001				
7/9/2018				0.01		
7/10/2018					0.088	0.14
7/11/2018	<0.001	<0.001	<0.001			
8/27/2019	<0.001	<0.001	<0.001	0.028	0.095	
8/28/2019						0.22
10/8/2019	<0.001		<0.001	0.034	0.091	0.2
10/9/2019		<0.001				
4/7/2020	<0.001	<0.001		0.014	0.07	0.25
4/8/2020			0.0056 (J)			
8/17/2020		<0.001	<0.001			
8/18/2020	0.00077 (J)			0.017	0.12	0.15
9/28/2020			<0.001			
9/29/2020	<0.001	<0.001		0.0089 (J)		
9/30/2020					0.11	0.15
3/10/2021	<0.001	<0.001				
3/12/2021					0.098	
3/15/2021			<0.001			
3/16/2021				0.0054 (J)		0.31
9/21/2021	<0.001	<0.001	<0.001			
9/22/2021				0.018		0.22
9/23/2021					0.094	
2/1/2022						0.18
2/2/2022				0.015		
2/3/2022	<0.001	<0.001	<0.001		0.086	
8/30/2022		0.000205 (J)		0.0133		
8/31/2022	0.000512 (J)		<0.001		0.0786	
9/1/2022						0.154

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 9:47 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		<0.001			<0.001	<0.001
9/1/2016	<0.001		0.296	0.0686		
10/25/2016			0.395	0.0018 (J)		
10/26/2016	<0.001	<0.001			<0.001	
10/27/2016						<0.001
1/4/2017			0.229	0.0222	<0.001	
1/5/2017	<0.001	<0.001				
1/6/2017						<0.001
4/4/2017		<0.001	0.147	0.0476		
4/5/2017	<0.001					
4/6/2017					<0.001	<0.001
7/11/2017			0.136		<0.001	
7/12/2017						<0.001
7/13/2017	<0.001	<0.001		0.0105		
10/2/2017			0.13			
10/3/2017		<0.001		0.0031 (J)		
10/4/2017	<0.001				<0.001	<0.001
1/9/2018				0.09		
1/10/2018		<0.001	0.229			
1/11/2018	<0.001				<0.001	<0.001
7/9/2018			0.13			
7/10/2018		<0.001		0.047		
7/11/2018	<0.001				<0.001	<0.001
7/30/2019		<0.001				
8/27/2019		<0.001			<0.001	
8/28/2019	0.004 (J)		0.11	0.07		<0.001
10/8/2019				0.078		
10/9/2019	0.0036 (J)	<0.001	0.071		<0.001	<0.001
4/7/2020				0.012	<0.001	
4/8/2020	0.0024 (J)	<0.001	0.06			<0.001
8/18/2020	0.00092 (J)	<0.001	0.097	0.069	<0.001	
8/19/2020						<0.001
9/29/2020		<0.001				
9/30/2020	0.0041 (J)		0.33	0.028	<0.001	
10/1/2020						<0.001
3/10/2021					<0.001	<0.001
3/11/2021	0.0038 (J)					
3/12/2021			0.53			
3/15/2021		<0.001				
3/16/2021				0.024		
9/21/2021					<0.001	
9/22/2021	0.0053 (J)	<0.001	0.5	0.0019 (J)		<0.001
2/1/2022	0.003 (J)		0.77	0.042		
2/2/2022		<0.001				<0.001
2/3/2022					<0.001	
8/30/2022			0.309	0.049		
8/31/2022	0.00252				<0.001	
9/1/2022		<0.001				<0.001

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 9:47 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			0.0011 (J)
1/21/2021	<0.001	0.0014 (J)	
3/11/2021	<0.001	0.0035 (J)	0.0015 (J)
9/22/2021	<0.001	0.0032 (J)	
9/23/2021			<0.001
2/1/2022		0.0024 (J)	
2/3/2022	<0.001		<0.001
8/31/2022	<0.001		0.000863 (J)
9/1/2022		0.00174	

Time Series

Constituent: pH (SU) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013			6.22	5.95	5.25	5.38
10/11/2014		4.42				
10/24/2016		4.36				
10/25/2016	6.17					5.51
10/26/2016			6.06	5.27	5.21	
1/3/2017		4.28		5.09		
1/4/2017						5.46
1/5/2017					5.2	
1/6/2017	6.16		6.02			
4/3/2017		4.29				
4/4/2017			6.08			5.43
4/6/2017	6.26			5.22	5.17	
7/11/2017		4.35				
7/12/2017			5.93	5.29	5.24	5.46
7/13/2017	5.99					
10/2/2017		4.32				
10/3/2017				5.08	5.36	5.65
10/4/2017	6.16		5.77			
1/9/2018	6.43	4.44			5.4	
1/10/2018				5.83		5.67
1/11/2018			5.98			
7/9/2018		4.4				
7/10/2018				6.42	5.31	5.71
7/11/2018	6.1		6.01			
1/16/2019	6.05	6.16 (O)	5.83	6.66	5.99	5.59
3/25/2019	6.06	4.4	5.74			
3/26/2019				5.1	5.94	5.77
8/26/2019	5.91	4.26				
8/27/2019			5.7		5.67	5.84
8/28/2019				5.95		
10/7/2019		4.24				
10/8/2019	5.74					
10/9/2019			5.79	6.11	5.66	5.82
4/6/2020	6.02	4.52				
4/7/2020			5.74	5.45	5.86	5.3
8/17/2020		4.23				
8/19/2020	5.81 (D)		5.7	5.14 (D)	5.21	5.73
9/28/2020	5.86	4.41				5.79
9/30/2020				4.99	5.39	
10/1/2020			5.75			
3/10/2021			5.23	4.73	5.69	5.42
3/11/2021	5.85					
3/12/2021		4.54				
9/21/2021	6.03	4.44	5.78	4.68	5.4	
9/23/2021						6.06
1/31/2022	5.94	4.39				
2/2/2022			5.71		5.75	
2/3/2022				4.48		5.89
8/30/2022	5.98	4.58	5.67	5.22	5.55	
9/1/2022						5.8

Time Series

Constituent: pH (SU) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/16/2013	5.2	4.17	4.95	4.62	5.96	4.92
10/11/2014				4.58		5.17
10/25/2016				4.79	6.46	5.58
10/26/2016	5.08	4.04	4.95			
1/4/2017	5.06	4.01				5.51
1/5/2017			4.97	4.73	6.25	
4/3/2017					6.25	
4/4/2017				4.68		
4/5/2017		4	4.81			5.51
4/6/2017	4.97					
7/10/2017		3.89				
7/11/2017	5.26			4.72	6.5	
7/12/2017			4.83			5.84
10/2/2017				5.13	6.83	
10/3/2017	5.07					5.55
10/4/2017		4.06	4.71			
1/9/2018				5.59	6.57	
1/10/2018			5.17			5.99
1/11/2018	5.18	3.96				
7/9/2018				5.11		
7/10/2018					6.42	5.5
7/11/2018	4.82	3.95	4.49			
1/16/2019			6.45 (O)	6.82		
1/17/2019	4.91	3.89			8.44 (O)	7.13
3/26/2019			4.96	5.74	6.65	5.57
3/27/2019	5.18	4.11				
8/27/2019	5.17	4.02	4.9	5.58	6.57	
8/28/2019						5.57
10/8/2019	4.93		4.81	5.68	6.65	5.54
10/9/2019		4.25				
4/7/2020	5.05	4.1		6.2	6.83	5.94
4/8/2020			4.81			
8/17/2020		3.94	4.65			
8/18/2020	4.41			5.56	6.39	5.52
9/28/2020			4.76			
9/29/2020	4.77	3.95		5.69		
9/30/2020					6.71	5.47
3/10/2021	4.97	4.08				
3/12/2021					6.21	
3/15/2021			4.74			
3/16/2021				5.53		5.67
9/21/2021	4.92	4.05	4.83			
9/22/2021				5.76		5.57
9/23/2021					6.48	
2/1/2022						5.57
2/2/2022				5.98		
2/3/2022	4.98	4.04	4.97		6.61	
8/30/2022		3.92		5.86		
8/31/2022	4.85		4.76		6.57	
9/1/2022						5.37

Time Series

Constituent: pH (SU) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/16/2013	4.55	4.52	6.1	5.71	4.91	5.05
10/25/2016			6.06	5.41		
10/26/2016	4.45	4.48			4.6	
10/27/2016						4.65
1/4/2017			6.05	5.6	4.63	
1/5/2017	4.45	4.85				
1/6/2017						4.56
4/4/2017		4.58	6.03	5.94		
4/5/2017	4.33					
4/6/2017					4.79	4.5
7/11/2017			5.96		4.73	
7/12/2017						4.56
7/13/2017	4.11	4.74		5.6		
10/2/2017			5.88			
10/3/2017		4.57		5.18		
10/4/2017	4.09				4.74	4.72
1/9/2018				6.14		
1/10/2018		5.31	6.21			
1/11/2018	4.4				5.22	4.34
7/9/2018			6.24			
7/10/2018		4.58		5.7		
7/11/2018	4.07				4.68	4.68
1/16/2019	4.05					
1/17/2019				7.39		
1/18/2019					6.98 (O)	6.87 (O)
1/21/2019		5.05	7.73 (O)			
3/25/2019			6.28			
3/26/2019	4.62			6.08		
3/27/2019					4.77	4.38
7/30/2019		4.74				
8/27/2019		4.77			4.89	
8/28/2019	4.62		6.34	6.05		4.68
10/8/2019				6.09		
10/9/2019	4.66	4.79	6.5		4.68	4.62
4/7/2020				6	4.8	
4/8/2020	4.71	4.66	6.31			4.73
8/18/2020	4.31	4.6	5.89	5.82	4.52	
8/19/2020						4.58
9/29/2020		4.6				
9/30/2020	4.08		6.04	5.82	4.63	
10/1/2020						4.42
3/10/2021					4.82	4.55
3/11/2021	5.2					
3/12/2021			5.86			
3/15/2021		4.56				
3/16/2021				5.74		
9/21/2021					4.72	
9/22/2021	4.63	4.71	6	5.39		4.7
2/1/2022	4.53		5.9	5.76		
2/2/2022		4.79				4.66
2/3/2022					4.63	
8/30/2022			6.01	5.76		

Time Series

Constituent: pH (SU) Analysis Run 11/6/2022 9:47 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2022	4.33				4.68	
9/1/2022		4.73				4.6

Time Series

Constituent: pH (SU) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			6.25
1/21/2021	5.75	6.13	
3/11/2021	5.82	6.47	6.31
9/22/2021	6.39	6.76	
9/23/2021			6.21
2/1/2022		6.63	
2/3/2022	6.14		6.15
8/31/2022	6.06		6.29
9/1/2022		6.08	

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.014 (O)	<0.005	<0.005	0.017
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	0.015 (O)	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	0.012 (O)	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	0.01	<0.005	<0.005	0.012
11/20/2002		<0.005	0.026 (O)	0.0064	0.008	0.19 (O)
6/6/2003	<0.005	<0.005	0.022 (O)	0.011	0.0066	0.32 (O)
12/12/2003	<0.005	<0.005	0.028 (O)	<0.005	0.0056	0.013
5/26/2004	<0.005	<0.005	0.012 (O)	0.007	0.0084	0.017
12/7/2004	<0.005	<0.005	0.0073	<0.005	<0.005	0.011
6/21/2005	<0.005	<0.005	0.0087	0.0063	0.0062	0.0088
12/12/2005	<0.005	<0.005	0.013 (O)	<0.005	<0.005	0.011
4/4/2006		<0.005				
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005				
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007		<0.005				
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007		<0.005				
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008		<0.005				
6/23/2008	<0.005	<0.005				
6/24/2008			<0.005	<0.005	<0.005	<0.005
11/3/2008		<0.005				
12/4/2008	<0.005	<0.005				
12/5/2008			<0.005	<0.005	<0.005	<0.005
3/25/2009		<0.005				
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/14/2009		<0.005				
12/20/2009	<0.005	<0.005				<0.005
12/21/2009			<0.005	<0.005	<0.005	
3/4/2010		<0.005				
6/20/2010	<0.005	<0.005		<0.005	<0.005	<0.005
6/21/2010			<0.005			
9/14/2010		<0.005				
1/6/2011				<0.005		<0.005
1/7/2011	<0.005	<0.005	<0.005		<0.005	
4/15/2011		<0.005				
7/7/2011	<0.005	<0.005		<0.005	<0.005	<0.005
7/8/2011			<0.005			
9/25/2011		<0.005				
1/17/2012	<0.005	<0.005		<0.005		<0.005
1/18/2012			<0.005		<0.005	
4/4/2012		<0.005				
7/9/2012	<0.005			<0.005		<0.005
7/10/2012		<0.005	<0.005		<0.005	
10/9/2012		<0.005				
1/17/2013				<0.005		<0.005
1/18/2013	0.009	<0.005	<0.005		<0.005	
4/5/2013		<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.005		0.012
7/17/2013	0.011	<0.005	<0.005		<0.005	
10/11/2013		<0.005				
1/13/2014	0.012			<0.005		<0.005
1/14/2014		<0.005	<0.005		<0.005	
4/3/2014		<0.005				
7/9/2014	0.011	<0.005	<0.005	<0.005	<0.005	<0.005
10/24/2014		<0.005				
1/12/2015			<0.005			
1/13/2015	0.0092			<0.005		<0.005
1/14/2015		<0.005			<0.005	
5/10/2015		<0.005				
7/16/2015	0.014		<0.005	<0.005		<0.005
7/17/2015		<0.005			<0.005	
10/6/2015		<0.005				
1/17/2016						0.023
1/18/2016	0.023	<0.005	<0.005	<0.005	<0.005	
4/26/2016		<0.005				
7/27/2016	0.0323			<0.005		0.002 (J)
7/28/2016		0.001 (J)			<0.005	
7/29/2016			0.0036 (J)			
8/30/2016		<0.005		<0.005	<0.005	0.002 (J)
9/1/2016	0.0438		0.0067 (J)			
10/24/2016		0.0013 (J)				
10/25/2016	0.031					0.0022 (J)
10/26/2016			0.0042 (J)	<0.005	<0.005	
1/3/2017		<0.005		<0.005		
1/4/2017						0.0016 (J)
1/5/2017					0.0014 (J)	
1/6/2017	0.0324		0.0042 (J)			
4/3/2017		<0.005				
4/4/2017			0.0043 (J)			0.0052 (J)
4/6/2017	0.0188 (J)			<0.005	<0.005	
7/11/2017		<0.005				
7/12/2017			0.0033 (J)	<0.005	<0.005	0.0024 (J)
7/13/2017	0.0118					
10/2/2017		<0.005				
10/3/2017				<0.005	<0.005	<0.005
10/4/2017	0.0195		0.0038 (J)			
1/9/2018	<0.005	<0.005			<0.005	
1/10/2018				<0.005		0.0018 (J)
1/11/2018			0.0029 (J)			
7/9/2018		<0.005				
7/10/2018				0.0018 (J)	0.0016 (J)	0.0026 (J)
7/11/2018	<0.005		0.0015 (J)			
1/16/2019	0.0071 (J)	<0.005	<0.005	<0.005	<0.005	0.0018 (J)
3/25/2019	<0.005	<0.005	<0.005			
3/26/2019				<0.005	0.05 (J)	0.0023 (J)
8/26/2019	<0.005	<0.005				
8/27/2019			<0.005		0.0033 (J)	0.0016 (J)
8/28/2019				0.0033 (J)		
10/7/2019		<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.0072 (J)					
10/9/2019			<0.005	0.0073 (J)	<0.005	0.0024 (J)
4/6/2020	0.0078 (J)	<0.005				
4/7/2020			0.0025 (J)	<0.005	<0.005	0.0013 (J)
8/17/2020		<0.005				
8/19/2020	<0.005		<0.005	<0.005	<0.005	0.002 (J)
9/28/2020	0.01 (J)	<0.005				<0.005
9/30/2020				<0.005	0.0023 (J)	
10/1/2020			<0.005			
3/10/2021			0.0021 (J)	0.006	0.0049 (J)	0.0026 (J)
3/11/2021	<0.005					
3/12/2021		<0.005				
9/21/2021	<0.005	<0.005	<0.005	<0.005	0.0016 (J)	
9/23/2021						0.0018 (J)
1/31/2022	<0.005	<0.005				
2/2/2022			<0.005		0.0017 (J)	
2/3/2022				<0.005		0.0022 (J)
8/30/2022	0.0063	<0.005	0.00265 (J)	<0.005	0.00277 (J)	
9/1/2022						0.00252 (J)

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	0.052	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	0.053	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	0.049	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	0.038	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	0.022	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	0.1 (O)	<0.005	<0.005
11/20/2002	<0.005	<0.005	<0.005	0.018	0.0094	<0.005
6/6/2003	<0.005	<0.005	<0.005	<0.005	0.021 (O)	0.021 (O)
12/12/2003	<0.005	<0.005	<0.005	<0.005	0.016 (O)	0.0078
5/26/2004	<0.005	<0.005	<0.005	0.023	<0.005	0.0053
12/7/2004	<0.005	<0.005	<0.005	0.019	<0.005	<0.005
6/21/2005	<0.005	<0.005	<0.005	0.019	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	0.0095	<0.005	<0.005
4/4/2006				0.033		<0.005
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006				<0.005		<0.005
12/4/2006	<0.005	<0.005	<0.005	0.032	<0.005	<0.005
2/15/2007				0.034		<0.005
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007				0.022		<0.005
12/11/2007	<0.005	<0.005	<0.005	0.045	<0.005	<0.005
3/11/2008				0.02		<0.005
6/23/2008	<0.005	<0.005	<0.005			
6/24/2008				<0.005	<0.005	<0.005
11/3/2008				0.052		<0.005
12/4/2008	<0.005	<0.005	<0.005	0.054		
12/5/2008					<0.005	<0.005
3/25/2009				0.072		<0.005
7/8/2009	<0.005	<0.005	<0.005	0.021	<0.005	<0.005
9/14/2009				0.015		<0.005
12/20/2009				0.072	<0.005	<0.005
12/21/2009	<0.005	<0.005	<0.005			
3/4/2010				0.083		<0.005
6/20/2010	<0.005	<0.005	<0.005	0.1	<0.005	
6/21/2010						<0.005
9/14/2010				0.085		<0.005
1/6/2011	<0.005		<0.005			
1/7/2011		<0.005		0.028	<0.005	<0.005
4/15/2011				<0.005		<0.005
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/25/2011				0.02		<0.005
1/17/2012	0.023	<0.005	<0.005	0.016	<0.005	
1/18/2012						<0.005
4/4/2012				0.0156		<0.005
7/9/2012	0.016	<0.005	<0.005	<0.005	0.066 (O)	
7/10/2012						<0.005
10/9/2012				0.0094		<0.005
1/17/2013	0.033	<0.005	<0.005			
1/18/2013				0.0067	0.04 (O)	<0.005
4/5/2013				0.0077		<0.005
7/16/2013	0.0068	<0.005	<0.005			

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				0.01	<0.005	<0.005
10/11/2013				0.0087		0.0069
1/13/2014	0.036	<0.005	<0.005		<0.005	
1/14/2014				0.012		<0.005
4/3/2014				0.022		<0.005
7/8/2014	0.017	<0.005	<0.005			
7/9/2014				0.0089	<0.005	0.005
10/24/2014				0.017		<0.005
1/13/2015	0.027	<0.005	<0.005		<0.005	
1/14/2015				<0.005		<0.005
5/10/2015				<0.005		
5/11/2015						<0.005
7/16/2015	<0.005	<0.005	<0.005		<0.005	<0.005
7/17/2015				<0.005		
10/6/2015				<0.005		0.0073
1/17/2016				<0.005	<0.005	0.0031 (J)
1/18/2016		<0.005	<0.005			
1/19/2016	0.023					
4/26/2016				0.00428 (J)		0.00497 (J)
7/26/2016	0.0056 (J)		<0.005			
7/27/2016		0.0025 (J)		0.0038 (J)	<0.005	
7/28/2016						0.0076 (J)
8/31/2016	0.0084 (J)	0.0019 (J)	<0.005			
9/1/2016				0.0056 (J)	<0.005	0.0052 (J)
10/25/2016				0.0023 (J)	<0.005	0.0085 (J)
10/26/2016	0.0052 (J)	0.002 (J)	<0.005			
1/4/2017	0.0062 (J)	<0.005				0.0048 (J)
1/5/2017			<0.005	0.0038 (J)	<0.005	
4/3/2017					<0.005	
4/4/2017				0.0064 (J)		
4/5/2017		<0.005				0.0068 (J)
4/6/2017	0.0195		<0.005			
7/10/2017		<0.005				
7/11/2017	<0.005			0.0044 (J)	<0.005	
7/12/2017			<0.005			0.0048 (J)
10/2/2017				0.004 (J)	<0.005	
10/3/2017	0.0079 (J)					0.0051 (J)
10/4/2017		<0.005	<0.005			
1/9/2018				0.0019 (J)	0.0019 (J)	
1/10/2018			<0.005			0.0018 (J)
1/11/2018	0.0054 (J)	<0.005				
7/9/2018				0.0029 (J)		
7/10/2018					0.0086 (J)	0.0045 (J)
7/11/2018	0.0022 (J)	<0.005	<0.005			
1/16/2019			<0.005	0.0016 (J)		
1/17/2019	<0.005	<0.005			0.0029 (J)	0.0031 (J)
3/26/2019			<0.005	0.0022 (J)	0.0074 (J)	0.0033 (J)
3/27/2019	0.01 (J)	<0.005				
8/27/2019	<0.005	<0.005	<0.005	0.0035 (J)	0.0092 (J)	
8/28/2019						0.004 (J)
10/8/2019	<0.005		<0.005	0.0026 (J)	0.014	0.0023 (J)
10/9/2019		<0.005				

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	0.0021 (J)	<0.005		0.005 (J)	0.0029 (J)	<0.005
4/8/2020			<0.005			
8/17/2020		<0.005	<0.005			
8/18/2020	0.0028 (J)			0.0029 (J)	0.0022 (J)	0.0058 (J)
9/28/2020			<0.005			
9/29/2020	0.0024 (J)	<0.005		0.0051 (J)		
9/30/2020					<0.005	0.0037 (J)
3/10/2021	0.0044 (J)	0.003 (J)				
3/12/2021					0.0064	
3/15/2021			<0.005			
3/16/2021				0.0034 (J)		0.0044 (J)
9/21/2021	0.0038 (J)	<0.005	<0.005			
9/22/2021				0.0034 (J)		0.0031 (J)
9/23/2021					0.0016 (J)	
2/1/2022						0.0024 (J)
2/2/2022				0.0038 (J)		
2/3/2022	0.019	<0.005	<0.005		0.0031 (J)	
8/30/2022		<0.005		0.00544		
8/31/2022	0.00344 (J)		<0.005		0.00192 (J)	
9/1/2022						0.00334 (J)

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005					<0.005
11/21/2000	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005				<0.005
11/20/2002	<0.005	<0.005				<0.005
6/6/2003	<0.005	<0.005				<0.005
12/12/2003	<0.005	<0.005				<0.005
5/26/2004	<0.005	0.005				<0.005
12/7/2004	<0.005	<0.005				<0.005
6/21/2005	<0.005	<0.005				0.0062
12/12/2005	<0.005	<0.005				<0.005
6/27/2006	<0.005	<0.005				<0.005
12/4/2006	<0.005	<0.005				<0.005
6/23/2007	<0.005	<0.005				<0.005
12/11/2007	<0.005	<0.005				<0.005
6/23/2008						<0.005
6/24/2008	<0.005	<0.005				
12/4/2008		<0.005				<0.005
12/5/2008	<0.005					
7/8/2009	<0.005	<0.005				<0.005
12/20/2009		<0.005				
12/21/2009	<0.005					<0.005
6/20/2010		<0.005				<0.005
6/21/2010	<0.005		<0.005	0.048	<0.005	
1/6/2011		<0.005				
1/7/2011	<0.005		<0.005	0.014	<0.005	<0.005
7/7/2011			<0.005			
7/8/2011	<0.005		<0.005	0.018	<0.005	<0.005
1/17/2012		<0.005				
1/18/2012	<0.005		<0.005	<0.005	<0.005	<0.005
7/9/2012		<0.005				
7/10/2012	<0.005		<0.005	0.02	<0.005	<0.005
1/17/2013		<0.005				
1/18/2013	<0.005		0.005	0.015	<0.005	<0.005
7/17/2013	<0.005	<0.005	<0.005	0.037	<0.005	<0.005
1/13/2014		<0.005				
1/14/2014	<0.005		<0.005	0.043	<0.005	<0.005
7/9/2014	<0.005	<0.005		0.023		<0.005
7/10/2014			<0.005		<0.005	
1/12/2015			<0.005			
1/13/2015		<0.005				
1/14/2015	<0.005			0.022	<0.005	<0.005
7/16/2015		<0.005				
7/17/2015				0.033		<0.005
7/18/2015	<0.005		<0.005		<0.005	
1/17/2016		<0.005	<0.005	0.021		
1/18/2016	<0.005				<0.005	<0.005
7/27/2016		0.002 (J)				
7/28/2016			<0.005	0.0341		<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0011 (J)				0.0022 (J)	
8/31/2016		<0.005			0.0014 (J)	<0.005
9/1/2016	0.0012 (J)		<0.005	0.0297		
10/25/2016			0.0014 (J)	0.0095 (J)		
10/26/2016	0.0013 (J)	0.0035 (J)			0.001 (J)	
10/27/2016						<0.005
1/4/2017			0.0014 (J)	0.022	<0.005	
1/5/2017	0.0012 (J)	<0.005				
1/6/2017						<0.005
4/4/2017		<0.005	<0.005	0.0236		
4/5/2017	<0.005					
4/6/2017					<0.005	<0.005
7/11/2017			<0.005		<0.005	
7/12/2017						<0.005
7/13/2017	0.0018 (J)	<0.005		0.013		
10/2/2017			<0.005			
10/3/2017		<0.005		0.01 (J)		
10/4/2017	0.0042 (J)				0.0023 (J)	<0.005
1/9/2018				0.0162		
1/10/2018		<0.005	<0.005			
1/11/2018	<0.005				<0.005	<0.005
7/9/2018			<0.005			
7/10/2018		<0.005		0.016		
7/11/2018	0.0016 (J)				<0.005	<0.005
1/16/2019	<0.005					
1/17/2019				0.011		
1/18/2019					<0.005	<0.005
1/21/2019		<0.005	0.0014 (J)			
3/25/2019			<0.005			
3/26/2019	<0.005			0.022		
3/27/2019					<0.005	<0.005
7/30/2019		<0.005				
8/27/2019		<0.005			<0.005	
8/28/2019	<0.005		0.0014 (J)	0.019		<0.005
10/8/2019				0.019		
10/9/2019	<0.005	<0.005	<0.005		<0.005	<0.005
4/7/2020				0.012	<0.005	
4/8/2020	<0.005	<0.005	0.0013 (J)			<0.005
8/18/2020	0.002 (J)	<0.005	<0.005	0.013	<0.005	
8/19/2020						<0.005
9/29/2020		<0.005				
9/30/2020	<0.005		<0.005	0.0061 (J)	<0.005	
10/1/2020						<0.005
3/10/2021					<0.005	<0.005
3/11/2021	0.0016 (J)					
3/12/2021			<0.005			
3/15/2021		<0.005				
3/16/2021				0.0055		
9/21/2021					<0.005	
9/22/2021	<0.005	<0.005	0.0024 (J)	0.0027 (J)		<0.005
2/1/2022	<0.005		<0.005	0.0054		
2/2/2022		<0.005				<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.005	
8/30/2022			0.00192 (J)	0.00648		
8/31/2022	<0.005				<0.005	
9/1/2022		<0.005				<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.005	<0.005	<0.005
9/22/2021	<0.005	<0.005	
9/23/2021			<0.005
2/1/2022		<0.005	
2/3/2022	<0.005		<0.005
8/31/2022	<0.005		<0.005
9/1/2022		<0.005	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		140		100	120	87
9/1/2016	73		210			
10/24/2016		160				
10/25/2016	26					83
10/26/2016			230	130	120	
1/3/2017		140		120		
1/4/2017						99
1/5/2017					130	
1/6/2017	23		220			
4/3/2017		140				
4/4/2017			230			110
4/6/2017	25			140	150	
7/11/2017		130				
7/12/2017			210	140	140	100
7/13/2017	65					
10/2/2017		150				
10/3/2017				130	140	63
10/4/2017	13		290			
1/9/2018	45	120			140	
1/10/2018				110		86
1/11/2018			210			
7/9/2018		123				
7/10/2018				48.1	128	77.7
7/11/2018	37.7		177			
1/16/2019	24.5	129	244	184	402	71.2
3/25/2019	14.7	152	245			
3/26/2019				222	319	73.8
10/7/2019		156				
10/8/2019	32.8					
10/9/2019			38.5	90.8	255	76.3
4/6/2020	20.3	123				
4/7/2020			221	180	180	83
9/28/2020	20	93.6				71.6
9/30/2020				339	339	
10/1/2020			178			
3/10/2021			160	572	1160	61.2
3/11/2021	12					
3/12/2021		103				
9/21/2021	11.1	96.5	232	829	645	
9/23/2021						37.3
1/31/2022	15	89.7				
2/2/2022			338		1460	
2/3/2022				797		49.2
8/30/2022	10.6	77.4	379	403	978	
9/1/2022						44

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	64	1100	43			
9/1/2016				730	120	430
10/25/2016				420	100	360
10/26/2016	56	900	29			
1/4/2017	65	880				360
1/5/2017			32	430	140	
4/3/2017					150	
4/4/2017				600		
4/5/2017		990				440
4/6/2017	110		49			
7/10/2017		480				
7/11/2017	49			400	110	
7/12/2017			16			490
10/2/2017				470	56	
10/3/2017	140					780
10/4/2017		760	33			
1/9/2018				440	84	
1/10/2018			22			470
1/11/2018	270	780				
7/9/2018				369		
7/10/2018					43	787
7/11/2018	211	598	17.8			
1/16/2019			20.2	291		
1/17/2019	50.3	454			45.2	780
3/26/2019			33.6	192	54	87.9
3/27/2019	76.8	579				
10/8/2019	310		22	428	45.8	872
10/9/2019		392				
4/7/2020	446	297		456	26.9	844
4/8/2020			30.7			
9/28/2020			25.6			
9/29/2020	516	237		93.5		
9/30/2020					18.5	736
3/10/2021	687	282				
3/12/2021					21.1	
3/15/2021			30.6			
3/16/2021				92		821
9/21/2021	433	315	36.6			
9/22/2021				444		1040
9/23/2021					124	
2/1/2022						1010
2/2/2022				589		
2/3/2022	347	333	32.1		102	
8/30/2022		415		410		
8/31/2022	653		29		88.5	
9/1/2022						1140

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		21			700	84
9/1/2016	310		180	36		
10/25/2016			79	16		
10/26/2016	280	100			850	
10/27/2016						76
1/4/2017			170	45	680	
1/5/2017	310	22				
1/6/2017						66
4/4/2017		29	300	46		
4/5/2017	460					
4/6/2017					220	79
7/11/2017			400		210	
7/12/2017						75
7/13/2017	490	20		33		
10/2/2017			390			
10/3/2017		20		34		
10/4/2017	1100				730	78
1/9/2018				29		
1/10/2018		9.5	99			
1/11/2018	810				180	110
7/9/2018			99.2			
7/10/2018		8.5		33.2		
7/11/2018	902				381	87.4
1/16/2019	422					
1/17/2019				24.1		
1/18/2019					107	56.9
1/21/2019		10.2	35.5			
3/25/2019			95.6			
3/26/2019	439			83.9		
3/27/2019					103	76.2
7/30/2019		12.3				
10/8/2019				85.6		
10/9/2019	346	10.1	58.5		80.2	41.1
4/7/2020				33.2	333	
4/8/2020	239	12.9	428			34.2
9/29/2020		8.6				
9/30/2020	193		956	306	65.5	
10/1/2020						35
3/10/2021					101	38.7
3/11/2021	244					
3/12/2021			933			
3/15/2021		10				
3/16/2021				343		
9/21/2021					52.4	
9/22/2021	394	10.3	905	14.6		42.7
2/1/2022	416		862	374		
2/2/2022		9				31.5
2/3/2022					46.2	
8/30/2022			606	451		
8/31/2022	721				45.3	
9/1/2022		10.3				28.7

Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			1.6
1/21/2021	5	0.79 (J)	
3/11/2021	62.4	<1	0.52 (J)
9/22/2021	84.6	<1	
9/23/2021			0.7 (J)
2/1/2022		<1	
2/3/2022	64.8		<1
8/31/2022	54.6		1.12
9/1/2022		0.682	

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/21/2000	<0.002		<0.002	<0.002	<0.002	<0.002
1/20/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/14/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
7/16/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/1/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/25/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/12/2003	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
5/26/2004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/7/2004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/21/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/12/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2006		<0.002				
6/27/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/30/2006		<0.002				
12/4/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
2/15/2007		<0.002				
6/23/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/30/2016		<0.002		<0.002	<0.002	<0.002
9/1/2016	0.0005 (J)		<0.002			
10/24/2016		<0.002				
10/25/2016	<0.002					<0.002
10/26/2016			<0.002	<0.002	<0.002	
1/3/2017		<0.002		<0.002		
1/4/2017						<0.002
1/5/2017					<0.002	
1/6/2017	<0.002		<0.002			
4/3/2017		<0.002				
4/4/2017			7E-05 (J)			5E-05 (J)
4/6/2017	<0.002			<0.002	<0.002	
7/11/2017		5E-05 (J)				
7/12/2017			<0.002	<0.002	<0.002	<0.002
7/13/2017	<0.002					
10/2/2017		6E-05 (J)				
10/3/2017				<0.002	<0.002	<0.002
10/4/2017	<0.002		<0.002			
1/9/2018	<0.002	<0.002			<0.002	
1/10/2018				<0.002		<0.002
1/11/2018			7E-05 (J)			
7/9/2018		<0.002				
7/10/2018				<0.002	<0.002	<0.002
7/11/2018	<0.002		<0.002			
8/26/2019	<0.002	<0.002				
8/27/2019			<0.002		<0.002	<0.002
8/28/2019				5.7E-05 (J)		
10/7/2019		6.2E-05 (J)				
10/8/2019	<0.002					
10/9/2019			<0.002	0.00031 (J)	<0.002	5.4E-05 (J)
4/6/2020	<0.002	<0.002				
4/7/2020			<0.002	<0.002	<0.002	5.4E-05 (J)
8/17/2020		<0.002				
8/19/2020	<0.002		<0.002	<0.002	<0.002	<0.002

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/28/2020	<0.002	<0.002				<0.002
9/30/2020				<0.002	<0.002	
10/1/2020			<0.002			
3/10/2021			<0.002	<0.002	<0.002	<0.002
3/11/2021	<0.002					
3/12/2021		<0.002				
9/21/2021	<0.002	<0.002	<0.002	<0.002	<0.002	
9/23/2021						<0.002
1/31/2022	<0.002	<0.002				
2/2/2022			<0.002		<0.002	
2/3/2022				<0.002		<0.002
8/30/2022	<0.002	<0.002	<0.002	<0.002	<0.002	
9/1/2022						<0.002

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/21/2000	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1/20/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
3/14/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
7/16/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
11/1/2001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/25/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/12/2003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
5/26/2004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/7/2004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/21/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
12/12/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
4/4/2006				<0.002		<0.002
6/27/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/30/2006				<0.002		<0.002
12/4/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
2/15/2007				<0.002		<0.002
6/23/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
8/31/2016	<0.002	<0.002	<0.002			
9/1/2016				<0.002	<0.002	<0.002
10/25/2016				<0.002	<0.002	<0.002
10/26/2016	<0.002	0.0003 (J)	<0.002			
1/4/2017	<0.002	<0.002				<0.002
1/5/2017			<0.002	<0.002	<0.002	
4/3/2017					<0.002	
4/4/2017				7E-05 (J)		
4/5/2017		0.0002 (J)				6E-05 (J)
4/6/2017	6E-05 (J)		<0.002			
7/10/2017		0.0002 (J)				
7/11/2017	<0.002			6E-05 (J)	<0.002	
7/12/2017			<0.002			<0.002
10/2/2017				<0.002	<0.002	
10/3/2017	7E-05 (J)					<0.002
10/4/2017		0.0002 (J)	<0.002			
1/9/2018				<0.002	<0.002	
1/10/2018			<0.002			5E-05 (J)
1/11/2018	0.0001 (J)	0.0002 (J)				
7/9/2018				<0.002		
7/10/2018					<0.002	<0.002
7/11/2018	<0.002	<0.002	<0.002			
8/27/2019	<0.002	0.00011 (J)	<0.002	<0.002	<0.002	
8/28/2019						<0.002
10/8/2019	9.8E-05 (J)		<0.002	<0.002	<0.002	<0.002
10/9/2019		0.00014 (J)				
4/7/2020	0.00019 (J)	0.00013 (J)		<0.002	<0.002	<0.002
4/8/2020			<0.002			
8/17/2020		<0.002	<0.002			
8/18/2020	0.00021 (J)			<0.002	<0.002	<0.002
9/28/2020			<0.002			
9/29/2020	0.00017 (J)	<0.002		<0.002		
9/30/2020					<0.002	<0.002
3/10/2021	0.00022 (J)	<0.002				

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
3/12/2021					<0.002	
3/15/2021			<0.002			
3/16/2021				<0.002		<0.002
9/21/2021	<0.002	<0.002	<0.002			
9/22/2021				<0.002		<0.002
9/23/2021					<0.002	
2/1/2022						<0.002
2/2/2022				<0.002		
2/3/2022	<0.002	<0.002	<0.002		<0.002	
8/30/2022		<0.002		<0.002		
8/31/2022	<0.002		<0.002		<0.002	
9/1/2022						<0.002

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.002					<0.002
11/21/2000	<0.002	<0.002				<0.002
1/20/2001	<0.002	<0.002				<0.002
3/14/2001	<0.002	<0.002				<0.002
7/16/2001	<0.002	<0.002				<0.002
11/1/2001	<0.002	<0.002				<0.002
4/25/2002	<0.002	<0.002				<0.002
12/12/2003	<0.002	<0.002				<0.002
5/26/2004	<0.002	<0.002				<0.002
12/7/2004	<0.002	<0.002				<0.002
6/21/2005	<0.002	<0.002				<0.002
12/12/2005	<0.002	<0.002				<0.002
6/27/2006	<0.002	<0.002				<0.002
12/4/2006	<0.002	<0.002				<0.002
6/23/2007	<0.002	<0.002				<0.002
8/31/2016		<0.002			<0.002	<0.002
9/1/2016	<0.002		<0.002	<0.002		
10/25/2016			<0.002	<0.002		
10/26/2016	<0.002	<0.002			<0.002	
10/27/2016						<0.002
1/4/2017			<0.002	<0.002	<0.002	
1/5/2017	<0.002	<0.002				
1/6/2017						<0.002
4/4/2017		<0.002	<0.002	5E-05 (J)		
4/5/2017	0.0001 (J)					
4/6/2017					<0.002	<0.002
7/11/2017			<0.002		<0.002	
7/12/2017						<0.002
7/13/2017	<0.002	<0.002		<0.002		
10/2/2017			<0.002			
10/3/2017		<0.002		<0.002		
10/4/2017	0.0001 (J)				0.0001 (J)	<0.002
1/9/2018				<0.002		
1/10/2018		<0.002	<0.002			
1/11/2018	0.0001 (J)				6E-05 (J)	<0.002
7/9/2018			<0.002			
7/10/2018		<0.002		<0.002		
7/11/2018	<0.002				<0.002	<0.002
7/30/2019		0.00011 (J)				
8/27/2019		<0.002			8.6E-05 (J)	
8/28/2019	6.6E-05 (J)		<0.002	<0.002		<0.002
10/8/2019				<0.002		
10/9/2019	7.6E-05 (J)	<0.002	<0.002		<0.002	<0.002
4/7/2020				<0.002	6.5E-05 (J)	
4/8/2020	5.6E-05 (J)	<0.002	<0.002			<0.002
8/18/2020	<0.002	<0.002	<0.002	<0.002	0.00017 (J)	
8/19/2020						<0.002
9/29/2020		<0.002				
9/30/2020	<0.002		<0.002	<0.002	<0.002	
10/1/2020						<0.002
3/10/2021					<0.002	<0.002
3/11/2021	<0.002					

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/12/2021			<0.002			
3/15/2021		<0.002				
3/16/2021				<0.002		
9/21/2021					<0.002	
9/22/2021	<0.002	<0.002	<0.002	<0.002		<0.002
2/1/2022	<0.002		<0.002	<0.002		
2/2/2022		<0.002				<0.002
2/3/2022					<0.002	
8/30/2022			<0.002	<0.002		
8/31/2022	<0.002				<0.002	
9/1/2022		<0.002				<0.002

Time Series

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.002	<0.002	<0.002
9/22/2021	<0.002	<0.002	
9/23/2021			<0.002
2/1/2022		<0.002	
2/3/2022	<0.002		<0.002
8/31/2022	<0.002		<0.002
9/1/2022		<0.002	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		234		224	365	225
9/1/2016	3660		1080			
10/24/2016		216				
10/25/2016	3560					230
10/26/2016			1050	297	373	
1/3/2017		333		366		
1/4/2017						349
1/5/2017					543	
1/6/2017	3490		1060			
4/3/2017		288				
4/4/2017			994			356
4/6/2017	3170			279	434	
7/11/2017		188				
7/12/2017			1070	308	454	357
7/13/2017	2280					
10/2/2017		210				
10/3/2017				288	389	192
10/4/2017	3350		1100			
1/9/2018	2640	118			415	
1/10/2018				493		277
1/11/2018			838			
7/9/2018		235				
7/10/2018				1730 (O)	453	349
7/11/2018	2200		799			
1/16/2019	2100	219	530	382	1320	341
3/25/2019	2100	240	479			
3/26/2019				1040	1250	317
10/7/2019		275				
10/8/2019	1840					
10/9/2019			502	2010	903	338
4/6/2020	1670	214				
4/7/2020			482	483	775	195
9/28/2020	1450	175				373
9/30/2020				652	816	
10/1/2020			424			
3/10/2021			434	1040	2120	329
3/11/2021	1220					
3/12/2021		163				
9/21/2021	1210	145	476	1240	985	
9/23/2021						360
1/31/2022	1260	153				
2/2/2022			654		2440	
2/3/2022				1240		315
8/30/2022	1340	154	882	886	1810	
9/1/2022						228

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	119	1560	77			
9/1/2016				1170	539	878
10/25/2016				633	449	585
10/26/2016	108	1520	<10			
1/4/2017	182	1430				783
1/5/2017			146	781	565	
4/3/2017					632	
4/4/2017				916		
4/5/2017		1200				722
4/6/2017	248		23 (J)			
7/10/2017		1100				
7/11/2017	88			675	569	
7/12/2017			39			962
10/2/2017				689	559	
10/3/2017	248					1240
10/4/2017		986	38			
1/9/2018				653	520	
1/10/2018			<10			935
1/11/2018	681	1020				
7/9/2018				659		
7/10/2018					524	1040
7/11/2018	440	888	63			
1/16/2019			44	656		
1/17/2019	118	765			518 (D)	1320
3/26/2019			72	496	541	1380
3/27/2019	138	673				
10/8/2019	613		51	841	526	1500
10/9/2019		647				
4/7/2020	780	464		843	428	1500
4/8/2020			65			
9/28/2020			60			
9/29/2020	1100	440		187		
9/30/2020					434	1140
3/10/2021	1240	566				
3/12/2021					353	
3/15/2021			<10			
3/16/2021				137		980
9/21/2021	842	558	83			
9/22/2021				864		1680
9/23/2021					556	
2/1/2022						1990
2/2/2022				1130		
2/3/2022	538	566	72		516	
8/30/2022		713		720		
8/31/2022	1240		55		530	
9/1/2022						1720

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		39			1570	173
9/1/2016	1270		470	184		
10/25/2016			289	<10		
10/26/2016	1320	135			1840	
10/27/2016						221
1/4/2017			639	242	1560	
1/5/2017	1770	99				
1/6/2017						259
4/4/2017		54	660	187		
4/5/2017	1600					
4/6/2017					368	169
7/11/2017			836		383	
7/12/2017						163
7/13/2017	1940	50		86		
10/2/2017			698			
10/3/2017		18 (J)		66		
10/4/2017	2370				1500	168
1/9/2018				167		
1/10/2018		<10	322			
1/11/2018	2350				438	190
7/9/2018			461			
7/10/2018		49		180		
7/11/2018	2260				876	165
1/16/2019	1540					
1/17/2019				178		
1/18/2019					154	118
1/21/2019		39	307			
3/25/2019			449			
3/26/2019	1220			292		
3/27/2019					158	104
7/30/2019		70				
10/8/2019				278		
10/9/2019	1100	46	434		211	128
4/7/2020				106	819	
4/8/2020	881	38	986			80
9/29/2020		33				
9/30/2020	752		1860	634	113	
10/1/2020						111
3/10/2021					210	89
3/11/2021	705					
3/12/2021			1730			
3/15/2021		11				
3/16/2021				454		
9/21/2021					87	
9/22/2021	1530	33	1430	51		94
2/1/2022	1580		1580	783		
2/2/2022		43				96
2/3/2022					89	
8/30/2022			1210	807		
8/31/2022	2050				163	
9/1/2022		9 (J)				85

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
1/20/2021			58
1/21/2021	41	50	
3/11/2021	149	53	57
9/22/2021	184	53	
9/23/2021			56
2/1/2022		75	
2/3/2022	156		58
8/31/2022	143		44
9/1/2022		20	

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.02	<0.02	0.06	0.038	0.12	<0.02
11/21/2000	<0.02		0.068	0.013	0.13	<0.02
1/20/2001	<0.02	<0.02	0.12	0.038	0.14	<0.02
3/14/2001	<0.02	<0.02	0.08	0.077 (O)	0.13	<0.02
7/16/2001	<0.02	<0.02	0.11	0.12 (O)	0.18	<0.02
11/1/2001	<0.02	<0.02	0.079	0.21 (O)	0.12	<0.02
4/25/2002	<0.02	<0.02	0.11	0.086 (O)	0.15	<0.02
11/20/2002		<0.02	0.15	0.14 (O)	0.15	0.0069
6/6/2003	0.047	0.017	0.12	0.12 (O)	0.11	0.16 (O)
12/12/2003	0.0086	0.011	0.13	0.014	0.089	<0.02
5/26/2004	<0.02	<0.02	0.095	0.06 (O)	0.09	<0.02
12/7/2004	<0.02	<0.02	0.067	0.054	0.072	<0.02
6/21/2005	<0.02	<0.02	0.062	0.038	0.04	<0.02
12/12/2005	<0.02	<0.02	0.09	0.0056	0.021	<0.02
4/4/2006		<0.02				
6/27/2006	<0.02	<0.02	0.083	0.0043	0.02	0.0029
8/30/2006		<0.02				
12/4/2006	0.0027	<0.02	0.084	0.0044	0.022	0.0047
2/15/2007		<0.02				
6/23/2007	0.0027	<0.02	0.081	0.0039	0.027	0.0029
9/11/2007		<0.02				
12/11/2007	0.0033	<0.02	0.067	0.0029	0.017	<0.02
3/11/2008		<0.02				
6/23/2008	0.0074	<0.02				
6/24/2008			0.059	0.003	0.053	<0.02
11/3/2008		<0.02				
12/4/2008	0.0084	<0.02				
12/5/2008			0.054	<0.02	0.0078	<0.02
3/25/2009		<0.02				
7/7/2009	0.023	<0.02	0.038	<0.02	0.012	<0.02
9/14/2009		<0.02				
12/20/2009	0.007	<0.02				<0.02
12/21/2009			0.06	<0.02	0.011	
3/4/2010		<0.02				
6/20/2010	0.0047	<0.02		<0.02	0.0083	0.0037
6/21/2010			0.036			
9/14/2010		<0.02				
1/6/2011				0.0067		<0.02
1/7/2011	0.018	<0.02	0.043		0.0079	
4/15/2011		<0.02				
7/7/2011	0.019	<0.02		0.019	0.007	0.0045
7/8/2011			0.044			
9/25/2011		<0.02				
1/17/2012	0.0298	<0.02		0.021		<0.02
1/18/2012			0.045		0.0116	
4/4/2012		<0.02				
7/9/2012	0.14			0.032		0.0026
7/10/2012		<0.02	0.048		0.0096	
10/9/2012		<0.02				
1/17/2013				0.034		<0.02
1/18/2013	0.21	<0.02	0.049		<0.02	
4/5/2013		<0.02				

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				0.021		<0.02
7/17/2013	0.18	<0.02	0.05		<0.02	
10/11/2013		<0.02				
1/13/2014	0.24			0.008		<0.02
1/14/2014		<0.02	0.067		<0.02	
4/3/2014		0.0015 (J)				
7/9/2014	0.22	0.0012 (J)	0.055	0.0052	0.0039 (J)	0.0041 (J)
10/24/2014		<0.02				
1/12/2015			0.066			
1/13/2015	0.19			0.0036 (J)		0.0029 (J)
1/14/2015		<0.02			0.005	
5/10/2015		<0.02				
7/16/2015	0.23		0.045	0.004 (J)		0.0034 (J)
7/17/2015		<0.02			0.0045 (J)	
10/6/2015		0.0012 (J)				
1/17/2016						0.0046 (J)
1/18/2016	0.41	0.00079 (J)	0.049	0.0069	0.0044 (J)	
4/26/2016		<0.02				
7/27/2016	0.397			0.0046 (J)		0.0064 (J)
7/28/2016		<0.02			0.0038 (J)	
7/29/2016			0.0388			
10/24/2016		<0.02				
10/25/2016	0.425			<0.02		
1/3/2017		<0.02				
1/4/2017						<0.02
1/5/2017					0.0077 (J)	
1/6/2017	0.41		0.0341			
4/3/2017		<0.02				
4/4/2017			0.0371			0.0061 (J)
4/6/2017	0.297			0.0063 (J)	0.0069 (J)	
7/11/2017		<0.02				
7/12/2017			0.0399	0.0064 (J)	0.0098 (J)	0.0067 (J)
7/13/2017	0.194					
10/2/2017		<0.02				
10/4/2017	0.316					
1/9/2018	0.194	0.0014 (J)			0.0086 (J)	
1/10/2018				0.0077 (J)		0.0056 (J)
1/11/2018			0.0327			
7/9/2018		<0.02				
7/10/2018				0.016	0.0098 (J)	0.0056 (J)
7/11/2018	0.15		0.02			
1/16/2019	0.16	<0.02	0.0022 (J)	0.0033 (J)	0.077	0.0043 (J)
3/25/2019	0.18	<0.02	0.004 (J)			
3/26/2019				0.0058 (J)	0.086	0.0051 (J)
10/7/2019		<0.02				
10/8/2019	0.11					
10/9/2019			<0.02	0.033 (J)	0.018 (J)	<0.02
4/6/2020	0.12	<0.02				
4/7/2020			0.0037 (J)	0.0053 (J)	0.041 (J)	0.0015 (J)
9/28/2020	0.1	<0.02				0.0042 (J)
9/30/2020				0.0037 (J)	0.018	
10/1/2020			0.0047 (J)			

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
3/10/2021			0.0054 (J)	0.0026 (J)	0.027	0.005 (J)
3/11/2021	0.14					
3/12/2021		<0.02				
9/21/2021	0.096	<0.02	0.0027 (J)	0.0039 (J)	0.015	
9/23/2021						0.0042 (J)
1/31/2022	0.1	<0.02				
2/2/2022			0.0031 (J)		0.0099 (J)	
2/3/2022				0.0046 (J)		0.0028 (J)
8/30/2022	0.11	0.00372 (J)	0.00943 (J)	0.0138 (J)	0.0192 (J)	
9/1/2022						0.00748 (J)

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
11/21/2000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1/20/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
3/14/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
7/16/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
11/1/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/25/2002	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
11/20/2002	0.0071	<0.02	<0.02	0.03	0.0099	0.0069
6/6/2003	0.0098	<0.02	0.0063	0.0065	0.019 (O)	0.082 (O)
12/12/2003	0.0074	<0.02	<0.02	0.0052	0.018 (O)	0.012
5/26/2004	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
12/7/2004	<0.02	<0.02	<0.02	0.0074	<0.02	<0.02
6/21/2005	<0.02	<0.02	<0.02	0.01	<0.02	<0.02
12/12/2005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/4/2006				0.013		<0.02
6/27/2006	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
8/30/2006				0.0039		<0.02
12/4/2006	<0.02	<0.02	<0.02	0.016	<0.02	0.0031
2/15/2007				0.017		0.0025
6/23/2007	0.0036	<0.02	<0.02	0.0076	<0.02	0.0032
9/11/2007				0.012		<0.02
12/11/2007	<0.02	<0.02	<0.02	0.017	<0.02	<0.02
3/11/2008				0.012		<0.02
6/23/2008	<0.02	<0.02	<0.02			
6/24/2008				0.0069	<0.02	<0.02
11/3/2008				0.016		0.0032
12/4/2008	<0.02	<0.02	<0.02	0.013		
12/5/2008					<0.02	<0.02
3/25/2009				0.014		<0.02
7/8/2009	0.0026	<0.02	<0.02	0.014	<0.02	0.0036
9/14/2009				0.0072		0.0026
12/20/2009				0.02	<0.02	0.0031
12/21/2009	<0.02	<0.02	<0.02			
3/4/2010				0.023		<0.02
6/20/2010	<0.02	<0.02	<0.02	0.017	<0.02	
6/21/2010						0.0025
9/14/2010				0.018		0.0035
1/6/2011	0.003		0.0028			
1/7/2011		<0.02		0.019	<0.02	0.0036
4/15/2011				0.019		<0.02
7/7/2011	0.004	<0.02	<0.02	0.014	0.0036	0.003
9/25/2011				0.015		0.0037
1/17/2012	<0.02	<0.02	<0.02	0.021	<0.02	
1/18/2012						<0.02
4/4/2012				0.0191		<0.02
7/9/2012	0.005	<0.02	<0.02	0.026	0.0059	
7/10/2012						0.0026
10/9/2012				0.049		0.007
1/17/2013	0.005	<0.02	<0.02			
1/18/2013				0.036	<0.02	<0.02
4/5/2013				0.04		<0.02
7/16/2013	<0.02	<0.02	<0.02			

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				0.062	<0.02	<0.02
10/11/2013				0.032		<0.02
1/13/2014	<0.02	<0.02	<0.02		<0.02	
1/14/2014				0.044		<0.02
4/3/2014				0.077 (O)		0.0032 (J)
7/8/2014	0.0024 (J)	0.0034 (J)	0.002 (J)			
7/9/2014				0.032	0.0012 (J)	0.0031 (J)
10/24/2014				0.045		0.0028 (J)
1/13/2015	0.0023 (J)	<0.02	0.0015 (J)		0.0013 (J)	
1/14/2015				0.031		0.0034 (J)
5/10/2015				0.013		
5/11/2015						0.0026 (J)
7/16/2015	0.002 (J)	0.0049 (J)	<0.02		<0.02	0.0028 (J)
7/17/2015				0.028		
10/6/2015				0.02		0.0016 (J)
1/17/2016				0.028	0.0013 (J)	0.0029 (J)
1/18/2016		0.0058	0.0011 (J)			
1/19/2016	0.0025 (J)					
4/26/2016				0.0181		0.00296 (J)
7/26/2016	0.0027 (J)		<0.02			
7/27/2016		0.0058 (J)		0.0189	<0.02	
7/28/2016						0.0026 (J)
10/25/2016				0.0206	<0.02	<0.02
1/4/2017	<0.02	<0.02				<0.02
1/5/2017			<0.02	0.0172	<0.02	
4/3/2017					0.002 (J)	
4/4/2017				0.0235		
4/5/2017		0.0039 (J)				0.0033 (J)
4/6/2017	0.0025 (J)		<0.02			
7/10/2017		0.0062 (J)				
7/11/2017	0.0027 (J)			0.0136	0.0022 (J)	
7/12/2017			0.0016 (J)			0.0037 (J)
10/2/2017				0.0175	0.0022 (J)	
10/3/2017						0.0036 (J)
1/9/2018				0.0103	0.0021 (J)	
1/10/2018			0.0019 (J)			0.0029 (J)
1/11/2018	0.0019 (J)	0.0025 (J)				
7/9/2018				0.0078 (J)		
7/10/2018					0.0025 (J)	0.0025 (J)
7/11/2018	0.0021 (J)	0.0059 (J)	0.0097 (J)			
1/16/2019			<0.02	0.0043 (J)		
1/17/2019	0.0021 (J)	<0.02			<0.02	0.0021 (J)
3/26/2019			0.0029 (J)	0.0063 (J)	0.0026 (J)	0.0038 (J)
3/27/2019	0.0023 (J)	0.0049 (J)				
10/8/2019	<0.02		<0.02	<0.02	<0.02	<0.02
10/9/2019		0.0021 (J)				
4/7/2020	<0.02	0.0024 (J)		0.0026 (J)	<0.02	<0.02
4/8/2020			<0.02			
9/28/2020			<0.02			
9/29/2020	0.0023 (J)	0.0046 (J)		<0.02		
9/30/2020					0.0028 (J)	0.0028 (J)
3/10/2021	0.0023 (J)	0.0055 (J)				

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
3/12/2021					0.0037 (J)	
3/15/2021			<0.02			
3/16/2021				<0.02		0.0034 (J)
9/21/2021	0.002 (J)	0.0051 (J)	<0.02			
9/22/2021				0.0052 (J)		0.0025 (J)
9/23/2021					0.0022 (J)	
2/1/2022						0.0021 (J)
2/2/2022				0.004 (J)		
2/3/2022	0.0031 (J)	0.0052 (J)	<0.02		0.0023 (J)	
8/30/2022		0.00949 (J)		0.00933 (J)		
8/31/2022	0.00481 (J)		<0.02		0.00476 (J)	
9/1/2022						0.0065 (J)

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.02					<0.02
11/21/2000	<0.02	<0.02				<0.02
1/20/2001	<0.02	<0.02				<0.02
3/14/2001	<0.02	<0.02				<0.02
7/16/2001	<0.02	<0.02				<0.02
11/1/2001	<0.02	<0.02				<0.02
4/25/2002	<0.02	<0.02				<0.02
11/20/2002	<0.02	<0.02				0.014
6/6/2003	<0.02	<0.02				<0.02
12/12/2003	<0.02	<0.02				<0.02
5/26/2004	<0.02	<0.02				<0.02
12/7/2004	<0.02	<0.02				<0.02
6/21/2005	<0.02	<0.02				<0.02
12/12/2005	<0.02	<0.02				<0.02
6/27/2006	0.0025	<0.02				<0.02
12/4/2006	<0.02	<0.02				<0.02
6/23/2007	<0.02	<0.02				<0.02
12/11/2007	<0.02	<0.02				<0.02
6/23/2008						<0.02
6/24/2008	<0.02	<0.02				
12/4/2008		<0.02				<0.02
12/5/2008	<0.02					
7/8/2009	<0.02	<0.02				0.0029
12/20/2009		<0.02				
12/21/2009	<0.02					<0.02
6/20/2010		<0.02				<0.02
6/21/2010	<0.02		<0.02	<0.02	<0.02	
1/6/2011		<0.02				
1/7/2011	<0.02		0.0029	0.0031	<0.02	<0.02
7/7/2011			<0.02			
7/8/2011	0.0031		0.0046	0.0048	<0.02	<0.02
1/17/2012		<0.02				
1/18/2012	<0.02		<0.02	<0.02	<0.02	<0.02
7/9/2012		<0.02				
7/10/2012	<0.02		0.0081	<0.02	<0.02	<0.02
1/17/2013		<0.02				
1/18/2013	<0.02		0.0063	<0.02	<0.02	<0.02
7/17/2013	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1/13/2014		<0.02				
1/14/2014	<0.02		<0.02	0.006	<0.02	<0.02
7/9/2014	0.0012 (J)	<0.02		0.0019 (J)		0.0016 (J)
7/10/2014			0.0026 (J)		0.0053	
1/12/2015			0.0031 (J)			
1/13/2015		<0.02				
1/14/2015	0.002 (J)			0.0037 (J)	0.0013 (J)	<0.02
7/16/2015		<0.02				
7/17/2015				0.0028 (J)		0.0029 (J)
7/18/2015	<0.02		0.003 (J)		0.0043 (J)	
1/17/2016		<0.02	0.0025 (J)	0.0039 (J)		
1/18/2016	0.0019 (J)				<0.02	<0.02
7/27/2016		<0.02				
7/28/2016			0.0024 (J)	0.0022 (J)		<0.02

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0031 (J)				0.0052 (J)	
10/25/2016			<0.02			
1/4/2017			<0.02	<0.02	<0.02	
1/5/2017	<0.02	<0.02				
1/6/2017						<0.02
4/4/2017		<0.02	0.0024 (J)	0.003 (J)		
4/5/2017	0.0029 (J)					
4/6/2017					<0.02	<0.02
7/11/2017			0.003 (J)		0.0016 (J)	
7/12/2017						0.0013 (J)
7/13/2017	0.0037 (J)	<0.02		0.0019 (J)		
10/2/2017			0.0028 (J)			
1/9/2018				0.0046 (J)		
1/10/2018		<0.02	0.0026 (J)			
1/11/2018	0.0026 (J)				0.0012 (J)	<0.02
7/9/2018			<0.02			
7/10/2018		<0.02		0.0031 (J)		
7/11/2018	0.0032 (J)				0.0025 (J)	<0.02
1/16/2019	<0.02					
1/17/2019				0.0022 (J)		
1/18/2019					<0.02	<0.02
1/21/2019		0.0024 (J)	0.0031 (J)			
3/25/2019			0.0024 (J)			
3/26/2019	0.0024 (J)			0.0041 (J)		
3/27/2019					0.002 (J)	<0.02
7/30/2019		<0.02				
10/8/2019				<0.02		
10/9/2019	<0.02	<0.02	<0.02		<0.02	<0.02
4/7/2020				<0.02	0.0014 (J)	
4/8/2020	<0.02	<0.02	<0.02			0.0015 (J)
9/29/2020		<0.02				
9/30/2020	<0.02		0.0029 (J)	0.0029 (J)	<0.02	
10/1/2020						<0.02
3/10/2021					<0.02	<0.02
3/11/2021	<0.02					
3/12/2021			0.0038 (J)			
3/15/2021		<0.02				
3/16/2021				0.003 (J)		
9/21/2021					<0.02	
9/22/2021	<0.02	<0.02	0.0033 (J)	<0.02		<0.02
2/1/2022	0.0022 (J)		0.0039 (J)	0.0036 (J)		
2/2/2022		<0.02				<0.02
2/3/2022					<0.02	
8/30/2022			0.00647 (J)	0.00715 (J)		
8/31/2022	0.00599 (J)				0.00396 (J)	
9/1/2022		0.0045 (J)				0.00514 (J)

Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	<0.02	<0.02	0.0024 (J)
9/22/2021	<0.02	<0.02	
9/23/2021			<0.02
2/1/2022		<0.02	
2/3/2022	<0.02		<0.02
8/31/2022	<0.02		<0.02
9/1/2022		0.00414 (J)	

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.02	<0.02	<0.02	0.026 (O)	<0.02 (O)	<0.02
11/21/2000	<0.02		<0.02	<0.02	0.024 (O)	<0.02
1/20/2001	<0.02	0.025	0.041	0.031 (O)	<0.02 (O)	<0.02
3/14/2001	<0.02	<0.02	<0.02	0.063 (O)	<0.02 (O)	<0.02
7/16/2001	<0.02	<0.02	0.059	0.08 (O)	<0.02 (O)	<0.02
11/1/2001	<0.02	<0.02	<0.02	0.16 (O)	<0.02 (O)	<0.02
4/25/2002	<0.02	<0.02	<0.02	<0.02	<0.02 (O)	<0.02
11/20/2002		0.016	0.061	0.14 (O)	0.028 (O)	<0.02
6/6/2003	0.69 (O)	0.032	0.041	0.51 (O)	0.032 (O)	0.011
12/12/2003	0.12	0.019	0.012	<0.02	<0.01 (O)	<0.02
5/26/2004	0.013	<0.02	0.016	0.036 (O)	<0.01 (O)	<0.02
12/7/2004	<0.02	<0.02	<0.02	0.069 (O)	0.012 (O)	<0.02
6/21/2005	<0.02	<0.02	<0.02	0.076 (O)	<0.01 (O)	<0.02
12/12/2005	0.014	0.01	0.017	<0.02	<0.01 (O)	<0.02
4/4/2006		<0.02				
6/27/2006	0.01	0.0043	0.11	0.01	0.0071	<0.02
8/30/2006		0.017				
12/4/2006	0.0065	0.0053	0.086	0.0035	0.0096	<0.02
2/15/2007		0.0045				
6/23/2007	0.0049	0.0043	0.076	0.0032	0.094 (O)	<0.02
9/11/2007		0.004				
12/11/2007	0.0043	0.0048	0.087	0.0079	0.042 (O)	<0.02
3/11/2008		0.0043				
6/23/2008	0.0025	0.0037				
6/24/2008			0.062	<0.02	0.098 (O)	<0.02
11/3/2008		0.0032				
12/4/2008	0.0025	0.0029				
12/5/2008			0.014	<0.02	0.047 (O)	<0.02
3/25/2009		0.0055				
7/7/2009	<0.02	0.0028	0.052	<0.02	0.024 (O)	<0.02
9/14/2009		0.0027				
12/20/2009	0.0031	0.0029				<0.02
12/21/2009			0.046	<0.02	0.049 (O)	
3/4/2010		0.0042				
6/20/2010	<0.02	0.0027		<0.02	0.045 (O)	<0.02
6/21/2010			0.045			
9/14/2010		<0.02				
1/6/2011				<0.02		<0.02
1/7/2011	<0.02	0.0032	0.024		0.0044	
4/15/2011		<0.02				
7/7/2011	0.0031	0.005		0.0027	0.003	0.0025
7/8/2011			0.023			
9/25/2011		0.0041				
1/17/2012	0.004	0.0043		0.0039		<0.02
1/18/2012			0.011		0.0048	
4/4/2012		<0.02				
7/9/2012	0.0096			<0.02		<0.02
7/10/2012		0.0028	0.024		<0.02	
10/9/2012		0.0033				
1/17/2013				<0.02		<0.02
1/18/2013	0.051	0.0038	0.011		0.0028	
4/5/2013		0.0026				

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				0.0032		<0.02
7/17/2013	0.042	<0.02	0.0029		<0.02	
10/11/2013		0.0046				
1/13/2014	0.0025			0.0025		0.0025
1/14/2014		0.0025	0.0025		0.0025	
4/3/2014		0.0029				
7/9/2014	0.064	0.002 (J)	0.0051	0.00076 (J)	0.00093 (J)	<0.02
10/24/2014		0.0031				
1/12/2015			0.0023 (J)			
1/13/2015	0.066			0.0036		0.0025
1/14/2015		0.003			0.0023 (J)	
5/10/2015		0.0028				
7/16/2015	0.036		0.0021 (J)	<0.02		<0.02
7/17/2015		0.0018 (J)			<0.02	
10/6/2015		0.0018 (J)				
1/17/2016						<0.02
1/18/2016	0.035	0.0028	0.0092	<0.02	0.0029	
4/26/2016		<0.02				
7/27/2016	0.0529			0.0015 (J)		<0.02
7/28/2016		0.0018 (J)			<0.02	
7/29/2016			0.003 (J)			
10/24/2016		0.0024 (J)				
10/25/2016	0.0035 (J)					
1/3/2017		0.0035 (J)		<0.02		
1/4/2017						<0.02
1/5/2017					<0.02	
1/6/2017	0.0235		0.0104			
4/3/2017		0.0041 (J)				
4/4/2017			0.0132			<0.02
4/6/2017	0.0829			0.0023 (J)	0.0032 (J)	
7/11/2017		0.0029 (J)				
7/12/2017			0.0046 (J)	<0.02	0.002 (J)	<0.02
7/13/2017	0.0853					
10/2/2017		0.0026 (J)				
10/4/2017	0.0263					
1/9/2018	0.0665	0.0035 (J)			0.0036 (J)	
1/10/2018				0.0022 (J)		0.0014 (J)
1/11/2018			0.0095 (J)			
7/9/2018		0.0022 (J)				
7/10/2018				<0.02	0.0055 (J)	0.0021 (J)
7/11/2018	0.02 (J)		0.0028 (J)			
1/16/2019	0.014 (J)	0.0037 (J)	0.0052 (J)	<0.02	<0.02	<0.02
3/25/2019	<0.05 (O)	<0.02	0.0078 (J)			
3/26/2019				<0.02	<0.02	<0.02
10/7/2019		0.0077 (J)				
10/8/2019	0.095					
10/9/2019			0.0064 (J)	0.0081 (J)	0.016 (J)	0.0057 (J)
4/6/2020	<0.02	<0.02				
4/7/2020			<0.02	<0.02	<0.02	<0.02
9/28/2020	0.16	0.0092 (J)				0.0092 (J)
9/30/2020				<0.02	<0.02	
10/1/2020			0.0064 (J)			

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
3/10/2021			<0.02	<0.02	<0.02	<0.02
3/11/2021	0.054					
3/12/2021		0.0028 (J)				
9/21/2021	<0.02	<0.02	<0.02	<0.02	<0.02	
9/23/2021						<0.02
1/31/2022	<0.02	<0.02				
2/2/2022			<0.02		<0.02	
2/3/2022				<0.02		<0.02
8/30/2022	0.011 (J)	<0.02	<0.02	<0.02	0.0132 (J)	
9/1/2022						0.00578 (J)

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.02	0.38 (O)	<0.02	<0.02	<0.02	<0.02
11/21/2000	<0.02	0.077 (O)	<0.02	<0.02	<0.02	<0.02
1/20/2001	<0.02	0.23 (O)	<0.02	<0.02	<0.02	<0.02
3/14/2001	<0.02	0.24 (O)	<0.02	<0.02	<0.02	<0.02
7/16/2001	<0.02	0.053 (O)	<0.02	<0.02	<0.02	<0.02
11/1/2001	<0.02	0.022 (O)	0.044 (O)	<0.02	<0.02	<0.02
4/25/2002	<0.02	1.2 (O)	<0.02	<0.02	<0.02	<0.02
11/20/2002	<0.02	0.045 (O)	0.023	<0.02	<0.02	<0.02
6/6/2003	<0.02	0.042 (O)	<0.02	<0.02	<0.02	0.035 (O)
12/12/2003	0.013	<0.02	<0.02	<0.02	<0.02	<0.02
5/26/2004	<0.02	<0.02	0.035	<0.02	<0.02	<0.02
12/7/2004	0.028 (O)	<0.02	0.018	<0.02	<0.02	<0.02
6/21/2005	<0.02	<0.02	0.014	<0.02	<0.02	<0.02
12/12/2005	<0.02	<0.02	0.023	0.011	0.064 (O)	<0.02
4/4/2006				<0.02		<0.02
6/27/2006	0.0028	0.012 (O)	0.023	0.0045	0.011	0.077 (O)
8/30/2006				<0.02		0.0027
12/4/2006	0.0028	0.0067	0.046 (O)	<0.02	0.0033	<0.02
2/15/2007				<0.02		0.0032
6/23/2007	0.0063	0.025 (O)	0.036	<0.02	0.0029	0.0058
9/11/2007				<0.02		0.0033
12/11/2007	<0.02	0.0038	0.011	<0.02	<0.02	<0.02
3/11/2008				<0.02		<0.02
6/23/2008	<0.02	0.0051	0.0091			
6/24/2008				<0.02	<0.02	<0.02
11/3/2008				<0.02		0.0025
12/4/2008	<0.02	<0.02	0.0038	<0.02		
12/5/2008					<0.02	<0.02
3/25/2009				<0.02		0.0025
7/8/2009	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
9/14/2009				<0.02		<0.02
12/20/2009				<0.02	<0.02	<0.02
12/21/2009	<0.02	0.013 (O)	0.0032			
3/4/2010				<0.02		<0.02
6/20/2010	<0.02	<0.02	<0.02	<0.02	<0.02	
6/21/2010						<0.02
9/14/2010				<0.02		<0.02
1/6/2011	<0.02		0.004			
1/7/2011		0.004		<0.02	<0.02	<0.02
4/15/2011				<0.02		<0.02
7/7/2011	<0.02	0.0028	0.0037	<0.02	<0.02	<0.02
9/25/2011				<0.02		0.0028
1/17/2012	0.0043	0.0043	0.0031	<0.02	<0.02	
1/18/2012						0.0029
4/4/2012				<0.02		<0.02
7/9/2012	<0.02	<0.02	0.003	<0.02	<0.02	
7/10/2012						<0.02
10/9/2012				<0.02		0.0027
1/17/2013	0.0025	0.0033	<0.02			
1/18/2013				<0.02	<0.02	<0.02
4/5/2013				<0.02		<0.02
7/16/2013	<0.02	0.0028	0.0029			

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.02	<0.02	<0.02
10/11/2013				<0.02		<0.02
1/13/2014	0.0025	0.0025	0.0025		0.0025	
1/14/2014				0.0025		0.0025
4/3/2014				0.0014 (J)		0.0015 (J)
7/8/2014	0.0011 (J)	0.002 (J)	0.0018 (J)			
7/9/2014				0.00086 (J)	<0.02	0.0012 (J)
10/24/2014				0.00083 (J)		0.0013 (J)
1/13/2015	0.0021 (J)	0.0079	0.0028		<0.02	
1/14/2015				<0.02		0.0017 (J)
5/10/2015				<0.02		
5/11/2015						0.0015 (J)
7/16/2015	<0.02	0.0026	0.0018 (J)		<0.02	<0.02
7/17/2015				<0.02		
10/6/2015				<0.02		<0.02
1/17/2016				<0.02	<0.02	<0.02
1/18/2016		0.0025	0.0017 (J)			
1/19/2016	0.0029					
4/26/2016				<0.02		<0.02
7/26/2016	<0.02		0.0028 (J)			
7/27/2016		0.0021 (J)		<0.02	<0.02	
7/28/2016						<0.02
10/25/2016				<0.02	<0.02	<0.02
1/4/2017	<0.02	0.0025 (J)				0.0025 (J)
1/5/2017			0.0021 (J)	<0.02	<0.02	
4/3/2017				<0.02	<0.02	
4/4/2017				<0.02		
4/5/2017		0.0026 (J)				0.0025 (J)
4/6/2017	0.004 (J)		0.0027 (J)			
7/10/2017		0.0023 (J)				
7/11/2017	<0.02			<0.02	<0.02	
7/12/2017			0.0043 (J)			0.002 (J)
10/2/2017				0.0026 (J)	<0.02	
10/3/2017						<0.02
1/9/2018				0.0018 (J)	<0.02	
1/10/2018			0.0021 (J)			0.0016 (J)
1/11/2018	0.0018 (J)	0.0031 (J)				
7/9/2018				<0.02		
7/10/2018					<0.02	0.0031 (J)
7/11/2018	<0.02	0.0036 (J)	0.0039 (J)			
1/16/2019			0.047	<0.02		
1/17/2019	<0.02	0.0032 (J)			<0.02	<0.02
3/26/2019			0.03	<0.02	<0.02	<0.02
3/27/2019	<0.02	0.0031 (J)				
10/8/2019	0.0061 (J)		0.053	0.0052 (J)	0.0051 (J)	0.01
10/9/2019		0.0057 (J)				
4/7/2020	<0.02	<0.02		<0.02	<0.02	<0.02
4/8/2020			0.023			
9/28/2020			0.016			
9/29/2020	0.0031 (J)	0.0074 (J)		<0.02		
9/30/2020					0.032	0.0051 (J)
3/10/2021	<0.02	<0.02				

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
3/12/2021					<0.02	
3/15/2021			0.039			
3/16/2021				<0.02		<0.02
9/21/2021	<0.02	<0.02	0.036			
9/22/2021				0.01		<0.02
9/23/2021					<0.02	
2/1/2022						<0.02
2/2/2022				<0.02		
2/3/2022	<0.02	<0.02	0.037		<0.02	
8/30/2022		0.0262		<0.02		
8/31/2022	<0.02		0.0266		0.00395 (J)	
9/1/2022						0.0119 (J)

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.02					<0.02
11/21/2000	<0.02	0.021 (O)				<0.02
1/20/2001	<0.02	<0.02				<0.02
3/14/2001	<0.02	<0.02				<0.02
7/16/2001	<0.02	<0.02				<0.02
11/1/2001	<0.02	<0.02				<0.02
4/25/2002	<0.02	<0.02				<0.02
11/20/2002	0.014	<0.02				0.033 (O)
6/6/2003	0.012	<0.02				<0.02
12/12/2003	<0.02	<0.02				<0.02
5/26/2004	<0.02	<0.02				<0.02
12/7/2004	<0.02	<0.02				<0.02
6/21/2005	<0.02	<0.02				<0.02
12/12/2005	<0.02	0.012				0.032 (O)
6/27/2006	0.0046	<0.02				0.018 (O)
12/4/2006	0.0071	<0.02				0.0044
6/23/2007	0.005	<0.02				0.0041
12/11/2007	0.0033	<0.02				0.0039
6/23/2008						<0.02
6/24/2008	0.0037	<0.02				
12/4/2008		<0.02				0.0039
12/5/2008	0.0027					
7/8/2009	0.0048	<0.02				<0.02
12/20/2009		<0.02				
12/21/2009	0.0032					0.004
6/20/2010		<0.02				<0.02
6/21/2010	0.0028		<0.02	0.04 (O)	<0.02	
1/6/2011		<0.02				
1/7/2011	0.003		<0.02	<0.02	0.019	0.0032
7/7/2011			<0.02			
7/8/2011	0.0034		0.086 (JO)	0.0044	0.1 (O)	0.0025
1/17/2012		<0.02				
1/18/2012	0.0049		<0.02	<0.02	0.0051	0.0045
7/9/2012		<0.02				
7/10/2012	0.0039		<0.02	<0.02	0.01	<0.02
1/17/2013		<0.02				
1/18/2013	0.0043		0.0032	<0.02	0.0036	0.0029
7/17/2013	0.0035	<0.02	<0.02	<0.02	0.0025	<0.02
1/13/2014		0.0025				
1/14/2014	0.0025		0.0025	0.0025	0.0025	0.0025
7/9/2014	0.0033	0.00058 (J)		0.00084 (J)		0.0016 (J)
7/10/2014			<0.02		0.024	
1/12/2015			<0.02			
1/13/2015		0.0024 (J)				
1/14/2015	0.0067			0.0018 (J)	0.0016 (J)	0.0024 (J)
7/16/2015		<0.02				
7/17/2015				<0.02		0.0031
7/18/2015	<0.02		<0.02		0.014	
1/17/2016		<0.02	<0.02	<0.02		
1/18/2016	0.012				<0.02	0.0059
7/27/2016		0.0018 (J)				
7/28/2016			<0.02	<0.02		0.0019 (J)

Time Series

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0086 (J)				0.0129	
10/25/2016			<0.02			
1/4/2017			<0.02	<0.02	0.006 (J)	
1/5/2017	0.016	<0.02				
1/6/2017						0.0026 (J)
4/4/2017		0.0015 (J)	<0.02	0.0015 (J)		
4/5/2017	0.0175					
4/6/2017					0.0031 (J)	0.0047 (J)
7/11/2017			<0.02		0.0029 (J)	
7/12/2017						0.003 (J)
7/13/2017	0.0126	0.0014 (J)		0.002 (J)		
10/2/2017			<0.02			
1/9/2018				0.0016 (J)		
1/10/2018		<0.02	0.0034 (J)			
1/11/2018	0.012				0.0106	0.0046 (J)
7/9/2018			<0.02			
7/10/2018		<0.02		<0.02		
7/11/2018	0.011				0.0057 (J)	0.0033 (J)
1/16/2019	0.0094 (J)					
1/17/2019				<0.02		
1/18/2019					0.0024 (J)	0.0025 (J)
1/21/2019		<0.02	<0.02			
3/25/2019			<0.02			
3/26/2019	0.0057 (J)			<0.02		
3/27/2019					<0.02	0.0026 (J)
7/30/2019		0.0067 (J)				
10/8/2019				0.0071 (J)		
10/9/2019	0.011	0.005 (J)	0.0049 (J)		0.0079 (J)	0.0054 (J)
4/7/2020				<0.02	<0.02	
4/8/2020	<0.02	<0.02	<0.02			<0.02
9/29/2020		0.056				
9/30/2020	0.0043 (J)		0.031	0.0096 (J)	<0.02	
10/1/2020						0.025
3/10/2021					<0.02	<0.02
3/11/2021	0.0056 (J)					
3/12/2021			<0.02			
3/15/2021		<0.02				
3/16/2021				<0.02		
9/21/2021					<0.02	
9/22/2021	<0.02	<0.02	<0.02	<0.02		<0.02
2/1/2022	0.011		<0.02	<0.02		
2/2/2022		<0.02				<0.02
2/3/2022					<0.02	
8/30/2022			0.0171 (J)	0.00814 (J)		
8/31/2022	0.0068 (J)				<0.02	
9/1/2022		0.0125 (J)				0.0163 (J)

Time Series

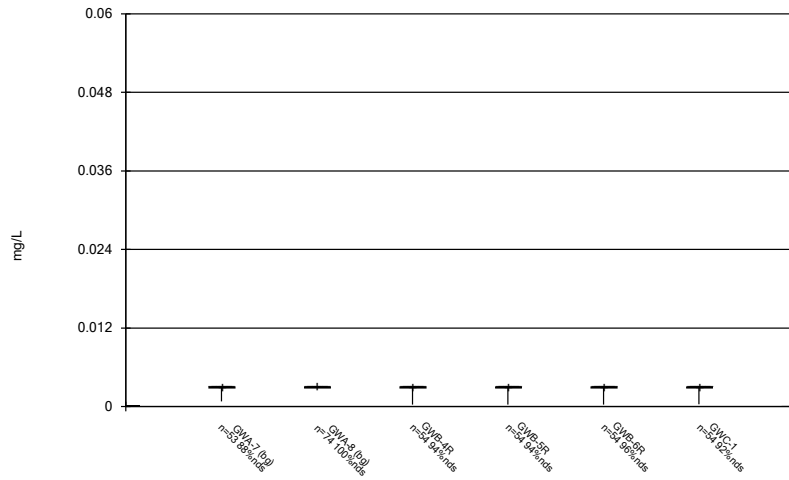
Constituent: Zinc (mg/L) Analysis Run 11/6/2022 9:48 AM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-24D	MW-25D
3/11/2021	0.0067 (J)	0.0025 (J)	0.0054 (J)
9/22/2021	<0.02	<0.02	
9/23/2021			<0.02
2/1/2022		<0.02	
2/3/2022	<0.02		0.051
8/31/2022	0.0106 (J)		0.0161 (J)
9/1/2022		0.0102 (J)	

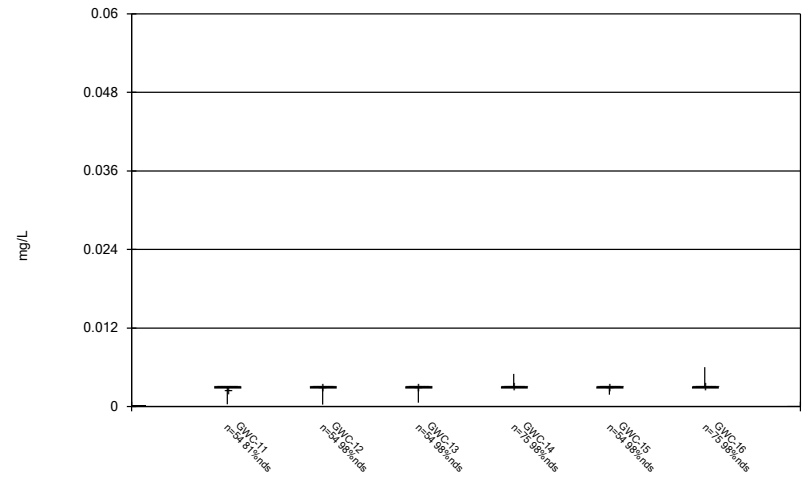
FIGURE B.

Box & Whiskers Plot



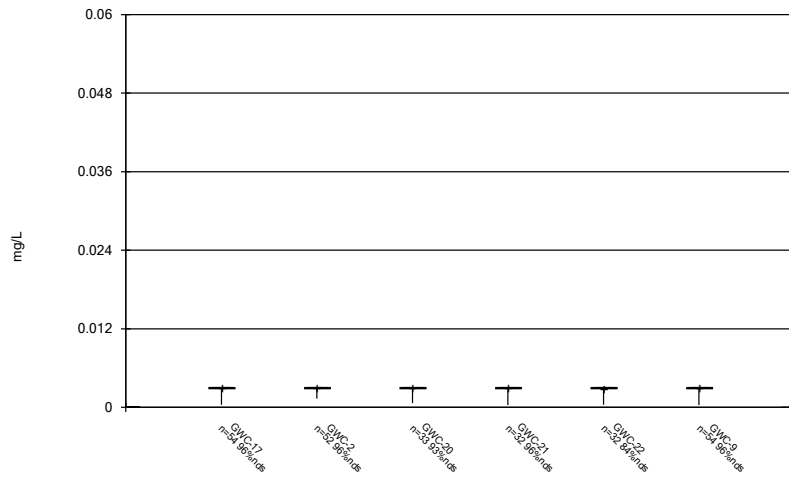
Constituent: Antimony Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



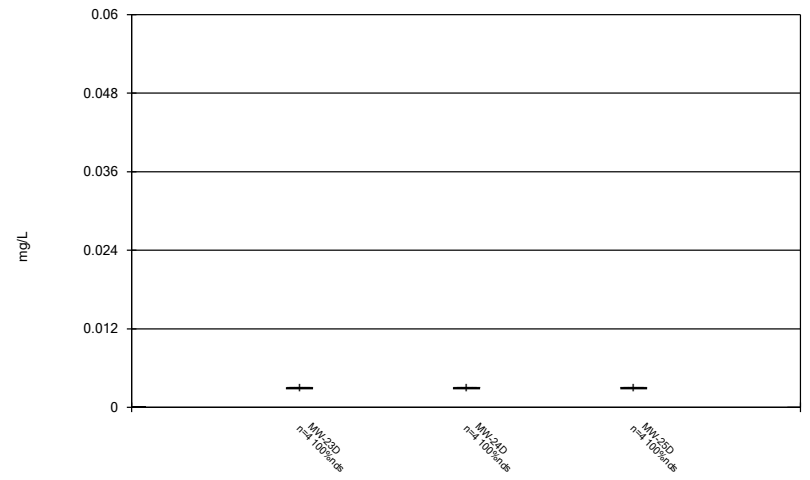
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



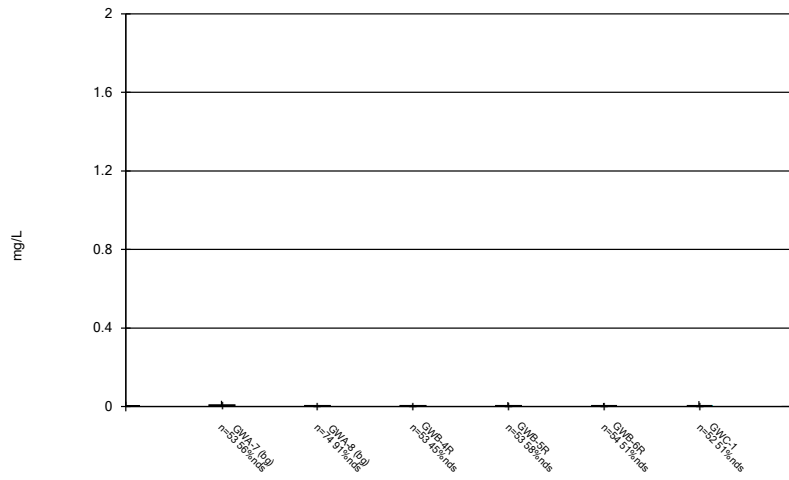
Constituent: Antimony Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



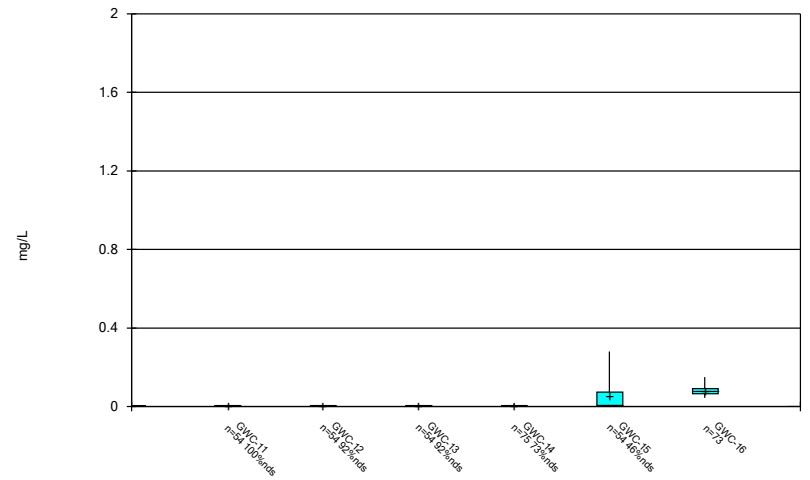
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



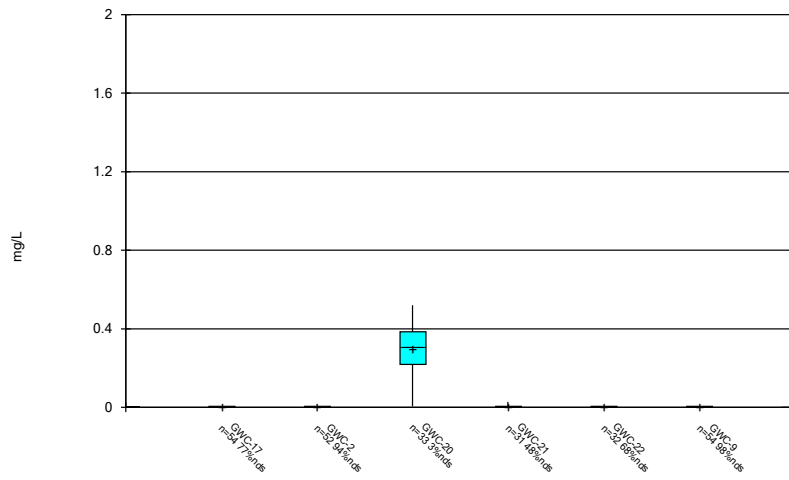
Constituent: Arsenic Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



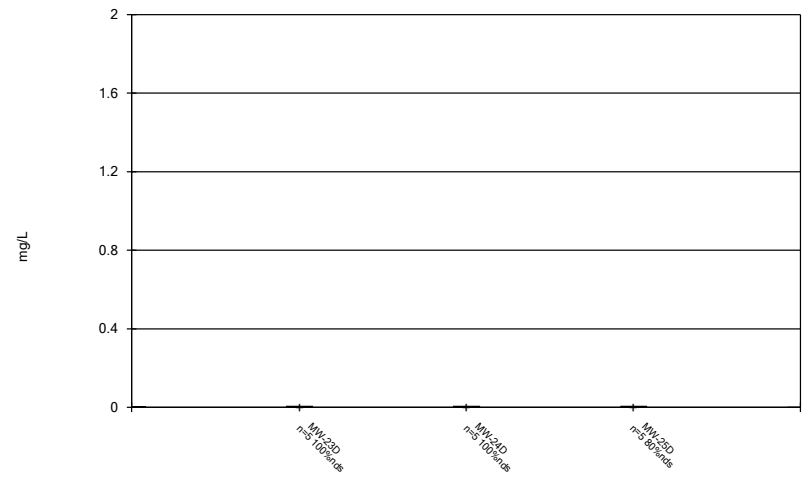
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



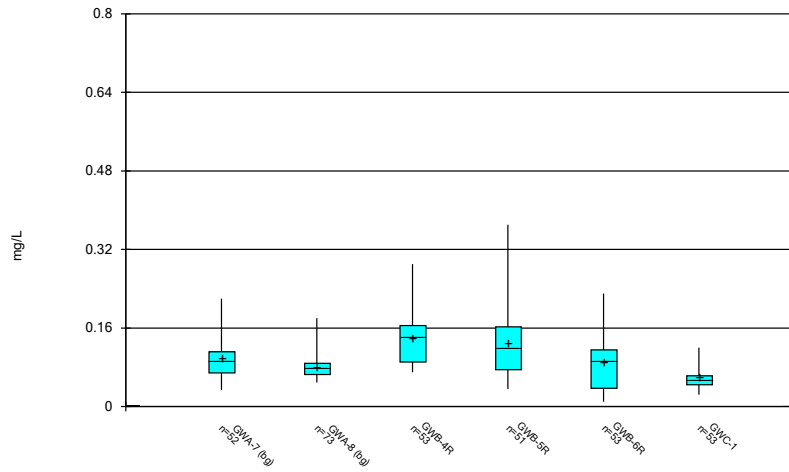
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



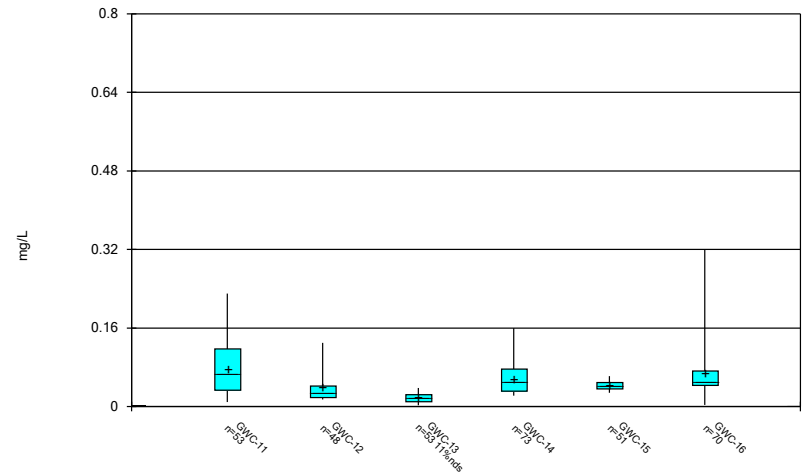
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



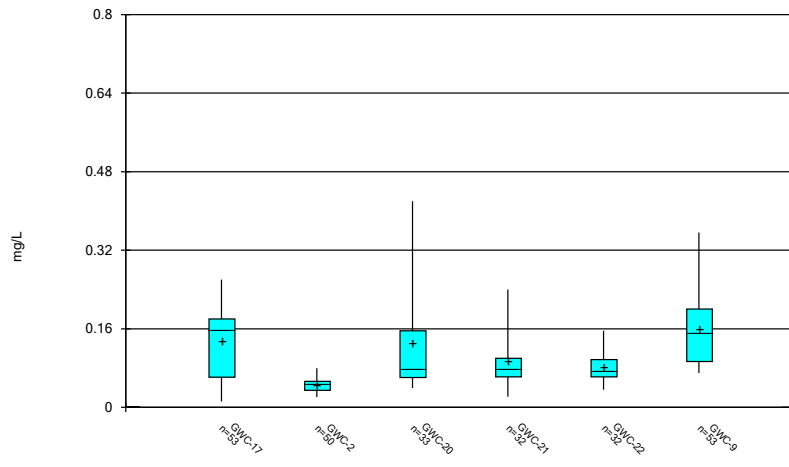
Constituent: Barium Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



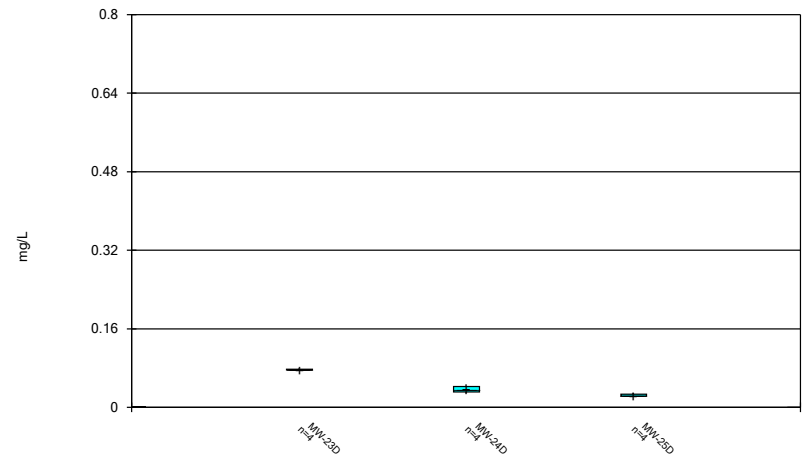
Constituent: Barium Analysis Run 11/6/2022 9:48 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



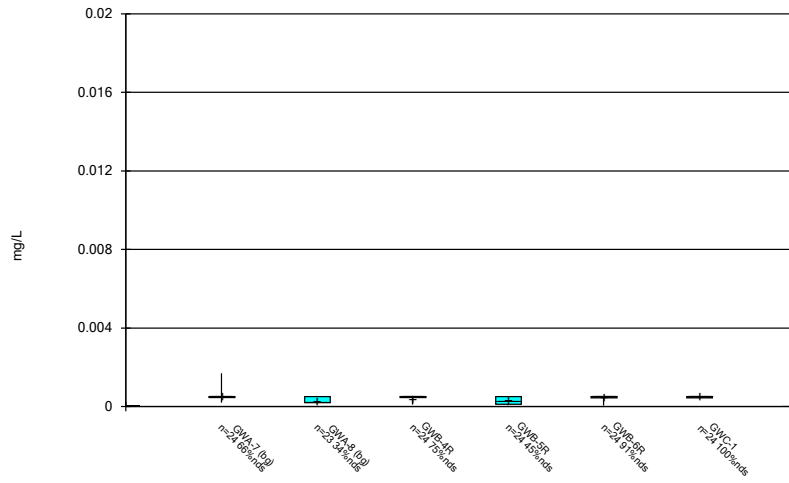
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



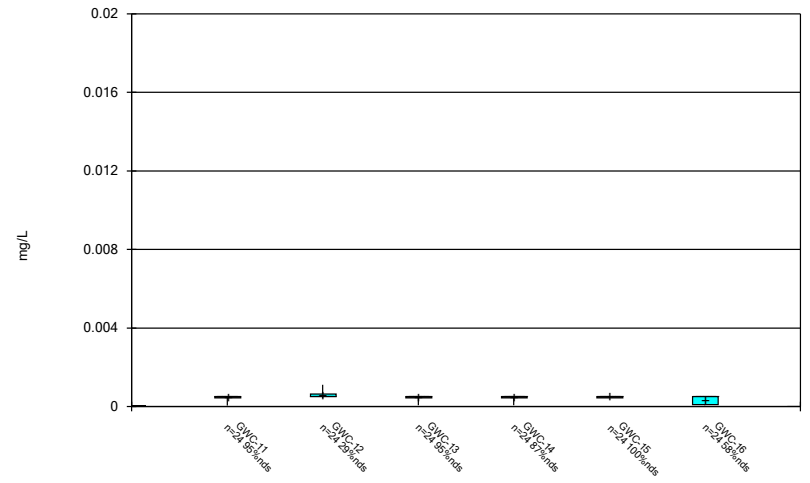
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



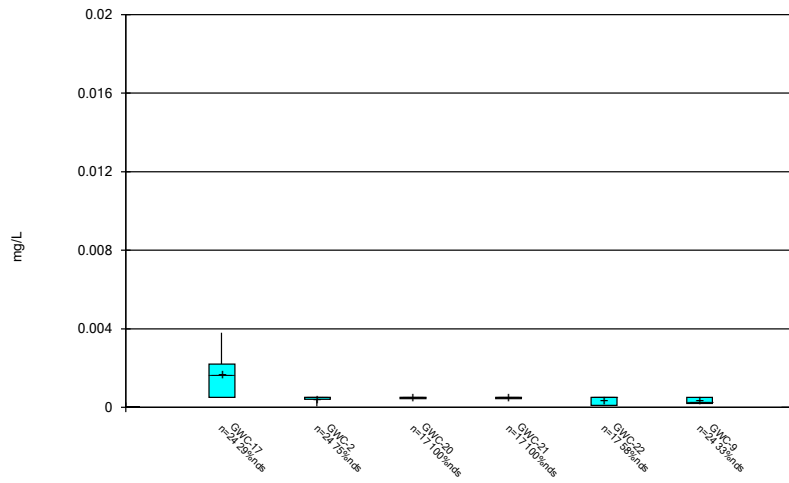
Constituent: Beryllium Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



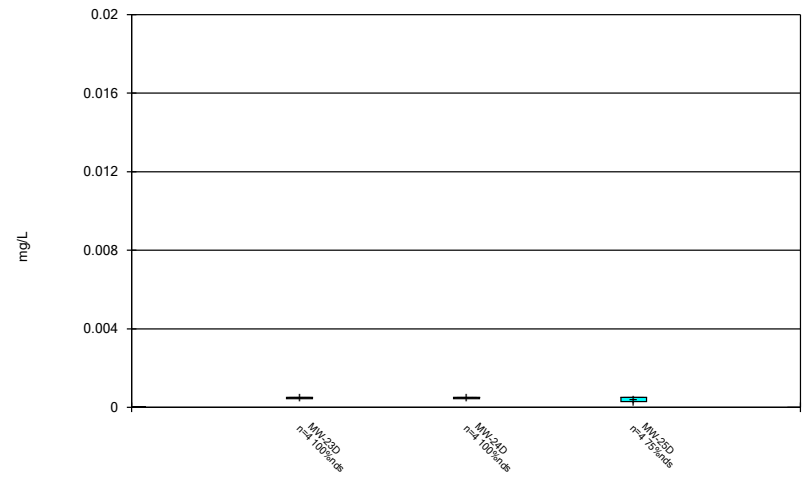
Constituent: Beryllium Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



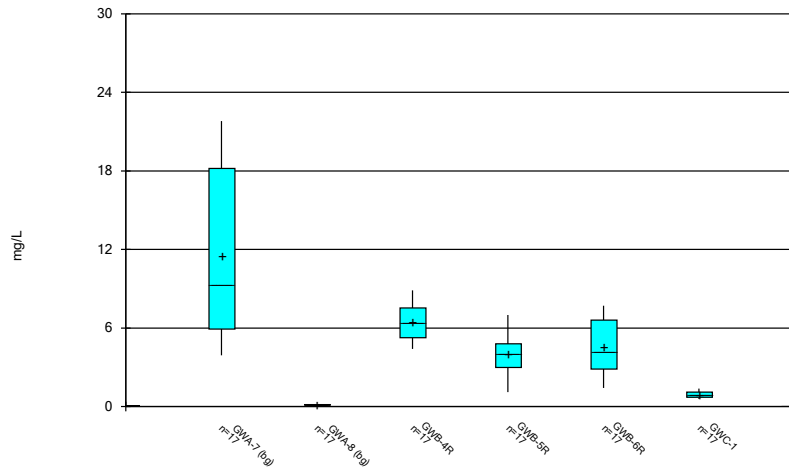
Constituent: Beryllium Analysis Run 11/6/2022 9:48 AM
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



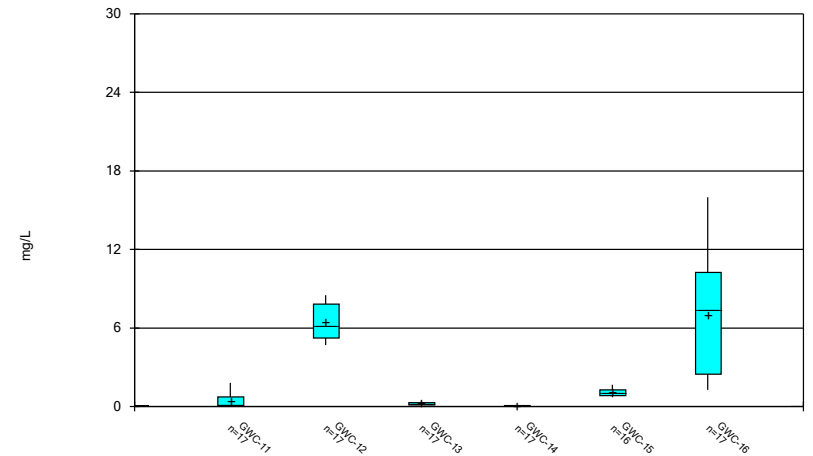
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



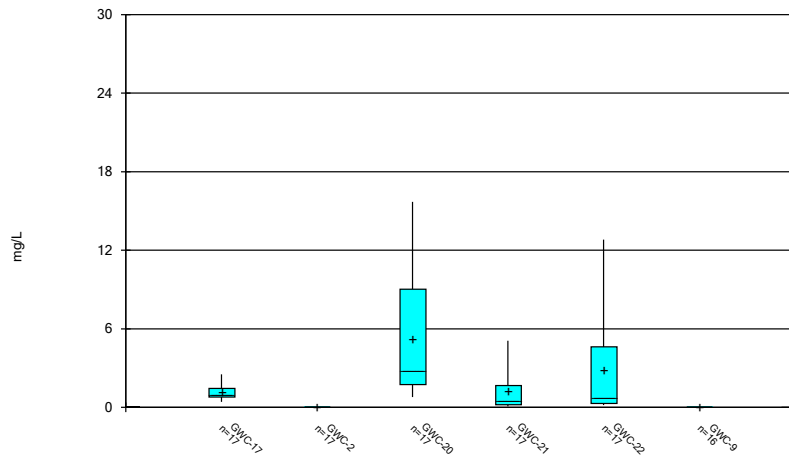
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Box & Whiskers Plot



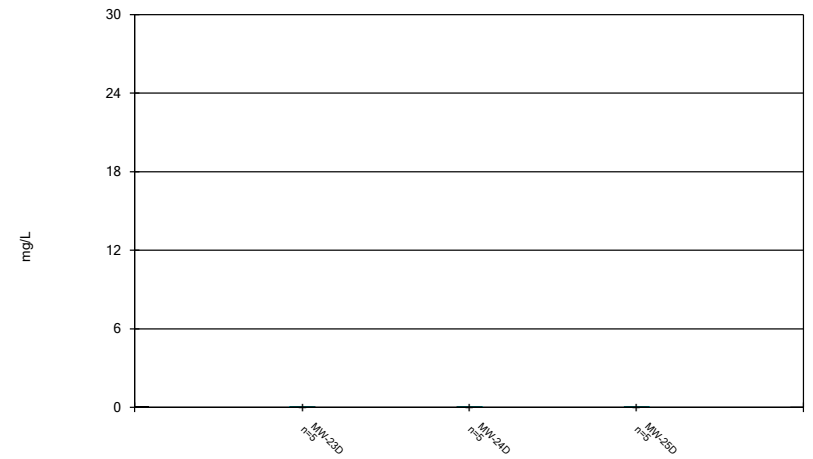
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



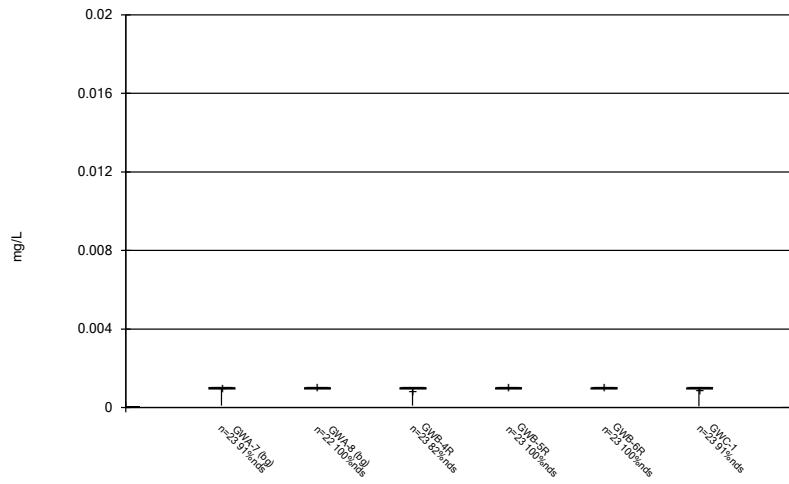
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



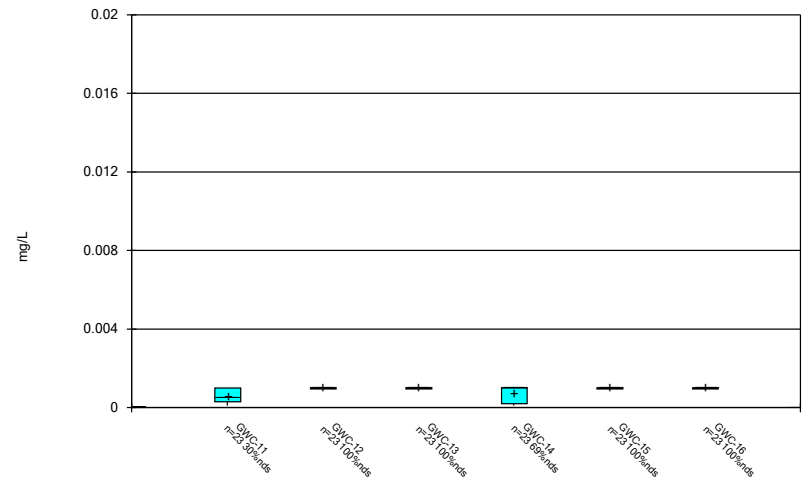
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Box & Whiskers Plot



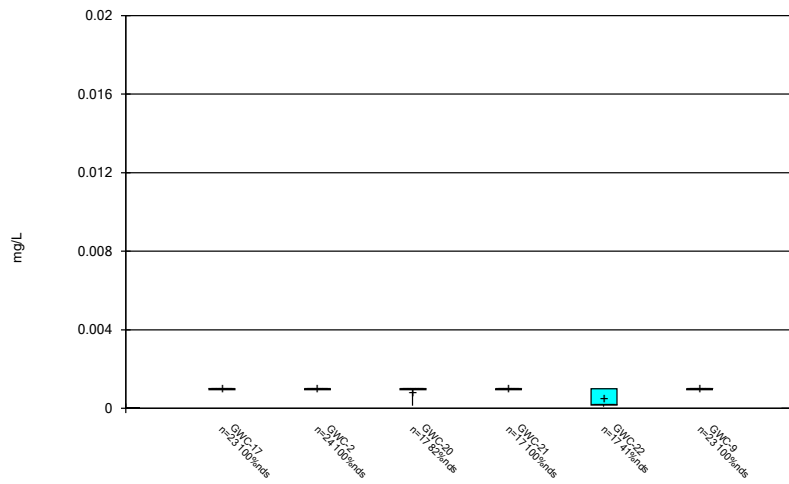
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Box & Whiskers Plot



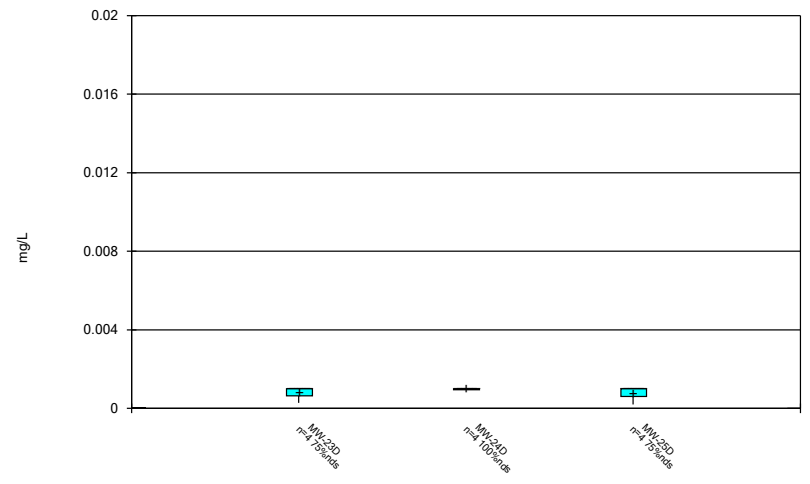
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Box & Whiskers Plot



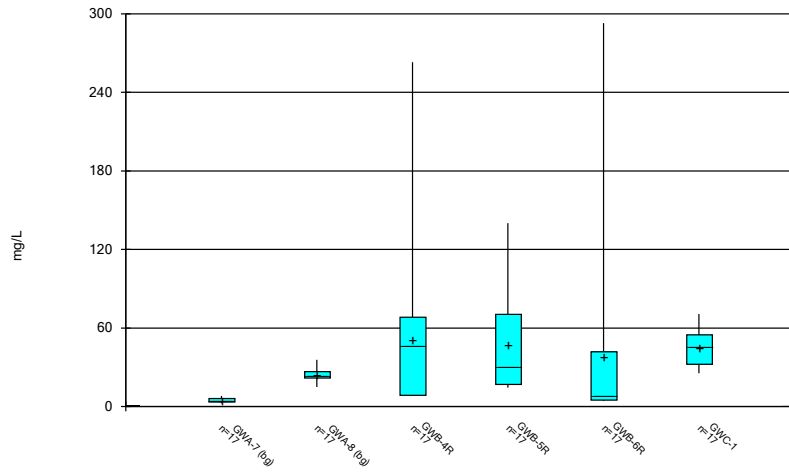
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Box & Whiskers Plot



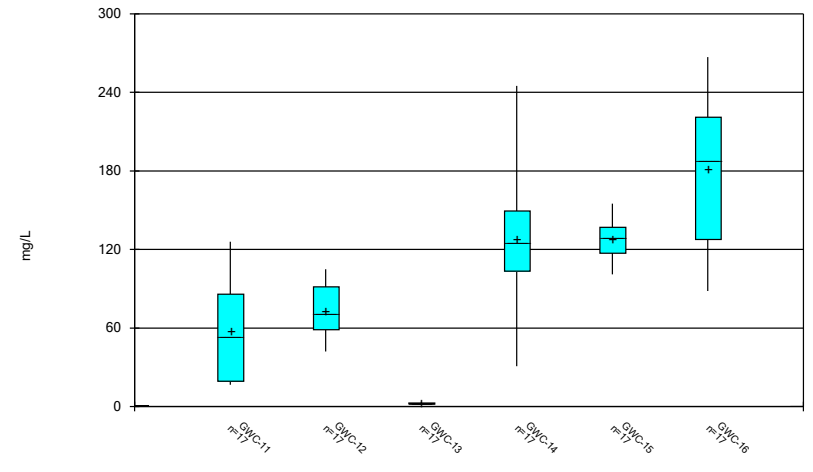
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Box & Whiskers Plot



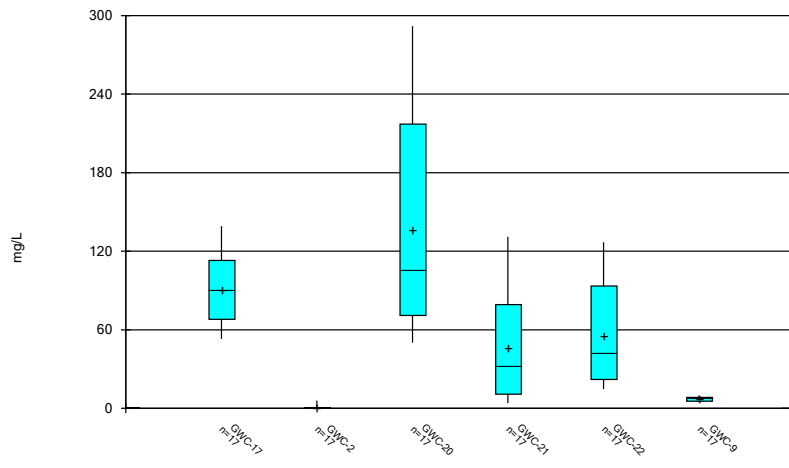
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Box & Whiskers Plot



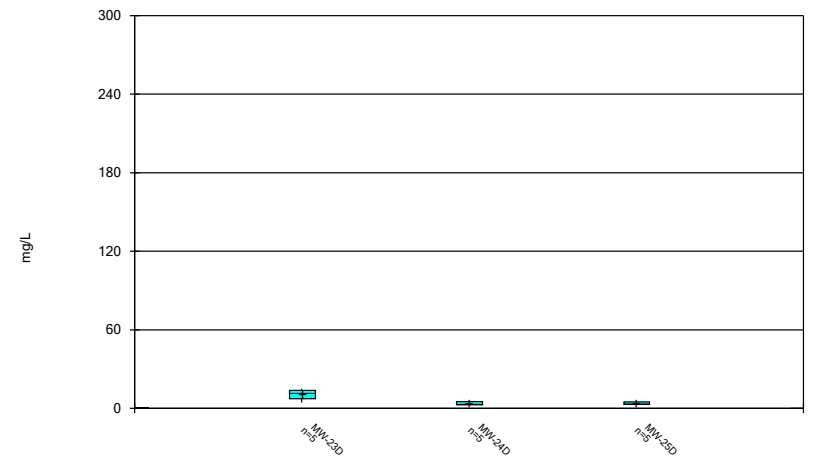
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Box & Whiskers Plot



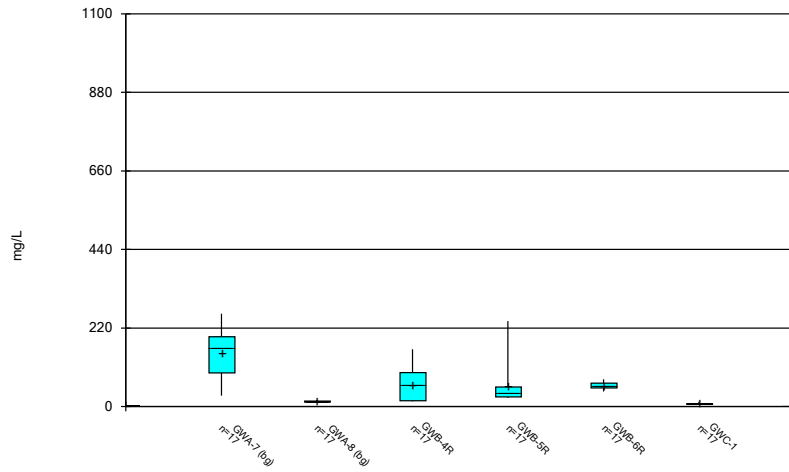
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Box & Whiskers Plot



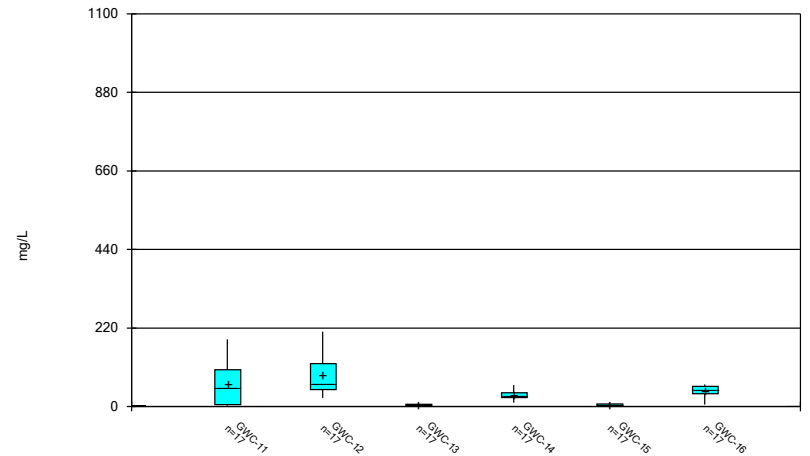
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Box & Whiskers Plot



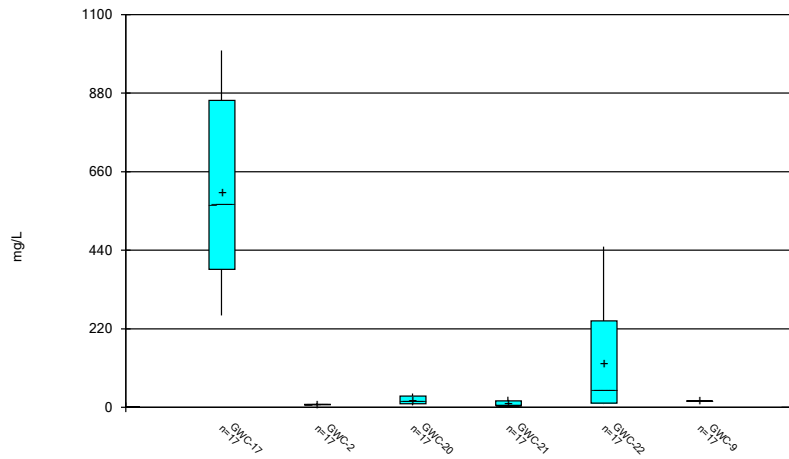
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Box & Whiskers Plot



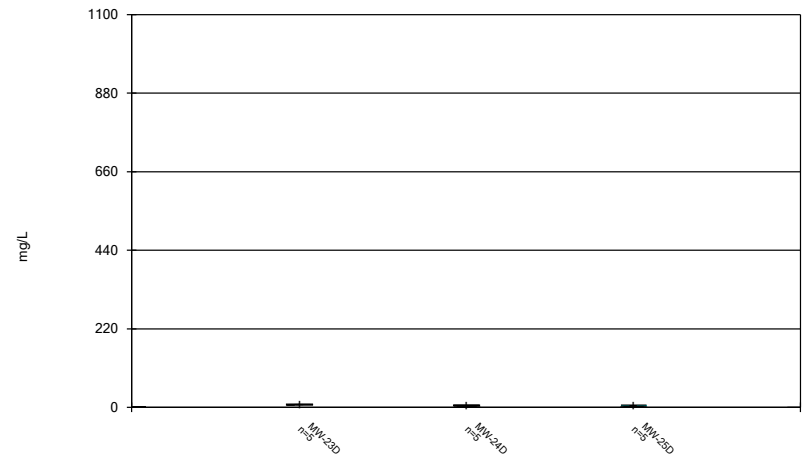
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Box & Whiskers Plot



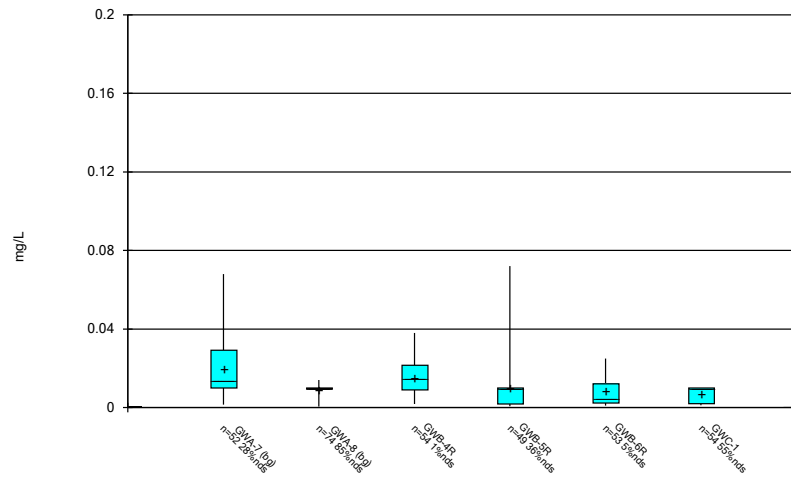
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Box & Whiskers Plot



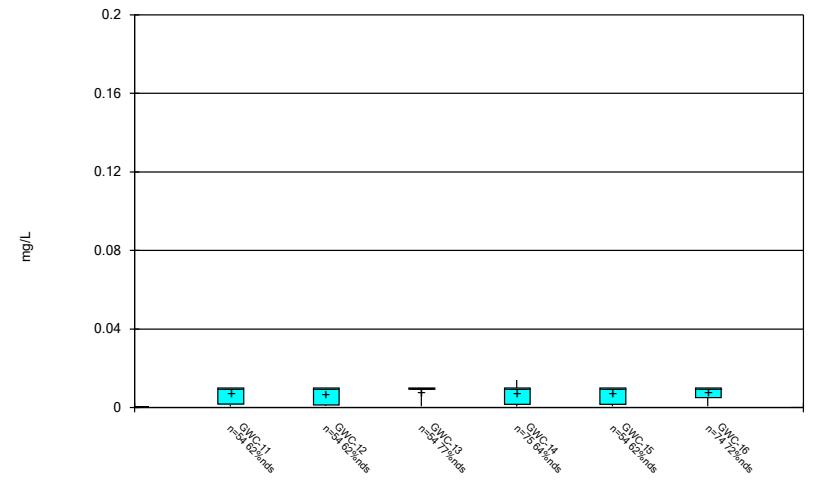
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Box & Whiskers Plot



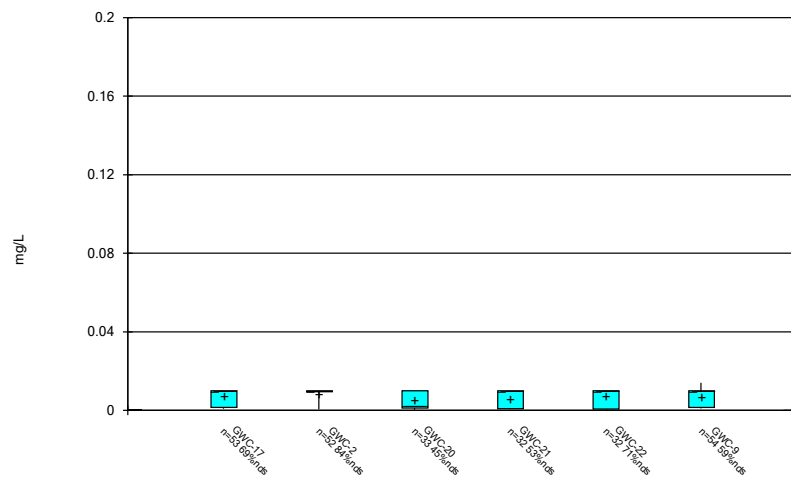
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Box & Whiskers Plot



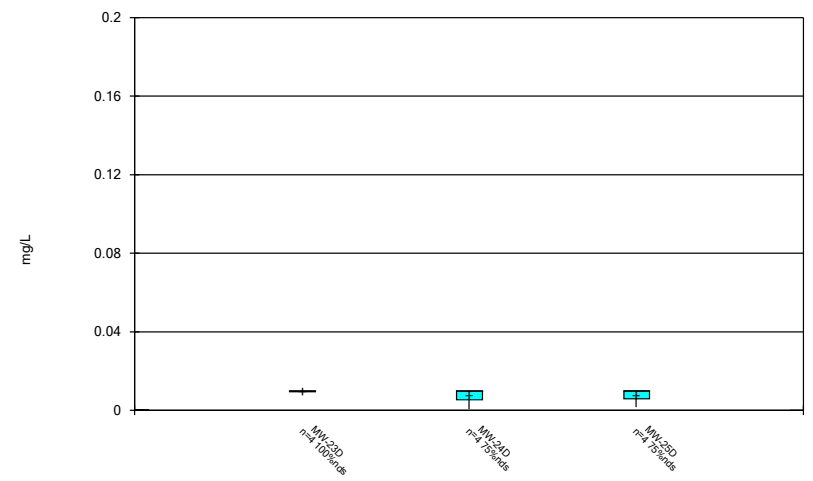
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Box & Whiskers Plot



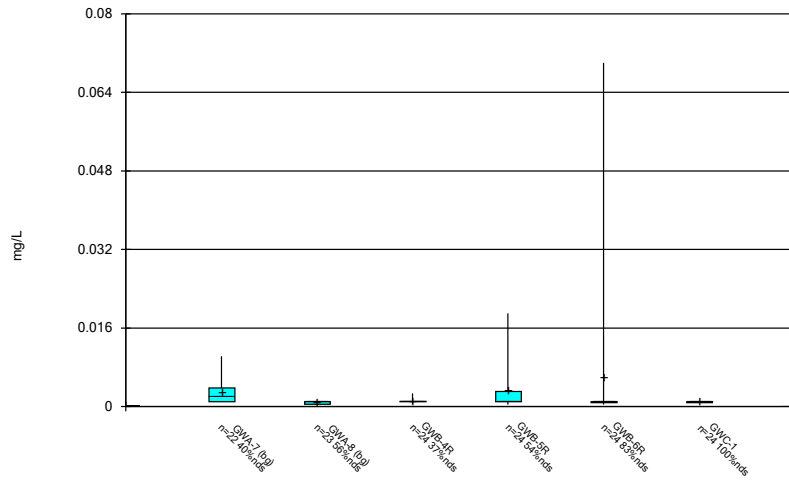
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Box & Whiskers Plot



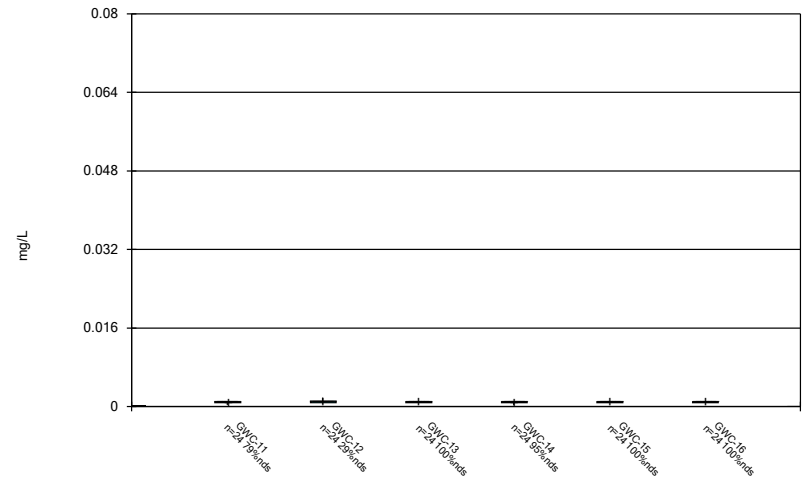
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



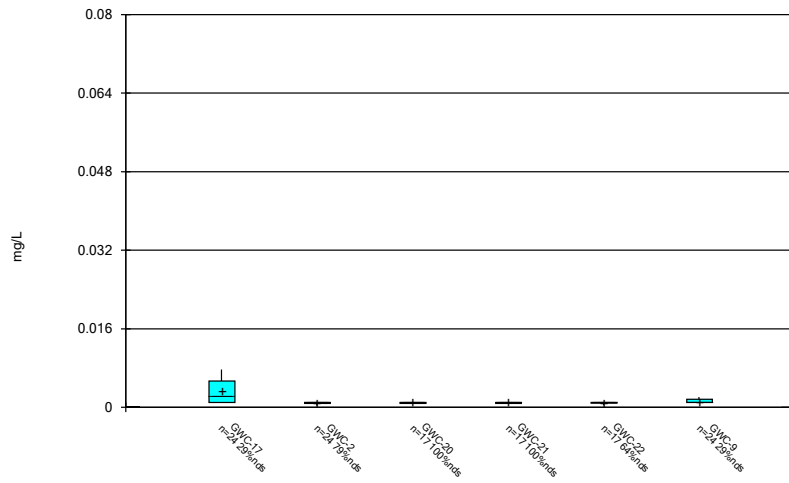
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Box & Whiskers Plot



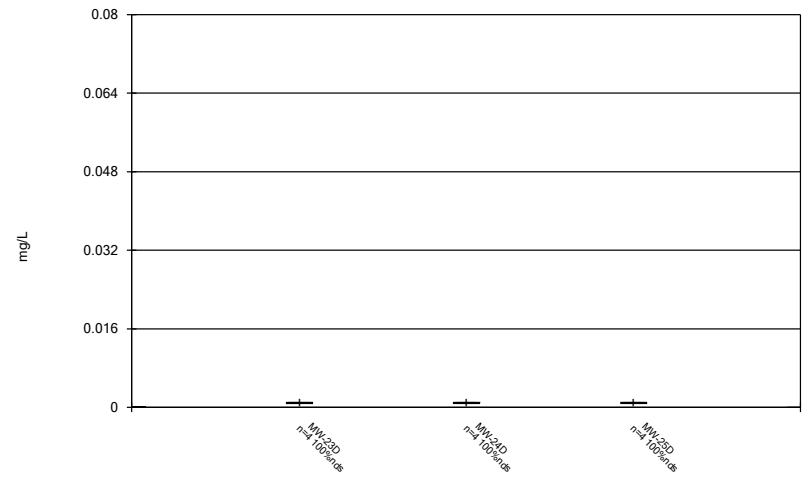
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Box & Whiskers Plot



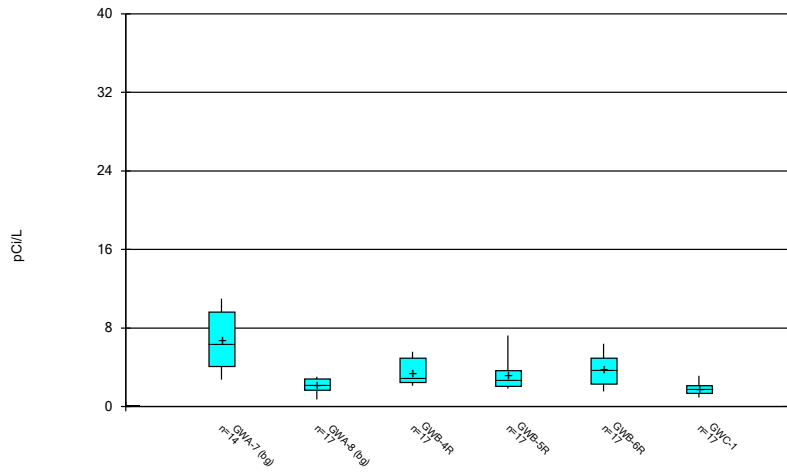
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



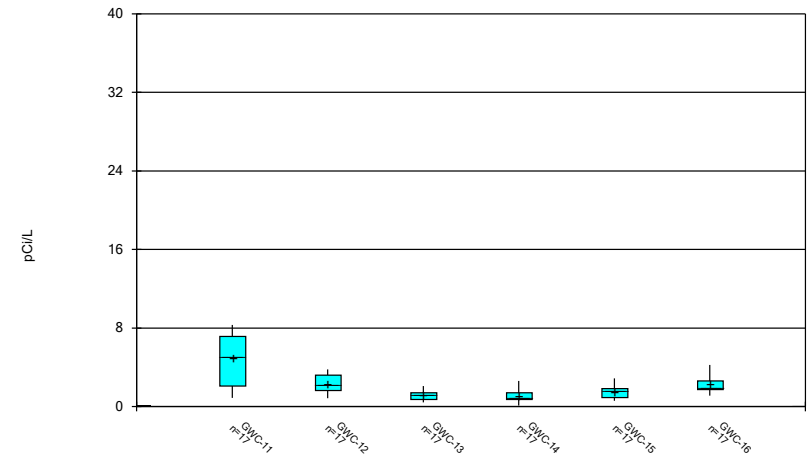
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



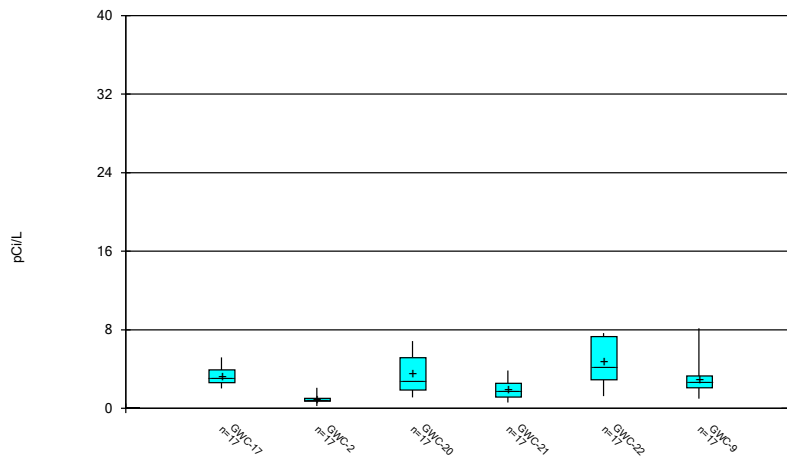
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



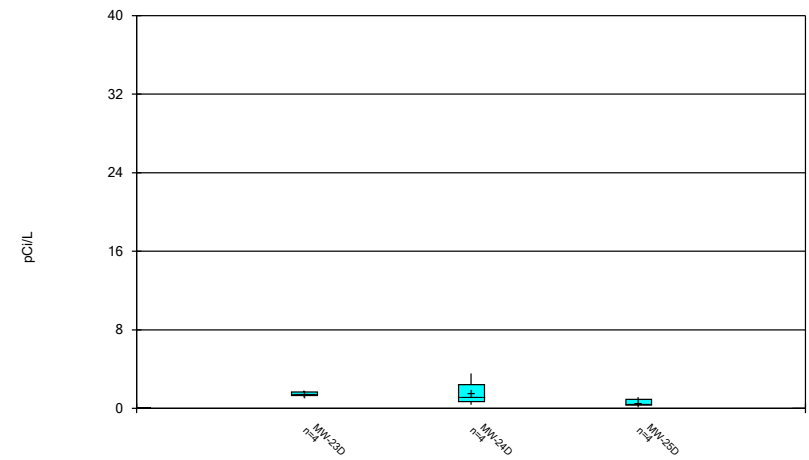
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



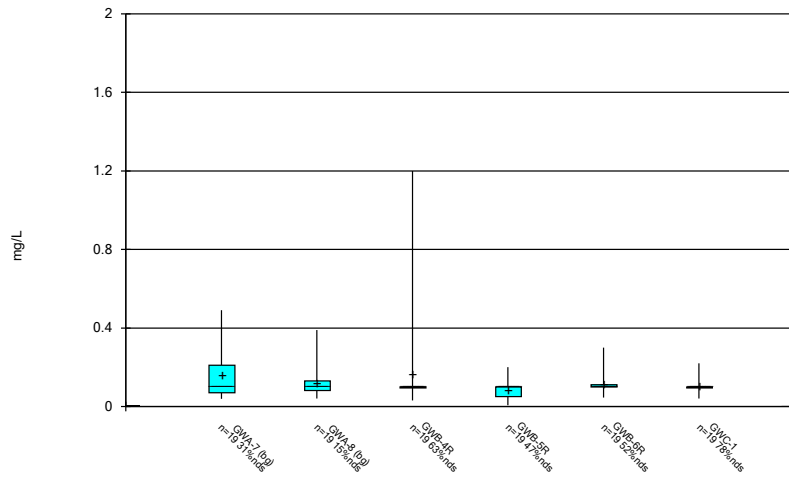
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Box & Whiskers Plot



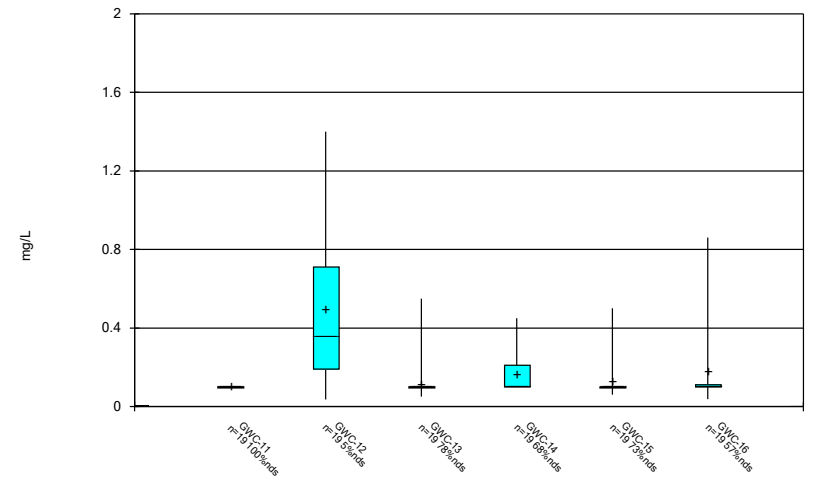
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



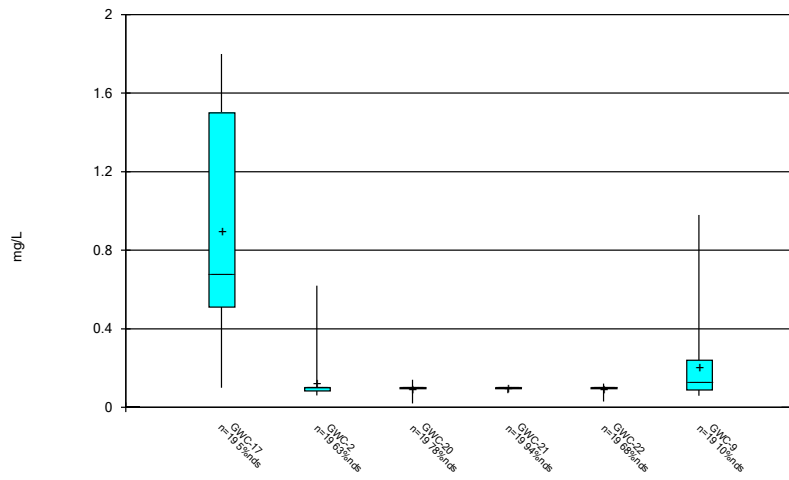
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Box & Whiskers Plot



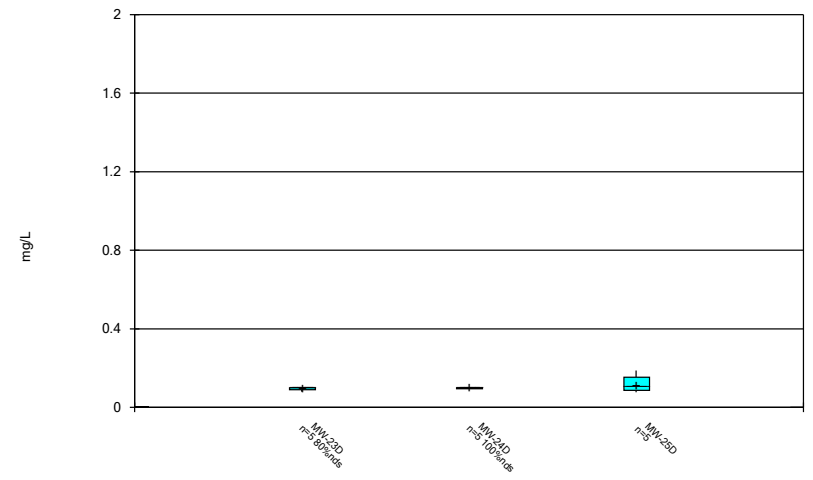
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Box & Whiskers Plot



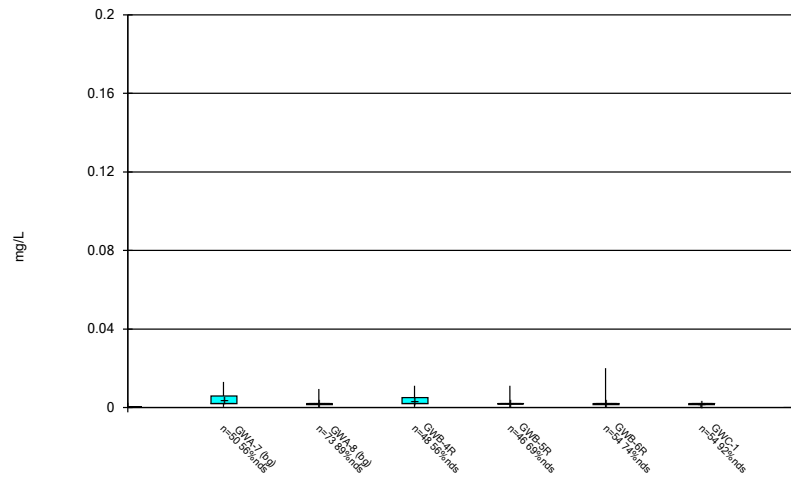
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Box & Whiskers Plot



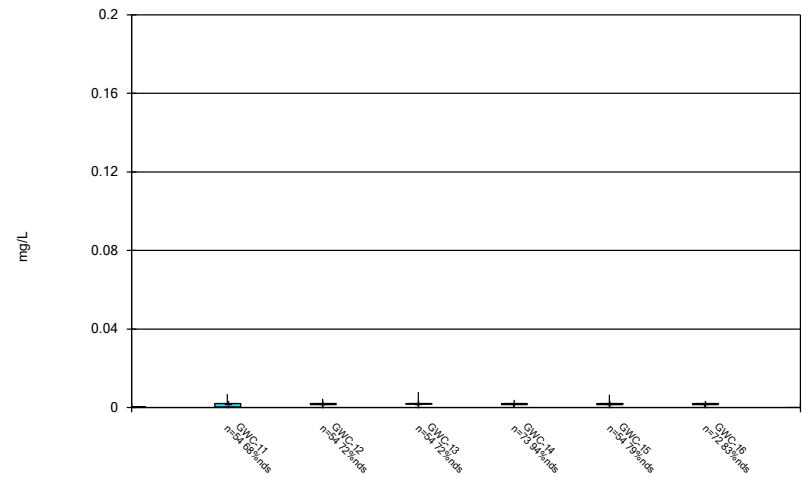
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Box & Whiskers Plot



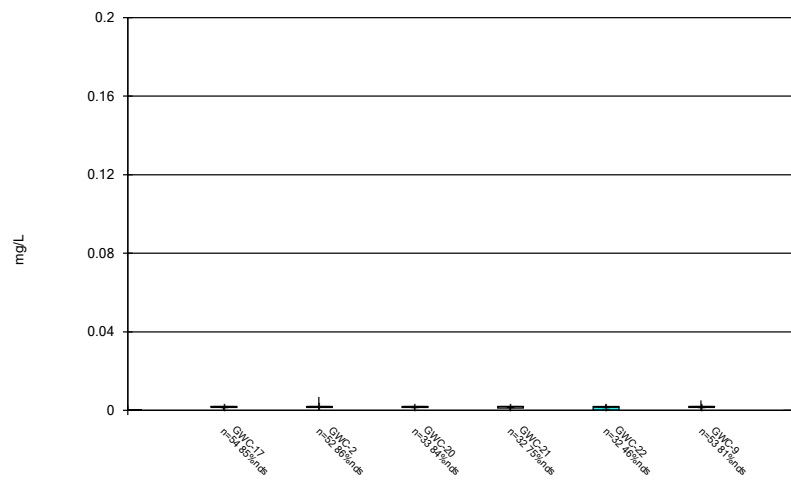
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Box & Whiskers Plot



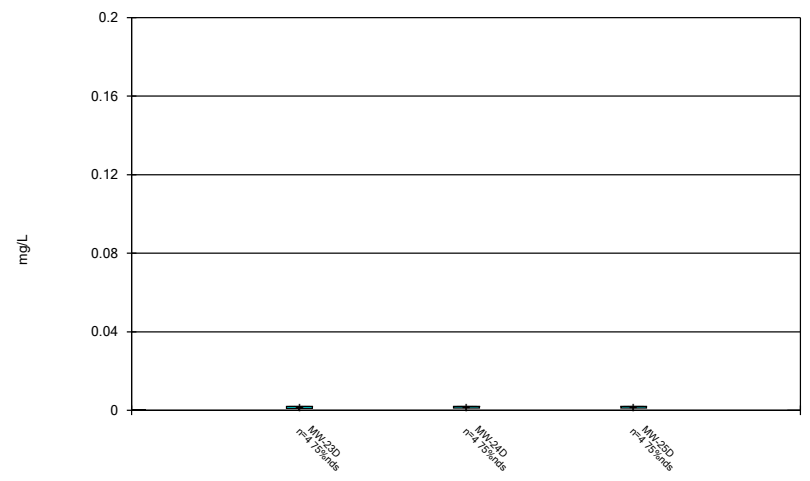
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Box & Whiskers Plot



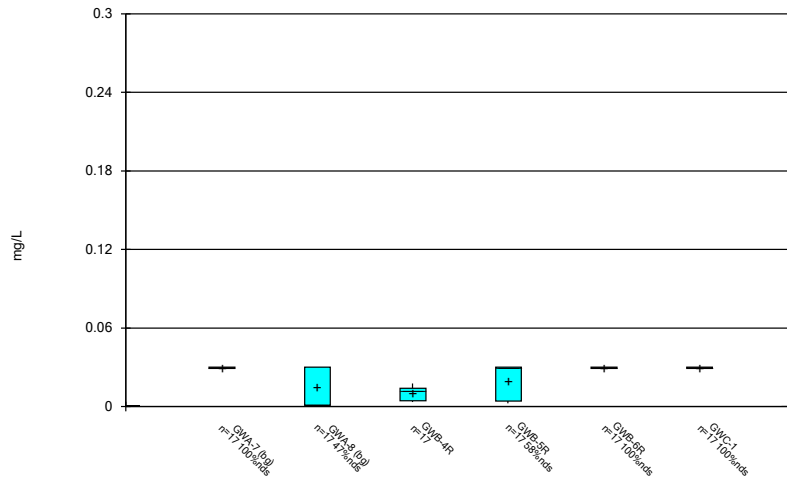
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Box & Whiskers Plot



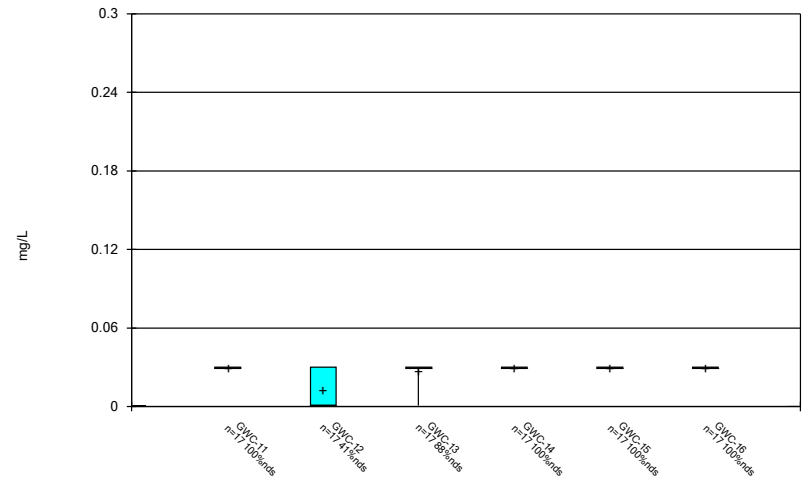
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



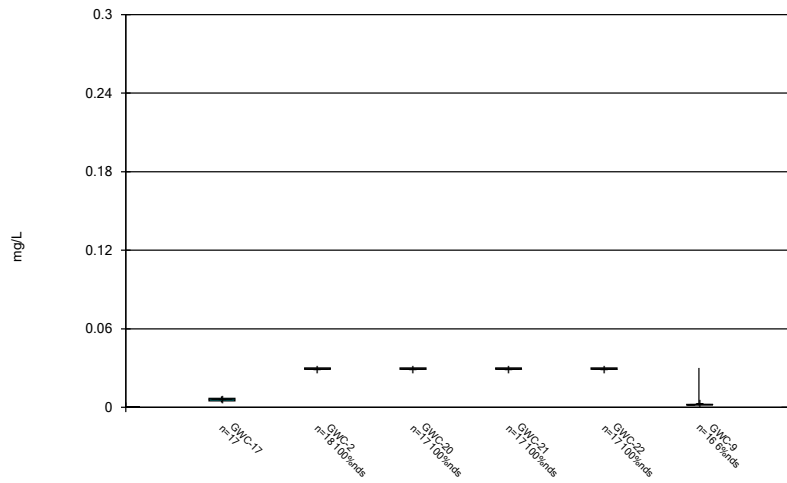
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Box & Whiskers Plot



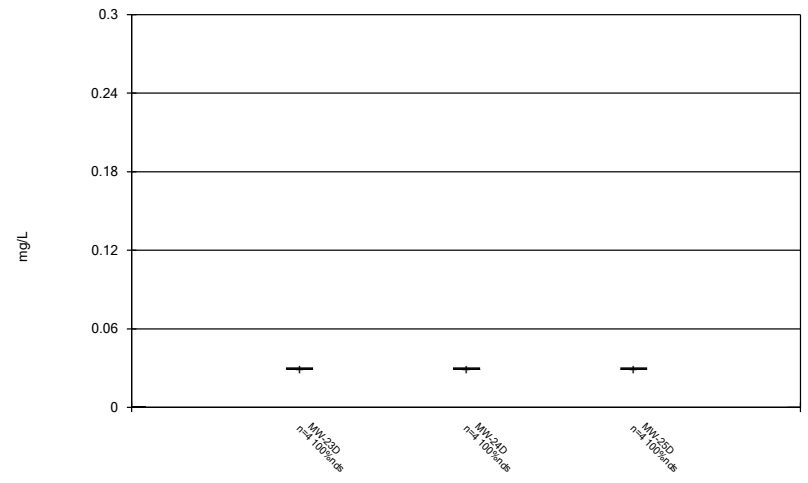
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Box & Whiskers Plot



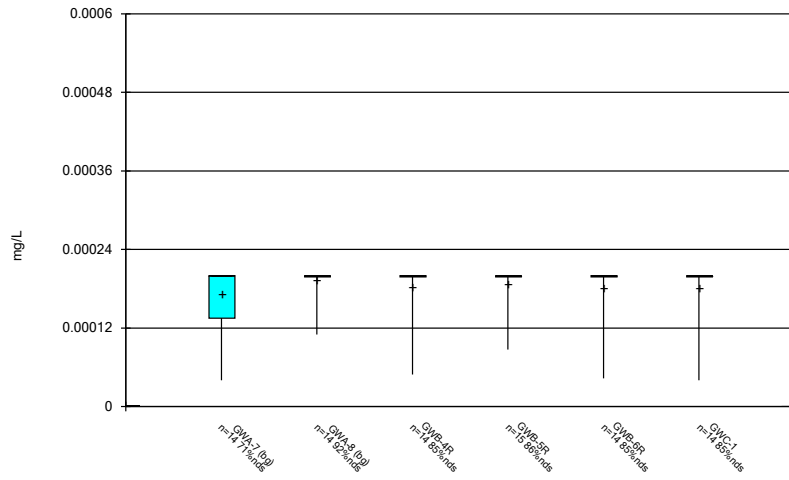
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Box & Whiskers Plot



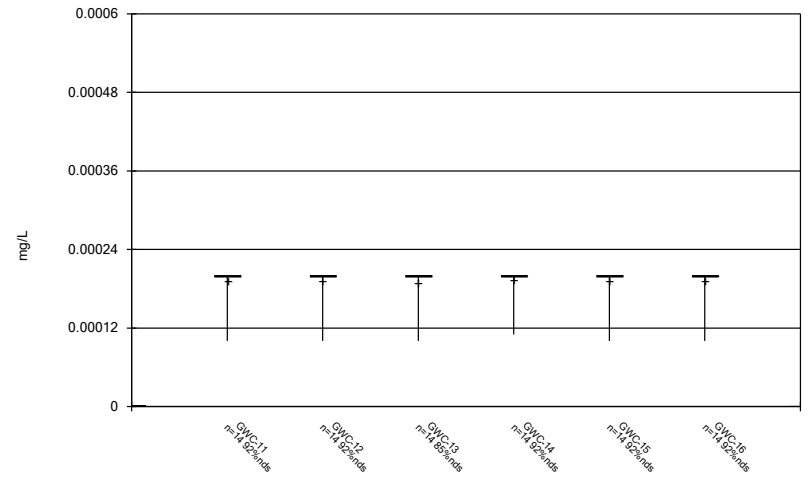
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Box & Whiskers Plot



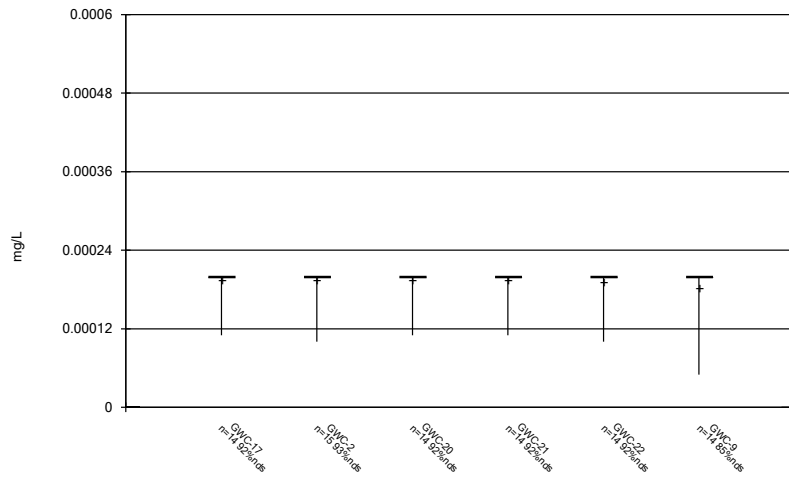
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Box & Whiskers Plot



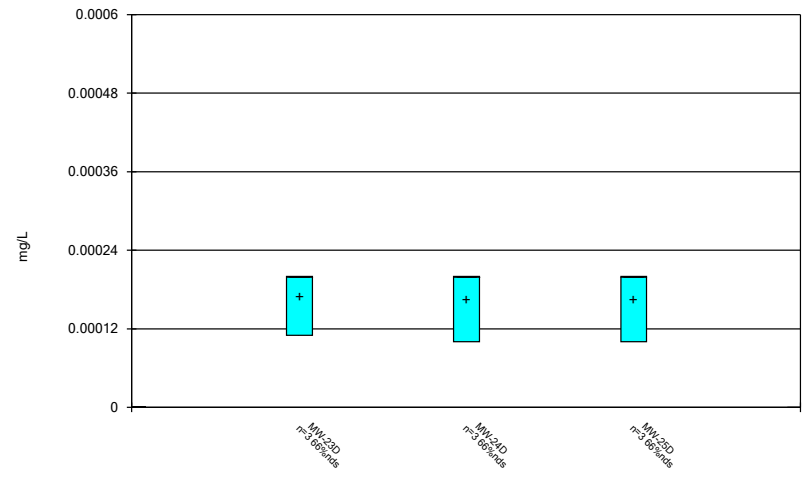
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Box & Whiskers Plot



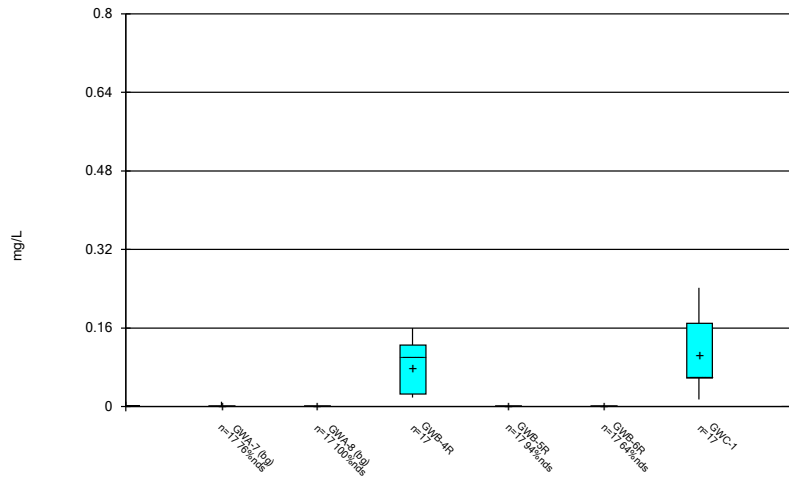
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Box & Whiskers Plot



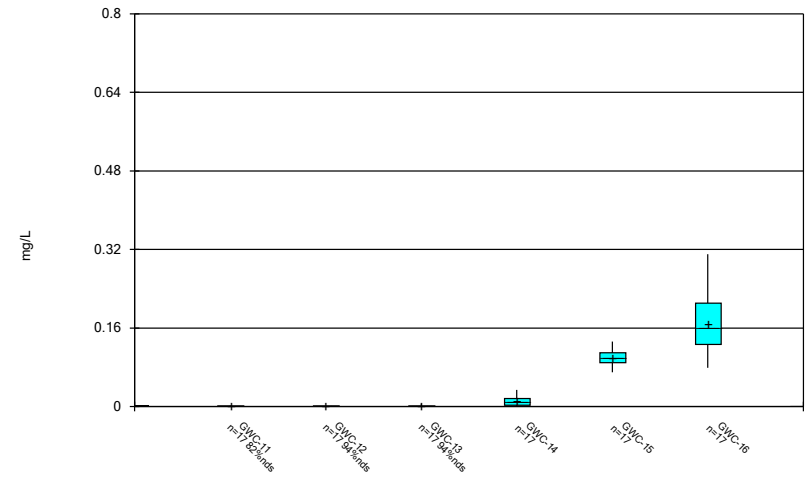
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Box & Whiskers Plot



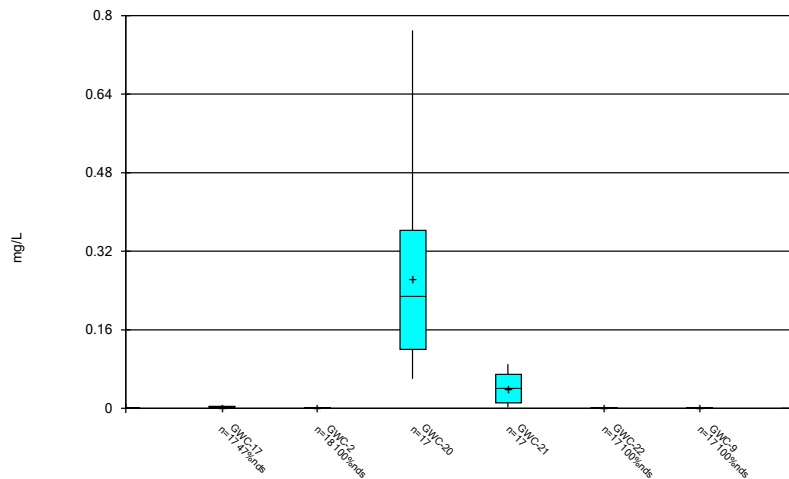
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



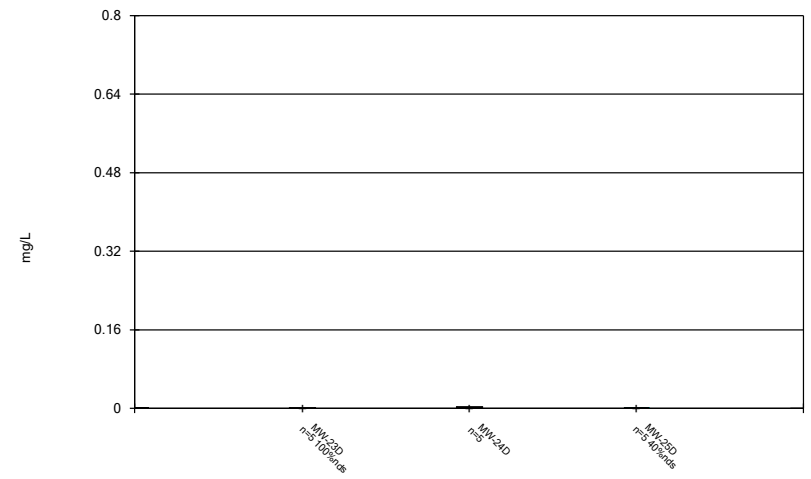
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



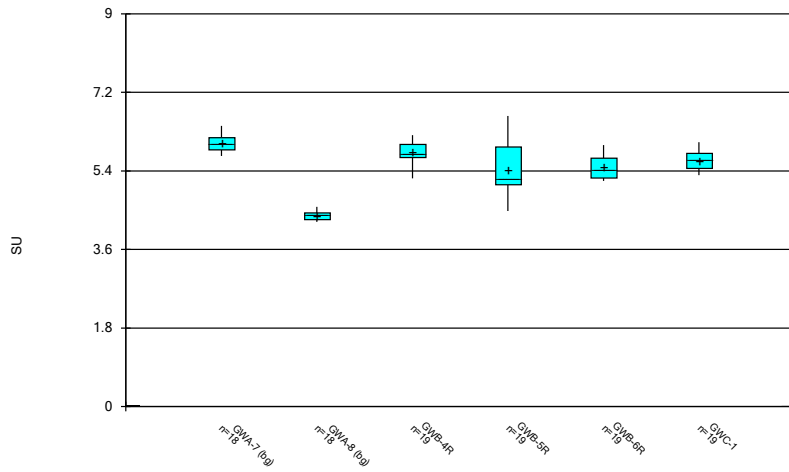
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



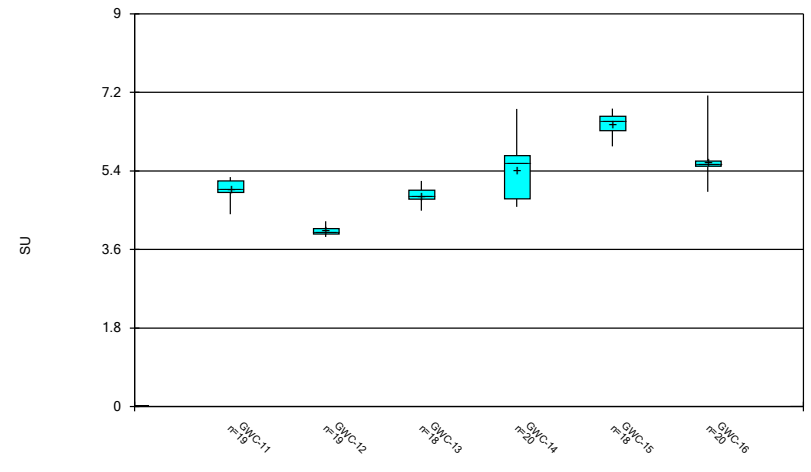
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



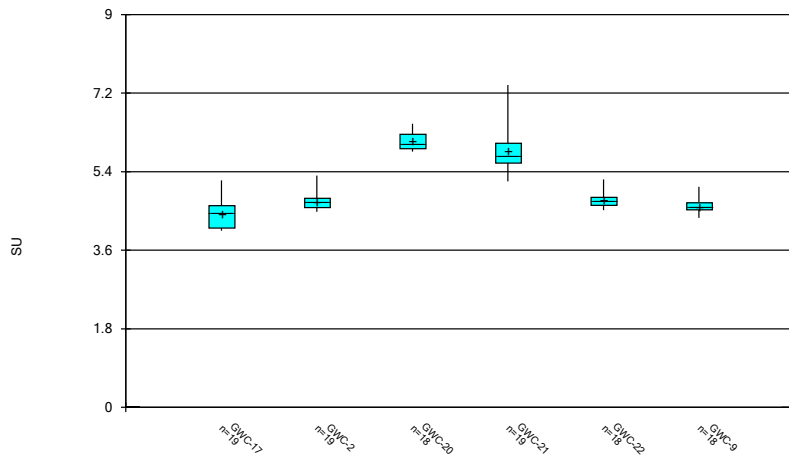
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



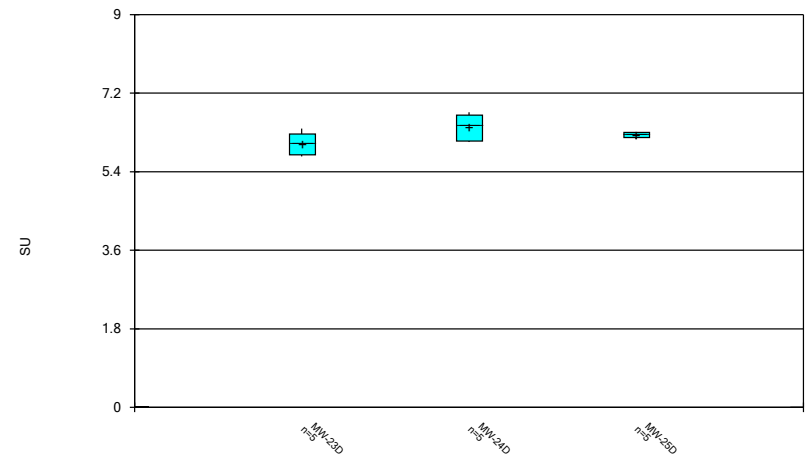
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



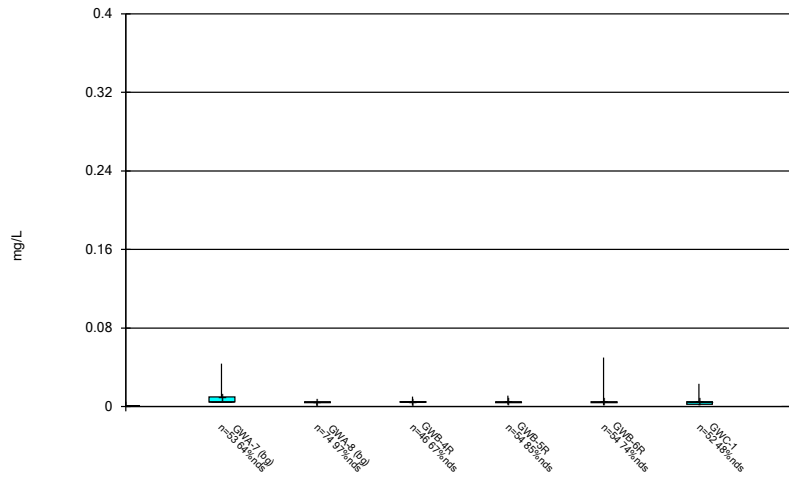
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Box & Whiskers Plot



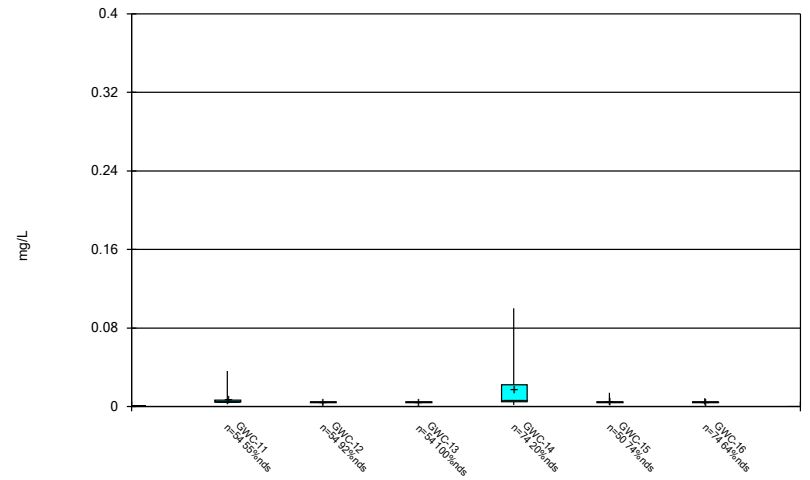
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Box & Whiskers Plot



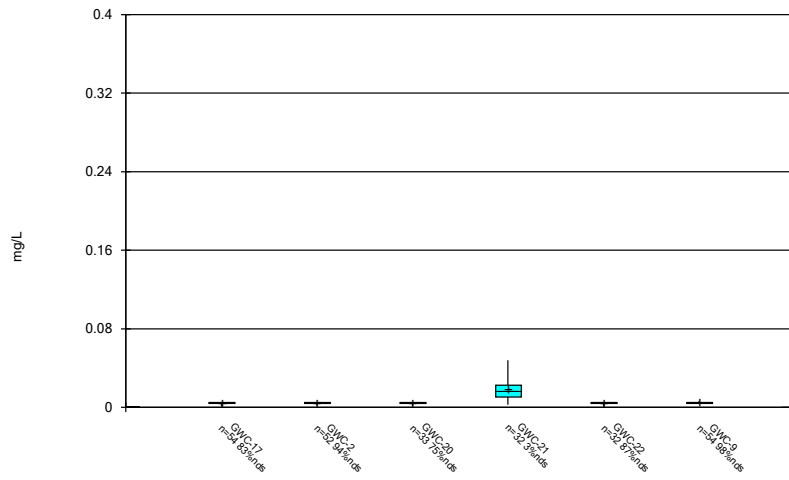
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Box & Whiskers Plot



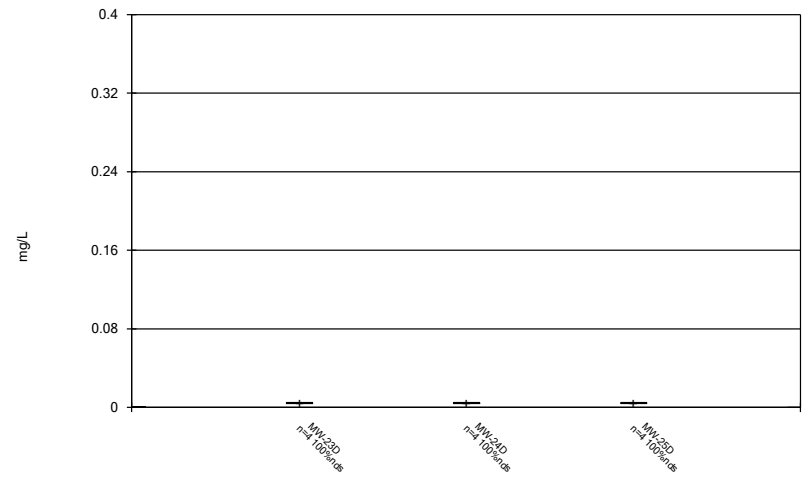
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Box & Whiskers Plot



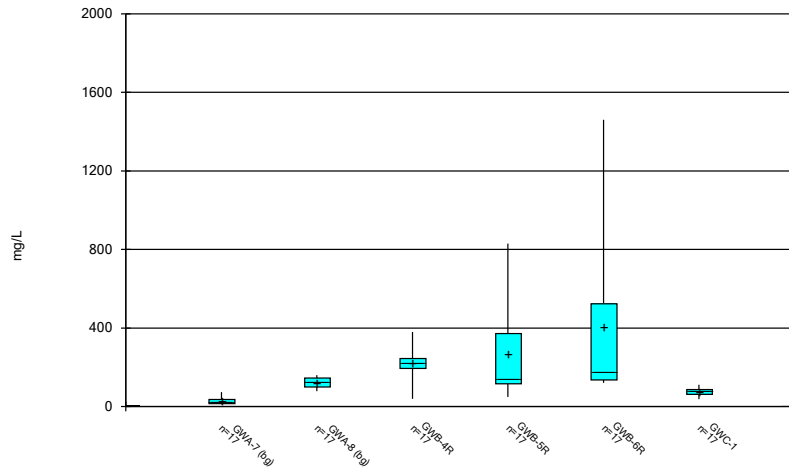
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Box & Whiskers Plot



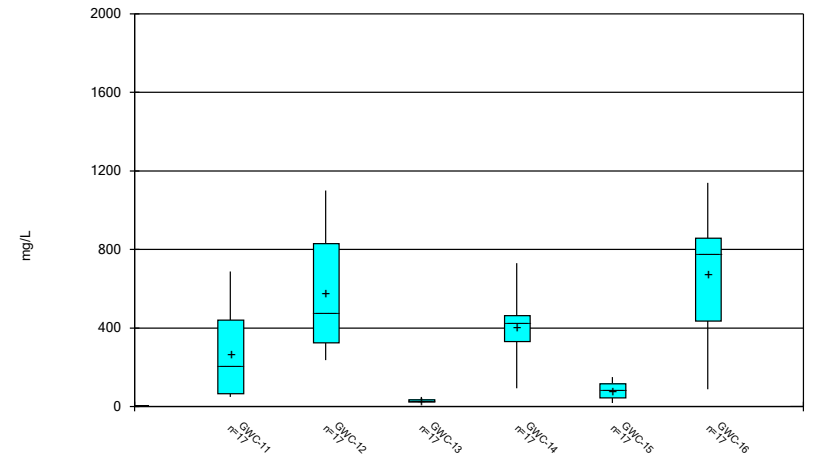
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Box & Whiskers Plot



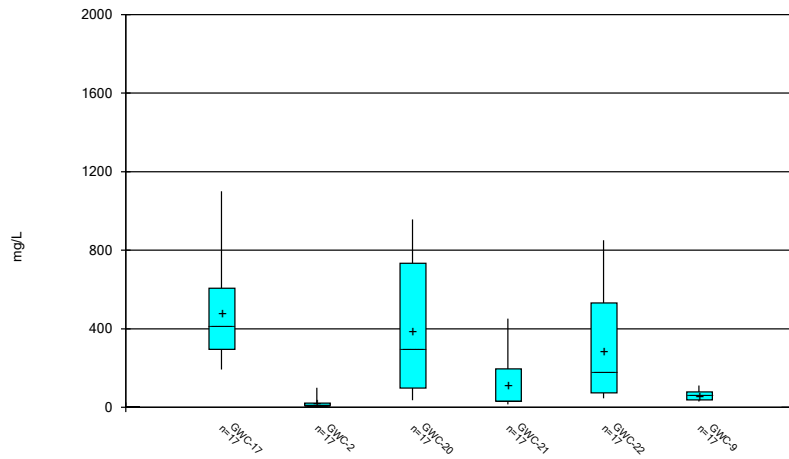
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Box & Whiskers Plot



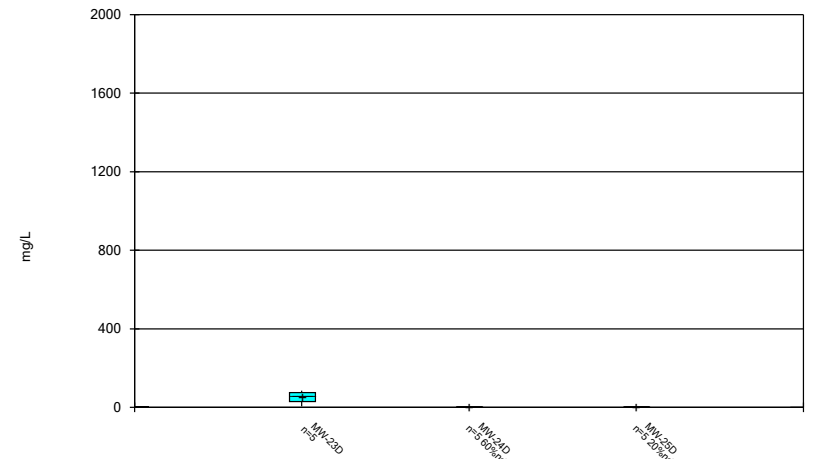
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



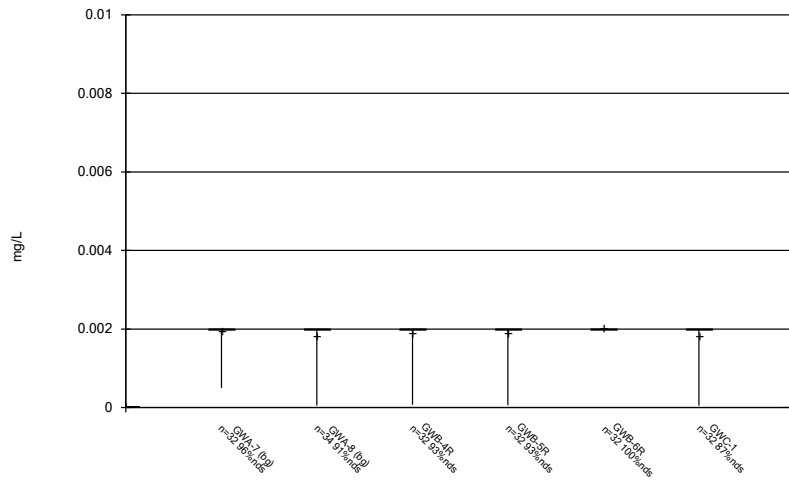
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Box & Whiskers Plot



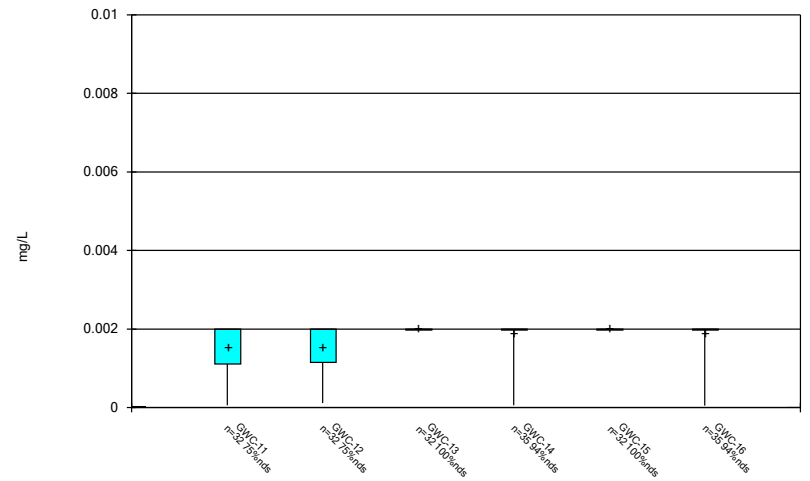
Constituent: Sulfate Analysis Run 11/6/2022 9:50 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



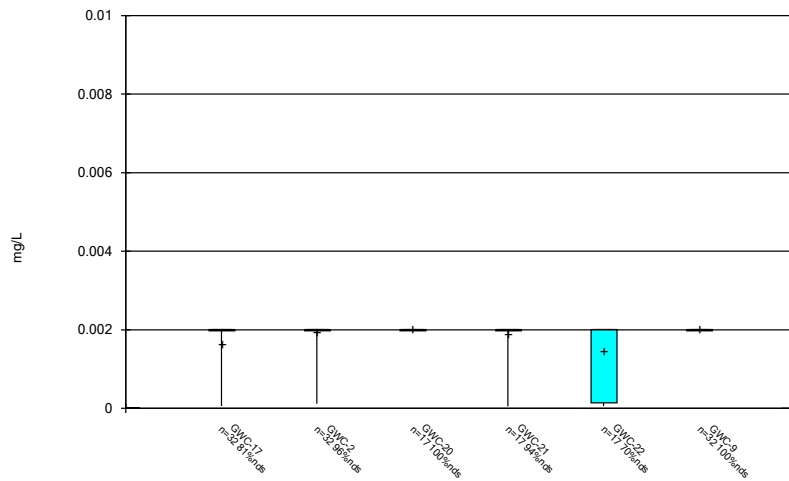
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



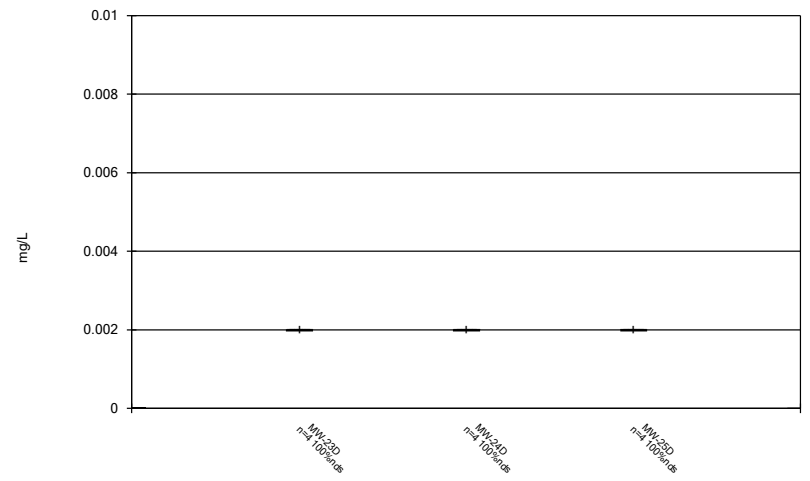
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Box & Whiskers Plot



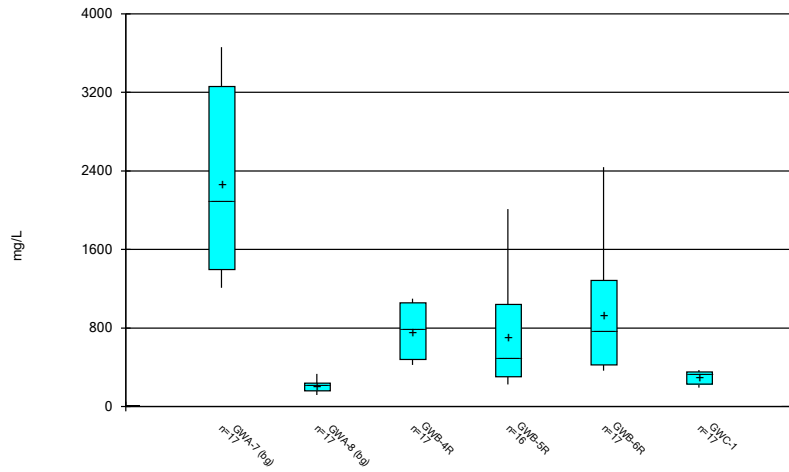
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Box & Whiskers Plot



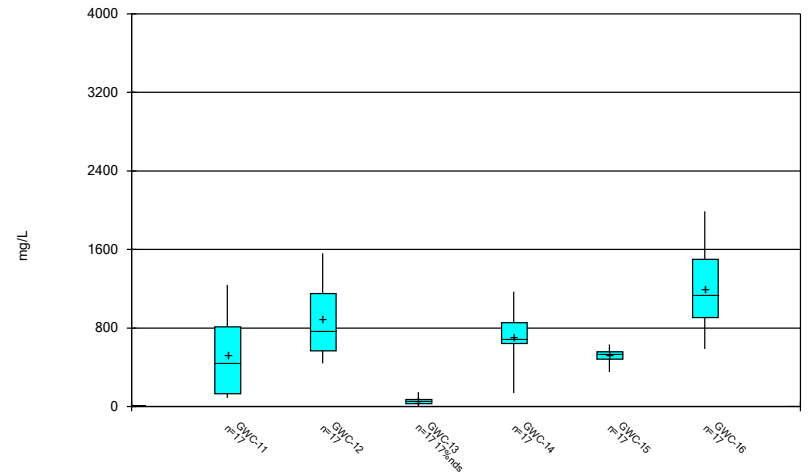
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Box & Whiskers Plot



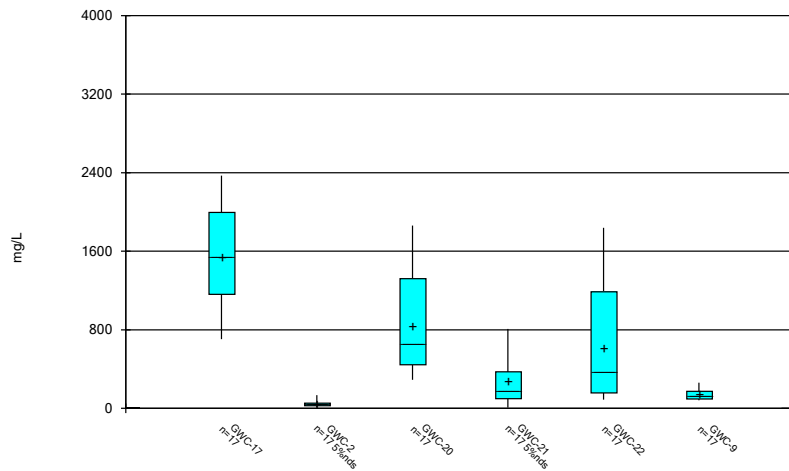
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Box & Whiskers Plot



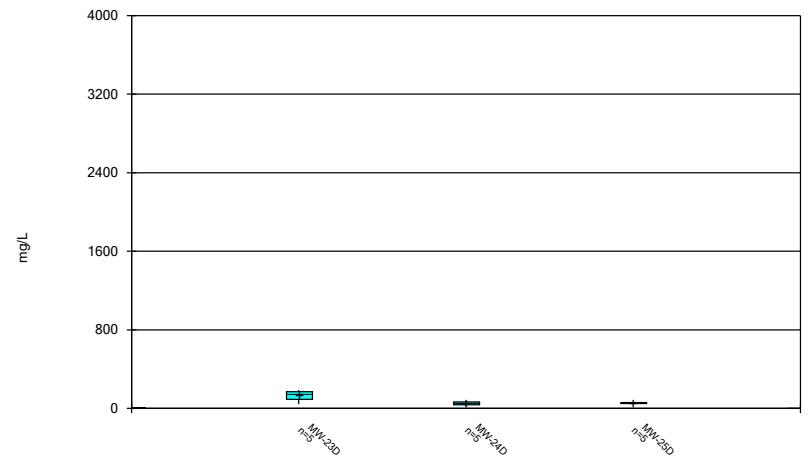
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Box & Whiskers Plot



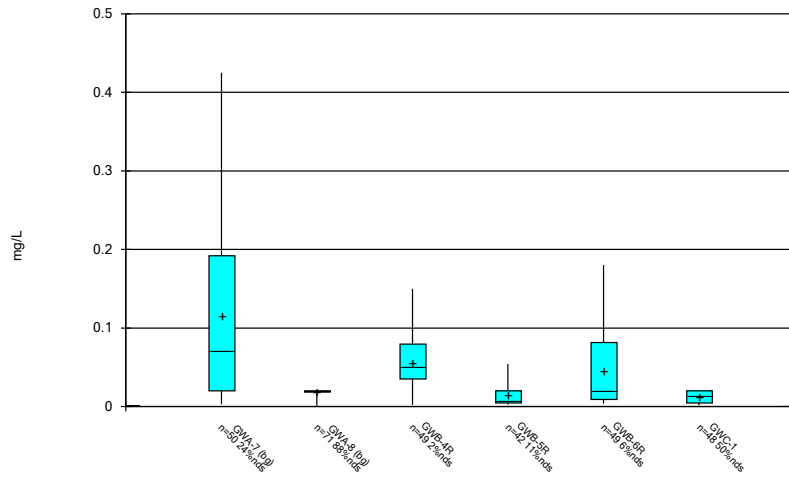
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Box & Whiskers Plot



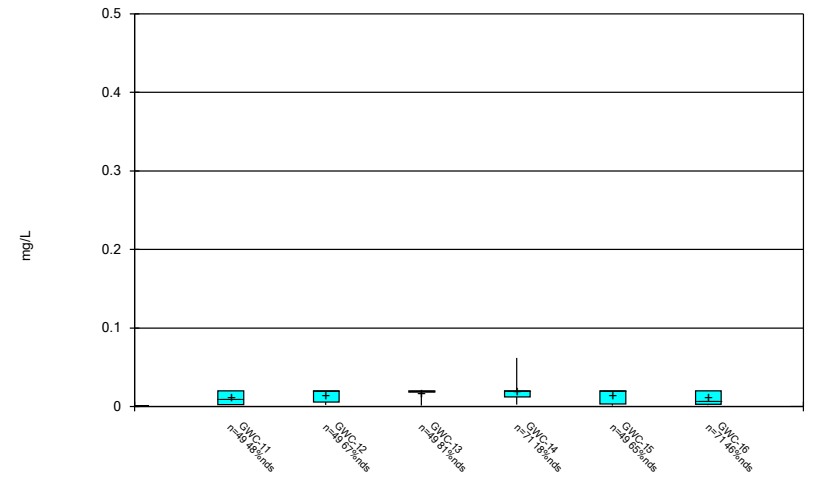
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Box & Whiskers Plot



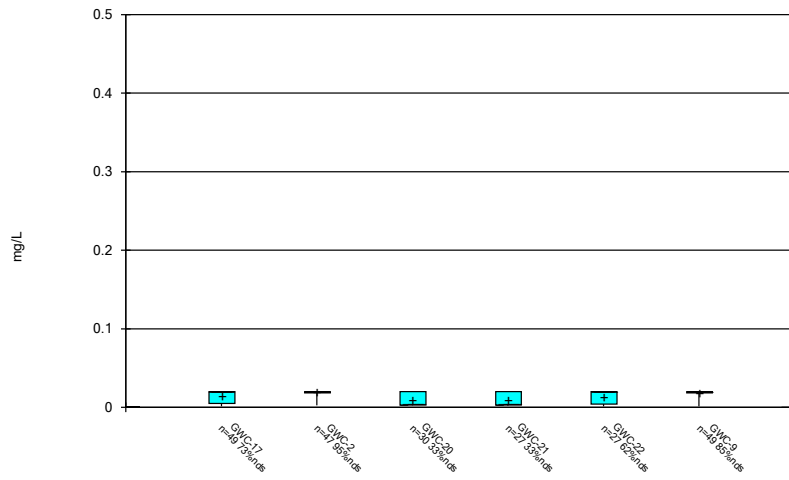
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Box & Whiskers Plot



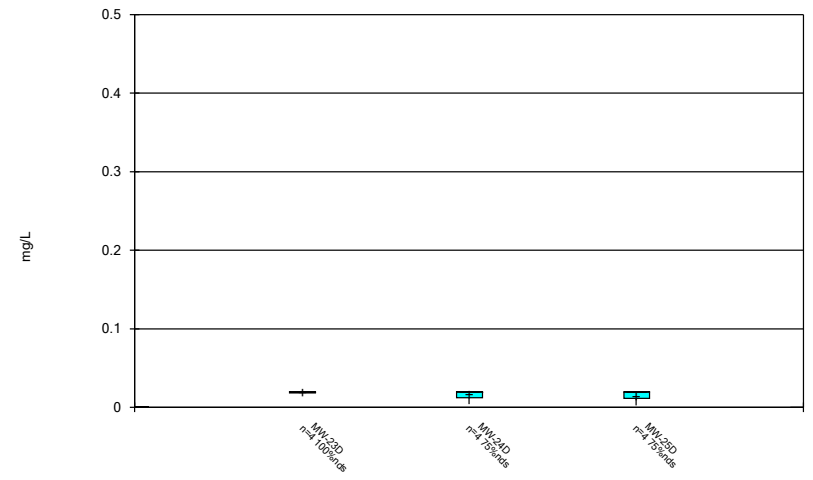
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Box & Whiskers Plot



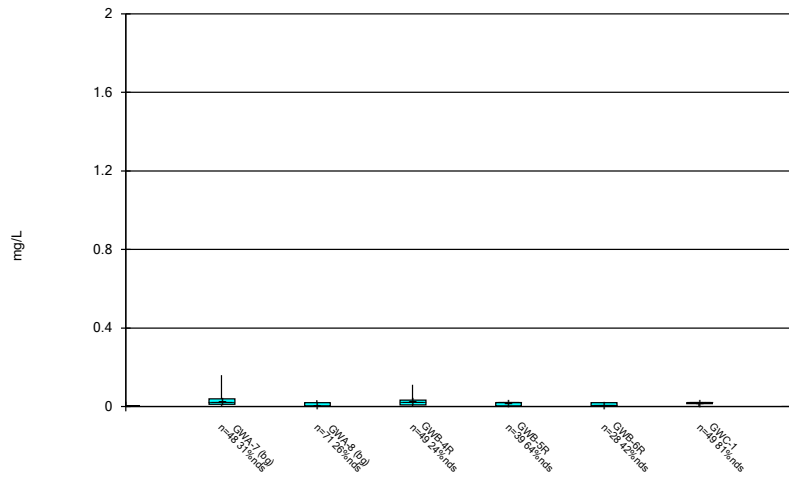
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Box & Whiskers Plot



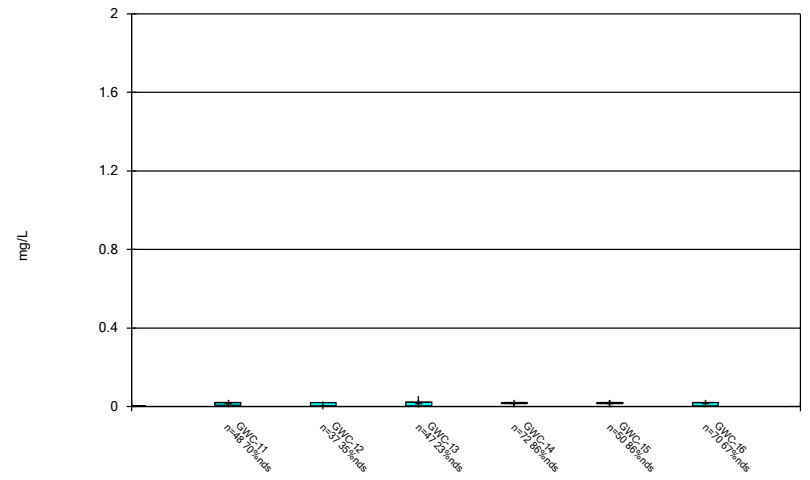
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Box & Whiskers Plot



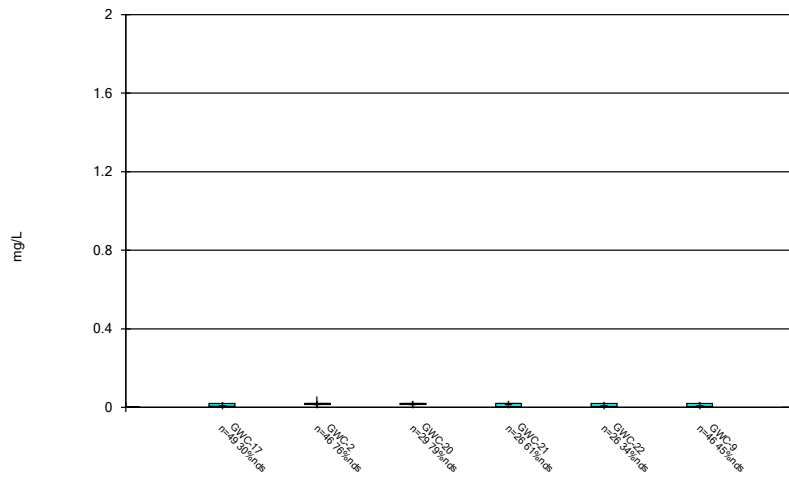
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Box & Whiskers Plot



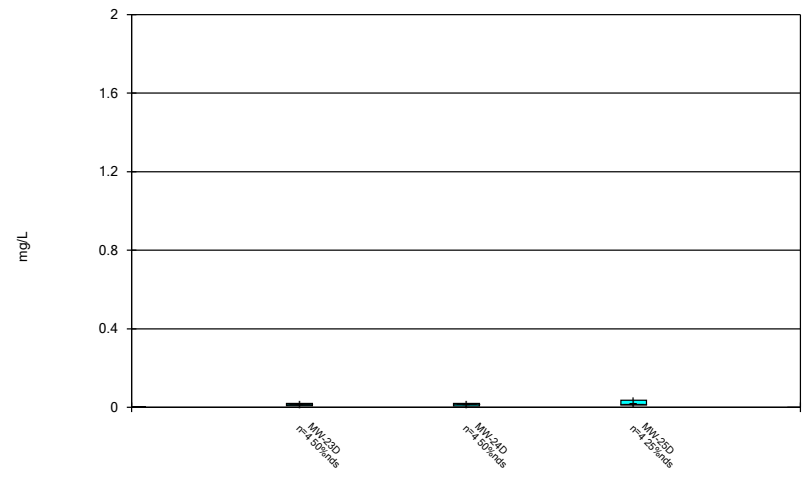
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Box & Whiskers Plot



Constituent: Zinc Analysis Run 11/6/2022 9:50 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



Constituent: Zinc Analysis Run 11/6/2022 9:50 AM
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE C.

FIGURE D.

Appendix I Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.0287	n/a	8/31/2022	0.259	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	9/1/2022	0.0987	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	8/30/2022	0.465	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2

Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-5R	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-6R	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-1	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-13	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-14	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-15	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-16	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-17	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-2	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.003	n/a	8/30/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-22	0.003	n/a	8/31/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.003	n/a	9/1/2022	0.003ND	No	127	n/a	n/a	95.28	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-4R	0.0287	n/a	8/30/2022	0.0049J	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-5R	0.0287	n/a	8/30/2022	0.00253J	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-6R	0.0287	n/a	8/30/2022	0.00716	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-1	0.0287	n/a	9/1/2022	0.00568	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-12	0.0287	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-13	0.0287	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-14	0.0287	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-15	0.0287	n/a	8/31/2022	0.259	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	9/1/2022	0.0987	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-17	0.0287	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-2	0.0287	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	8/30/2022	0.465	Yes	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-21	0.0287	n/a	8/30/2022	0.0271	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-22	0.0287	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-9	0.0287	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	77.17	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Barium (mg/L)	GWB-4R	0.22	n/a	8/30/2022	0.134	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-5R	0.22	n/a	8/30/2022	0.051	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-6R	0.22	n/a	8/30/2022	0.0266	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-1	0.22	n/a	9/1/2022	0.0583	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-11	0.22	n/a	8/31/2022	0.115	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-12	0.22	n/a	8/30/2022	0.0275	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-13	0.22	n/a	8/31/2022	0.0379	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-14	0.22	n/a	8/30/2022	0.0773	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-15	0.22	n/a	8/31/2022	0.055	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-16	0.22	n/a	9/1/2022	0.165	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-17	0.22	n/a	8/31/2022	0.0375	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.22	n/a	9/1/2022	0.0508	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-20	0.22	n/a	8/30/2022	0.21	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-21	0.22	n/a	8/30/2022	0.191	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-22	0.22	n/a	8/31/2022	0.0741	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-9	0.22	n/a	9/1/2022	0.151	No	125	n/a	n/a	0	n/a	n/a	0.0001254	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWB-4R	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-5R	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-6R	0.068	n/a	8/30/2022	0.00356J	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-11	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-12	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-13	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-14	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2

Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	GWC-15	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-16	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-17	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-20	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-21	0.068	n/a	8/30/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-22	0.068	n/a	8/31/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-9	0.068	n/a	9/1/2022	0.01ND	No	126	n/a	n/a	61.9	n/a	n/a	0.0001236	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-4R	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-5R	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-6R	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-1	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-11	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-12	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-13	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-14	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-15	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-16	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-17	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-20	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-21	0.013	n/a	8/30/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-22	0.013	n/a	8/31/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-9	0.013	n/a	9/1/2022	0.002ND	No	123	n/a	n/a	75.61	n/a	n/a	0.0001289	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-4R	0.0438	n/a	8/30/2022	0.00265J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-5R	0.0438	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-6R	0.0438	n/a	8/30/2022	0.00277J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-1	0.0438	n/a	9/1/2022	0.00252J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.0438	n/a	8/31/2022	0.00344J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.0438	n/a	8/30/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-14	0.0438	n/a	8/30/2022	0.00544	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-15	0.0438	n/a	8/31/2022	0.00192J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-16	0.0438	n/a	9/1/2022	0.00334J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-17	0.0438	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-2	0.0438	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.0438	n/a	8/30/2022	0.00192J	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.0438	n/a	8/30/2022	0.00648	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-22	0.0438	n/a	8/31/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.0438	n/a	9/1/2022	0.005ND	No	127	n/a	n/a	83.46	n/a	n/a	0.0001219	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-4R	0.425	n/a	8/30/2022	0.00943J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-5R	0.425	n/a	8/30/2022	0.0138J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-6R	0.425	n/a	8/30/2022	0.0192J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.425	n/a	9/1/2022	0.00748J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-11	0.425	n/a	8/31/2022	0.00481J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-12	0.425	n/a	8/30/2022	0.00949J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-13	0.425	n/a	8/31/2022	0.02ND	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-14	0.425	n/a	8/30/2022	0.00933J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-15	0.425	n/a	8/31/2022	0.00476J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-16	0.425	n/a	9/1/2022	0.0065J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-17	0.425	n/a	8/31/2022	0.00599J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.425	n/a	9/1/2022	0.0045J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-20	0.425	n/a	8/30/2022	0.00647J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-21	0.425	n/a	8/30/2022	0.00715J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-22	0.425	n/a	8/31/2022	0.00396J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-9	0.425	n/a	9/1/2022	0.00514J	No	121	n/a	n/a	61.98	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2

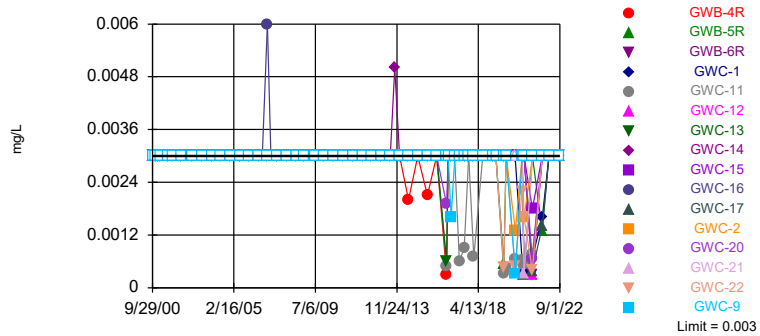
Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:41 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWB-4R	0.16	n/a	8/30/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-5R	0.16	n/a	8/30/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-6R	0.16	n/a	8/30/2022	0.0132J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.16	n/a	9/1/2022	0.00578J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-11	0.16	n/a	8/31/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-12	0.16	n/a	8/30/2022	0.0262	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-13	0.16	n/a	8/31/2022	0.0266	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-14	0.16	n/a	8/30/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-15	0.16	n/a	8/31/2022	0.00395J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-16	0.16	n/a	9/1/2022	0.0119J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-17	0.16	n/a	8/31/2022	0.0068J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.16	n/a	9/1/2022	0.0125J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-20	0.16	n/a	8/30/2022	0.0171J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-21	0.16	n/a	8/30/2022	0.00814J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-22	0.16	n/a	8/31/2022	0.02ND	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-9	0.16	n/a	9/1/2022	0.0163J	No	119	n/a	n/a	28.57	n/a	n/a	0.000137	NP Inter (normality) 1 of 2

Within Limit

Prediction Limit
Interwell Non-parametric

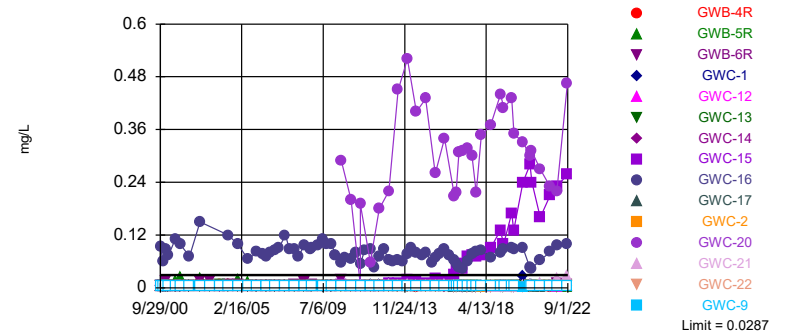


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 127 background values. 95.28% NDs. Annual per-constituent alpha = 0.003893. Individual comparison alpha = 0.0001219 (1 of 2). Comparing 16 points to limit.

Constituent: Antimony Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-15, GWC-16, GWC-20

Prediction Limit
Interwell Non-parametric

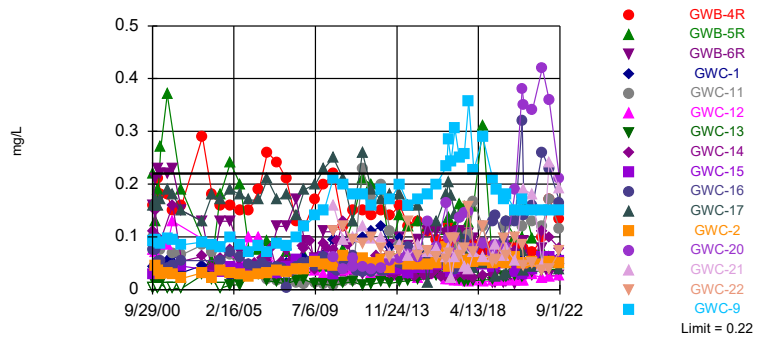


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 127 background values. 77.17% NDs. Annual per-constituent alpha = 0.003893. Individual comparison alpha = 0.0001219 (1 of 2). Comparing 15 points to limit. Assumes 1 future value.

Constituent: Arsenic Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit
Interwell Non-parametric

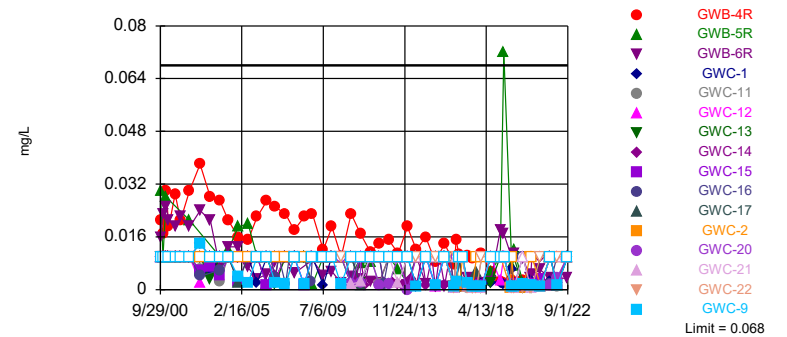


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 125 background values. Annual per-constituent alpha = 0.004005. Individual comparison alpha = 0.0001254 (1 of 2). Comparing 16 points to limit.

Constituent: Barium Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit
Interwell Non-parametric

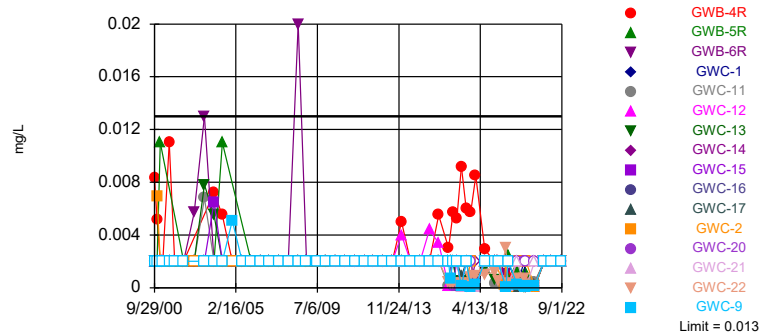


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 126 background values. 61.9% NDs. Annual per-constituent alpha = 0.003949. Individual comparison alpha = 0.0001236 (1 of 2). Comparing 16 points to limit.

Constituent: Chromium Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit
Interwell Non-parametric

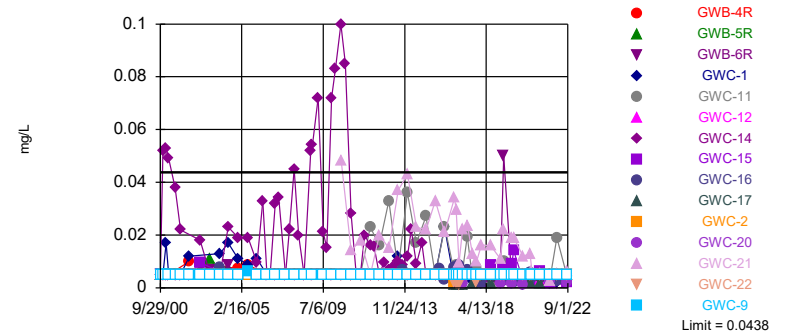


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 123 background values. 75.61% NDs. Annual per-constituent alpha = 0.004116. Individual comparison alpha = 0.0001289 (1 of 2). Comparing 16 points to limit.

Constituent: Lead Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit
Interwell Non-parametric

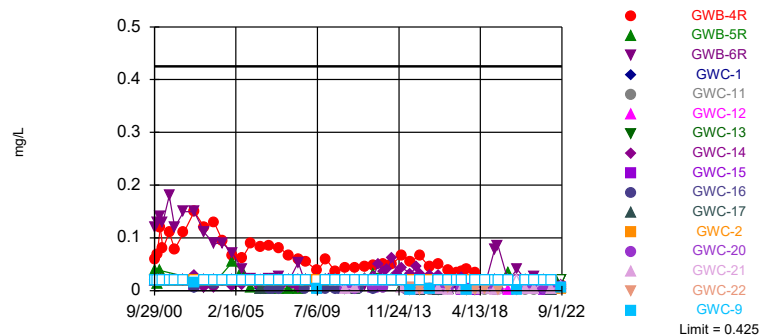


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 127 background values. 83.46% NDs. Annual per-constituent alpha = 0.003893. Individual comparison alpha = 0.0001219 (1 of 2). Comparing 15 points to limit. Assumes 1 future value.

Constituent: Selenium Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit
Interwell Non-parametric

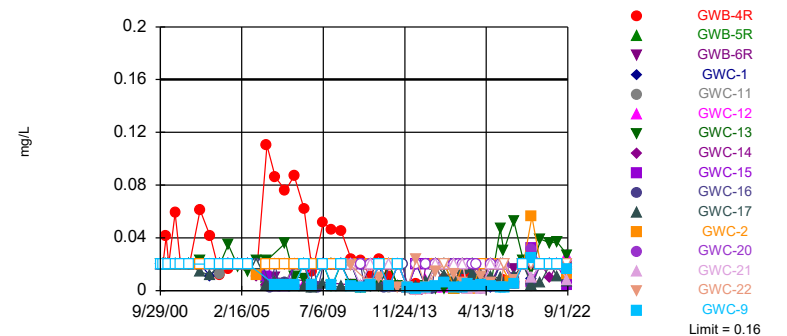


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 121 background values. 61.98% NDs. Annual per-constituent alpha = 0.004228. Individual comparison alpha = 0.0001324 (1 of 2). Comparing 16 points to limit.

Constituent: Vanadium Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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 119 background values. 28.57% NDs. Annual per-constituent alpha = 0.004375. Individual comparison alpha = 0.000137 (1 of 2). Comparing 16 points to limit.

Constituent: Zinc Analysis Run 9/28/2022 10:39 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-4R	GWA-8 (bg)	GWC-13	GWC-12	GWB-5R	GWC-9	GWC-15	GWC-11
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006			<0.003						
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006			<0.003						
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/15/2007			<0.003						
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007			<0.003						
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008			<0.003						
6/23/2008	<0.003		<0.003	<0.003	<0.003		<0.003		<0.003
6/24/2008		<0.003				<0.003		<0.003	
11/3/2008			<0.003						
12/4/2008	<0.003		<0.003	<0.003	<0.003		<0.003		<0.003
12/5/2008		<0.003				<0.003		<0.003	
3/25/2009			<0.003						
7/7/2009	<0.003	<0.003	<0.003			<0.003			
7/8/2009				<0.003	<0.003		<0.003	<0.003	<0.003
9/14/2009			<0.003						
12/20/2009	<0.003		<0.003					<0.003	
12/21/2009		<0.003		<0.003	<0.003	<0.003	<0.003		<0.003
3/4/2010			<0.003						
6/20/2010	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2010		<0.003							
9/14/2010			<0.003						
1/6/2011				<0.003		<0.003			<0.003
1/7/2011	<0.003	<0.003	<0.003		<0.003		<0.003	<0.003	
4/15/2011			<0.003						
7/7/2011	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
7/8/2011		<0.003					<0.003		
9/25/2011			<0.003						
1/17/2012	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
1/18/2012		<0.003					<0.003		
4/4/2012			<0.003						
7/9/2012	<0.003			<0.003	<0.003	<0.003		<0.003	<0.003
7/10/2012		<0.003	<0.003				<0.003		
10/9/2012			<0.003						
1/17/2013				<0.003	<0.003	<0.003			<0.003
1/18/2013	<0.003	<0.003	<0.003				<0.003	<0.003	

Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-4R	GWA-8 (bg)	GWC-13	GWC-12	GWB-5R	GWC-9	GWC-15	GWC-11
4/5/2013			<0.003						
7/16/2013				<0.003	<0.003	<0.003			<0.003
7/17/2013	<0.003	<0.003	<0.003				<0.003	<0.003	
10/11/2013			<0.003						
1/13/2014	<0.003			<0.003	<0.003	<0.003		<0.003	<0.003
1/14/2014		<0.003	<0.003				<0.003		
4/3/2014			<0.003						
7/8/2014				<0.003	<0.003				<0.003
7/9/2014	0.0022 (J)	0.002 (J)	<0.003			<0.003	<0.003	<0.003	
7/10/2014									
10/24/2014			<0.003						
1/12/2015		<0.003							
1/13/2015	<0.003			<0.003	<0.003	<0.003		<0.003	<0.003
1/14/2015			<0.003				<0.003		
5/10/2015			<0.003						
5/11/2015									
7/16/2015	0.0028 (J)	0.0021 (J)		<0.003	<0.003	<0.003		<0.003	<0.003
7/17/2015			<0.003				<0.003		
7/18/2015									
10/6/2015			<0.003						
1/17/2016								<0.003	
1/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
1/19/2016									<0.003
4/26/2016			<0.003						
7/26/2016				0.0006 (J)					0.0005 (J)
7/27/2016	<0.003				<0.003	<0.003		<0.003	
7/28/2016			<0.003				<0.003		
7/29/2016		0.0003 (J)							
8/30/2016			<0.003			<0.003			
8/31/2016				<0.003	<0.003		<0.003		<0.003
9/1/2016	0.0017 (J)	<0.003						<0.003	
10/24/2016			<0.003						
10/25/2016	<0.003							<0.003	
10/26/2016		<0.003		<0.003	<0.003	<0.003			<0.003
10/27/2016							0.0016 (J)		
1/3/2017			<0.003			<0.003			
1/4/2017					<0.003				<0.003
1/5/2017				<0.003				<0.003	
1/6/2017	0.0009 (J)	<0.003					<0.003		
4/3/2017			<0.003					<0.003	
4/4/2017		<0.003							
4/5/2017					<0.003				
4/6/2017	<0.003			<0.003		<0.003	<0.003		0.0006 (J)
7/10/2017					<0.003				
7/11/2017			<0.003					<0.003	0.0009 (J)
7/12/2017		<0.003		<0.003		<0.003	<0.003		
7/13/2017	0.0013 (J)								
10/2/2017			<0.003					<0.003	
10/3/2017						<0.003			<0.003
10/4/2017	0.0008 (J)	<0.003		<0.003	<0.003		<0.003		
1/9/2018	<0.003		<0.003					<0.003	
1/10/2018				<0.003		<0.003			

Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-4R	GWA-8 (bg)	GWC-13	GWC-12	GWB-5R	GWC-9	GWC-15	GWC-11
1/11/2018		<0.003			<0.003		<0.003		0.0007 (J)
7/9/2018			<0.003						
7/10/2018						<0.003		<0.003	
7/11/2018	<0.003	<0.003		<0.003	<0.003		<0.003		<0.003
1/16/2019	<0.003	<0.003	<0.003	<0.003		<0.003			
1/17/2019					<0.003			<0.003	<0.003
1/18/2019							<0.003		
1/21/2019									
3/25/2019	<0.003	<0.003	<0.003						
3/26/2019				<0.003		<0.003		<0.003	
3/27/2019					<0.003		<0.003		<0.003
7/30/2019									
8/26/2019	<0.003		<0.003						
8/27/2019		<0.003		<0.003	<0.003			<0.003	0.00033 (J)
8/28/2019						0.00054 (J)	<0.003		
10/7/2019			<0.003						
10/8/2019	<0.003			<0.003				<0.003	0.00046 (J)
10/9/2019		<0.003			<0.003	<0.003	<0.003		
4/6/2020	<0.003		<0.003						
4/7/2020		<0.003			<0.003	<0.003		<0.003	0.00066 (J)
4/8/2020				<0.003			0.00033 (J)		
8/17/2020			<0.003	<0.003	<0.003				
8/18/2020								<0.003	0.00064 (J)
8/19/2020	<0.003	<0.003				<0.003	<0.003		
9/28/2020	<0.003		<0.003	<0.003					
9/29/2020					<0.003				0.00051 (J)
9/30/2020						0.0003 (J)		<0.003	
10/1/2020		<0.003					<0.003		
3/10/2021		<0.003			0.0003 (J)	<0.003	<0.003		0.00076 (J)
3/11/2021	<0.003								
3/12/2021			<0.003					0.0018 (J)	
3/15/2021				<0.003					
3/16/2021									
9/21/2021	<0.003	<0.003	<0.003	<0.003	<0.003	0.0013 (J)			<0.003
9/22/2021							<0.003		
9/23/2021								<0.003	
1/31/2022	<0.003		<0.003						
2/1/2022									
2/2/2022		<0.003					<0.003		
2/3/2022				<0.003	<0.003	<0.003		<0.003	<0.003
8/30/2022	<0.003	<0.003	<0.003		<0.003	<0.003			
8/31/2022				<0.003				<0.003	<0.003
9/1/2022							<0.003		

Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-6R	GWC-16	GWC-14	GWC-17	GWC-1	GWC-2	GWC-22	GWC-20	GWC-21
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003				
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/20/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
4/4/2006		<0.003	<0.003						
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
8/30/2006		<0.003	<0.003						
12/4/2006	<0.003	0.006	<0.003	<0.003	<0.003	<0.003			
2/15/2007		<0.003	<0.003						
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
9/11/2007		<0.003	<0.003						
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/11/2008		<0.003	<0.003						
6/23/2008									
6/24/2008	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/3/2008		<0.003	<0.003						
12/4/2008			<0.003				<0.003		
12/5/2008	<0.003	<0.003		<0.003	<0.003				
3/25/2009		<0.003	<0.003						
7/7/2009	<0.003				<0.003				
7/8/2009		<0.003	<0.003	<0.003		<0.003			
9/14/2009		<0.003	<0.003						
12/20/2009		<0.003	<0.003		<0.003	<0.003			
12/21/2009	<0.003			<0.003					
3/4/2010		<0.003	<0.003						
6/20/2010	<0.003		<0.003		<0.003	<0.003			
6/21/2010		<0.003		<0.003			<0.003	<0.003	<0.003
9/14/2010		<0.003	<0.003						
1/6/2011					<0.003	<0.003			
1/7/2011	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003
4/15/2011		<0.003	<0.003						
7/7/2011	<0.003	<0.003	<0.003		<0.003			<0.003	
7/8/2011				<0.003			<0.003	<0.003	<0.003
9/25/2011		<0.003	<0.003						
1/17/2012			<0.003		<0.003	<0.003			
1/18/2012	<0.003	<0.003		<0.003			<0.003	<0.003	<0.003
4/4/2012		<0.003	<0.003						
7/9/2012			<0.003		<0.003	<0.003			
7/10/2012	<0.003	<0.003		<0.003			<0.003	<0.003	<0.003
10/9/2012		<0.003	<0.003						
1/17/2013					<0.003	<0.003			
1/18/2013	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003

Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-6R	GWC-16	GWC-14	GWC-17	GWC-1	GWC-2	GWC-22	GWC-20	GWC-21
4/5/2013		<0.003	<0.003						
7/16/2013					<0.003				
7/17/2013	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
10/11/2013		<0.003	0.005						
1/13/2014					<0.003	<0.003			
1/14/2014	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003
4/3/2014		<0.003	<0.003						
7/8/2014									
7/9/2014	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
7/10/2014							<0.003	<0.003	
10/24/2014		<0.003	<0.003						
1/12/2015								<0.003	
1/13/2015					<0.003	<0.003			
1/14/2015	<0.003	<0.003	<0.003	<0.003			<0.003		<0.003
5/10/2015			<0.003						
5/11/2015		<0.003							
7/16/2015		<0.003			<0.003	<0.003			
7/17/2015	<0.003		<0.003						<0.003
7/18/2015				<0.003			<0.003	<0.003	
10/6/2015		<0.003	<0.003						
1/17/2016		<0.003	<0.003		<0.003	<0.003		<0.003	<0.003
1/18/2016	<0.003			<0.003			<0.003		
1/19/2016									
4/26/2016		<0.003	<0.003						
7/26/2016									
7/27/2016			<0.003		<0.003	<0.003			
7/28/2016	<0.003	<0.003						0.0019 (J)	<0.003
7/29/2016				<0.003			<0.003		
8/30/2016	<0.003				<0.003				
8/31/2016						<0.003	<0.003		
9/1/2016		<0.003	<0.003	<0.003				<0.003	<0.003
10/24/2016									
10/25/2016		<0.003	<0.003		<0.003			<0.003	<0.003
10/26/2016	<0.003			<0.003		<0.003	<0.003		
10/27/2016									
1/3/2017									
1/4/2017		<0.003			<0.003		<0.003	<0.003	<0.003
1/5/2017	<0.003		<0.003	<0.003		<0.003			
1/6/2017									
4/3/2017									
4/4/2017			<0.003		<0.003	<0.003		<0.003	<0.003
4/5/2017		<0.003		<0.003					
4/6/2017	<0.003						<0.003		
7/10/2017									
7/11/2017			<0.003				<0.003	<0.003	
7/12/2017	<0.003	<0.003			<0.003				
7/13/2017				<0.003		<0.003			<0.003
10/2/2017			<0.003					<0.003	
10/3/2017	<0.003	<0.003			<0.003	<0.003			<0.003
10/4/2017				<0.003			<0.003		
1/9/2018	<0.003		<0.003						<0.003
1/10/2018		<0.003			<0.003	<0.003		<0.003	

Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-6R	GWC-16	GWC-14	GWC-17	GWC-1	GWC-2	GWC-22	GWC-20	GWC-21
1/11/2018				<0.003			<0.003		
7/9/2018			<0.003					<0.003	
7/10/2018	<0.003	<0.003			<0.003	<0.003			<0.003
7/11/2018				<0.003			<0.003		
1/16/2019	<0.003		<0.003	<0.003	<0.003				
1/17/2019		<0.003							<0.003
1/18/2019							<0.003		
1/21/2019						<0.003		<0.003	
3/25/2019								<0.003	
3/26/2019	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
3/27/2019							<0.003		
7/30/2019						<0.003			
8/26/2019									
8/27/2019	<0.003		<0.003		<0.003	<0.003	0.00045 (J)		
8/28/2019		<0.003		<0.003				<0.003	<0.003
10/7/2019									
10/8/2019		<0.003	<0.003						<0.003
10/9/2019	<0.003			<0.003	<0.003	<0.003	<0.003	<0.003	
4/6/2020									
4/7/2020	<0.003	<0.003	<0.003		<0.003		0.00049 (J)		<0.003
4/8/2020				<0.003		0.0013 (J)		<0.003	
8/17/2020									
8/18/2020		<0.003	<0.003	<0.003		<0.003	0.0022 (J)	<0.003	<0.003
8/19/2020	<0.003				0.00061 (J)				
9/28/2020					0.00035 (J)				
9/29/2020			<0.003			0.0016 (J)			
9/30/2020	0.00059 (J)	<0.003		<0.003			0.0016 (J)	<0.003	0.00033 (J)
10/1/2020									
3/10/2021	0.00029 (J)				0.00069 (J)		0.0004 (J)		
3/11/2021				0.00039 (J)					
3/12/2021								0.00065 (J)	
3/15/2021						<0.003			
3/16/2021		<0.003	<0.003						<0.003
9/21/2021	<0.003						<0.003		
9/22/2021		<0.003	<0.003	0.0014 (J)		<0.003		<0.003	<0.003
9/23/2021					0.0016 (J)				
1/31/2022									
2/1/2022		<0.003		<0.003				<0.003	<0.003
2/2/2022	<0.003		<0.003			<0.003			
2/3/2022					<0.003		<0.003		
8/30/2022	<0.003		<0.003					<0.003	<0.003
8/31/2022				<0.003			<0.003		
9/1/2022		<0.003			<0.003	<0.003			

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-12	GWC-13	GWC-14	GWC-15
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	0.023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		0.022	0.014	<0.005	<0.005	<0.005	<0.005	0.011	<0.005
6/6/2003	0.02	0.07 (O)	0.014	0.03 (O)	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0064	<0.005	<0.005
5/26/2004	<0.005	0.0074	0.0082	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	0.017	0.0062	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
6/21/2005	<0.005	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006					<0.005			<0.005	
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006					<0.005			<0.005	
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007					<0.005			<0.005	
6/23/2007	<0.005	<0.005	0.0053	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007					<0.005			<0.005	
12/11/2007	<0.005	<0.005	0.0057	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008					<0.005			<0.005	
6/23/2008	<0.005				<0.005	<0.005	<0.005		
6/24/2008		<0.005	0.012	<0.005				<0.005	<0.005
11/3/2008					<0.005			<0.005	
12/4/2008	<0.005				<0.005	<0.005	<0.005	<0.005	
12/5/2008		<0.005	0.0064	<0.005					<0.005
3/25/2009					<0.005			<0.005	
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005				
7/8/2009						<0.005	<0.005	<0.005	0.0052
9/14/2009					<0.005			<0.005	
12/20/2009	<0.005			<0.005	<0.005			<0.005	<0.005
12/21/2009		<0.005	<0.005			<0.005	<0.005		
3/4/2010					<0.005			<0.005	
6/20/2010	<0.005	<0.005	0.017	<0.005	<0.005	<0.005	<0.005	<0.005	0.0068
6/21/2010									
9/14/2010					<0.005			<0.005	
1/6/2011		<0.005		<0.005			<0.005		
1/7/2011	<0.005		<0.005		<0.005	<0.005		<0.005	<0.005
4/15/2011					<0.005			<0.005	
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011									
9/25/2011					<0.005			<0.005	
1/17/2012	<0.005	<0.005		0.0071	<0.005	<0.005	<0.005	<0.005	<0.005
1/18/2012			<0.005						
4/4/2012					<0.005			<0.005	
7/9/2012	0.0052	<0.005		0.0076		<0.005	<0.005	<0.005	<0.005
7/10/2012			<0.005		<0.005				
10/9/2012					<0.005			<0.005	
1/17/2013		<0.005		0.0086		<0.005	<0.005		
1/18/2013	0.0087		<0.005		<0.005			<0.005	0.0089

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-12	GWC-13	GWC-14	GWC-15
4/5/2013					<0.005			<0.005	
7/16/2013		<0.005		<0.005		<0.005	<0.005		
7/17/2013	0.0084		<0.005		<0.005		<0.005		0.011
10/11/2013					<0.005			0.005	
1/13/2014	0.009	<0.005		<0.005		<0.005	<0.005		0.017
1/14/2014			<0.005		<0.005			<0.005	
4/3/2014					<0.005			<0.005	
7/8/2014						<0.005	<0.005		
7/9/2014	0.008	<0.005	<0.005	0.0022 (J)	<0.005			<0.005	0.014
7/10/2014									
10/24/2014					<0.005			<0.005	
1/12/2015									
1/13/2015	0.0077	<0.005		<0.005		<0.005	<0.005		0.011
1/14/2015			<0.005		<0.005			<0.005	
5/10/2015					<0.005			<0.005	
5/11/2015									
7/16/2015	0.0077	<0.005		0.0037 (J)		<0.005	<0.005		0.02
7/17/2015			<0.005		<0.005			<0.005	
7/18/2015									
10/6/2015					<0.005			<0.005	
1/17/2016				0.024 (O)				0.002 (J)	0.014
1/18/2016	0.014	<0.005	<0.005		<0.005	<0.005	<0.005		
4/26/2016					0.0011 (J)			0.00183 (J)	
7/26/2016							<0.005		
7/27/2016	0.0111	0.0008 (J)		0.0046 (J)		<0.005		0.0021 (J)	0.0303
7/28/2016			0.0009 (J)		<0.005				
7/29/2016									
8/30/2016		<0.005	<0.005	0.0023 (J)	<0.005				
8/31/2016						<0.005	<0.005		
9/1/2016	0.0287							0.0024 (J)	0.0533
10/24/2016					<0.005				
10/25/2016	0.0069			0.0035 (J)				<0.005	0.0551
10/26/2016		<0.005	<0.005			<0.005	<0.005		
10/27/2016									
1/3/2017		<0.005			<0.005				
1/4/2017				0.0018 (J)		<0.005			
1/5/2017			0.0021 (J)				<0.005	0.0024 (J)	0.0437
1/6/2017	0.0097								
4/3/2017					0.0006 (J)				0.0713
4/4/2017				0.0015 (J)				0.003 (J)	
4/5/2017						0.0006 (J)			
4/6/2017	0.0104	0.0006 (J)	0.0011 (J)				<0.005		
7/10/2017						0.0008 (J)			
7/11/2017					0.0006 (J)			0.0019 (J)	0.0745
7/12/2017		0.0009 (J)	0.0014 (J)	0.0015 (J)			<0.005		
7/13/2017	0.0064								
10/2/2017					0.0006 (J)			0.0026 (J)	0.0723
10/3/2017		0.001 (J)	0.0014 (J)	0.0013 (J)					
10/4/2017	0.0078					0.0009 (J)	<0.005		
1/9/2018	0.0091 (J)		0.0017 (J)		0.0009 (J)			0.0021 (J)	0.0731
1/10/2018		0.0012 (J)		0.0023 (J)			0.0006 (J)		
1/11/2018						<0.005			

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-12	GWC-13	GWC-14	GWC-15
7/9/2018					<0.005			0.0019 (J)	
7/10/2018		0.0016 (J)	0.00063 (J)	0.0031 (J)					0.09
7/11/2018	<0.005					<0.005	<0.005		
1/16/2019	<0.005	0.0011 (J)	<0.005	0.0023 (J)	<0.005		<0.005	0.0016 (J)	
1/17/2019						<0.005			0.13
1/18/2019									
1/21/2019									
3/25/2019	0.0029 (J)				<0.005				
3/26/2019		0.0014 (J)	0.0029 (J)	0.0032 (J)			0.00058 (J)	0.0023 (J)	0.1
3/27/2019						<0.005			
7/30/2019									
8/26/2019	0.0041 (J)				<0.005				
8/27/2019			0.0035 (J)	0.0022 (J)		<0.005	<0.005	0.0017 (J)	0.17
8/28/2019		0.0023 (J)							
10/7/2019					<0.005				
10/8/2019	0.003 (J)						<0.005	0.0017 (J)	0.13
10/9/2019		0.0053 (J)	0.0018 (J)	0.0042 (J)		<0.005			
4/6/2020	<0.005				0.00045 (J)				
4/7/2020		0.0011 (J)	<0.005	0.027		<0.005		0.0018 (J)	0.24
4/8/2020							<0.005		
8/17/2020					<0.005	<0.005	<0.005		
8/18/2020								0.0012 (J)	0.28
8/19/2020	0.006 (J)	0.0019 (J)	0.0036 (J)	0.007					
9/28/2020	<0.005			0.0058	<0.005		<0.005		
9/29/2020						<0.005		<0.005	
9/30/2020		0.0017 (J)	0.004 (J)						0.24
10/1/2020									
3/10/2021		0.0019 (J)	0.0054	0.0055		<0.005			
3/11/2021	0.0047 (J)								
3/12/2021					<0.005				0.16
3/15/2021							<0.005		
3/16/2021								<0.005	
9/21/2021	<0.005	<0.005	0.0054		<0.005	<0.005	<0.005		
9/22/2021								0.0014 (J)	
9/23/2021				0.0048 (J)					0.21
1/31/2022	<0.005				<0.005				
2/1/2022									
2/2/2022			0.01					0.0036 (J)	
2/3/2022		0.0029 (J)		0.0057		0.0016 (J)	0.0025 (J)		0.23
8/30/2022	0.00321 (J)	0.00253 (J)	0.00716		<0.005	<0.005		<0.005	
8/31/2022							<0.005		0.259
9/1/2022				0.00568					

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-20	GWC-22	GWC-21
9/29/2000	0.094	<0.005	<0.005	<0.005				
11/21/2000	0.059	<0.005	<0.005	<0.005	<0.005			
1/20/2001	0.087	<0.005	<0.005	0.01	<0.005			
3/14/2001	0.075	<0.005	<0.005	<0.005	<0.005			
7/16/2001	0.11	<0.005	<0.005	<0.005	<0.005			
11/1/2001	0.098	<0.005	<0.005	<0.005	<0.005			
4/25/2002	0.071	<0.005	<0.005	<0.005	<0.005			
11/20/2002	0.15	<0.005	0.0096	<0.005	<0.005			
6/6/2003	1.2 (O)	<0.005	0.0076	<0.005	<0.005			
12/12/2003	0.27 (O)	<0.005	0.0058	<0.005	<0.005			
5/26/2004	0.12	<0.005	0.0068	<0.005	<0.005			
12/7/2004	0.098	<0.005	0.0066	<0.005	<0.005			
6/21/2005	0.065	<0.005	<0.005	<0.005	<0.005			
12/12/2005	0.081	<0.005	<0.005	<0.005	<0.005			
4/4/2006	0.077							
6/27/2006	0.071	<0.005	<0.005	<0.005	<0.005			
8/30/2006	0.08							
12/4/2006	0.085	<0.005	<0.005	<0.005	<0.005			
2/15/2007	0.09							
6/23/2007	0.12	<0.005	<0.005	<0.005	<0.005			
9/11/2007	0.088							
12/11/2007	0.088	<0.005	<0.005	<0.005	<0.005			
3/11/2008	0.071							
6/23/2008				<0.005				
6/24/2008	0.097	<0.005	0.005		<0.005			
11/3/2008	0.089							
12/4/2008				<0.005	<0.005			
12/5/2008	0.092	<0.005	<0.005					
3/25/2009	0.095							
7/7/2009			<0.005					
7/8/2009	0.11	<0.005		<0.005	<0.005			
9/14/2009	0.099							
12/20/2009	0.1				<0.005			
12/21/2009		<0.005	<0.005	<0.005				
3/4/2010	0.074							
6/20/2010				<0.005	<0.005			
6/21/2010	0.056	<0.005	0.018 (O)			0.29	<0.005	0.013 (O)
9/14/2010	0.067							
1/6/2011					<0.005			
1/7/2011	0.066	<0.005	<0.005	<0.005		0.2	<0.005	<0.005
4/15/2011	0.08							
7/7/2011	0.054					<0.005		
7/8/2011		<0.005	<0.005	<0.005		0.19	<0.005	<0.005
9/25/2011	0.085							
1/17/2012					<0.005			
1/18/2012	0.089	<0.005	<0.005	<0.005		0.058	<0.005	<0.005
4/4/2012	0.0473							
7/9/2012					<0.005			
7/10/2012	0.07	<0.005	0.0052	<0.005		0.18	<0.005	<0.005
10/9/2012	0.088							
1/17/2013					<0.005			
1/18/2013	0.063	<0.005	<0.005	<0.005		0.22	<0.005	0.0061

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-20	GWC-22	GWC-21
4/5/2013	0.06							
7/16/2013								
7/17/2013	0.063	<0.005	<0.005	<0.005	<0.005	0.45	<0.005	<0.005
10/11/2013	0.059							
1/13/2014					<0.005			
1/14/2014	0.077	<0.005	<0.005	<0.005		0.52	<0.005	0.006
4/3/2014	0.091							
7/8/2014								
7/9/2014	0.08	<0.005	0.0023 (J)	<0.005	<0.005			<0.005
7/10/2014						0.4	0.0027 (J)	
10/24/2014	0.073							
1/12/2015			0.0028 (J)			0.43		
1/13/2015					<0.005			
1/14/2015	0.079	<0.005		<0.005			<0.005	<0.005
5/10/2015								
5/11/2015	0.058							
7/16/2015	0.068		<0.005		<0.005			
7/17/2015				<0.005				<0.005
7/18/2015		<0.005				0.26	<0.005	
10/6/2015	0.078							
1/17/2016	0.089				<0.005	0.34		0.0065
1/18/2016		<0.005	<0.005	<0.005			<0.005	
4/26/2016	0.0731							
7/26/2016								
7/27/2016					<0.005			
7/28/2016	0.0627			<0.005		0.209		<0.005
7/29/2016		0.0009 (J)	0.0014 (J)				0.002 (J)	
8/30/2016								
8/31/2016				<0.005	<0.005		0.0017 (J)	
9/1/2016	0.0551	<0.005	0.0033 (J)			0.215		0.0039 (J)
10/24/2016								
10/25/2016	0.0466					0.307		<0.005
10/26/2016		<0.005	0.0016 (J)		<0.005		<0.005	
10/27/2016				<0.005				
1/3/2017								
1/4/2017	0.0444					0.311	<0.005	<0.005
1/5/2017		<0.005			<0.005			
1/6/2017			<0.005	<0.005				
4/3/2017								
4/4/2017			0.0021 (J)		<0.005	0.317		0.0031 (J)
4/5/2017	0.0591	0.0011 (J)						
4/6/2017				<0.005			0.0006 (J)	
7/10/2017								
7/11/2017						0.299	0.0012 (J)	
7/12/2017	0.0776		0.0015 (J)	<0.005				
7/13/2017		0.0016 (J)			<0.005			<0.005
10/2/2017						0.216		
10/3/2017	0.0813				<0.005			<0.005
10/4/2017		0.0019 (J)	0.0018 (J)	<0.005			0.0025 (J)	
1/9/2018								0.0033 (J)
1/10/2018	0.085				0.0006 (J)	0.347		
1/11/2018		0.0015 (J)	0.0015 (J)	<0.005			0.0006 (J)	

Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-20	GWC-22	GWC-21
7/9/2018						0.37		
7/10/2018	0.067				<0.005			0.0027 (J)
7/11/2018		0.00082 (J)	0.00095 (J)	<0.005			0.0011 (J)	
1/16/2019		<0.005	0.0024 (J)					
1/17/2019	0.079							0.0022 (J)
1/18/2019				<0.005			<0.005	
1/21/2019					<0.005	0.44		
3/25/2019			0.0029 (J)			0.41		
3/26/2019	0.089	0.0015 (J)						0.0045 (J)
3/27/2019				<0.005			<0.005	
7/30/2019					0.00039 (J)			
8/26/2019								
8/27/2019			0.0023 (J)		<0.005		0.00044 (J)	
8/28/2019	0.091	0.0011 (J)		<0.005		0.43		0.002 (J)
10/7/2019								
10/8/2019	0.088							0.0028 (J)
10/9/2019		0.0011 (J)	0.0024 (J)	<0.005	<0.005	0.35	<0.005	
4/6/2020								
4/7/2020	0.091		0.0027 (J)				0.00043 (J)	<0.005
4/8/2020		0.0013 (J)		0.00084 (J)	0.00094 (J)	0.33		
8/17/2020								
8/18/2020	0.045	<0.005			<0.005	0.3	<0.005	0.0059
8/19/2020			0.0033 (J)	<0.005				
9/28/2020								
9/29/2020					<0.005			
9/30/2020	0.044	0.0012 (J)				0.31	<0.005	0.0029 (J)
10/1/2020			0.0027 (J)	<0.005				
3/10/2021			0.0025 (J)	<0.005			<0.005	
3/11/2021		0.0009 (J)						
3/12/2021						0.27		
3/15/2021					<0.005			
3/16/2021	0.064							0.0098
9/21/2021			0.0027 (J)				<0.005	
9/22/2021	0.081	<0.005		<0.005	<0.005	0.23		<0.005
9/23/2021								
1/31/2022								
2/1/2022	0.095	<0.005				0.22		0.02
2/2/2022			0.0036 (J)	<0.005	<0.005			
2/3/2022							<0.005	
8/30/2022			0.0049 (J)			0.465		0.0271
8/31/2022		<0.005					<0.005	
9/1/2022	0.0987			<0.005	<0.005			

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-13	GWC-16	GWC-12	GWC-11	GWC-17	GWC-1	GWB-6R
9/29/2000	0.11	0.11	<0.005	0.076	0.075	0.1	0.16	0.044	0.16
11/21/2000	0.12	0.15	0.01	0.075	0.072	0.082	0.17	0.047	0.21
1/20/2001	0.11	0.1	<0.005	0.053	0.086	0.083	0.16	0.051	0.23
3/14/2001	0.11	0.095	0.01	0.055	0.088	0.075	0.17	0.048	0.22
7/16/2001	0.11	0.28 (O)	<0.005	0.041	0.084	0.091	0.19	0.054	0.22
11/1/2001	0.11	0.16	<0.005	0.045	0.13	0.068	0.18	0.063	0.23
4/25/2002	0.058	0.054	<0.005	0.055	0.24 (O)	0.066	0.15	0.032	0.15
6/6/2003	0.19	0.063	0.028	0.48 (O)	0.28 (O)	0.085	0.13	0.046	0.13
12/12/2003	0.1	0.041	0.019	0.13 (O)	0.27 (O)	0.072	0.18	0.034	0.034
5/26/2004	0.084	0.059	<0.005	0.055	0.31 (O)	0.055	0.17	0.035	0.13
12/7/2004	0.094	0.076	0.009	0.072	0.46 (O)	0.066	0.19	0.024	0.13
6/21/2005	0.089	0.042	0.0089	0.061	0.053	0.033	0.18	0.039	0.07
12/12/2005	0.089	0.048	0.026	0.047	0.1	0.034	0.17	0.042	0.04
4/4/2006		0.05		0.042					
6/27/2006	0.096	0.036	0.029	0.042	0.098	0.029	0.17	0.033	0.041
8/30/2006		0.059		0.05					
12/4/2006	0.092	0.062	0.017	0.044	0.068	0.02	0.21	0.04	0.048
2/15/2007		0.079		0.041					
6/23/2007	0.08	0.03	0.014	0.044	0.042	0.017	0.17	0.044	0.12
9/11/2007		0.053		0.04					
12/11/2007	0.067	0.075	0.011	0.0035	0.04	0.013	0.18	0.049	0.12
3/11/2008		0.052		0.034					
6/23/2008	0.056		0.018		0.041	0.012			
6/24/2008		0.039		0.042			0.14	0.038	0.17
11/3/2008		0.082		0.049					
12/4/2008	0.054	0.079	0.019		0.035	0.011			
12/5/2008				0.05			0.19	0.06	0.093
3/25/2009		0.093		0.052					
7/7/2009	0.034							0.043	0.06
7/8/2009		0.039	0.011	0.046	0.036	0.012	0.2		
9/14/2009		0.061		0.048					
12/20/2009	0.034	0.088		0.062				0.065	
12/21/2009			0.01		0.028	0.011	0.23		0.11
3/4/2010		0.077		0.058					
6/20/2010	0.062	0.075	0.0081		0.025	0.0089		0.095	0.11
6/21/2010				0.041			0.25		
9/14/2010		0.093		0.036					
1/6/2011			0.012			0.014		0.093	
1/7/2011	0.039	0.13		0.054	0.037		0.21		0.025
4/15/2011		0.086		0.049					
7/7/2011	0.036	0.051	0.015	0.063	0.039	0.018		0.095	0.025
7/8/2011							0.13		
9/25/2011		0.056		0.037					
1/17/2012	0.041	0.052	0.0086		0.045	0.23		0.1	
1/18/2012				0.034			0.26		0.03
4/4/2012		0.0519		0.0446					
7/9/2012	0.15	0.048	0.01		0.032	0.17		0.11	
7/10/2012				0.033			0.19		0.028
10/9/2012		0.065		0.041					
1/17/2013			0.014		0.033	0.2		0.12	
1/18/2013	0.15	0.045		0.036			0.17		0.058
4/5/2013		0.047		0.036					

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-13	GWC-16	GWC-12	GWC-11	GWC-17	GWC-1	GWB-6R
7/16/2013			0.012		0.027	0.11		0.081	
7/17/2013	0.13	0.032		0.054			0.18		0.086
10/11/2013		0.028		0.052					
1/13/2014	0.16		0.015		0.027	0.083		0.096	
1/14/2014		0.036		0.051			0.18		0.1
4/3/2014		0.038		0.047					
7/8/2014			0.017		0.037	0.066			
7/9/2014	0.11	0.03		0.08			0.16	0.066	0.082
7/10/2014									
10/24/2014		0.025		0.072					
1/12/2015									
1/13/2015	0.083		0.019		0.023	0.053		0.068	
1/14/2015		0.04		0.047			0.16		0.094
5/10/2015		0.026							
5/11/2015				0.053					
7/16/2015	0.094		0.022	0.059	0.03	0.052		0.07	
7/17/2015		0.029							0.11
7/18/2015							0.012		
10/6/2015		0.03		0.053					
1/17/2016		0.038		0.056				0.062	
1/18/2016	0.22		0.026		0.032		0.13		0.11
1/19/2016						0.048			
4/26/2016		0.025		0.0721					
7/26/2016			0.0236			0.051			
7/27/2016	0.192	0.0248			0.0191			0.0417	
7/28/2016				0.0534					0.105
7/29/2016							0.181		
8/30/2016								0.0545	0.106
8/31/2016			0.0273		0.019	0.0565			
9/1/2016	0.415 (O)	0.0346		0.0445			0.203		
10/24/2016									
10/25/2016	0.173	0.0248		0.0464				0.0504	
10/26/2016			0.0238		0.0197	0.0591	0.177		0.107
10/27/2016									
1/3/2017									
1/4/2017				0.0379	0.0174	0.0598		0.0534	
1/5/2017		0.0245	0.0218				0.142		0.107
1/6/2017	0.167								
4/3/2017									
4/4/2017		0.0342						0.0549	
4/5/2017				0.0534	0.0174		0.106		
4/6/2017	0.136		0.0204			0.0813			0.111
7/10/2017					0.0172				
7/11/2017		0.0276				0.0302			
7/12/2017			0.0161	0.0944				0.0614	0.106
7/13/2017	0.0891						0.0686		
10/2/2017		0.0274							
10/3/2017				0.135 (O)		0.103		0.0436	0.105
10/4/2017	0.113		0.0185		0.0162		0.0589		
1/9/2018	0.0901	0.0222							0.0969
1/10/2018			0.0166	0.0603				0.053	
1/11/2018					0.018	0.166	0.0412		

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-13	GWC-16	GWC-12	GWC-11	GWC-17	GWC-1	GWB-6R
7/9/2018		0.026							
7/10/2018				0.16 (O)				0.059	0.087
7/11/2018	0.065		0.019		0.014	0.12	0.049		
1/16/2019	0.062	0.028	0.019				0.063	0.054	0.013 (J)
1/17/2019				0.13	0.017	0.039			
1/18/2019									
1/21/2019									
3/25/2019	0.054								
3/26/2019		0.034	0.026	0.14			0.025	0.055	0.012 (J)
3/27/2019					0.017	0.053			
7/30/2019									
8/26/2019	0.11								
8/27/2019		0.067	0.024		0.017	0.12		0.054	0.013
8/28/2019				0.09			0.026		
10/7/2019									
10/8/2019	0.1	0.085	0.024	0.13		0.13			
10/9/2019					0.019		0.032	0.058	0.014 (J)
4/6/2020	0.072								
4/7/2020		0.073		0.13	0.017	0.14		0.05	0.01 (J)
4/8/2020			0.027				0.055		
8/17/2020			0.024		0.018				
8/18/2020		0.028		0.32		0.12	0.074		
8/19/2020	0.1							0.057	0.064
9/28/2020	0.095		0.029					0.051	
9/29/2020		0.026			0.018	0.14			
9/30/2020				0.14			0.035		0.092
10/1/2020									
3/10/2021					0.028	0.13		0.052	0.027
3/11/2021	0.07						0.044		
3/12/2021									
3/15/2021			0.034						
3/16/2021		0.037		0.16					
9/21/2021	0.073		0.037		0.023	0.12			0.077
9/22/2021		0.11		0.26			0.058		
9/23/2021								0.062	
1/31/2022	0.1								
2/1/2022				0.23			0.055		
2/2/2022		0.1							0.026
2/3/2022			0.038		0.025	0.17		0.051	
8/30/2022	0.133	0.0773			0.0275				0.0266
8/31/2022			0.0379			0.115	0.0375		
9/1/2022				0.165				0.0583	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-4R	GWC-9	GWA-8 (bg)	GWC-15	GWC-2	GWC-21	GWC-22	GWC-20
9/29/2000	0.22	0.16	0.093	0.16	0.028				
11/21/2000	0.13	0.16	0.095		0.035	0.046			
1/20/2001	0.19	0.21	0.089	0.18	0.032	0.036			
3/14/2001	0.27	0.18	0.088	0.14	0.036	0.03			
7/16/2001	0.37	0.18	0.096	0.14	0.036	0.032			
11/1/2001	0.61 (O)	0.15	0.094	0.14	0.036	0.029			
4/25/2002	0.19	0.16	0.085	0.088	0.045	0.021			
6/6/2003	0.72 (O)	0.29	0.09	0.14	0.083 (O)	0.032			
12/12/2003	0.054	0.18	0.084	0.13	0.094 (O)	0.021			
5/26/2004	0.18	0.16	0.08	0.09	0.034	0.035			
12/7/2004	0.24	0.16	0.098	0.11	0.042	0.031			
6/21/2005	0.2	0.15	0.084	0.084	0.039	0.028			
12/12/2005	0.074	0.15	0.07	0.1	0.043	0.024			
4/4/2006				0.089					
6/27/2006	0.075	0.19	0.083	0.1	0.031	0.03			
8/30/2006				0.12					
12/4/2006	0.092	0.26	0.072	0.086	0.043	0.031			
2/15/2007				0.088					
6/23/2007	0.089	0.24	0.087	0.089	0.031	0.037			
9/11/2007				0.092					
12/11/2007	0.072	0.21	0.082	0.077	0.044	0.034			
3/11/2008				0.082					
6/23/2008			0.1	0.086					
6/24/2008	0.049	0.13			0.057	0.038			
11/3/2008				0.088					
12/4/2008			0.12	0.081		0.038			
12/5/2008	0.067	0.12			0.041				
3/25/2009				0.069					
7/7/2009	0.04	0.17		0.078					
7/8/2009			0.14		0.058	0.053			
9/14/2009				0.079					
12/20/2009				0.081	0.062	0.047			
12/21/2009	0.044	0.2	0.15						
3/4/2010				0.065					
6/20/2010	0.036		0.21	0.078	0.03	0.046			
6/21/2010		0.22					0.16	0.11	0.062
9/14/2010				0.076					
1/6/2011	0.075					0.063			
1/7/2011		0.12	0.2	0.074	0.049		0.095	0.12	0.039
4/15/2011				0.065					
7/7/2011	0.13			0.081	0.05				0.06
7/8/2011		0.15	0.18				0.1	0.094	0.043
9/25/2011				0.078					
1/17/2012	0.21			0.082	0.044	0.06			
1/18/2012		0.15	0.18				0.12	0.087	0.042
4/4/2012				0.0861					
7/9/2012	0.2				0.045	0.05			
7/10/2012		0.14	0.16	0.082			0.097	0.1	0.039
10/9/2012				0.09					
1/17/2013	0.19					0.058			
1/18/2013		0.15	0.19	0.083	0.049		0.1	0.078	0.04
4/5/2013				0.078					

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-4R	GWC-9	GWA-8 (bg)	GWC-15	GWC-2	GWC-21	GWC-22	GWC-20
7/16/2013	0.076								
7/17/2013		0.14	0.17	0.083	0.039	0.041	0.069	0.062	0.055
10/11/2013				0.078					
1/13/2014	0.14				0.038	0.058			
1/14/2014		0.16	0.2	0.081			0.086	0.073	0.059
4/3/2014				0.077					
7/8/2014									
7/9/2014	0.12	0.12	0.16	0.073	0.031	0.048	0.065		
7/10/2014								0.13	0.067
10/24/2014				0.087					
1/12/2015		0.13							0.061
1/13/2015	0.13				0.041	0.048			
1/14/2015			0.17	0.079			0.084	0.065	
5/10/2015				0.076					
5/11/2015									
7/16/2015	0.12	0.11			0.041	0.048			
7/17/2015			0.18	0.061			0.071		
7/18/2015								0.073	0.13
10/6/2015				0.067					
1/17/2016					0.048	0.049	0.079		0.08
1/18/2016	0.12	0.095	0.2	0.068				0.062	
1/19/2016									
4/26/2016				0.0596					
7/26/2016									
7/27/2016	0.112				0.0487	0.0796			
7/28/2016			0.234	0.0701			0.0626		0.164
7/29/2016		0.0883						0.0575	
8/30/2016	0.135			0.0687					
8/31/2016			0.284			0.0429		0.0693	
9/1/2016		0.123			0.0403		0.077		0.0976
10/24/2016				0.07					
10/25/2016					0.0329		0.0217		0.0702
10/26/2016	0.103	0.0863				0.113 (O)		0.0966	
10/27/2016			0.244						
1/3/2017	0.118			0.061					
1/4/2017							0.0617	0.0975	0.0999
1/5/2017					0.0392	0.0526			
1/6/2017		0.0758	0.305						
4/3/2017				0.0612	0.0439				
4/4/2017		0.091				0.0503	0.0761		0.136
4/5/2017									
4/6/2017	0.162		0.249					0.064	
7/10/2017									
7/11/2017				0.0624	0.051			0.0778	0.145
7/12/2017	0.157	0.0941	0.256						
7/13/2017						0.0529	0.0428		
10/2/2017				0.0618	0.047				0.148
10/3/2017	0.127					0.057	0.0376		
10/4/2017		0.0994	0.356					0.156	
1/9/2018				0.0574	0.0431		0.0704		
1/10/2018	0.158					0.0527			0.0788
1/11/2018		0.088	0.226					0.0702	

Prediction Limit

Constituent: Barium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-4R	GWC-9	GWA-8 (bg)	GWC-15	GWC-2	GWC-21	GWC-22	GWC-20
7/9/2018				0.056					0.087
7/10/2018	0.31				0.047	0.054	0.061		
7/11/2018		0.071	0.29					0.12	
1/16/2019	0.054	0.083		0.062					
1/17/2019					0.042		0.061		
1/18/2019			0.21					0.052	
1/21/2019						0.05			0.069
3/25/2019		0.077		0.064					0.085
3/26/2019	0.057				0.047		0.084		
3/27/2019			0.19					0.057	
7/30/2019						0.052			
8/26/2019				0.065					
8/27/2019		0.076			0.049	0.053		0.097	
8/28/2019	0.1		0.17				0.063		0.078
10/7/2019				0.069					
10/8/2019					0.057		0.079		
10/9/2019	0.13	0.076	0.18			0.05		0.065	0.078
4/6/2020				0.057					
4/7/2020	0.098	0.09			0.033		0.054	0.1	
4/8/2020			0.15			0.061			0.19
8/17/2020				0.051					
8/18/2020					0.03	0.05	0.18	0.085	0.38
8/19/2020	0.1	0.076	0.17						
9/28/2020				0.05					
9/29/2020						0.049			
9/30/2020	0.16				0.034		0.19	0.045	0.35
10/1/2020		0.077	0.15						
3/10/2021	0.096	0.07	0.15					0.049	
3/11/2021									
3/12/2021				0.052	0.038				0.34
3/15/2021						0.053			
3/16/2021							0.18		
9/21/2021	0.076	0.098		0.049				0.036	
9/22/2021			0.15			0.047	0.046		0.42
9/23/2021					0.062				
1/31/2022				0.051					
2/1/2022							0.24		0.36
2/2/2022		0.17	0.15			0.052			
2/3/2022	0.062				0.061			0.038	
8/30/2022	0.051	0.134		0.0512			0.191		0.21
8/31/2022					0.055			0.0741	
9/1/2022			0.151			0.0508			

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-9	GWC-13	GWB-6R	GWB-4R	GWC-14	GWC-12	GWC-17	GWB-5R
9/29/2000	<0.01	<0.01	<0.01	0.016	0.021	<0.01	<0.01	<0.01	0.03
11/21/2000	<0.01	<0.01	<0.01	0.023	0.017	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	<0.01	0.025	0.03	<0.01	<0.01	<0.01	0.028
3/14/2001	<0.01	<0.01	<0.01	0.021	0.019	<0.01	<0.01	<0.01	0.052 (O)
7/16/2001	<0.01	<0.01	<0.01	0.019	0.029	<0.01	<0.01	<0.01	0.08 (O)
11/1/2001	<0.01	<0.01	<0.01	0.022	0.021	<0.01	<0.01	<0.01	0.13 (O)
4/25/2002	<0.01	<0.01	<0.01	0.019	0.03	<0.01	<0.01	<0.01	0.021
11/20/2002		0.014	<0.01	0.024	0.038	0.014	0.002	<0.01	0.053 (O)
6/6/2003	0.037	<0.01	0.003	0.021	0.028	<0.01	<0.01	<0.01	0.064 (O)
12/12/2003	0.0044	<0.01	<0.01	0.0066	0.027	<0.01	<0.01	0.036 (O)	<0.01
5/26/2004	<0.01	<0.01	<0.01	0.013	0.021	<0.01	<0.01	<0.01	0.012
12/7/2004	<0.01	0.0039	<0.01	0.013	0.016	<0.01	<0.01	0.0021	0.019
6/21/2005	<0.01	0.002	<0.01	0.0067	0.015	<0.01	<0.01	<0.01	0.02
12/12/2005	<0.01	<0.01	<0.01	0.0033	0.022	<0.01	<0.01	<0.01	<0.01
4/4/2006						<0.01			
6/27/2006	<0.01	<0.01	<0.01	0.0047	0.027	<0.01	<0.01	<0.01	0.0015
8/30/2006						<0.01			
12/4/2006	0.0015	0.0019	0.0017	0.0084	0.025	0.0042	0.0032	<0.01	0.0034
2/15/2007						<0.01			
6/23/2007	<0.01	0.0015	<0.01	0.01	0.023	<0.01	<0.01	<0.01	<0.01
9/11/2007						<0.01			
12/11/2007	0.0016	<0.01	<0.01	0.0049	0.018	<0.01	<0.01	<0.01	<0.01
3/11/2008						<0.01			
6/23/2008	0.0019	0.0015	<0.01				0.0016		
6/24/2008				0.032 (O)	0.022	<0.01		<0.01	<0.01
11/3/2008						<0.01			
12/4/2008	<0.01	<0.01	<0.01			<0.01	<0.01		
12/5/2008				0.009	0.023			<0.01	0.0016
3/25/2009						<0.01			
7/7/2009	0.0037			0.0044	0.012				<0.01
7/8/2009		<0.01	<0.01			<0.01	<0.01	<0.01	
9/14/2009						<0.01			
12/20/2009	0.0016					<0.01			
12/21/2009		<0.01	<0.01	0.0055	0.019		<0.01	<0.01	<0.01
3/4/2010						<0.01			
6/20/2010	<0.01	0.0015	<0.01	0.002		<0.01	<0.01		<0.01
6/21/2010					0.01			<0.01	
9/14/2010						<0.01			
1/6/2011			<0.01						0.0017
1/7/2011	0.0033	<0.01		0.0039	0.023	0.0016	<0.01	<0.01	
4/15/2011						0.0034			
7/7/2011	0.0044		0.0019	0.0031		<0.01	<0.01		0.008
7/8/2011		<0.01			0.017			0.0013	
9/25/2011						0.0013			
1/17/2012	0.0038		<0.01			<0.01	<0.01		0.0082
1/18/2012		<0.01		0.0023	0.0114			<0.01	
4/4/2012						<0.01			
7/9/2012	0.022		<0.01			<0.01	<0.01		0.01
7/10/2012		<0.01		0.0022	0.014			<0.01	
10/9/2012						0.0019			
1/17/2013			<0.01				<0.01		0.01
1/18/2013	0.034	<0.01		<0.01	0.015	0.0017		<0.01	

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-9	GWC-13	GWB-6R	GWB-4R	GWC-14	GWC-12	GWC-17	GWB-5R
4/5/2013						0.0019			
7/16/2013			<0.01				<0.01		0.0061
7/17/2013	0.032	<0.01		<0.01	0.011	0.0017		<0.01	
10/11/2013						0.0013			
1/13/2014	0.04		<0.01				<0.01		0.002
1/14/2014		<0.01		0.0013	0.019	0.001		<0.01	
4/3/2014						0.0031			
7/8/2014			<0.01				<0.01		
7/9/2014	0.036	0.0011 (J)		<0.01	0.012	0.0012 (J)		<0.01	<0.01
7/10/2014									
10/24/2014						<0.01			
1/12/2015					0.016				
1/13/2015	0.03		<0.01				<0.01		<0.01
1/14/2015		<0.01		0.0015		0.0013		<0.01	
5/10/2015						<0.01			
5/11/2015									
7/16/2015	0.039		<0.01		0.0084		0.001 (J)		<0.01
7/17/2015		0.0013		0.0011 (J)		0.001 (J)			
7/18/2015								<0.01	
10/6/2015						<0.01			
1/17/2016						0.0012 (J)			
1/18/2016	0.068	<0.01	<0.01	0.0011 (J)	0.014		<0.01	<0.01	<0.01
1/19/2016									
4/26/2016						<0.01			
7/26/2016			<0.01						
7/27/2016	0.05					0.0008 (J)	0.0014 (J)		0.0006 (J)
7/28/2016		0.0011 (J)		0.001 (J)					
7/29/2016					0.0077 (J)			0.0009 (J)	
8/30/2016				0.0013 (J)					<0.01
8/31/2016		0.0024 (J)	0.0011 (J)				0.0012 (J)		
9/1/2016	0.119 (O)				0.015	0.0015 (J)		0.0011 (J)	
10/24/2016									
10/25/2016	0.0519					<0.01			
10/26/2016			<0.01	0.0014 (J)	0.0106		0.0012 (J)	<0.01	<0.01
10/27/2016		<0.01							
1/3/2017									0.001 (J)
1/4/2017							0.0012 (J)		
1/5/2017			<0.01	0.002 (J)		0.001 (J)		0.0012 (J)	
1/6/2017	0.0536	<0.01				0.0098 (J)			
4/3/2017									
4/4/2017					0.0101	0.001 (J)			
4/5/2017							0.0013 (J)	0.0015 (J)	
4/6/2017	0.0447 (J)	0.0019 (J)	0.0011 (J)	0.0034 (J)					0.0013 (J)
7/10/2017							0.0014 (J)		
7/11/2017						0.0008 (J)			
7/12/2017		0.0011 (J)	0.0007 (J)	0.0024 (J)	0.0096 (J)				0.0011 (J)
7/13/2017	0.0269							0.0012 (J)	
10/2/2017						0.0009 (J)			
10/3/2017				0.0022 (J)					0.0012 (J)
10/4/2017	0.0378	0.0011 (J)	0.0008 (J)		0.0097 (J)		0.0011 (J)	0.0055 (J)	
1/9/2018	0.0283 (J)			0.0019 (J)		0.0006 (J)			
1/10/2018			0.0007 (J)						0.0016 (J)

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-9	GWC-13	GWB-6R	GWB-4R	GWC-14	GWC-12	GWC-17	GWB-5R
1/11/2018		0.001 (J)			0.0109		0.001 (J)	0.0009 (J)	
7/9/2018						<0.01			
7/10/2018				0.0023 (J)					0.0055 (J)
7/11/2018	0.018 (J)	<0.01	0.0019 (J)		0.0055 (J)		<0.01	<0.01	
1/16/2019	0.018 (J)		<0.01	0.018 (J)	0.0024 (J)	<0.01		<0.01	<0.01
1/17/2019							0.0028 (J)		
1/18/2019		<0.01							
1/21/2019									
3/25/2019	0.017 (J)				0.002 (J)				
3/26/2019			<0.01	0.017 (J)		<0.01		<0.01	0.072
3/27/2019		<0.01					<0.01		
7/30/2019									
8/26/2019	0.024 (J)								
8/27/2019			<0.01	0.0097 (J)	0.0027 (J)	0.001 (J)	0.00085 (J)		
8/28/2019		0.00089 (J)						0.0013 (J)	0.0071 (J)
10/7/2019									
10/8/2019	0.021 (J)		<0.01			0.00053 (J)			
10/9/2019		0.0009 (J)		0.011 (J)	0.002 (J)		0.00081 (J)	0.00081 (J)	0.012 (J)
4/6/2020	0.015 (J)								
4/7/2020				0.0094 (J)	0.0028 (J)	0.00074 (J)	0.00082 (J)		0.0022 (J)
4/8/2020		0.0015 (J)	0.00058 (J)					0.00073 (J)	
8/17/2020			0.00077 (J)				0.001 (J)		
8/18/2020						0.00059 (J)		0.0011 (J)	
8/19/2020	0.015 (J)	0.0013 (J)		0.0037 (J)	0.0022 (J)				0.0012 (J)
9/28/2020	0.014 (J)		0.00062 (J)						
9/29/2020						<0.01	0.00085 (J)		
9/30/2020				0.0045 (J)				0.00096 (J)	0.0018 (J)
10/1/2020		0.0012 (J)			0.002 (J)				
3/10/2021		0.0011 (J)		0.006	0.003 (J)		0.00091 (J)		0.001 (J)
3/11/2021	0.02 (J)							0.0009 (J)	
3/12/2021									
3/15/2021			<0.01						
3/16/2021						<0.01			
9/21/2021	0.013 (J)		<0.01	0.0035 (J)	0.0018 (J)		<0.01		<0.01
9/22/2021		<0.01				<0.01		<0.01	
9/23/2021									
1/31/2022	0.015 (J)								
2/1/2022								0.0014 (J)	
2/2/2022		0.0012 (J)		0.0033 (J)	0.003 (J)	<0.01			
2/3/2022			<0.01				0.0018 (J)		0.0014 (J)
8/30/2022	0.0129			0.00356 (J)	<0.01	<0.01	<0.01		<0.01
8/31/2022			<0.01					<0.01	
9/1/2022		<0.01							

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-15	GWC-11	GWA-8 (bg)	GWC-1	GWC-2	GWC-20	GWC-21	GWC-22
9/29/2000	<0.01	<0.01	<0.01	<0.01	<0.01				
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
11/20/2002	0.0041	0.0058	0.006	0.0051	<0.01	<0.01			
6/6/2003	0.063 (O)	0.0068	0.0082	0.014	0.005	<0.01			
12/12/2003	0.0059	0.0041	0.0023	0.011	<0.01	<0.01			
5/26/2004	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
12/7/2004	<0.01	0.0026	<0.01	<0.01	<0.01	<0.01			
6/21/2005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
12/12/2005	<0.01	<0.01	<0.01	<0.01	0.002	<0.01			
4/4/2006	<0.01			<0.01					
6/27/2006	<0.01	0.0013	<0.01	<0.01	<0.01	<0.01			
8/30/2006	<0.01			<0.01					
12/4/2006	0.0036	<0.01	0.0021	<0.01	<0.01	<0.01			
2/15/2007	<0.01			<0.01					
6/23/2007	0.0016	<0.01	0.0017	<0.01	<0.01	<0.01			
9/11/2007	<0.01			<0.01					
12/11/2007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
3/11/2008	<0.01			<0.01					
6/23/2008			<0.01	<0.01					
6/24/2008	<0.01	0.0014			<0.01	<0.01			
11/3/2008	0.0025			<0.01					
12/4/2008			<0.01	<0.01		<0.01			
12/5/2008	<0.01	<0.01			<0.01				
3/25/2009	<0.01			<0.01					
7/7/2009				<0.01	0.0013				
7/8/2009	<0.01	<0.01	<0.01			<0.01			
9/14/2009	<0.01			<0.01					
12/20/2009	<0.01	<0.01		<0.01	<0.01	<0.01			
12/21/2009			<0.01						
3/4/2010	<0.01			<0.01					
6/20/2010		<0.01	<0.01	<0.01	<0.01	<0.01			
6/21/2010	<0.01						<0.01	0.0019	<0.01
9/14/2010	<0.01			<0.01					
1/6/2011			<0.01		<0.01	<0.01			
1/7/2011	0.0018	<0.01		<0.01			0.0018	0.0017	<0.01
4/15/2011	<0.01			<0.01					
7/7/2011	<0.01	<0.01	0.0023	<0.01	<0.01		<0.01		
7/8/2011							0.0019	0.0023	<0.01
9/25/2011	<0.01			0.0021					
1/17/2012		<0.01	<0.01	<0.01	<0.01	<0.01			
1/18/2012	<0.01						<0.01	<0.01	<0.01
4/4/2012	<0.01			<0.01					
7/9/2012		<0.01	0.0017		<0.01	<0.01			
7/10/2012	<0.01			<0.01			0.0013	<0.01	<0.01
10/9/2012	0.0018			<0.01					
1/17/2013			<0.01		<0.01	<0.01			
1/18/2013	<0.01	<0.01		<0.01			0.0015	<0.01	<0.01

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-15	GWC-11	GWA-8 (bg)	GWC-1	GWC-2	GWC-20	GWC-21	GWC-22
4/5/2013	<0.01			<0.01					
7/16/2013			<0.01		<0.01				
7/17/2013	<0.01	<0.01		<0.01		<0.01	<0.01	0.0019	<0.01
10/11/2013	<0.01			<0.01					
1/13/2014		<0.01	<0.01		<0.01	<0.01			
1/14/2014	<0.01			<0.01			0	<0.01	<0.01
4/3/2014	<0.01			<0.01					
7/8/2014			<0.01						
7/9/2014	<0.01	<0.01		<0.01	0.0011 (J)	<0.01		<0.01	
7/10/2014							<0.01		<0.01
10/24/2014	<0.01			<0.01					
1/12/2015							<0.01		
1/13/2015		<0.01	<0.01		<0.01	<0.01			
1/14/2015	<0.01			<0.01				<0.01	<0.01
5/10/2015				<0.01					
5/11/2015	<0.01								
7/16/2015	<0.01	<0.01	<0.01		0.0011 (J)	<0.01			
7/17/2015				<0.01				<0.01	
7/18/2015							<0.01		<0.01
10/6/2015	<0.01			<0.01					
1/17/2016	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01	
1/18/2016				<0.01					<0.01
1/19/2016			<0.01						
4/26/2016	<0.01			<0.01					
7/26/2016			0.0005 (J)						
7/27/2016		0.0007 (J)			0.0016 (J)	0.0008 (J)			
7/28/2016	0.0006 (J)			<0.01			0.0007 (J)	0.0005 (J)	
7/29/2016									0.0007 (J)
8/30/2016				<0.01	0.0015 (J)				
8/31/2016			0.001 (J)			<0.01			<0.01
9/1/2016	0.0011 (J)	0.0011 (J)					<0.01	<0.01	
10/24/2016				<0.01					
10/25/2016	<0.01	<0.01			0.0018 (J)		<0.01	<0.01	
10/26/2016			<0.01			0.001 (J)			<0.01
10/27/2016									
1/3/2017				<0.01					
1/4/2017	<0.01		<0.01		0.0021 (J)		<0.01	<0.01	<0.01
1/5/2017		<0.01				<0.01			
1/6/2017									
4/3/2017		0.0015 (J)		0.0004 (J)					
4/4/2017					0.002 (J)	0.0008 (J)	0.0011 (J)	0.0008 (J)	
4/5/2017	0.001 (J)								
4/6/2017			0.0007 (J)						0.0006 (J)
7/10/2017									
7/11/2017		0.0013 (J)	0.0006 (J)	0.0006 (J)			0.0009 (J)		0.0005 (J)
7/12/2017	0.0011 (J)				0.0021 (J)				
7/13/2017						0.0006 (J)		0.0006 (J)	
10/2/2017		0.0013 (J)		<0.01			0.0009 (J)		
10/3/2017	0.0009 (J)		0.0007 (J)		0.0014 (J)	<0.01		0.0005 (J)	
10/4/2017									0.0006 (J)
1/9/2018		0.0012 (J)		<0.01				0.0007 (J)	
1/10/2018	0.0007 (J)				0.0017 (J)	<0.01	0.0008 (J)		

Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-15	GWC-11	GWA-8 (bg)	GWC-1	GWC-2	GWC-20	GWC-21	GWC-22
1/11/2018			0.0098 (J)						<0.01
7/9/2018				<0.01			<0.01		
7/10/2018	<0.01	<0.01			0.0021 (J)	<0.01		<0.01	
7/11/2018			<0.01						<0.01
1/16/2019				<0.01	0.0021 (J)				
1/17/2019	0.01 (J)	<0.01	<0.01					0.01	
1/18/2019									<0.01
1/21/2019						<0.01	<0.01		
3/25/2019				<0.01			<0.01		
3/26/2019	<0.01	<0.01			0.0018 (J)			<0.01	
3/27/2019			<0.01						<0.01
7/30/2019						0.00065 (J)			
8/26/2019				0.001 (J)					
8/27/2019		0.0016 (J)	0.00092 (J)		0.0062 (J)	<0.01			0.00057 (J)
8/28/2019	0.0011 (J)						0.00089 (J)	0.00087 (J)	
10/7/2019				0.00052 (J)					
10/8/2019	0.00099 (J)	0.0017 (J)	0.00091 (J)					0.00065 (J)	
10/9/2019					0.0019 (J)	0.00049 (J)	0.0011 (J)		0.00072 (J)
4/6/2020				<0.01					
4/7/2020	<0.01	0.0014 (J)	0.00094 (J)		0.0015 (J)			<0.01	0.00049 (J)
4/8/2020						0.00069 (J)	0.001 (J)		
8/17/2020				0.00082 (J)					
8/18/2020	0.0012 (J)	0.0018 (J)	0.0015 (J)			<0.01	0.0011 (J)	0.0012 (J)	0.00056 (J)
8/19/2020					0.0028 (J)				
9/28/2020				0.00071 (J)	0.0024 (J)				
9/29/2020			0.0011 (J)			<0.01			
9/30/2020	0.00098 (J)	0.0016 (J)					0.0013 (J)	0.00067 (J)	0.00064 (J)
10/1/2020									
3/10/2021			0.0013 (J)		0.0023 (J)				<0.01
3/11/2021									
3/12/2021		0.0031 (J)		0.00074 (J)			0.0014 (J)		
3/15/2021						0.0011 (J)			
3/16/2021	0.0012 (J)							0.00075 (J)	
9/21/2021			<0.01	<0.01					<0.01
9/22/2021	0.0018 (J)					<0.01	0.0013 (J)	<0.01	
9/23/2021		0.0013 (J)			0.0023 (J)				
1/31/2022				<0.01					
2/1/2022	<0.01						0.0036 (J)	<0.01	
2/2/2022						<0.01			
2/3/2022		0.0016 (J)	0.0011 (J)		0.0019 (J)				<0.01
8/30/2022				<0.01			<0.01	<0.01	
8/31/2022		<0.01	<0.01						<0.01
9/1/2022	<0.01				<0.01	<0.01			

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-16	GWB-4R	GWC-15	GWC-17	GWC-9	GWB-6R	GWC-14	GWC-12
4/5/2013		<0.002						<0.002	
7/16/2013									<0.002
7/17/2013	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
10/11/2013		<0.002						<0.002	
1/13/2014	0.013			<0.002					0.004
1/14/2014		<0.002	0.005		<0.002	<0.002	<0.002	<0.002	
4/3/2014		<0.002						<0.002	
7/8/2014									<0.002
7/9/2014	0.0076 (J)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
7/10/2014									
10/24/2014		<0.002						<0.002	
1/12/2015			<0.002						
1/13/2015	0.0057 (J)			<0.002					<0.002
1/14/2015		<0.002			<0.002	<0.002	<0.002	<0.002	
5/10/2015								<0.002	
5/11/2015		<0.002							
7/16/2015	0.009 (J)	<0.002	<0.002	<0.002					0.0044 (J)
7/17/2015						<0.002	<0.002	<0.002	
7/18/2015					<0.002				
10/6/2015									
1/17/2016		<0.002		<0.002				<0.002	
1/18/2016	0.0094 (J)		0.0055 (J)		<0.002	<0.002	<0.002		0.0034 (J)
1/19/2016									
4/26/2016		<0.002						<0.002	
7/26/2016									
7/27/2016	0.0058			<0.002				<0.002	0.0001 (J)
7/28/2016		<0.002				<0.002	<0.002		
7/29/2016			0.003 (J)		<0.002				
8/30/2016							<0.002		
8/31/2016						0.0007 (J)			0.0001 (J)
9/1/2016	0.0663 (O)	<0.002	0.0166 (O)	<0.002	<0.002			<0.002	
10/24/2016									
10/25/2016	0.0003 (J)	0.0002 (J)		<0.002				<0.002	
10/26/2016			0.0057		<0.002		<0.002		0.0001 (J)
10/27/2016						<0.002			
1/3/2017									
1/4/2017		0.0001 (J)							<0.002
1/5/2017				<0.002	<0.002		0.0003 (J)	<0.002	
1/6/2017	0.006		0.0053			<0.002			
4/3/2017				0.0003 (J)					
4/4/2017			0.0092					0.0001 (J)	
4/5/2017		0.0002 (J)			0.0009 (J)				0.0003 (J)
4/6/2017	0.0109					0.0001 (J)	0.0002 (J)		
7/10/2017									0.0003 (J)
7/11/2017				0.0001 (J)				8E-05 (J)	
7/12/2017		0.0001 (J)	0.006			<0.002	0.0002 (J)		
7/13/2017	0.007				<0.002				
10/2/2017				0.0002 (J)				0.0001 (J)	
10/3/2017		0.0001 (J)					0.0001 (J)		
10/4/2017	0.0042 (J)		0.0057		0.0001 (J)	9E-05 (J)			0.0001 (J)
1/9/2018	0.0098			0.0002 (J)			0.0003 (J)	<0.002	
1/10/2018		0.0002 (J)							

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-16	GWB-4R	GWC-15	GWC-17	GWC-9	GWB-6R	GWC-14	GWC-12
1/11/2018			0.0085		0.0001 (J)	0.0002 (J)			0.0002 (J)
7/9/2018								<0.002	
7/10/2018		<0.002		<0.002			<0.002		
7/11/2018	0.0028 (J)		0.0029 (J)		<0.002	<0.002			<0.002
1/16/2019	<0.025 (O)		<0.002		<0.002		<0.002	<0.002	
1/17/2019		<0.002		<0.002					<0.002
1/18/2019						<0.002			
1/21/2019									
3/25/2019	0.0019 (J)		<0.002						
3/26/2019		<0.002		<0.002	<0.002		<0.002	<0.002	
3/27/2019						<0.002			<0.002
7/30/2019									
8/26/2019	0.013 (J)								
8/27/2019			0.001 (J)	0.00033 (J)			0.0011 (J)	0.00051 (J)	<0.002
8/28/2019		0.0001 (J)			<0.002	6.1E-05 (J)			
10/7/2019									
10/8/2019	0.0098 (J)	0.0001 (J)		0.00012 (J)				<0.002	
10/9/2019			0.00041 (J)		0.00015 (J)	<0.002	0.00033 (J)		6.6E-05 (J)
4/6/2020	0.0024 (J)								
4/7/2020		0.00023 (J)	0.00073 (J)	8.6E-05 (J)			0.00063 (J)	<0.002	8.1E-05 (J)
4/8/2020					8.4E-05 (J)	0.00021 (J)			
8/17/2020									4.9E-05 (J)
8/18/2020		0.00017 (J)		9E-05 (J)	0.00014 (J)			<0.002	
8/19/2020	0.0044 (J)		0.00048 (J)			9.6E-05 (J)	0.00014 (J)		
9/28/2020	0.0043 (J)								
9/29/2020								<0.002	3.7E-05 (J)
9/30/2020		9.1E-05 (J)		4.7E-05 (J)	6E-05 (J)		8E-05 (J)		
10/1/2020			0.00026 (J)			3.8E-05 (J)			
3/10/2021			0.0003 (J)			0.00012 (J)	9.6E-05 (J)		6.8E-05 (J)
3/11/2021	0.0079				0.00019 (J)				
3/12/2021				5.3E-05 (J)					
3/15/2021									
3/16/2021		7.3E-05 (J)						<0.002	
9/21/2021	<0.002		<0.002				<0.002		<0.002
9/22/2021		<0.002			<0.002	<0.002		<0.002	
9/23/2021				<0.002					
1/31/2022	<0.002								
2/1/2022		<0.002			<0.002				
2/2/2022			<0.002			<0.002	<0.002	<0.002	
2/3/2022				<0.002					<0.002
8/30/2022	0.0022		<0.002				<0.002	<0.002	<0.002
8/31/2022				<0.002	<0.002				
9/1/2022		<0.002				<0.002			

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-11	GWC-1	GWA-8 (bg)	GWB-5R	GWC-2	GWC-20	GWC-21	GWC-22
9/29/2000	<0.002	<0.002	<0.002	<0.002	0.017 (O)				
11/21/2000	<0.002	<0.002	<0.002	<0.002	<0.002	0.0069			
1/20/2001	<0.002	<0.002	<0.002	<0.002	0.011	<0.002			
3/14/2001	<0.002	<0.002	<0.002	<0.002	0.026 (O)	<0.002			
7/16/2001	<0.002	<0.002	<0.002	<0.002	0.043 (O)	<0.002			
11/1/2001	<0.002	<0.002	<0.002	<0.002	0.075 (O)	<0.002			
4/25/2002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
11/20/2002	<0.002	<0.002	<0.002	<0.002	0.057 (O)	<0.002			
6/6/2003	0.0078	0.0068	<0.002	0.016 (O)	0.16 (O)	<0.002			
12/12/2003	0.0055	<0.002	<0.002	0.0095	<0.002	<0.002			
5/26/2004	<0.002	<0.002	<0.002	<0.002	0.011	<0.002			
12/7/2004	<0.002	<0.002	<0.002	<0.002	0.038 (O)	<0.002			
6/21/2005	<0.002	<0.002	<0.002	<0.002	0.036 (O)	<0.002			
12/12/2005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
4/4/2006				<0.002					
6/27/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
8/30/2006				<0.002					
12/4/2006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
2/15/2007				<0.002					
6/23/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
9/11/2007				<0.002					
12/11/2007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
3/11/2008				<0.002					
6/23/2008	<0.002	<0.002		<0.002					
6/24/2008			<0.002		<0.002	<0.002			
11/3/2008				<0.002					
12/4/2008	<0.002	<0.002		<0.002		<0.002			
12/5/2008			<0.002		<0.002				
3/25/2009				<0.002					
7/7/2009			<0.002	<0.002	<0.002				
7/8/2009	<0.002	<0.002				<0.002			
9/14/2009				<0.002					
12/20/2009			<0.002	<0.002		<0.002			
12/21/2009	<0.002	<0.002			<0.002				
3/4/2010				<0.002					
6/20/2010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
6/21/2010							<0.002	<0.002	<0.002
9/14/2010				<0.002					
1/6/2011	<0.002	<0.002	<0.002		<0.002	<0.002			
1/7/2011				<0.002			<0.002	<0.002	<0.002
4/15/2011				<0.002					
7/7/2011	<0.002	<0.002	<0.002	<0.002	<0.002		<0.002		
7/8/2011							<0.002	<0.002	<0.002
9/25/2011				<0.002					
1/17/2012	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
1/18/2012							<0.002	<0.002	<0.002
4/4/2012				<0.002					
7/9/2012	<0.002	<0.002	<0.002		<0.002	<0.002			
7/10/2012				<0.002			<0.002	<0.002	<0.002
10/9/2012				<0.002					
1/17/2013	<0.002	<0.002	<0.002		<0.002	<0.002			
1/18/2013				<0.002			<0.002	<0.002	<0.002

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-11	GWC-1	GWA-8 (bg)	GWB-5R	GWC-2	GWC-20	GWC-21	GWC-22
4/5/2013				<0.002					
7/16/2013	<0.002	<0.002	<0.002		<0.002				
7/17/2013				<0.002		<0.002	<0.002	<0.002	<0.002
10/11/2013				<0.002					
1/13/2014	<0.002	<0.002	<0.002		<0.002	<0.002			
1/14/2014				<0.002			<0.002	<0.002	<0.002
4/3/2014				<0.002					
7/8/2014	<0.002	<0.002							
7/9/2014			<0.002	<0.002	<0.002	<0.002		<0.002	
7/10/2014							<0.002		<0.002
10/24/2014				<0.002					
1/12/2015							<0.002		
1/13/2015	<0.002	<0.002	<0.002		<0.002	<0.002			
1/14/2015				<0.002				<0.002	<0.002
5/10/2015				<0.002					
5/11/2015									
7/16/2015	<0.002	<0.002	<0.002		<0.002	<0.002			
7/17/2015				<0.002				<0.002	
7/18/2015							<0.002		<0.002
10/6/2015				<0.002					
1/17/2016			<0.002			<0.002	<0.002	<0.002	
1/18/2016	<0.002			<0.002	<0.002				<0.002
1/19/2016		<0.002							
4/26/2016				<0.002					
7/26/2016	<0.002	0.0001 (J)							
7/27/2016			<0.002		<0.002	<0.002			
7/28/2016				<0.002			<0.002	<0.002	
7/29/2016									0.0004 (J)
8/30/2016			<0.002	<0.002	<0.002				
8/31/2016	<0.002	0.0002 (J)				<0.002			0.0003 (J)
9/1/2016							<0.002	<0.002	
10/24/2016				<0.002					
10/25/2016			<0.002				0.0001 (J)	<0.002	
10/26/2016	<0.002	0.0001 (J)			0.0002 (J)	<0.002			0.0003 (J)
10/27/2016									
1/3/2017				0.0001 (J)	0.0001 (J)				
1/4/2017		0.0002 (J)	<0.002				<0.002	<0.002	0.0003 (J)
1/5/2017	0.0002 (J)					<0.002			
1/6/2017									
4/3/2017				0.0002 (J)					
4/4/2017			<0.002			0.0002 (J)	7E-05 (J)	9E-05 (J)	
4/5/2017									
4/6/2017	0.0005 (J)	0.0003 (J)			0.0003 (J)				0.0003 (J)
7/10/2017									
7/11/2017		0.0002 (J)		0.0001 (J)			<0.002		0.0002 (J)
7/12/2017	0.0005 (J)		<0.002		0.0002 (J)				
7/13/2017						0.0003 (J)		7E-05 (J)	
10/2/2017				0.0001 (J)			<0.002		
10/3/2017		0.0003 (J)	<0.002		0.0002 (J)	<0.002		0.0001 (J)	
10/4/2017	0.0007 (J)								0.0008 (J)
1/9/2018				0.0001 (J)				9E-05 (J)	
1/10/2018	0.0009 (J)		0.0001 (J)		0.0003 (J)	8E-05 (J)	0.0002 (J)		

Prediction Limit

Constituent: Lead (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-11	GWC-1	GWA-8 (bg)	GWB-5R	GWC-2	GWC-20	GWC-21	GWC-22
1/11/2018		0.0003 (J)							0.0009 (J)
7/9/2018				<0.002			<0.002		
7/10/2018			<0.002		<0.002	<0.002		<0.002	
7/11/2018	0.0015 (J)	<0.002							0.001 (J)
1/16/2019	0.00061 (J)		<0.002	<0.002	<0.002				
1/17/2019		0.00028 (J)						<0.002	
1/18/2019									0.0012 (J)
1/21/2019						<0.002	<0.002		
3/25/2019				<0.002			<0.002		
3/26/2019	<0.002		<0.002		<0.002			<0.002	
3/27/2019		0.00029 (J)							0.00047 (J)
7/30/2019						0.0002 (J)			
8/26/2019				<0.002					
8/27/2019	0.0001 (J)	0.00021 (J)	<0.002			<0.002			0.003 (J)
8/28/2019					0.0011 (J)		6.5E-05 (J)	0.00018 (J)	
10/7/2019				<0.002					
10/8/2019	0.00013 (J)	0.00028 (J)						0.00016 (J)	
10/9/2019			<0.002		0.0025 (J)	6.4E-05 (J)	0.00018 (J)		0.00032 (J)
4/6/2020				0.0001 (J)					
4/7/2020		0.00036 (J)	0.00012 (J)		0.0014 (J)			<0.002	0.00067 (J)
4/8/2020	0.00017 (J)					<0.002	<0.002		
8/17/2020	7.6E-05 (J)			<0.002					
8/18/2020		0.00035 (J)				<0.002	<0.002	0.00027 (J)	0.00072 (J)
8/19/2020			<0.002		7.9E-05 (J)				
9/28/2020	6.4E-05 (J)		4.3E-05 (J)	<0.002					
9/29/2020		0.00032 (J)				<0.002			
9/30/2020					0.0012 (J)		<0.002	5.4E-05 (J)	0.00023 (J)
10/1/2020									
3/10/2021		0.00042 (J)	0.0001 (J)		5.2E-05 (J)				0.00016 (J)
3/11/2021									
3/12/2021				9.3E-05 (J)			<0.002		
3/15/2021	0.00013 (J)					4.1E-05 (J)			
3/16/2021								<0.002	
9/21/2021	<0.002	<0.002		<0.002	<0.002				<0.002
9/22/2021						<0.002	<0.002	<0.002	
9/23/2021			<0.002						
1/31/2022				<0.002					
2/1/2022							<0.002	<0.002	
2/2/2022						<0.002			
2/3/2022	<0.002	<0.002	<0.002		<0.002				<0.002
8/30/2022				<0.002	<0.002		<0.002	<0.002	
8/31/2022	<0.002	<0.002							<0.002
9/1/2022			<0.002			<0.002			

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWA-8 (bg)	GWC-14	GWC-15
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
1/20/2001	<0.005	<0.005	<0.005	0.017	<0.005	<0.005	<0.005	0.053	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.049	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.038	<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.022	<0.005
4/25/2002	<0.005	<0.005	<0.005	0.012	<0.005	<0.005	<0.005	0.1 (O)	<0.005
11/20/2002		0.0064	0.008	0.19 (O)	<0.005	<0.005	<0.005	0.018	0.0094
6/6/2003	<0.005	0.011	0.0066	0.32 (O)	<0.005	<0.005	<0.005	<0.005	0.021 (O)
12/12/2003	<0.005	<0.005	0.0056	0.013	<0.005	<0.005	<0.005	<0.005	0.016 (O)
5/26/2004	<0.005	0.007	0.0084	0.017	<0.005	<0.005	<0.005	0.023	<0.005
12/7/2004	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.019	<0.005
6/21/2005	<0.005	0.0063	0.0062	0.0088	<0.005	<0.005	<0.005	0.019	<0.005
12/12/2005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.0095	<0.005
4/4/2006							<0.005	0.033	
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006							<0.005	<0.005	
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.032	<0.005
2/15/2007							<0.005	0.034	
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007							<0.005	0.022	
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.045	<0.005
3/11/2008							<0.005	0.02	
6/23/2008	<0.005				<0.005	<0.005	<0.005		
6/24/2008		<0.005	<0.005	<0.005				<0.005	<0.005
11/3/2008							<0.005	0.052	
12/4/2008	<0.005				<0.005	<0.005	<0.005	0.054	
12/5/2008		<0.005	<0.005	<0.005					<0.005
3/25/2009							<0.005	0.072	
7/7/2009	<0.005	<0.005	<0.005	<0.005			<0.005		
7/8/2009					<0.005	<0.005		0.021	<0.005
9/14/2009							<0.005	0.015	
12/20/2009	<0.005			<0.005			<0.005	0.072	<0.005
12/21/2009		<0.005	<0.005		<0.005	<0.005			
3/4/2010							<0.005	0.083	
6/20/2010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.1	<0.005
6/21/2010									
9/14/2010							<0.005	0.085	
1/6/2011		<0.005		<0.005	<0.005				
1/7/2011	<0.005		<0.005			<0.005	<0.005	0.028	<0.005
4/15/2011							<0.005	<0.005	
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011									
9/25/2011							<0.005	0.02	
1/17/2012	<0.005	<0.005		<0.005	0.023	<0.005	<0.005	0.016	<0.005
1/18/2012			<0.005						
4/4/2012							<0.005	0.0156	
7/9/2012	<0.005	<0.005		<0.005	0.016	<0.005	<0.005	<0.005	0.066 (O)
7/10/2012			<0.005				<0.005		
10/9/2012							<0.005	0.0094	
1/17/2013		<0.005		<0.005	0.033	<0.005			
1/18/2013	0.009		<0.005				<0.005	0.0067	0.04 (O)

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWA-8 (bg)	GWC-14	GWC-15
4/5/2013							<0.005	0.0077	
7/16/2013		<0.005		0.012	0.0068	<0.005			
7/17/2013	0.011		<0.005				<0.005	0.01	<0.005
10/11/2013							<0.005	0.0087	
1/13/2014	0.012	<0.005		<0.005	0.036	<0.005			<0.005
1/14/2014			<0.005				<0.005	0.012	
4/3/2014							<0.005	0.022	
7/8/2014					0.017	<0.005			
7/9/2014	0.011	<0.005	<0.005	<0.005			<0.005	0.0089	<0.005
7/10/2014									
10/24/2014							<0.005	0.017	
1/12/2015									
1/13/2015	0.0092	<0.005		<0.005	0.027	<0.005			<0.005
1/14/2015			<0.005				<0.005	<0.005	
5/10/2015							<0.005	<0.005	
5/11/2015									
7/16/2015	0.014	<0.005		<0.005	<0.005	<0.005			<0.005
7/17/2015			<0.005				<0.005	<0.005	
7/18/2015									
10/6/2015							<0.005	<0.005	
1/17/2016				0.023				<0.005	<0.005
1/18/2016	0.023	<0.005	<0.005			<0.005	<0.005		
1/19/2016					0.023				
4/26/2016							<0.005	0.00428 (J)	
7/26/2016					0.0056 (J)				
7/27/2016	0.0323	<0.005		0.002 (J)		0.0025 (J)		0.0038 (J)	<0.005
7/28/2016			<0.005				0.001 (J)		
7/29/2016									
8/30/2016		<0.005	<0.005	0.002 (J)			<0.005		
8/31/2016					0.0084 (J)	0.0019 (J)			
9/1/2016	0.0438							0.0056 (J)	<0.005
10/24/2016							0.0013 (J)		
10/25/2016	0.031			0.0022 (J)				0.0023 (J)	<0.005
10/26/2016		<0.005	<0.005		0.0052 (J)	0.002 (J)			
10/27/2016									
1/3/2017		<0.005					<0.005		
1/4/2017				0.0016 (J)	0.0062 (J)	<0.005			
1/5/2017			0.0014 (J)					0.0038 (J)	<0.005
1/6/2017	0.0324								
4/3/2017							<0.005		<0.005
4/4/2017				0.0052 (J)				0.0064 (J)	
4/5/2017						<0.005			
4/6/2017	0.0188 (J)	<0.005	<0.005		0.0195				
7/10/2017						<0.005			
7/11/2017					<0.005		<0.005	0.0044 (J)	<0.005
7/12/2017		<0.005	<0.005	0.0024 (J)					
7/13/2017	0.0118								
10/2/2017							<0.005	0.004 (J)	<0.005
10/3/2017		<0.005	<0.005	<0.005	0.0079 (J)				
10/4/2017	0.0195					<0.005			
1/9/2018	<0.005		<0.005				<0.005	0.0019 (J)	0.0019 (J)
1/10/2018		<0.005		0.0018 (J)					

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWA-8 (bg)	GWC-14	GWC-15
1/11/2018					0.0054 (J)	<0.005			
7/9/2018							<0.005	0.0029 (J)	
7/10/2018		0.0018 (J)	0.0016 (J)	0.0026 (J)					0.0086 (J)
7/11/2018	<0.005				0.0022 (J)	<0.005			
1/16/2019	0.0071 (J)	<0.005	<0.005	0.0018 (J)			<0.005	0.0016 (J)	
1/17/2019					<0.005	<0.005			0.0029 (J)
1/18/2019									
1/21/2019									
3/25/2019	<0.005						<0.005		
3/26/2019		<0.005	0.05 (J)	0.0023 (J)				0.0022 (J)	0.0074 (J)
3/27/2019					0.01 (J)	<0.005			
7/30/2019									
8/26/2019	<0.005						<0.005		
8/27/2019			0.0033 (J)	0.0016 (J)	<0.005	<0.005		0.0035 (J)	0.0092 (J)
8/28/2019		0.0033 (J)							
10/7/2019							<0.005		
10/8/2019	0.0072 (J)				<0.005			0.0026 (J)	0.014
10/9/2019		0.0073 (J)	<0.005	0.0024 (J)		<0.005			
4/6/2020	0.0078 (J)						<0.005		
4/7/2020		<0.005	<0.005	0.0013 (J)	0.0021 (J)	<0.005		0.005 (J)	0.0029 (J)
4/8/2020									
8/17/2020						<0.005	<0.005		
8/18/2020					0.0028 (J)			0.0029 (J)	0.0022 (J)
8/19/2020	<0.005	<0.005	<0.005	0.002 (J)					
9/28/2020	0.01 (J)			<0.005			<0.005		
9/29/2020					0.0024 (J)	<0.005		0.0051 (J)	
9/30/2020		<0.005	0.0023 (J)						<0.005
10/1/2020									
3/10/2021		0.006	0.0049 (J)	0.0026 (J)	0.0044 (J)	0.003 (J)			
3/11/2021	<0.005								
3/12/2021							<0.005		0.0064
3/15/2021									
3/16/2021								0.0034 (J)	
9/21/2021	<0.005	<0.005	0.0016 (J)		0.0038 (J)	<0.005	<0.005		
9/22/2021								0.0034 (J)	
9/23/2021				0.0018 (J)					0.0016 (J)
1/31/2022	<0.005						<0.005		
2/1/2022									
2/2/2022			0.0017 (J)					0.0038 (J)	
2/3/2022		<0.005		0.0022 (J)	0.019	<0.005			0.0031 (J)
8/30/2022	0.0063	<0.005	0.00277 (J)			<0.005	<0.005	0.00544	
8/31/2022					0.00344 (J)				0.00192 (J)
9/1/2022				0.00252 (J)					

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-9	GWB-4R	GWC-2	GWC-20	GWC-21	GWC-22
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005			
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005			
1/20/2001	<0.005	<0.005	<0.005	0.014 (O)	<0.005			
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005			
7/16/2001	<0.005	<0.005	<0.005	0.015 (O)	<0.005			
11/1/2001	<0.005	<0.005	<0.005	0.012 (O)	<0.005			
4/25/2002	<0.005	<0.005	<0.005	0.01	<0.005			
11/20/2002	<0.005	<0.005	<0.005	0.026 (O)	<0.005			
6/6/2003	0.021 (O)	<0.005	<0.005	0.022 (O)	<0.005			
12/12/2003	0.0078	<0.005	<0.005	0.028 (O)	<0.005			
5/26/2004	0.0053	<0.005	<0.005	0.012 (O)	0.005			
12/7/2004	<0.005	<0.005	<0.005	0.0073	<0.005			
6/21/2005	<0.005	<0.005	0.0062	0.0087	<0.005			
12/12/2005	<0.005	<0.005	<0.005	0.013 (O)	<0.005			
4/4/2006	<0.005							
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005			
8/30/2006	<0.005							
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005			
2/15/2007	<0.005							
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005			
9/11/2007	<0.005							
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005			
3/11/2008	<0.005							
6/23/2008			<0.005					
6/24/2008	<0.005	<0.005		<0.005	<0.005			
11/3/2008	<0.005							
12/4/2008			<0.005		<0.005			
12/5/2008	<0.005	<0.005		<0.005				
3/25/2009	<0.005							
7/7/2009				<0.005				
7/8/2009	<0.005	<0.005	<0.005		<0.005			
9/14/2009	<0.005							
12/20/2009	<0.005				<0.005			
12/21/2009		<0.005	<0.005	<0.005				
3/4/2010	<0.005							
6/20/2010			<0.005		<0.005			
6/21/2010	<0.005	<0.005		<0.005		<0.005	0.048	<0.005
9/14/2010	<0.005							
1/6/2011					<0.005			
1/7/2011	<0.005	<0.005	<0.005	<0.005		<0.005	0.014	<0.005
4/15/2011	<0.005							
7/7/2011	<0.005					<0.005		
7/8/2011		<0.005	<0.005	<0.005		<0.005	0.018	<0.005
9/25/2011	<0.005							
1/17/2012					<0.005			
1/18/2012	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
4/4/2012	<0.005							
7/9/2012					<0.005			
7/10/2012	<0.005	<0.005	<0.005	<0.005		<0.005	0.02	<0.005
10/9/2012	<0.005							
1/17/2013					<0.005			
1/18/2013	<0.005	<0.005	<0.005	<0.005		0.005	0.015	<0.005

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-9	GWB-4R	GWC-2	GWC-20	GWC-21	GWC-22
4/5/2013	<0.005							
7/16/2013								
7/17/2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.037	<0.005
10/11/2013	0.0069							
1/13/2014					<0.005			
1/14/2014	<0.005	<0.005	<0.005	<0.005		<0.005	0.043	<0.005
4/3/2014	<0.005							
7/8/2014								
7/9/2014	0.005	<0.005	<0.005	<0.005	<0.005		0.023	
7/10/2014						<0.005		<0.005
10/24/2014	<0.005							
1/12/2015				<0.005		<0.005		
1/13/2015					<0.005			
1/14/2015	<0.005	<0.005	<0.005				0.022	<0.005
5/10/2015								
5/11/2015	<0.005							
7/16/2015	<0.005			<0.005	<0.005			
7/17/2015			<0.005				0.033	
7/18/2015		<0.005				<0.005		<0.005
10/6/2015	0.0073							
1/17/2016	0.0031 (J)				<0.005	<0.005	0.021	
1/18/2016		<0.005	<0.005	<0.005				<0.005
1/19/2016								
4/26/2016	0.00497 (J)							
7/26/2016								
7/27/2016					0.002 (J)			
7/28/2016	0.0076 (J)		<0.005			<0.005	0.0341	
7/29/2016		0.0011 (J)		0.0036 (J)				0.0022 (J)
8/30/2016								
8/31/2016			<0.005		<0.005			0.0014 (J)
9/1/2016	0.0052 (J)	0.0012 (J)		0.0067 (J)		<0.005	0.0297	
10/24/2016								
10/25/2016	0.0085 (J)					0.0014 (J)	0.0095 (J)	
10/26/2016		0.0013 (J)		0.0042 (J)	0.0035 (J)			0.001 (J)
10/27/2016			<0.005					
1/3/2017								
1/4/2017	0.0048 (J)					0.0014 (J)	0.022	<0.005
1/5/2017		0.0012 (J)			<0.005			
1/6/2017			<0.005	0.0042 (J)				
4/3/2017								
4/4/2017				0.0043 (J)	<0.005	<0.005	0.0236	
4/5/2017	0.0068 (J)	<0.005						
4/6/2017			<0.005					<0.005
7/10/2017								
7/11/2017						<0.005		<0.005
7/12/2017	0.0048 (J)		<0.005	0.0033 (J)				
7/13/2017		0.0018 (J)			<0.005		0.013	
10/2/2017						<0.005		
10/3/2017	0.0051 (J)				<0.005		0.01 (J)	
10/4/2017		0.0042 (J)	<0.005	0.0038 (J)				0.0023 (J)
1/9/2018							0.0162	
1/10/2018	0.0018 (J)				<0.005	<0.005		

Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-9	GWB-4R	GWC-2	GWC-20	GWC-21	GWC-22
1/11/2018		<0.005	<0.005	0.0029 (J)				<0.005
7/9/2018						<0.005		
7/10/2018	0.0045 (J)				<0.005		0.016	
7/11/2018		0.0016 (J)	<0.005	0.0015 (J)				<0.005
1/16/2019		<0.005		<0.005				
1/17/2019	0.0031 (J)						0.011	
1/18/2019			<0.005					<0.005
1/21/2019					<0.005	0.0014 (J)		
3/25/2019				<0.005		<0.005		
3/26/2019	0.0033 (J)	<0.005					0.022	
3/27/2019			<0.005					<0.005
7/30/2019					<0.005			
8/26/2019								
8/27/2019				<0.005	<0.005			<0.005
8/28/2019	0.004 (J)	<0.005	<0.005			0.0014 (J)	0.019	
10/7/2019								
10/8/2019	0.0023 (J)						0.019	
10/9/2019		<0.005	<0.005	<0.005	<0.005	<0.005		<0.005
4/6/2020								
4/7/2020	<0.005			0.0025 (J)			0.012	<0.005
4/8/2020		<0.005	<0.005		<0.005	0.0013 (J)		
8/17/2020								
8/18/2020	0.0058 (J)	0.002 (J)			<0.005	<0.005	0.013	<0.005
8/19/2020			<0.005	<0.005				
9/28/2020								
9/29/2020					<0.005			
9/30/2020	0.0037 (J)	<0.005				<0.005	0.0061 (J)	<0.005
10/1/2020			<0.005	<0.005				
3/10/2021			<0.005	0.0021 (J)				<0.005
3/11/2021		0.0016 (J)						
3/12/2021						<0.005		
3/15/2021					<0.005			
3/16/2021	0.0044 (J)						0.0055	
9/21/2021				<0.005				<0.005
9/22/2021	0.0031 (J)	<0.005	<0.005		<0.005	0.0024 (J)	0.0027 (J)	
9/23/2021								
1/31/2022								
2/1/2022	0.0024 (J)	<0.005				<0.005	0.0054	
2/2/2022			<0.005	<0.005	<0.005			
2/3/2022								<0.005
8/30/2022				0.00265 (J)		0.00192 (J)	0.00648	
8/31/2022		<0.005						<0.005
9/1/2022	0.00334 (J)		<0.005		<0.005			

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-13	GWC-16	GWC-12	GWC-11	GWC-17	GWC-1	GWB-6R
9/29/2000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.12
11/21/2000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.13
1/20/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.14
3/14/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.13
7/16/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.18
11/1/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.12
4/25/2002	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.15
11/20/2002		0.03	<0.02	0.0069	<0.02	0.0071	<0.02	0.0069	0.15
6/6/2003	0.047	0.0065	0.0063	0.082 (O)	<0.02	0.0098	<0.02	0.16 (O)	0.11
12/12/2003	0.0086	0.0052	<0.02	0.012	<0.02	0.0074	<0.02	<0.02	0.089
5/26/2004	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.09
12/7/2004	<0.02	0.0074	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.072
6/21/2005	<0.02	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04
12/12/2005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.021
4/4/2006		0.013		<0.02					
6/27/2006	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.0025	0.0029	0.02
8/30/2006		0.0039		<0.02					
12/4/2006	0.0027	0.016	<0.02	0.0031	<0.02	<0.02	<0.02	0.0047	0.022
2/15/2007		0.017		0.0025					
6/23/2007	0.0027	0.0076	<0.02	0.0032	<0.02	0.0036	<0.02	0.0029	0.027
9/11/2007		0.012		<0.02					
12/11/2007	0.0033	0.017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.017
3/11/2008		0.012		<0.02					
6/23/2008	0.0074		<0.02		<0.02	<0.02			
6/24/2008		0.0069		<0.02			<0.02	<0.02	0.053
11/3/2008		0.016		0.0032					
12/4/2008	0.0084	0.013	<0.02		<0.02	<0.02			
12/5/2008				<0.02			<0.02	<0.02	0.0078
3/25/2009		0.014		<0.02					
7/7/2009	0.023							<0.02	0.012
7/8/2009		0.014	<0.02	0.0036	<0.02	0.0026	<0.02		
9/14/2009		0.0072		0.0026					
12/20/2009	0.007	0.02		0.0031				<0.02	
12/21/2009			<0.02		<0.02	<0.02	<0.02		0.011
3/4/2010		0.023		<0.02					
6/20/2010	0.0047	0.017	<0.02		<0.02	<0.02		0.0037	0.0083
6/21/2010				0.0025			<0.02		
9/14/2010		0.018		0.0035					
1/6/2011			0.0028			0.003		<0.02	
1/7/2011	0.018	0.019		0.0036	<0.02		<0.02		0.0079
4/15/2011		0.019		<0.02					
7/7/2011	0.019	0.014	<0.02	0.003	<0.02	0.004		0.0045	0.007
7/8/2011							0.0031		
9/25/2011		0.015		0.0037					
1/17/2012	0.0298	0.021	<0.02		<0.02	<0.02		<0.02	
1/18/2012				<0.02			<0.02		0.0116
4/4/2012		0.0191		<0.02					
7/9/2012	0.14	0.026	<0.02		<0.02	0.005		0.0026	
7/10/2012				0.0026			<0.02		0.0096
10/9/2012		0.049		0.007					
1/17/2013			<0.02		<0.02	0.005		<0.02	
1/18/2013	0.21	0.036		<0.02			<0.02		<0.02

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-13	GWC-16	GWC-12	GWC-11	GWC-17	GWC-1	GWB-6R
4/5/2013		0.04		<0.02					
7/16/2013			<0.02		<0.02	<0.02		<0.02	
7/17/2013	0.18	0.062		<0.02			<0.02		<0.02
10/11/2013		0.032		<0.02					
1/13/2014	0.24		<0.02		<0.02	<0.02		<0.02	
1/14/2014		0.044		<0.02			<0.02		<0.02
4/3/2014		0.077 (O)		0.0032 (J)					
7/8/2014			0.002 (J)		0.0034 (J)	0.0024 (J)			
7/9/2014	0.22	0.032		0.0031 (J)			0.0012 (J)	0.0041 (J)	0.0039 (J)
7/10/2014									
10/24/2014		0.045		0.0028 (J)					
1/12/2015									
1/13/2015	0.19		0.0015 (J)		<0.02	0.0023 (J)		0.0029 (J)	
1/14/2015		0.031		0.0034 (J)			0.002 (J)		0.005
5/10/2015		0.013							
5/11/2015				0.0026 (J)					
7/16/2015	0.23		<0.02	0.0028 (J)	0.0049 (J)	0.002 (J)		0.0034 (J)	
7/17/2015		0.028							0.0045 (J)
7/18/2015							<0.02		
10/6/2015		0.02		0.0016 (J)					
1/17/2016		0.028		0.0029 (J)				0.0046 (J)	
1/18/2016	0.41		0.0011 (J)		0.0058		0.0019 (J)		0.0044 (J)
1/19/2016						0.0025 (J)			
4/26/2016		0.0181		0.00296 (J)					
7/26/2016			<0.02			0.0027 (J)			
7/27/2016	0.397	0.0189			0.0058 (J)			0.0064 (J)	
7/28/2016				0.0026 (J)					0.0038 (J)
7/29/2016							0.0031 (J)		
10/24/2016									
10/25/2016	0.425	0.0206		<0.02					
1/3/2017									
1/4/2017				<0.02	<0.02	<0.02		<0.02	
1/5/2017		0.0172	<0.02				<0.02		0.0077 (J)
1/6/2017	0.41								
4/3/2017									
4/4/2017		0.0235						0.0061 (J)	
4/5/2017				0.0033 (J)	0.0039 (J)		0.0029 (J)		
4/6/2017	0.297		<0.02			0.0025 (J)			0.0069 (J)
7/10/2017					0.0062 (J)				
7/11/2017		0.0136				0.0027 (J)			
7/12/2017			0.0016 (J)	0.0037 (J)				0.0067 (J)	0.0098 (J)
7/13/2017	0.194						0.0037 (J)		
10/2/2017		0.0175							
10/3/2017				0.0036 (J)					
10/4/2017	0.316								
1/9/2018	0.194	0.0103							0.0086 (J)
1/10/2018			0.0019 (J)	0.0029 (J)				0.0056 (J)	
1/11/2018					0.0025 (J)	0.0019 (J)	0.0026 (J)		
7/9/2018		0.0078 (J)							
7/10/2018				0.0025 (J)				0.0056 (J)	0.0098 (J)
7/11/2018	0.15		0.0097 (J)		0.0059 (J)	0.0021 (J)	0.0032 (J)		
1/16/2019	0.16	0.0043 (J)	<0.02				<0.02	0.0043 (J)	0.077

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix 1
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-13	GWC-16	GWC-12	GWC-11	GWC-17	GWC-1	GWB-6R
1/17/2019				0.0021 (J)	<0.02	0.0021 (J)			
1/18/2019									
1/21/2019									
3/25/2019	0.18								
3/26/2019		0.0063 (J)	0.0029 (J)	0.0038 (J)			0.0024 (J)	0.0051 (J)	0.086
3/27/2019					0.0049 (J)	0.0023 (J)			
7/30/2019									
10/7/2019									
10/8/2019	0.11	<0.02	<0.02	<0.02		<0.02			
10/9/2019					0.0021 (J)		<0.02	<0.02	0.018 (J)
4/6/2020	0.12								
4/7/2020		0.0026 (J)		<0.02	0.0024 (J)	<0.02		0.0015 (J)	0.041 (J)
4/8/2020			<0.02				<0.02		
9/28/2020	0.1		<0.02					0.0042 (J)	
9/29/2020		<0.02			0.0046 (J)	0.0023 (J)			
9/30/2020				0.0028 (J)			<0.02		0.018
10/1/2020									
3/10/2021					0.0055 (J)	0.0023 (J)		0.005 (J)	0.027
3/11/2021	0.14						<0.02		
3/12/2021									
3/15/2021			<0.02						
3/16/2021		<0.02		0.0034 (J)					
9/21/2021	0.096		<0.02		0.0051 (J)	0.002 (J)			0.015
9/22/2021		0.0052 (J)		0.0025 (J)			<0.02		
9/23/2021								0.0042 (J)	
1/31/2022	0.1								
2/1/2022				0.0021 (J)			0.0022 (J)		
2/2/2022		0.004 (J)							0.0099 (J)
2/3/2022			<0.02		0.0052 (J)	0.0031 (J)		0.0028 (J)	
8/30/2022	0.11	0.00933 (J)			0.00949 (J)				0.0192 (J)
8/31/2022			<0.02			0.00481 (J)	0.00599 (J)		
9/1/2022				0.0065 (J)				0.00748 (J)	

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-4R	GWC-9	GWA-8 (bg)	GWC-15	GWC-2	GWC-22	GWC-20	GWC-21
9/29/2000	0.038	0.06	<0.02	<0.02	<0.02				
11/21/2000	0.013	0.068	<0.02		<0.02	<0.02			
1/20/2001	0.038	0.12	<0.02	<0.02	<0.02	<0.02			
3/14/2001	0.077 (O)	0.08	<0.02	<0.02	<0.02	<0.02			
7/16/2001	0.12 (O)	0.11	<0.02	<0.02	<0.02	<0.02			
11/1/2001	0.21 (O)	0.079	<0.02	<0.02	<0.02	<0.02			
4/25/2002	0.086 (O)	0.11	<0.02	<0.02	<0.02	<0.02			
11/20/2002	0.14 (O)	0.15	0.014	<0.02	0.0099	<0.02			
6/6/2003	0.12 (O)	0.12	<0.02	0.017	0.019 (O)	<0.02			
12/12/2003	0.014	0.13	<0.02	0.011	0.018 (O)	<0.02			
5/26/2004	0.06 (O)	0.095	<0.02	<0.02	<0.02	<0.02			
12/7/2004	0.054	0.067	<0.02	<0.02	<0.02	<0.02			
6/21/2005	0.038	0.062	<0.02	<0.02	<0.02	<0.02			
12/12/2005	0.0056	0.09	<0.02	<0.02	<0.02	<0.02			
4/4/2006				<0.02					
6/27/2006	0.0043	0.083	<0.02	<0.02	<0.02	<0.02			
8/30/2006				<0.02					
12/4/2006	0.0044	0.084	<0.02	<0.02	<0.02	<0.02			
2/15/2007				<0.02					
6/23/2007	0.0039	0.081	<0.02	<0.02	<0.02	<0.02			
9/11/2007				<0.02					
12/11/2007	0.0029	0.067	<0.02	<0.02	<0.02	<0.02			
3/11/2008				<0.02					
6/23/2008			<0.02	<0.02					
6/24/2008	0.003	0.059			<0.02	<0.02			
11/3/2008				<0.02					
12/4/2008			<0.02	<0.02					
12/5/2008	<0.02	0.054			<0.02				
3/25/2009				<0.02					
7/7/2009	<0.02	0.038		<0.02					
7/8/2009			0.0029		<0.02	<0.02			
9/14/2009				<0.02					
12/20/2009				<0.02	<0.02	<0.02			
12/21/2009	<0.02	0.06	<0.02						
3/4/2010				<0.02					
6/20/2010	<0.02		<0.02	<0.02	<0.02	<0.02			
6/21/2010		0.036					<0.02	<0.02	<0.02
9/14/2010				<0.02					
1/6/2011	0.0067					<0.02			
1/7/2011		0.043	<0.02	<0.02	<0.02		<0.02	0.0029	0.0031
4/15/2011				<0.02					
7/7/2011	0.019			<0.02	0.0036			<0.02	
7/8/2011		0.044	<0.02				<0.02	0.0046	0.0048
9/25/2011				<0.02					
1/17/2012	0.021			<0.02	<0.02	<0.02			
1/18/2012		0.045	<0.02				<0.02	<0.02	<0.02
4/4/2012				<0.02					
7/9/2012	0.032				0.0059	<0.02			
7/10/2012		0.048	<0.02	<0.02			<0.02	0.0081	<0.02
10/9/2012				<0.02					
1/17/2013	0.034					<0.02			
1/18/2013		0.049	<0.02	<0.02	<0.02		<0.02	0.0063	<0.02

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-4R	GWC-9	GWA-8 (bg)	GWC-15	GWC-2	GWC-22	GWC-20	GWC-21
4/5/2013				<0.02					
7/16/2013	0.021								
7/17/2013		0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/11/2013				<0.02					
1/13/2014	0.008				<0.02	<0.02			
1/14/2014		0.067	<0.02	<0.02			<0.02	<0.02	0.006
4/3/2014				0.0015 (J)					
7/8/2014									
7/9/2014	0.0052	0.055	0.0016 (J)	0.0012 (J)	0.0012 (J)	<0.02			0.0019 (J)
7/10/2014							0.0053	0.0026 (J)	
10/24/2014				<0.02					
1/12/2015		0.066						0.0031 (J)	
1/13/2015	0.0036 (J)				0.0013 (J)	<0.02			
1/14/2015			<0.02	<0.02			0.0013 (J)		0.0037 (J)
5/10/2015				<0.02					
5/11/2015									
7/16/2015	0.004 (J)	0.045			<0.02	<0.02			
7/17/2015			0.0029 (J)	<0.02					0.0028 (J)
7/18/2015							0.0043 (J)	0.003 (J)	
10/6/2015				0.0012 (J)					
1/17/2016					0.0013 (J)	<0.02		0.0025 (J)	0.0039 (J)
1/18/2016	0.0069	0.049	<0.02	0.00079 (J)			<0.02		
1/19/2016									
4/26/2016				<0.02					
7/26/2016									
7/27/2016	0.0046 (J)				<0.02	<0.02			
7/28/2016			<0.02	<0.02				0.0024 (J)	0.0022 (J)
7/29/2016		0.0388					0.0052 (J)		
10/24/2016				<0.02					
10/25/2016					<0.02			<0.02	
1/3/2017	<0.02			<0.02					
1/4/2017							<0.02	<0.02	<0.02
1/5/2017					<0.02	<0.02			
1/6/2017		0.0341	<0.02						
4/3/2017				<0.02	0.002 (J)				
4/4/2017		0.0371				<0.02		0.0024 (J)	0.003 (J)
4/5/2017									
4/6/2017	0.0063 (J)		<0.02				<0.02		
7/10/2017									
7/11/2017				<0.02	0.0022 (J)		0.0016 (J)	0.003 (J)	
7/12/2017	0.0064 (J)	0.0399	0.0013 (J)						
7/13/2017						<0.02			0.0019 (J)
10/2/2017				<0.02	0.0022 (J)			0.0028 (J)	
10/3/2017									
10/4/2017									
1/9/2018				0.0014 (J)	0.0021 (J)				0.0046 (J)
1/10/2018	0.0077 (J)					<0.02		0.0026 (J)	
1/11/2018		0.0327	<0.02				0.0012 (J)		
7/9/2018				<0.02				<0.02	
7/10/2018	0.016				0.0025 (J)	<0.02			0.0031 (J)
7/11/2018		0.02	<0.02				0.0025 (J)		
1/16/2019	0.0033 (J)	0.0022 (J)		<0.02					

Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix 1
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-4R	GWC-9	GWA-8 (bg)	GWC-15	GWC-2	GWC-22	GWC-20	GWC-21
1/17/2019					<0.02				0.0022 (J)
1/18/2019			<0.02				<0.02		
1/21/2019						0.0024 (J)		0.0031 (J)	
3/25/2019		0.004 (J)		<0.02				0.0024 (J)	
3/26/2019	0.0058 (J)				0.0026 (J)				0.0041 (J)
3/27/2019			<0.02				0.002 (J)		
7/30/2019						<0.02			
10/7/2019				<0.02					
10/8/2019					<0.02				<0.02
10/9/2019	0.033 (J)	<0.02	<0.02			<0.02	<0.02	<0.02	
4/6/2020				<0.02					
4/7/2020	0.0053 (J)	0.0037 (J)			<0.02		0.0014 (J)		<0.02
4/8/2020			0.0015 (J)			<0.02		<0.02	
9/28/2020				<0.02					
9/29/2020						<0.02			
9/30/2020	0.0037 (J)				0.0028 (J)		<0.02	0.0029 (J)	0.0029 (J)
10/1/2020		0.0047 (J)	<0.02						
3/10/2021	0.0026 (J)	0.0054 (J)	<0.02				<0.02		
3/11/2021									
3/12/2021				<0.02	0.0037 (J)			0.0038 (J)	
3/15/2021						<0.02			
3/16/2021									0.003 (J)
9/21/2021	0.0039 (J)	0.0027 (J)		<0.02			<0.02		
9/22/2021			<0.02			<0.02		0.0033 (J)	<0.02
9/23/2021					0.0022 (J)				
1/31/2022				<0.02					
2/1/2022								0.0039 (J)	0.0036 (J)
2/2/2022		0.0031 (J)	<0.02			<0.02			
2/3/2022	0.0046 (J)				0.0023 (J)		<0.02		
8/30/2022	0.0138 (J)	0.00943 (J)		0.00372 (J)				0.00647 (J)	0.00715 (J)
8/31/2022					0.00476 (J)		0.00396 (J)		
9/1/2022			0.00514 (J)			0.0045 (J)			

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWC-9	GWC-1	GWC-15	GWB-4R	GWC-14	GWC-16	GWC-17
9/29/2000	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
11/21/2000	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1/20/2001	<0.02	0.025	<0.02	<0.02	<0.02	0.041	<0.02	<0.02	<0.02
3/14/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
7/16/2001	<0.02	<0.02	<0.02	<0.02	<0.02	0.059	<0.02	<0.02	<0.02
11/1/2001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/25/2002	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
11/20/2002		0.016	0.033 (O)	<0.02	<0.02	0.061	<0.02	<0.02	0.014
6/6/2003	0.69 (O)	0.032	<0.02	0.011	<0.02	0.041	<0.02	0.035 (O)	0.012
12/12/2003	0.12	0.019	<0.02	<0.02	<0.02	0.012	<0.02	<0.02	<0.02
5/26/2004	0.013	<0.02	<0.02	<0.02	<0.02	0.016	<0.02	<0.02	<0.02
12/7/2004	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
6/21/2005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
12/12/2005	0.014	0.01	0.032 (O)	<0.02	0.064 (O)	0.017	0.011	<0.02	<0.02
4/4/2006		<0.02					<0.02	<0.02	
6/27/2006	0.01	0.0043	0.018 (O)	<0.02	0.011	0.11	0.0045	0.077 (O)	0.0046
8/30/2006		0.017					<0.02	0.0027	
12/4/2006	0.0065	0.0053	0.0044	<0.02	0.0033	0.086	<0.02	<0.02	0.0071
2/15/2007		0.0045					<0.02	0.0032	
6/23/2007	0.0049	0.0043	0.0041	<0.02	0.0029	0.076	<0.02	0.0058	0.005
9/11/2007		0.004					<0.02	0.0033	
12/11/2007	0.0043	0.0048	0.0039	<0.02	<0.02	0.087	<0.02	<0.02	0.0033
3/11/2008		0.0043					<0.02	<0.02	
6/23/2008	0.0025	0.0037	<0.02						
6/24/2008				<0.02	<0.02	0.062	<0.02	<0.02	0.0037
11/3/2008		0.0032					<0.02	0.0025	
12/4/2008	0.0025	0.0029	0.0039				<0.02		
12/5/2008				<0.02	<0.02	0.014		<0.02	0.0027
3/25/2009		0.0055					<0.02	0.0025	
7/7/2009	<0.02	0.0028		<0.02		0.052			
7/8/2009			<0.02		<0.02		<0.02	<0.02	0.0048
9/14/2009		0.0027					<0.02	<0.02	
12/20/2009	0.0031	0.0029		<0.02	<0.02		<0.02	<0.02	
12/21/2009			0.004			0.046			0.0032
3/4/2010		0.0042					<0.02	<0.02	
6/20/2010	<0.02	0.0027	<0.02	<0.02	<0.02		<0.02		
6/21/2010						0.045		<0.02	0.0028
9/14/2010		<0.02					<0.02	<0.02	
1/6/2011				<0.02					
1/7/2011	<0.02	0.0032	0.0032		<0.02	0.024	<0.02	<0.02	0.003
4/15/2011		<0.02					<0.02	<0.02	
7/7/2011	0.0031	0.005		0.0025	<0.02		<0.02	<0.02	
7/8/2011			0.0025			0.023			0.0034
9/25/2011		0.0041					<0.02	0.0028	
1/17/2012	0.004	0.0043		<0.02	<0.02		<0.02		
1/18/2012			0.0045			0.011		0.0029	0.0049
4/4/2012		<0.02					<0.02	<0.02	
7/9/2012	0.0096			<0.02	<0.02		<0.02		
7/10/2012		0.0028	<0.02			0.024		<0.02	0.0039
10/9/2012		0.0033					<0.02	0.0027	
1/17/2013				<0.02					
1/18/2013	0.051	0.0038	0.0029		<0.02	0.011	<0.02	<0.02	0.0043

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWC-9	GWC-1	GWC-15	GWB-4R	GWC-14	GWC-16	GWC-17
4/5/2013		0.0026					<0.02	<0.02	
7/16/2013				<0.02					
7/17/2013	0.042	<0.02	<0.02		<0.02	0.0029	<0.02	<0.02	0.0035
10/11/2013		0.0046					<0.02	<0.02	
1/13/2014	0.0025			0.0025	0.0025				
1/14/2014		0.0025	0.0025			0.0025	0.0025	0.0025	0.0025
4/3/2014		0.0029					0.0014 (J)	0.0015 (J)	
7/8/2014									
7/9/2014	0.064	0.002 (J)	0.0016 (J)	<0.02	<0.02	0.0051	0.00086 (J)	0.0012 (J)	0.0033
7/10/2014									
10/24/2014		0.0031					0.00083 (J)	0.0013 (J)	
1/12/2015						0.0023 (J)			
1/13/2015	0.066			0.0025	<0.02				
1/14/2015		0.003	0.0024 (J)				<0.02	0.0017 (J)	0.0067
5/10/2015		0.0028					<0.02		
5/11/2015								0.0015 (J)	
7/16/2015	0.036			<0.02	<0.02	0.0021 (J)		<0.02	
7/17/2015		0.0018 (J)	0.0031				<0.02		
7/18/2015									<0.02
10/6/2015		0.0018 (J)					<0.02	<0.02	
1/17/2016				<0.02	<0.02		<0.02	<0.02	
1/18/2016	0.035	0.0028	0.0059			0.0092			0.012
1/19/2016									
4/26/2016		<0.02					<0.02	<0.02	
7/26/2016									
7/27/2016	0.0529			<0.02	<0.02		<0.02		
7/28/2016		0.0018 (J)	0.0019 (J)					<0.02	
7/29/2016						0.003 (J)			0.0086 (J)
10/24/2016		0.0024 (J)							
10/25/2016	0.0035 (J)				<0.02		<0.02	<0.02	
1/3/2017		0.0035 (J)							
1/4/2017				<0.02				0.0025 (J)	
1/5/2017					<0.02		<0.02		0.016
1/6/2017	0.0235		0.0026 (J)			0.0104			
4/3/2017		0.0041 (J)			<0.02				
4/4/2017				<0.02		0.0132	<0.02		
4/5/2017								0.0025 (J)	0.0175
4/6/2017	0.0829		0.0047 (J)						
7/10/2017									
7/11/2017		0.0029 (J)			<0.02		<0.02		
7/12/2017			0.003 (J)	<0.02		0.0046 (J)		0.002 (J)	
7/13/2017	0.0853								0.0126
10/2/2017		0.0026 (J)			<0.02		0.0026 (J)		
10/3/2017								<0.02	
10/4/2017	0.0263								
1/9/2018	0.0665	0.0035 (J)			<0.02		0.0018 (J)		
1/10/2018				0.0014 (J)				0.0016 (J)	
1/11/2018			0.0046 (J)			0.0095 (J)			0.012
7/9/2018		0.0022 (J)					<0.02		
7/10/2018				0.0021 (J)	<0.02			0.0031 (J)	
7/11/2018	0.02 (J)		0.0033 (J)			0.0028 (J)			0.011
1/16/2019	0.014 (J)	0.0037 (J)		<0.02		0.0052 (J)	<0.02		0.0094 (J)

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWC-9	GWC-1	GWC-15	GWB-4R	GWC-14	GWC-16	GWC-17
1/17/2019					<0.02			<0.02	
1/18/2019			0.0025 (J)						
1/21/2019									
3/25/2019	<0.05 (O)	<0.02				0.0078 (J)			
3/26/2019				<0.02	<0.02		<0.02	<0.02	0.0057 (J)
3/27/2019			0.0026 (J)						
7/30/2019									
10/7/2019		0.0077 (J)							
10/8/2019	0.095				0.0051 (J)		0.0052 (J)	0.01	
10/9/2019			0.0054 (J)	0.0057 (J)		0.0064 (J)			0.011
4/6/2020	<0.02	<0.02							
4/7/2020				<0.02	<0.02	<0.02	<0.02	<0.02	
4/8/2020			<0.02						<0.02
9/28/2020	0.16	0.0092 (J)		0.0092 (J)					
9/29/2020							<0.02		
9/30/2020					0.032			0.0051 (J)	0.0043 (J)
10/1/2020			0.025			0.0064 (J)			
3/10/2021			<0.02	<0.02		<0.02			
3/11/2021	0.054								0.0056 (J)
3/12/2021		0.0028 (J)			<0.02				
3/15/2021									
3/16/2021							<0.02	<0.02	
9/21/2021	<0.02	<0.02				<0.02			
9/22/2021			<0.02				0.01	<0.02	<0.02
9/23/2021				<0.02	<0.02				
1/31/2022	<0.02	<0.02							
2/1/2022								<0.02	0.011
2/2/2022			<0.02			<0.02	<0.02		
2/3/2022				<0.02	<0.02				
8/30/2022	0.011 (J)	<0.02				<0.02	<0.02		
8/31/2022					0.00395 (J)				0.0068 (J)
9/1/2022			0.0163 (J)	0.00578 (J)				0.0119 (J)	

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-13	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-22	GWC-20	GWC-21
9/29/2000	<0.02	<0.02	0.026 (O)		0.38 (O)	<0.02 (O)			
11/21/2000	<0.02	<0.02	<0.02	0.021 (O)	0.077 (O)	0.024 (O)			
1/20/2001	<0.02	<0.02	0.031 (O)	<0.02	0.23 (O)	<0.02 (O)			
3/14/2001	<0.02	<0.02	0.063 (O)	<0.02	0.24 (O)	<0.02 (O)			
7/16/2001	<0.02	<0.02	0.08 (O)	<0.02	0.053 (O)	<0.02 (O)			
11/1/2001	<0.02	0.044 (O)	0.16 (O)	<0.02	0.022 (O)	<0.02 (O)			
4/25/2002	<0.02	<0.02	<0.02	<0.02	1.2 (O)	<0.02 (O)			
11/20/2002	<0.02	0.023	0.14 (O)	<0.02	0.045 (O)	0.028 (O)			
6/6/2003	<0.02	<0.02	0.51 (O)	<0.02	0.042 (O)	0.032 (O)			
12/12/2003	0.013	<0.02	<0.02	<0.02	<0.02	<0.01 (O)			
5/26/2004	<0.02	0.035	0.036 (O)	<0.02	<0.02	<0.01 (O)			
12/7/2004	0.028 (O)	0.018	0.069 (O)	<0.02	<0.02	0.012 (O)			
6/21/2005	<0.02	0.014	0.076 (O)	<0.02	<0.02	<0.01 (O)			
12/12/2005	<0.02	0.023	<0.02	0.012	<0.02	<0.01 (O)			
4/4/2006									
6/27/2006	0.0028	0.023	0.01	<0.02	0.012 (O)	0.0071			
8/30/2006									
12/4/2006	0.0028	0.046 (O)	0.0035	<0.02	0.0067	0.0096			
2/15/2007									
6/23/2007	0.0063	0.036	0.0032	<0.02	0.025 (O)	0.094 (O)			
9/11/2007									
12/11/2007	<0.02	0.011	0.0079	<0.02	0.0038	0.042 (O)			
3/11/2008									
6/23/2008	<0.02	0.0091			0.0051				
6/24/2008			<0.02	<0.02		0.098 (O)			
11/3/2008									
12/4/2008	<0.02	0.0038		<0.02	<0.02				
12/5/2008			<0.02			0.047 (O)			
3/25/2009									
7/7/2009			<0.02			0.024 (O)			
7/8/2009	<0.02	<0.02		<0.02	<0.02				
9/14/2009									
12/20/2009				<0.02					
12/21/2009	<0.02	0.0032	<0.02		0.013 (O)	0.049 (O)			
3/4/2010									
6/20/2010	<0.02	<0.02	<0.02	<0.02	<0.02	0.045 (O)			
6/21/2010							<0.02	<0.02	0.04 (O)
9/14/2010									
1/6/2011	<0.02	0.004	<0.02	<0.02					
1/7/2011					0.004	0.0044	0.019	<0.02	<0.02
4/15/2011									
7/7/2011	<0.02	0.0037	0.0027		0.0028	0.003		<0.02	
7/8/2011							0.1 (O)	0.086 (JO)	0.0044
9/25/2011									
1/17/2012	0.0043	0.0031	0.0039	<0.02	0.0043				
1/18/2012						0.0048	0.0051	<0.02	<0.02
4/4/2012									
7/9/2012	<0.02	0.003	<0.02	<0.02	<0.02				
7/10/2012						<0.02	0.01	<0.02	<0.02
10/9/2012									
1/17/2013	0.0025	<0.02	<0.02	<0.02	0.0033				
1/18/2013						0.0028	0.0036	0.0032	<0.02

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-13	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-22	GWC-20	GWC-21
4/5/2013									
7/16/2013	<0.02	0.0029	0.0032		0.0028				
7/17/2013				<0.02		<0.02	0.0025	<0.02	<0.02
10/11/2013									
1/13/2014	0.0025	0.0025	0.0025	0.0025	0.0025				
1/14/2014						0.0025	0.0025	0.0025	0.0025
4/3/2014									
7/8/2014	0.0011 (J)	0.0018 (J)			0.002 (J)				
7/9/2014			0.00076 (J)	0.00058 (J)		0.00093 (J)			0.00084 (J)
7/10/2014							0.024	<0.02	
10/24/2014									
1/12/2015								<0.02	
1/13/2015	0.0021 (J)	0.0028	0.0036	0.0024 (J)	0.0079				
1/14/2015						0.0023 (J)	0.0016 (J)		0.0018 (J)
5/10/2015									
5/11/2015									
7/16/2015	<0.02	0.0018 (J)	<0.02	<0.02	0.0026				
7/17/2015						<0.02			<0.02
7/18/2015							0.014	<0.02	
10/6/2015									
1/17/2016				<0.02				<0.02	<0.02
1/18/2016		0.0017 (J)	<0.02		0.0025	0.0029	<0.02		
1/19/2016	0.0029								
4/26/2016									
7/26/2016	<0.02	0.0028 (J)							
7/27/2016			0.0015 (J)	0.0018 (J)	0.0021 (J)				
7/28/2016						<0.02		<0.02	<0.02
7/29/2016							0.0129		
10/24/2016									
10/25/2016								<0.02	
1/3/2017			<0.02						
1/4/2017	<0.02				0.0025 (J)		0.006 (J)	<0.02	<0.02
1/5/2017		0.0021 (J)		<0.02		<0.02			
1/6/2017									
4/3/2017									
4/4/2017				0.0015 (J)				<0.02	0.0015 (J)
4/5/2017					0.0026 (J)				
4/6/2017	0.004 (J)	0.0027 (J)	0.0023 (J)			0.0032 (J)	0.0031 (J)		
7/10/2017					0.0023 (J)				
7/11/2017	<0.02						0.0029 (J)	<0.02	
7/12/2017		0.0043 (J)	<0.02			0.002 (J)			
7/13/2017				0.0014 (J)					0.002 (J)
10/2/2017								<0.02	
10/3/2017									
10/4/2017									
1/9/2018						0.0036 (J)			0.0016 (J)
1/10/2018		0.0021 (J)	0.0022 (J)	<0.02				0.0034 (J)	
1/11/2018	0.0018 (J)				0.0031 (J)		0.0106		
7/9/2018								<0.02	
7/10/2018			<0.02	<0.02		0.0055 (J)			<0.02
7/11/2018	<0.02	0.0039 (J)			0.0036 (J)		0.0057 (J)		
1/16/2019		0.047	<0.02			<0.02			

Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 9/28/2022 10:41 AM View: Appendix I
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-13	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-22	GWC-20	GWC-21
1/17/2019	<0.02				0.0032 (J)				<0.02
1/18/2019							0.0024 (J)		
1/21/2019				<0.02				<0.02	
3/25/2019								<0.02	
3/26/2019		0.03	<0.02			<0.02			<0.02
3/27/2019	<0.02				0.0031 (J)		<0.02		
7/30/2019				0.0067 (J)					
10/7/2019									
10/8/2019	0.0061 (J)	0.053							0.0071 (J)
10/9/2019			0.0081 (J)	0.005 (J)	0.0057 (J)	0.016 (J)	0.0079 (J)	0.0049 (J)	
4/6/2020									
4/7/2020	<0.02		<0.02		<0.02	<0.02	<0.02		<0.02
4/8/2020		0.023		<0.02				<0.02	
9/28/2020		0.016							
9/29/2020	0.0031 (J)			0.056	0.0074 (J)				
9/30/2020			<0.02			<0.02	<0.02	0.031	0.0096 (J)
10/1/2020									
3/10/2021	<0.02		<0.02		<0.02	<0.02	<0.02		
3/11/2021									
3/12/2021								<0.02	
3/15/2021		0.039		<0.02					
3/16/2021									<0.02
9/21/2021	<0.02	0.036	<0.02		<0.02	<0.02	<0.02		
9/22/2021				<0.02				<0.02	<0.02
9/23/2021									
1/31/2022									
2/1/2022								<0.02	<0.02
2/2/2022				<0.02		<0.02			
2/3/2022	<0.02	0.037	<0.02		<0.02		<0.02		
8/30/2022			<0.02		0.0262	0.0132 (J)		0.0171 (J)	0.00814 (J)
8/31/2022	<0.02	0.0266					<0.02		
9/1/2022				0.0125 (J)					

FIGURE E.

Appendix I Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:43 AM

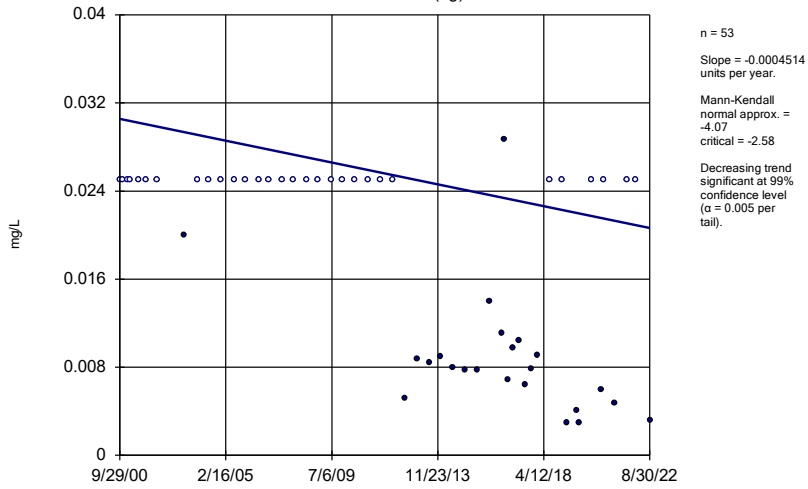
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0004514	-4.07	-2.58	Yes	53	56.6	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-2.799	-2.58	Yes	74	91.89	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.005378	8.362	2.58	Yes	54	46.3	n/a	n/a	0.01	NP

Appendix I Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:43 AM

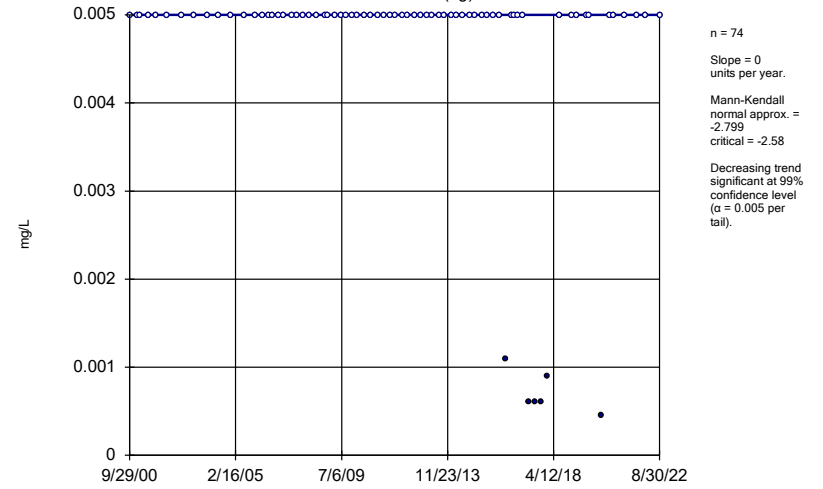
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0004514	-4.07	-2.58	Yes	53	56.6	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-2.799	-2.58	Yes	74	91.89	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.005378	8.362	2.58	Yes	54	46.3	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	-0.000927	-2.349	-2.58	No	73	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.009885	118	167	No	33	3.03	n/a	n/a	0.01	NP

Sen's Slope Estimator GWA-7 (bg)



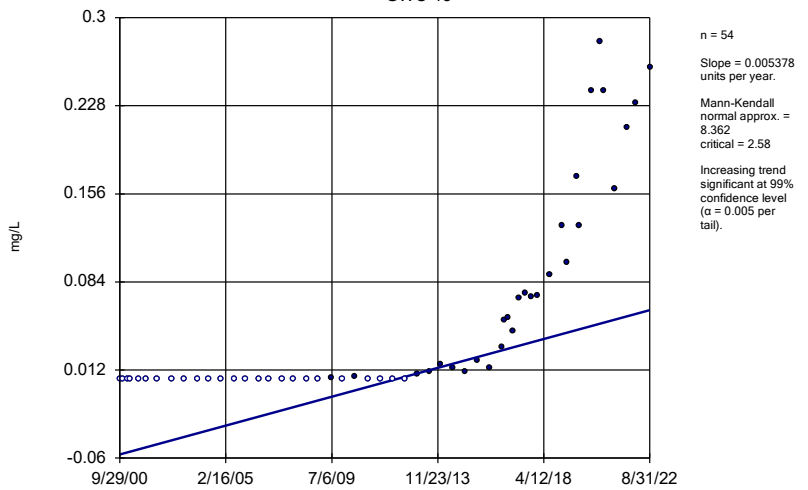
Constituent: Arsenic Analysis Run 9/28/2022 10:43 AM View: Appendix I - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator GWA-8 (bg)



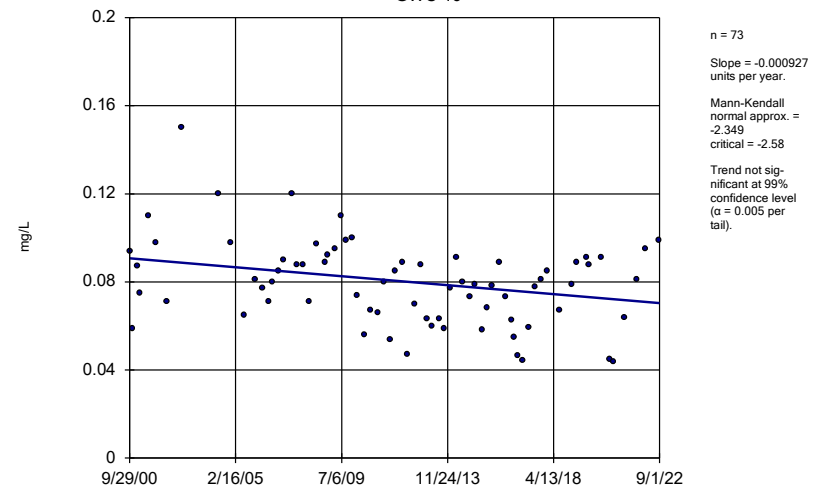
Constituent: Arsenic Analysis Run 9/28/2022 10:43 AM View: Appendix I - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator GWC-15



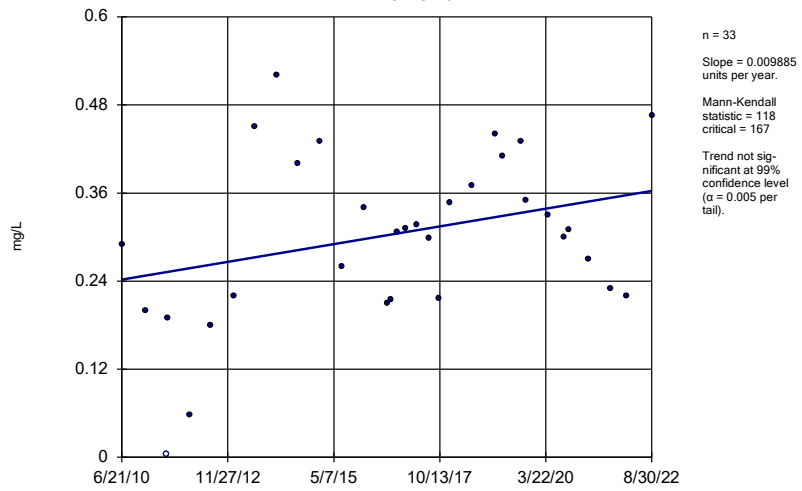
Constituent: Arsenic Analysis Run 9/28/2022 10:43 AM View: Appendix I - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator GWC-16



Constituent: Arsenic Analysis Run 9/28/2022 10:43 AM View: Appendix I - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator GWC-20



Constituent: Arsenic Analysis Run 9/28/2022 10:43 AM View: Appendix I - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE F.

Appendix III Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	8/30/2022	79.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	8/30/2022	70.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	8/30/2022	81.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/1/2022	46.9	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	8/31/2022	115	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	8/30/2022	70.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	8/30/2022	144	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	8/31/2022	135	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/1/2022	255	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	8/31/2022	102	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	8/30/2022	193	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-21	35.8	n/a	8/30/2022	131	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	8/31/2022	694	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4247	n/a	8/31/2022	0.442	Yes	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	8/30/2022	3.92	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	8/31/2022	6.57	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	8/30/2022	379	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	8/30/2022	403	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	8/30/2022	978	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	8/31/2022	653	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	8/30/2022	415	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	8/30/2022	410	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/1/2022	1140	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	8/31/2022	721	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	8/30/2022	606	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-21	160	n/a	8/30/2022	451	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	8/30/2022	4.95	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	8/30/2022	4.66	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	8/30/2022	7.13	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	9/1/2022	0.728	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	8/31/2022	1.65	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	8/30/2022	8.21	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	8/31/2022	0.231	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	8/30/2022	0.046	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	8/31/2022	0.719	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	9/1/2022	15.9	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	8/31/2022	2.51	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	9/1/2022	0.0204	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	8/30/2022	8.14	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	8/30/2022	5.08	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	8/31/2022	0.271	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	9/1/2022	0.0187	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-4R	35.8	n/a	8/30/2022	79.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	8/30/2022	70.3	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	8/30/2022	81.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/1/2022	46.9	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	8/31/2022	115	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	8/30/2022	70.8	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-13	35.8	n/a	8/31/2022	2.54	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	8/30/2022	144	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	8/31/2022	135	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/1/2022	255	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	8/31/2022	102	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2	35.8	n/a	9/1/2022	0.236	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	8/30/2022	193	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-21	35.8	n/a	8/30/2022	131	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-22	35.8	n/a	8/31/2022	23.2	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	9/1/2022	5	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	8/30/2022	65	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	8/30/2022	76.8	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	8/30/2022	52	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	9/1/2022	9.17	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	8/31/2022	110	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	8/30/2022	58.4	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	8/31/2022	6.69	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	8/30/2022	26.7	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	8/31/2022	4.83	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	9/1/2022	57.2	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	8/31/2022	694	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2	260	n/a	9/1/2022	6.59	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	8/30/2022	24.4	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	8/30/2022	29.4	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	8/31/2022	51.2	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	9/1/2022	17.6	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-5R	0.4247	n/a	8/30/2022	0.0428J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-6R	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-1	0.4247	n/a	9/1/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-11	0.4247	n/a	8/31/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-12	0.4247	n/a	8/30/2022	0.273	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-13	0.4247	n/a	8/31/2022	0.051J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-14	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2

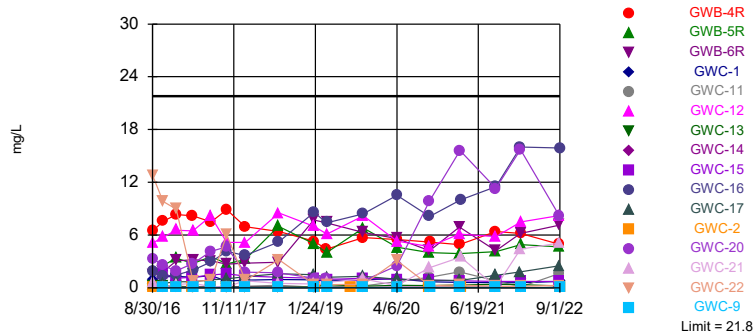
Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 10:45 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-15	0.4247	n/a	8/31/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-16	0.4247	n/a	9/1/2022	0.0374J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-17	0.4247	n/a	8/31/2022	0.442	Yes	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-2	0.4247	n/a	9/1/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.4247	n/a	8/30/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-22	0.4247	n/a	8/31/2022	0.1ND	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.4247	n/a	9/1/2022	0.0783J	No	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWB-4R	6.43	4.23	8/30/2022	5.67	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWB-5R	6.43	4.23	8/30/2022	5.22	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWB-6R	6.43	4.23	8/30/2022	5.55	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-1	6.43	4.23	9/1/2022	5.8	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-11	6.43	4.23	8/31/2022	4.85	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-12	6.43	4.23	8/30/2022	3.92	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-13	6.43	4.23	8/31/2022	4.76	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-14	6.43	4.23	8/30/2022	5.86	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	8/31/2022	6.57	Yes	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-16	6.43	4.23	9/1/2022	5.37	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-17	6.43	4.23	8/31/2022	4.33	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-2	6.43	4.23	9/1/2022	4.73	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-20	6.43	4.23	8/30/2022	6.01	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-21	6.43	4.23	8/30/2022	5.76	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-22	6.43	4.23	8/31/2022	4.68	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
pH (SU)	GWC-9	6.43	4.23	9/1/2022	4.6	No	36	n/a	n/a	0	n/a	n/a	0.002622	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	8/30/2022	379	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	8/30/2022	403	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	8/30/2022	978	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1	160	n/a	9/1/2022	44	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	8/31/2022	653	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	8/30/2022	415	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-13	160	n/a	8/31/2022	29	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	8/30/2022	410	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-15	160	n/a	8/31/2022	88.5	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/1/2022	1140	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	8/31/2022	721	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2	160	n/a	9/1/2022	10.3	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	8/30/2022	606	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-21	160	n/a	8/30/2022	451	Yes	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-22	160	n/a	8/31/2022	45.3	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-9	160	n/a	9/1/2022	28.7	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	8/30/2022	882	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	8/30/2022	886	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	8/30/2022	1810	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	9/1/2022	228	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	8/31/2022	1240	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	8/30/2022	713	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	8/31/2022	55	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	8/30/2022	720	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	8/31/2022	530	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	9/1/2022	1720	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	8/31/2022	2050	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	9/1/2022	9J	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	8/30/2022	1210	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	8/30/2022	807	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	8/31/2022	163	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	9/1/2022	85	No	34	n/a	n/a	0	n/a	n/a	0.001453	NP Inter (normality) 1 of 2

Within Limit

Prediction Limit Interwell Non-parametric

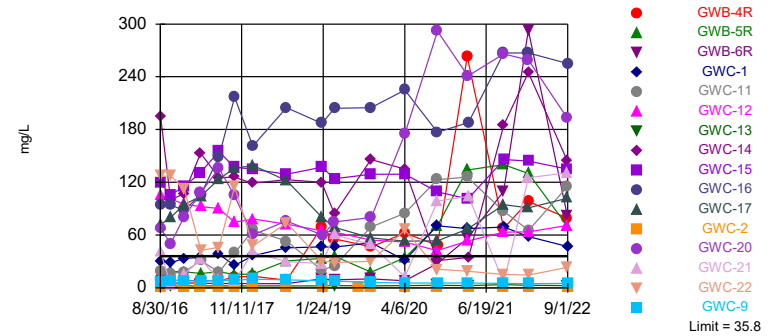


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 34 background values. Annual per-constituent alpha = 0.04548. Individual comparison alpha = 0.001453 (1 of 2). Comparing 16 points to limit.

Constituent: Boron Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20,...

Prediction Limit Interwell Non-parametric

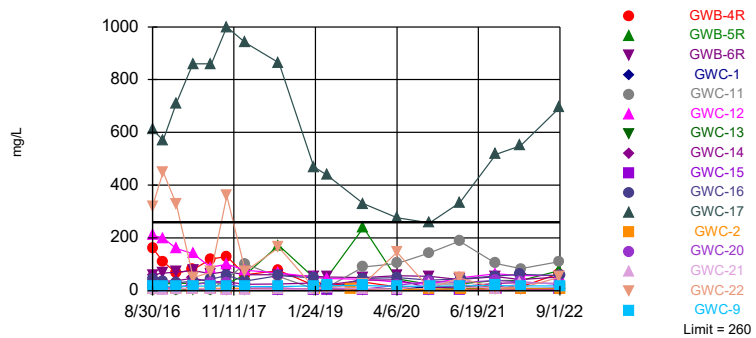


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 34 background values. Annual per-constituent alpha = 0.04548. Individual comparison alpha = 0.001453 (1 of 2). Comparing 16 points to limit.

Constituent: Calcium Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-17

Prediction Limit Interwell Non-parametric



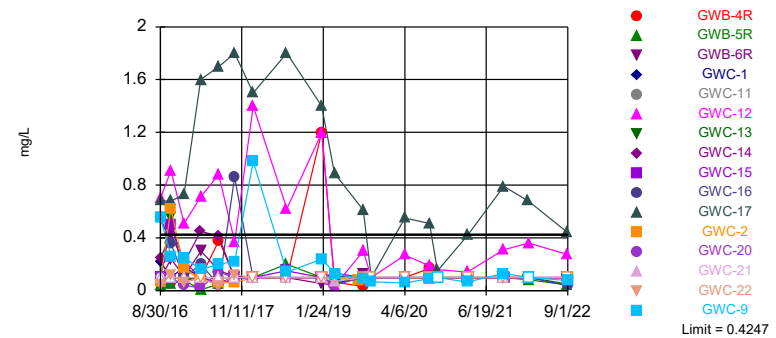
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 34 background values. Annual per-constituent alpha = 0.04548. Individual comparison alpha = 0.001453 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

Exceeds Limit: GWC-17

Prediction Limit Interwell Parametric

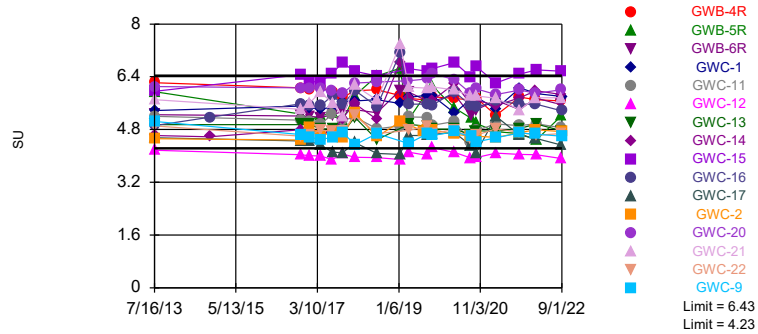


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.348, Std. Dev.=0.6768, n=38, 23.68% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9171, critical = 0.916. Kappa = 2.204 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Fluoride Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limits: GWC-12, GWC-15

Prediction Limit Interwell Non-parametric

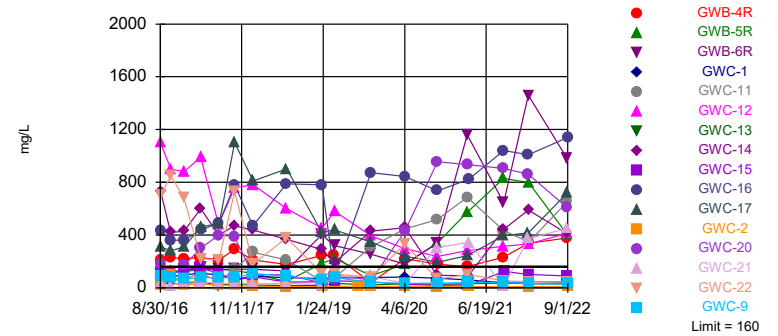


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 36 background values. Annual per-constituent alpha = 0.08222. Individual comparison alpha = 0.002622 (1 of 2). Comparing 16 points to limit.

Constituent: pH Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, GWC-21

Prediction Limit Interwell Non-parametric

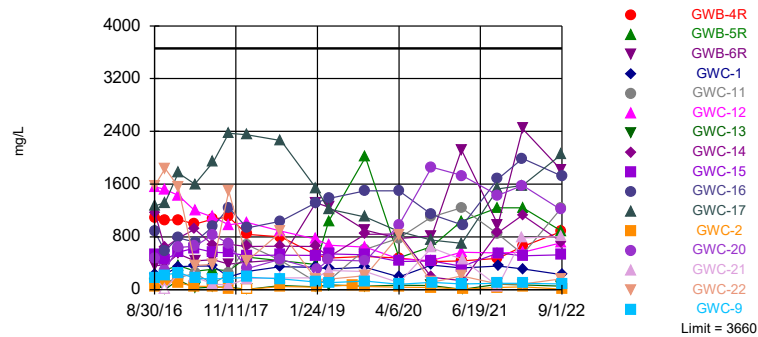


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 34 background values. Annual per-constituent alpha = 0.04548. Individual comparison alpha = 0.001453 (1 of 2). Comparing 16 points to limit.

Constituent: Sulfate Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 34 background values. Annual per-constituent alpha = 0.04548. Individual comparison alpha = 0.001453 (1 of 2). Comparing 16 points to limit.

Constituent: Total Dissolved Solids Analysis Run 9/28/2022 10:44 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-6R	GWC-1	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-13	GWC-22	GWC-2
8/30/2016	1.41	0.875	1.09	0.117					
8/31/2016					0.0688 (J)	5.1	0.261	12.8	0.0196 (J)
9/1/2016									
10/24/2016				0.126					
10/25/2016		1.22							
10/26/2016	1.83		2.5		0.083 (J)	5.74	0.211	9.81	0.05 (J)
10/27/2016									
1/3/2017			3.39	0.124					
1/4/2017		1.3			0.0738	6.56		8.94	
1/5/2017	3.07						0.179		0.0162 (J)
1/6/2017									
4/3/2017				0.105					
4/4/2017		1.19							0.019 (J)
4/5/2017						6.49			
4/6/2017	3.19		2.76		0.0754		0.112	0.733	
7/10/2017						8.13			
7/11/2017				0.136	0.0614			0.852	
7/12/2017	3.06	1.37	3.55				0.0882		
7/13/2017									0.023 (J)
10/2/2017				0.107					
10/3/2017	2.69	0.765	2.72		0.0838				0.0266 (J)
10/4/2017						5.18	0.116	6.05	
1/9/2018	2.81			0.123					
1/10/2018		0.876	3.21				0.101		0.0203 (J)
1/11/2018					0.169	5.16		0.838	
7/9/2018				0.11					
7/10/2018	2.9	0.94	7						0.026 (J)
7/11/2018					0.3	8.5	0.098	3.2	
1/16/2019	7.7	0.91	5	0.13			0.11		
1/17/2019					0.065	7			
1/18/2019								0.37	
1/21/2019									0.018 (J)
3/25/2019				0.098					
3/26/2019	7.4	0.77	4				0.35		
3/27/2019					0.089	6.1		0.37	
7/30/2019									0.02 (J)
10/7/2019				0.12					
10/8/2019					0.22		0.18		
10/9/2019	6.3	0.93	6.8			8.2		0.39	0.024 (J)
4/6/2020				0.14					
4/7/2020	5.6	1	4.6		0.67	5.3		3.1	
4/8/2020							0.28		0.031 (J)
9/28/2020		0.69		0.15			0.24		
9/29/2020					1.2	4.7			0.024 (J)
9/30/2020	4.2		4					0.25	
10/1/2020									
3/10/2021	6.9	0.63	3.9		1.8	6.1		0.32	
3/11/2021									
3/12/2021				0.11					
3/15/2021							0.31		0.084
3/16/2021									
9/21/2021	4.2		4.1	0.13	0.8	5.8	0.38	0.19	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-6R	GWC-1	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-13	GWC-22	GWC-2
9/22/2021									0.017 (J)
9/23/2021		0.59							
1/31/2022				0.13					
2/1/2022									
2/2/2022	6.2								0.023 (J)
2/3/2022		0.59	4.9		0.1	7.5	0.37	0.18	
8/30/2022	7.13		4.66	0.152		8.21			
8/31/2022					1.65		0.231	0.271	
9/1/2022		0.728							0.0204

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWB-4R	GWC-16	GWC-17	GWC-20	GWA-7 (bg)	GWC-21	GWC-15	GWC-9
8/30/2016									
8/31/2016									0.096 (JO)
9/1/2016	0.071 (J)	6.48	1.82	0.408	3.34	11.6	0.62	9.01 (O)	
10/24/2016									
10/25/2016	0.0819 (J)		1.26		2.54	21.4	0.0658 (J)	1.66	
10/26/2016		7.57		0.5					
10/27/2016									0.0281 (J)
1/3/2017									
1/4/2017			1.46		1.91		0.36		
1/5/2017	0.0813			0.676				1.1	
1/6/2017		8.34				20.1			0.0189 (J)
4/3/2017								1.21	
4/4/2017	0.0723	8.18			2.77		0.509		
4/5/2017			2	0.69					
4/6/2017						21.8			0.0181 (J)
7/10/2017									
7/11/2017	0.0734				4.14			1.44	
7/12/2017		7.51	2.95						0.0211 (J)
7/13/2017				0.888		16.3	0.126		
10/2/2017	0.0748				4.65			1.59	
10/3/2017			4.15				0.1		
10/4/2017		8.88		1.02		21.5			0.0254 (J)
1/9/2018	0.0679					13.9	0.783	1.35	
1/10/2018			3.68		1.79				
1/11/2018		6.95		1.28					0.018 (J)
7/9/2018	0.061				1.7				
7/10/2018			5.2				0.5	1.2	
7/11/2018		6.4		1.6		11.7			0.02 (J)
1/16/2019	0.046	5.3		1.5		9.3			
1/17/2019			8.6				0.43	1.1	
1/18/2019									0.018 (J)
1/21/2019					1.1				
3/25/2019		4.4			1	8.5			
3/26/2019	0.037 (J)		7.4	1.2			0.61	0.95	
3/27/2019									0.016 (J)
7/30/2019									
10/7/2019									
10/8/2019	0.048		8.4			6.4	1	1.1	
10/9/2019		5.7		1.3	0.79				0.019 (J)
4/6/2020						6.1			
4/7/2020	0.061 (J)	5.5	10.5				0.24	0.96	
4/8/2020				0.99	2.5				0.023 (J)
9/28/2020						4.6			
9/29/2020	0.053								
9/30/2020			8.1	0.86	9.9		2.3	0.86	
10/1/2020		5.2							0.028 (J)
3/10/2021		4.9							0.022 (J)
3/11/2021				0.85		8			
3/12/2021					15.6			0.81	
3/15/2021									
3/16/2021	0.08		10				3.5		
9/21/2021		6.4				4.4			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWB-4R	GWC-16	GWC-17	GWC-20	GWA-7 (bg)	GWC-21	GWC-15	GWC-9
9/22/2021	0.052		11.5	1.4	11.3		0.095		0.015 (J)
9/23/2021								0.72	
1/31/2022						3.9			
2/1/2022			16	1.8	15.7		4.4		
2/2/2022	0.044	6.2							0.011 (J)
2/3/2022								0.71	
8/30/2022	0.046	4.95			8.14	5.72	5.08		
8/31/2022				2.51				0.719	
9/1/2022			15.9						0.0187

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-2	GWC-11
8/30/2016	14.3	4.68	23.8	29.4					
8/31/2016					2.77	127	105	0.371 (J)	18.8
9/1/2016									
10/24/2016			22.5						
10/25/2016				28.3					
10/26/2016	18.6	5.45			2.25	127	101	5.84	16.6
10/27/2016									
1/3/2017	18.1		22.1						
1/4/2017				33.4		113	94.9		17.6
1/5/2017		5.35			2.27			0.379 (J)	
1/6/2017									
4/3/2017			24.6 (J)						
4/4/2017				34.6				0.993	
4/5/2017							92.5		
4/6/2017	16.2	5.41			2.04	42.7			30.9
7/10/2017							90.3		
7/11/2017			23.5			46			17.7
7/12/2017	18.1	4.81		38	2.25				
7/13/2017								0.388 (J)	
10/2/2017			22.7						
10/3/2017	15.2	5.17		25.5				0.251 (J)	39.8
10/4/2017					2.19	115	74.6		
1/9/2018		4.73	23.2						
1/10/2018	15.5			36.5	2.28			0.177 (J)	
1/11/2018						47.6	78.1		65.6
7/9/2018			24.6 (J)						
7/10/2018	30.6	4.5		45.5				0.17 (J)	
7/11/2018					2.3	73.7	72.2		53
1/16/2019	33.3	10.1	27.7	46.5	2.3				
1/17/2019							64.7		19.8 (J)
1/18/2019						30.6			
1/21/2019								0.19 (J)	
3/25/2019			31.7						
3/26/2019	36.1	9		46.3	2.4				
3/27/2019						28.8	63.1		25.1
7/30/2019								0.43	
10/7/2019			31.6						
10/8/2019					2.3				69.2
10/9/2019	17.7	10.1		51.2		30.1	54.2	0.18	
4/6/2020			35.8						
4/7/2020	34.1	7.8		31.1		65.7	52.1		84.7
4/8/2020					2.5			0.24 (J)	
9/28/2020			25.6	70.7	2.9				
9/29/2020							42	0.18 (J)	123
9/30/2020	70.4	27.5				20.9			
10/1/2020									
3/10/2021	134	55.9		67.2		18.7	53.1		126
3/11/2021									
3/12/2021			21.4						
3/15/2021					2.4			0.22 (J)	
3/16/2021									
9/21/2021	140	110	18.5		3.6	15.3	63.4		87

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-2	GWC-11
9/22/2021								0.19 (J)	
9/23/2021				69.1					
1/31/2022			17.2						
2/1/2022									
2/2/2022		293						0.16 (J)	
2/3/2022	130			58.2	2.7	14.6	63.7		65.4
8/30/2022	70.3	81.8	15				70.8		
8/31/2022					2.54	23.2			115
9/1/2022				46.9				0.236	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWA-7 (bg)	GWC-21	GWC-20	GWC-17	GWB-4R	GWC-16	GWC-14	GWC-15
8/30/2016									
8/31/2016	6.9								
9/1/2016		5.59	40.5	67.2	71.9	9.91	93.8	194	119
10/24/2016									
10/25/2016		6.43	3.91	50.1			94.1	100	106
10/26/2016					80.3	8.56			
10/27/2016	8.2								
1/3/2017									
1/4/2017			15.2	80.4			88.2		
1/5/2017					94.4			107	115
1/6/2017	7.97	8.13				8.18			
4/3/2017									131
4/4/2017			32.3	108		8.12		153	
4/5/2017					104		106		
4/6/2017	7.95	7.72							
7/10/2017									
7/11/2017				136				125	155
7/12/2017	8.37					8	149		
7/13/2017		4.57	8.92		124				
10/2/2017				105				126	137
10/3/2017			7.88				217		
10/4/2017	8.57	6.41			136	12.5			
1/9/2018		4.68	40.5					119	135
1/10/2018				60.1			161		
1/11/2018	9.78				139	12.9			
7/9/2018				75.9				123	
7/10/2018			29.8				205		129
7/11/2018	9.2	3.9			122	8.6			
1/16/2019		4.3			80.5	68.8		120	
1/17/2019			27.6				187		137
1/18/2019	8.1								
1/21/2019				60					
3/25/2019		3.9		74.8		55.6			
3/26/2019			60.1		68.8		204	84.2	124
3/27/2019	7.7								
7/30/2019									
10/7/2019									
10/8/2019		3.5	49.5				205	146	129
10/9/2019	6			80.1	56.6	46.7			
4/6/2020		3.1							
4/7/2020			12.5			62.1	225	135	129
4/8/2020	5.3			175	53.1				
9/28/2020		3.3							
9/29/2020								30.8	
9/30/2020			98.4	292	53.5		177		109
10/1/2020	5.5					48.4			
3/10/2021	5.3					263			
3/11/2021		2.4			67				
3/12/2021				241					101
3/15/2021									
3/16/2021			104				188	34.4	
9/21/2021		2.7				67.5			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWA-7 (bg)	GWC-21	GWC-20	GWC-17	GWB-4R	GWC-16	GWC-14	GWC-15
9/22/2021	5		5.8	266	94.6		267	185	
9/23/2021									146
1/31/2022		3.4							
2/1/2022			125	259	90.8		267		
2/2/2022	4.6					98.2		245	
2/3/2022									144
8/30/2022		3.56	131	193		79.3		144	
8/31/2022					102				135
9/1/2022	5						255		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-2	GWC-11
8/30/2016	31	60	15	5.5					
8/31/2016					4.3	320	210	7.8	3.5
9/1/2016									
10/24/2016			13						
10/25/2016				5.1					
10/26/2016	24	67			4.9	450	200	12	2.5
10/27/2016									
1/3/2017	29		13						
1/4/2017				6.9		330	160		3.8
1/5/2017		70			4.1			7.4	
1/6/2017									
4/3/2017			14						
4/4/2017				6.5				8.7	
4/5/2017							140		
4/6/2017	27	76			3.7	50			7.1
7/10/2017							88		
7/11/2017			13			70			3.1
7/12/2017	31	64		6.5	2.6				
7/13/2017								8.3	
10/2/2017			15						
10/3/2017	27	73		4.5				9	46
10/4/2017					3	360	100		
1/9/2018		61	13						
1/10/2018	59			6.9	3.4			8.2	
1/11/2018						74	78		100
7/9/2018			15.4						
7/10/2018	172	60.2		6.2				7.3	
7/11/2018					3.2	164	66.9		53.7
1/16/2019	49.7	54.1	16	6.6	3.8				
1/17/2019							52		6.6
1/18/2019						11			
1/21/2019								6.9	
3/25/2019			17.7						
3/26/2019	47.9	51.8		7	3.2				
3/27/2019						11.5	45.6		11.9
7/30/2019								7.1	
10/7/2019			18						
10/8/2019					4				89
10/9/2019	239	49.7		7.2		25.3	44.1	7	
4/6/2020			13.5						
4/7/2020	44.3	56.4		7.7		146	32.5		103
4/8/2020					4.5			5.2	
9/28/2020			13.7	13.8	4.3				
9/29/2020							24.3	5.4	143
9/30/2020	24.1	53.9				8.5			
10/1/2020									
3/10/2021	25.7	42.4		8.5		48.2	48.7		188
3/11/2021									
3/12/2021			14.1						
3/15/2021					7.6			6.4	
3/16/2021									
9/21/2021	38.8	53.8	12.2		7.9	9.4	63.8		103

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-2	GWC-11
9/22/2021								7.4	
9/23/2021				8.8					
1/31/2022			11.2						
2/1/2022									
2/2/2022		42.3						6.9	
2/3/2022	38.5			8	8.8	10.8	57		83.4
8/30/2022	76.8	52	9.93				58.4		
8/31/2022					6.69	51.2			110
9/1/2022				9.17				6.59	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWA-7 (bg)	GWC-21	GWC-20	GWC-17	GWB-4R	GWC-16	GWC-14	GWC-15
8/30/2016									
8/31/2016	17								
9/1/2016		190	5.9	16	610	160	43	60	10
10/24/2016									
10/25/2016		175 (D)	4.4	8.1			34	36	6.5
10/26/2016					570	110			
10/27/2016	17								
1/3/2017									
1/4/2017			7.7	13			29		
1/5/2017					710			37	10
1/6/2017	16	180				67			
4/3/2017									7.3
4/4/2017			8	23		80		47	
4/5/2017					860		36		
4/6/2017	17	200							
7/10/2017									
7/11/2017				31				34	5.7
7/12/2017	18					120	44		
7/13/2017		200	5.4		860				
10/2/2017				30				34	4.4
10/3/2017			4.4				58		
10/4/2017	18	260			1000	130			
1/9/2018		210	4.4					24	5.7
1/10/2018				9.7			36		
1/11/2018	16				940	60			
7/9/2018				10.8				25.9	
7/10/2018			6.3				57		3.1
7/11/2018	16.2	177			864	75.9			
1/16/2019		165			469	20.2		29.2	
1/17/2019			5.4				48.9		3.2
1/18/2019	17.5								
1/21/2019				5.1					
3/25/2019		147		9.4		19.7			
3/26/2019			11.9		439		5.1	21.1	3
3/27/2019	18.9								
7/30/2019									
10/7/2019									
10/8/2019		125	7.8				46.4	40.2	2.9
10/9/2019	19			5.4	330	32.1			
4/6/2020		30.2							
4/7/2020			4.7			14.5	49.3	41.6	3.4
4/8/2020	16.9			20.2	277				
9/28/2020		113							
9/29/2020								10.6	
9/30/2020			23.7	34.9	257		39.6		1.7
10/1/2020	16.8					15.7			
3/10/2021	18.3					16			
3/11/2021		96.7			334				
3/12/2021				31.9					2.3
3/15/2021									
3/16/2021			25.3				44.9	15.8	
9/21/2021		92.2				13.9			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWA-7 (bg)	GWC-21	GWC-20	GWC-17	GWB-4R	GWC-16	GWC-14	GWC-15
9/22/2021	19.3		6	38.9	517		55.8	28	
9/23/2021									7.1
1/31/2022		83.4							
2/1/2022			29.3	33.4	549		61.5		
2/2/2022	17.5					14.5		29.6	
2/3/2022									5.1
8/30/2022		74.4	29.4	24.4		65		26.7	
8/31/2022					694				4.83
9/1/2022	17.6						57.2		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-2	GWC-22	GWC-11	GWC-9	GWC-12
8/30/2016	0.04 (J)	0.09 (J)	0.22 (J)	0.1 (J)					
8/31/2016					0.07 (J)	0.04 (J)	<0.1	0.55	0.7
9/1/2016									
10/24/2016				0.18 (J)					
10/25/2016			<0.1						
10/26/2016	0.05 (J)	0.24 (J)			0.62	0.12 (J)	<0.1		0.91
10/27/2016								0.26 (J)	
1/3/2017	0.08 (J)			0.18 (J)					
1/4/2017			0.18 (J)			0.06 (J)	<0.1		0.51
1/5/2017		0.11 (J)			0.17 (J)				
1/6/2017								0.25 (J)	
4/3/2017				0.12 (J)					
4/4/2017			<0.1		0.08 (J)				
4/5/2017									0.71
4/6/2017	0.006 (J)	0.3				<0.1	<0.1	0.16 (J)	
7/10/2017									0.88
7/11/2017				0.39		0.03 (J)	<0.1		
7/12/2017	0.05 (J)	0.15 (J)	0.04 (J)					0.2 (J)	
7/13/2017					0.06 (J)				
10/2/2017				0.12 (J)					
10/3/2017	0.11 (J)	0.11 (J)	<0.1		0.06 (J)		<0.1		
10/4/2017						0.12 (J)		0.22 (J)	0.37
1/9/2018		<0.1		0.21 (J)					
1/10/2018	<0.1		<0.1		<0.1				
1/11/2018						<0.1	<0.1	0.98	1.4
7/9/2018				0.04 (J)					
7/10/2018	0.2 (J)	<0.1	<0.1		<0.1				
7/11/2018						<0.1	<0.1	0.14 (J)	0.62
1/16/2019	<0.1	0.053 (J)	<0.1	<0.1					
1/17/2019							<0.1		1.2
1/18/2019						<0.1		0.24 (J)	
1/21/2019					<0.1				
3/25/2019				0.082 (J)					
3/26/2019	<0.1	0.046 (J)	0.051 (J)						
3/27/2019						<0.1	<0.1	0.13 (J)	0.036 (J)
7/30/2019					0.083 (J)				
8/26/2019				0.13					
8/27/2019		0.13 (J)	<0.1		<0.1	0.1	<0.1		0.3
8/28/2019	0.097 (J)							0.088 (J)	
10/7/2019				<0.1					
10/8/2019							<0.1		
10/9/2019	<0.1	<0.1	<0.1		<0.1	<0.1		0.068 (J)	<0.1
4/6/2020				0.089 (J)					
4/7/2020	<0.1	<0.1	<0.1			<0.1	<0.1		0.27 (J)
4/8/2020					<0.1			0.058 (J)	
8/17/2020				0.079 (J)					0.19
8/18/2020					<0.1	<0.1	<0.1		
8/19/2020	<0.1	<0.1	<0.1					0.092 (J)	
9/28/2020			<0.1	<0.1					
9/29/2020					<0.1		<0.1		0.16
9/30/2020	<0.1	<0.1				<0.1			
10/1/2020								<0.1	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-2	GWC-22	GWC-11	GWC-9	GWC-12
3/10/2021	<0.1	<0.1	<0.1			<0.1	<0.1	0.066 (J)	0.14
3/11/2021									
3/12/2021				0.087 (J)					
3/15/2021					<0.1				
3/16/2021									
9/21/2021	<0.1	<0.1		0.068 (J)		<0.1	<0.1		0.31
9/22/2021					<0.1			0.13	
9/23/2021			<0.1						
1/31/2022				0.09 (J)					
2/1/2022									
2/2/2022		<0.1			<0.1			<0.1	
2/3/2022	0.081 (J)		<0.1			<0.1	<0.1		0.36
8/30/2022	0.0428 (J)	<0.1		0.0759 (J)					0.273
8/31/2022						<0.1	<0.1		
9/1/2022			<0.1		<0.1			0.0783 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-16	GWC-21	GWC-15	GWB-4R	GWC-14	GWC-17	GWA-7 (bg)	GWC-20
8/30/2016									
8/31/2016	<0.1								
9/1/2016		0.55	<0.1	<0.1	<0.1	0.25 (J)	0.68	<0.1	<0.1
10/24/2016									
10/25/2016		0.36	<0.1	0.5		0.43		0.07 (J)	<0.1
10/26/2016	0.55				0.05 (J)		0.68		
10/27/2016									
1/3/2017									
1/4/2017		0.1 (J)	<0.1						0.04 (J)
1/5/2017	0.09 (J)			0.22 (J)		0.21 (J)	0.73		
1/6/2017					0.08 (J)			0.2 (J)	
4/3/2017				<0.1					
4/4/2017			<0.1		<0.1	0.45			0.02 (J)
4/5/2017		0.2 (J)					1.6		
4/6/2017	<0.1							0.05 (J)	
7/10/2017									
7/11/2017				0.06 (J)		0.41			0.14 (J)
7/12/2017	<0.1	0.04 (J)			0.38				
7/13/2017			<0.1				1.7	0.41	
10/2/2017				<0.1		<0.1			<0.1
10/3/2017		0.86	<0.1						
10/4/2017	<0.1				<0.1		1.8	0.04 (J)	
1/9/2018			<0.1	<0.1		<0.1		0.46	
1/10/2018	<0.1	<0.1							<0.1
1/11/2018					<0.1		1.5		
7/9/2018						<0.1			<0.1
7/10/2018		<0.1	<0.1	0.15 (J)					
7/11/2018	<0.1				<0.1		1.8	<0.1	
1/16/2019	<0.1				1.2	<0.1	1.4	0.49	
1/17/2019		<0.1	<0.1	<0.1					
1/18/2019									
1/21/2019									<0.1
3/25/2019					0.064 (J)			0.21 (J)	0.043 (J)
3/26/2019	0.052 (J)	0.11 (J)	0.071 (J)	0.13 (J)		0.13 (J)	0.89		
3/27/2019									
7/30/2019									
8/26/2019								<0.1	
8/27/2019	<0.1			<0.1	0.031 (J)	<0.1			
8/28/2019		<0.1	<0.1				0.61		<0.1
10/7/2019									
10/8/2019	<0.1	<0.1	<0.1	<0.1		<0.1		<0.1	
10/9/2019					<0.1		<0.1		<0.1
4/6/2020								0.13 (J)	
4/7/2020		<0.1	<0.1	<0.1	<0.1	<0.1			
4/8/2020	<0.1						0.55		<0.1
8/17/2020	<0.1								
8/18/2020		<0.1	<0.1	<0.1		<0.1	0.51		<0.1
8/19/2020					0.17			0.21	
9/28/2020	<0.1							0.069 (J)	
9/29/2020						<0.1			
9/30/2020		<0.1	<0.1	<0.1			0.15		<0.1
10/1/2020					<0.1				

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-16	GWC-21	GWC-15	GWB-4R	GWC-14	GWC-17	GWA-7 (bg)	GWC-20
3/10/2021					<0.1				
3/11/2021							0.42	<0.1	
3/12/2021				<0.1					<0.1
3/15/2021	<0.1								
3/16/2021		<0.1	<0.1			<0.1			
9/21/2021	<0.1				<0.1			0.077 (J)	
9/22/2021		<0.1	<0.1			<0.1	0.79		<0.1
9/23/2021				<0.1					
1/31/2022								<0.1	
2/1/2022		<0.1	<0.1				0.68		<0.1
2/2/2022					<0.1	<0.1			
2/3/2022	<0.1			<0.1					
8/30/2022			<0.1		<0.1	<0.1		0.0391 (J)	<0.1
8/31/2022	0.051 (J)			<0.1			0.442		
9/1/2022		0.0374 (J)							

Prediction Limit

Constituent: pH (SU) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13	GWC-15	GWB-5R	GWC-16
7/16/2013	4.62	5.25	5.38	5.2	4.17	4.95	5.96	5.95	4.92
10/11/2014	4.58								5.17
10/24/2016									
10/25/2016	4.79		5.51				6.46		5.58
10/26/2016		5.21		5.08	4.04	4.95		5.27	
10/27/2016									
1/3/2017								5.09	
1/4/2017			5.46	5.06	4.01				5.51
1/5/2017	4.73	5.2				4.97	6.25		
1/6/2017									
4/3/2017							6.25		
4/4/2017	4.68		5.43						
4/5/2017					4	4.81			5.51
4/6/2017		5.17		4.97				5.22	
7/10/2017					3.89				
7/11/2017	4.72			5.26			6.5		
7/12/2017		5.24	5.46			4.83		5.29	5.84
7/13/2017									
10/2/2017	5.13						6.83		
10/3/2017		5.36	5.65	5.07				5.08	5.55
10/4/2017					4.06	4.71			
1/9/2018	5.59	5.4					6.57		
1/10/2018			5.67			5.17		5.83	5.99
1/11/2018				5.18	3.96				
7/9/2018	5.11								
7/10/2018		5.31	5.71				6.42	6.42	5.5
7/11/2018				4.82	3.95	4.49			
1/16/2019	6.82	5.99	5.59			6.45 (O)		6.66	
1/17/2019				4.91	3.89		8.44 (O)		7.13
1/18/2019									
1/21/2019									
3/25/2019									
3/26/2019	5.74	5.94	5.77			4.96	6.65	5.1	5.57
3/27/2019				5.18	4.11				
7/30/2019									
8/26/2019									
8/27/2019	5.58	5.67	5.84	5.17	4.02	4.9	6.57		
8/28/2019								5.95	5.57
10/7/2019									
10/8/2019	5.68			4.93		4.81	6.65		5.54
10/9/2019		5.66	5.82		4.25			6.11	
4/6/2020									
4/7/2020	6.2	5.86	5.3	5.05	4.1		6.83	5.45	5.94
4/8/2020						4.81			
8/17/2020					3.94	4.65			
8/18/2020	5.56			4.41			6.39		5.52
8/19/2020		5.21	5.73					5.14 (D)	
9/28/2020			5.79			4.76			
9/29/2020	5.69			4.77	3.95				
9/30/2020		5.39					6.71	4.99	5.47
10/1/2020									
3/10/2021		5.69	5.42	4.97	4.08			4.73	

Prediction Limit

Constituent: pH (SU) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13	GWC-15	GWB-5R	GWC-16
3/11/2021									
3/12/2021							6.21		
3/15/2021						4.74			
3/16/2021	5.53								5.67
9/21/2021		5.4		4.92	4.05	4.83		4.68	
9/22/2021	5.76								5.57
9/23/2021			6.06				6.48		
1/31/2022									
2/1/2022									5.57
2/2/2022	5.98	5.75							
2/3/2022			5.89	4.98	4.04	4.97	6.61	4.48	
8/30/2022	5.86	5.55			3.92			5.22	
8/31/2022				4.85		4.76	6.57		
9/1/2022			5.8						5.37

Prediction Limit

Constituent: pH (SU) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9	GWA-8 (bg)	GWA-7 (bg)
7/16/2013	6.22	4.55	4.52	6.1	5.71	4.91	5.05		
10/11/2014								4.42	
10/24/2016								4.36	
10/25/2016				6.06	5.41				6.17
10/26/2016	6.06	4.45	4.48			4.6			
10/27/2016							4.65		
1/3/2017								4.28	
1/4/2017				6.05	5.6	4.63			
1/5/2017		4.45	4.85						
1/6/2017	6.02						4.56		6.16
4/3/2017								4.29	
4/4/2017	6.08		4.58	6.03	5.94				
4/5/2017		4.33							
4/6/2017						4.79	4.5		6.26
7/10/2017									
7/11/2017				5.96		4.73		4.35	
7/12/2017	5.93						4.56		
7/13/2017		4.11	4.74		5.6				5.99
10/2/2017				5.88				4.32	
10/3/2017			4.57		5.18				
10/4/2017	5.77	4.09				4.74	4.72		6.16
1/9/2018					6.14			4.44	6.43
1/10/2018			5.31	6.21					
1/11/2018	5.98	4.4				5.22	4.34		
7/9/2018				6.24				4.4	
7/10/2018			4.58		5.7				
7/11/2018	6.01	4.07				4.68	4.68		6.1
1/16/2019	5.83	4.05						6.16 (O)	6.05
1/17/2019					7.39				
1/18/2019						6.98 (O)	6.87 (O)		
1/21/2019			5.05	7.73 (O)					
3/25/2019	5.74			6.28				4.4	6.06
3/26/2019		4.62			6.08				
3/27/2019						4.77	4.38		
7/30/2019			4.74						
8/26/2019								4.26	5.91
8/27/2019	5.7		4.77			4.89			
8/28/2019		4.62		6.34	6.05		4.68		
10/7/2019								4.24	
10/8/2019					6.09				5.74
10/9/2019	5.79	4.66	4.79	6.5		4.68	4.62		
4/6/2020								4.52	6.02
4/7/2020	5.74				6	4.8			
4/8/2020		4.71	4.66	6.31			4.73		
8/17/2020								4.23	
8/18/2020		4.31	4.6	5.89	5.82	4.52			
8/19/2020	5.7						4.58		5.81 (D)
9/28/2020								4.41	5.86
9/29/2020			4.6						
9/30/2020		4.08		6.04	5.82	4.63			
10/1/2020	5.75						4.42		
3/10/2021	5.23					4.82	4.55		

Prediction Limit

Constituent: pH (SU) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9	GWA-8 (bg)	GWA-7 (bg)
3/11/2021		5.2							5.85
3/12/2021				5.86				4.54	
3/15/2021			4.56						
3/16/2021					5.74				
9/21/2021	5.78					4.72		4.44	6.03
9/22/2021		4.63	4.71	6	5.39		4.7		
9/23/2021									
1/31/2022								4.39	5.94
2/1/2022		4.53		5.9	5.76				
2/2/2022	5.71		4.79				4.66		
2/3/2022						4.63			
8/30/2022	5.67			6.01	5.76			4.58	5.98
8/31/2022		4.33				4.68			
9/1/2022			4.73				4.6		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-2	GWC-11
8/30/2016	100	120	140	87					
8/31/2016					43	700	1100	21	64
9/1/2016									
10/24/2016			160						
10/25/2016				83					
10/26/2016	130	120			29	850	900	100	56
10/27/2016									
1/3/2017	120		140						
1/4/2017				99		680	880		65
1/5/2017		130			32			22	
1/6/2017									
4/3/2017			140						
4/4/2017				110				29	
4/5/2017							990		
4/6/2017	140	150			49	220			110
7/10/2017							480		
7/11/2017			130			210			49
7/12/2017	140	140		100	16				
7/13/2017								20	
10/2/2017			150						
10/3/2017	130	140		63				20	140
10/4/2017					33	730	760		
1/9/2018		140	120						
1/10/2018	110			86	22			9.5	
1/11/2018						180	780		270
7/9/2018			123						
7/10/2018	48.1	128		77.7				8.5	
7/11/2018					17.8	381	598		211
1/16/2019	184	402	129	71.2	20.2				
1/17/2019							454		50.3
1/18/2019						107			
1/21/2019								10.2	
3/25/2019			152						
3/26/2019	222	319		73.8	33.6				
3/27/2019						103	579		76.8
7/30/2019								12.3	
10/7/2019			156						
10/8/2019					22				310
10/9/2019	90.8	255		76.3		80.2	392	10.1	
4/6/2020			123						
4/7/2020	180	180		83		333	297		446
4/8/2020					30.7			12.9	
9/28/2020			93.6	71.6	25.6				
9/29/2020							237	8.6	516
9/30/2020	339	339				65.5			
10/1/2020									
3/10/2021	572	1160		61.2		101	282		687
3/11/2021									
3/12/2021			103						
3/15/2021					30.6			10	
3/16/2021									
9/21/2021	829	645	96.5		36.6	52.4	315		433

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-2	GWC-11
9/22/2021								10.3	
9/23/2021				37.3					
1/31/2022			89.7						
2/1/2022									
2/2/2022		1460						9	
2/3/2022	797			49.2	32.1	46.2	333		347
8/30/2022	403	978	77.4				415		
8/31/2022					29	45.3			653
9/1/2022				44				10.3	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWA-7 (bg)	GWC-21	GWC-20	GWC-17	GWB-4R	GWC-16	GWC-14	GWC-15
8/30/2016									
8/31/2016	84								
9/1/2016		73	36	180	310	210	430	730	120
10/24/2016									
10/25/2016		26	16	79			360	420	100
10/26/2016					280	230			
10/27/2016	76								
1/3/2017									
1/4/2017			45	170			360		
1/5/2017					310			430	140
1/6/2017	66	23				220			
4/3/2017									150
4/4/2017			46	300		230		600	
4/5/2017					460		440		
4/6/2017	79	25							
7/10/2017									
7/11/2017				400				400	110
7/12/2017	75					210	490		
7/13/2017		65	33		490				
10/2/2017				390				470	56
10/3/2017			34				780		
10/4/2017	78	13			1100	290			
1/9/2018		45	29					440	84
1/10/2018				99			470		
1/11/2018	110				810	210			
7/9/2018				99.2				369	
7/10/2018			33.2				787		43
7/11/2018	87.4	37.7			902	177			
1/16/2019		24.5			422	244		291	
1/17/2019			24.1				780		45.2
1/18/2019	56.9								
1/21/2019				35.5					
3/25/2019		14.7		95.6		245			
3/26/2019			83.9		439		87.9	192	54
3/27/2019	76.2								
7/30/2019									
10/7/2019									
10/8/2019		32.8	85.6				872	428	45.8
10/9/2019	41.1			58.5	346	38.5			
4/6/2020		20.3							
4/7/2020			33.2			221	844	456	26.9
4/8/2020	34.2			428	239				
9/28/2020		20							
9/29/2020								93.5	
9/30/2020			306	956	193		736		18.5
10/1/2020	35					178			
3/10/2021	38.7					160			
3/11/2021		12			244				
3/12/2021				933					21.1
3/15/2021									
3/16/2021			343				821	92	
9/21/2021		11.1				232			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWA-7 (bg)	GWC-21	GWC-20	GWC-17	GWB-4R	GWC-16	GWC-14	GWC-15
9/22/2021	42.7		14.6	905	394		1040	444	
9/23/2021									124
1/31/2022		15							
2/1/2022			374	862	416		1010		
2/2/2022	31.5					338		589	
2/3/2022									102
8/30/2022		10.6	451	606		379		410	
8/31/2022					721				88.5
9/1/2022	28.7						1140		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-9	GWC-22	GWC-2	GWC-11	GWC-12
8/30/2016	234	224	365	225					
8/31/2016					173	1570	39	119	1560
9/1/2016									
10/24/2016	216								
10/25/2016				230					
10/26/2016		297	373			1840	135	108	1520
10/27/2016					221				
1/3/2017	333	366							
1/4/2017				349		1560		182	1430
1/5/2017			543				99		
1/6/2017					259				
4/3/2017	288								
4/4/2017				356			54		
4/5/2017									1200
4/6/2017		279	434		169	368		248	
7/10/2017									1100
7/11/2017	188					383		88	
7/12/2017		308	454	357	163				
7/13/2017							50		
10/2/2017	210								
10/3/2017		288	389	192			18 (J)	248	
10/4/2017					168	1500			986
1/9/2018	118		415						
1/10/2018		493		277			<10		
1/11/2018					190	438		681	1020
7/9/2018	235								
7/10/2018		1730 (O)	453	349			49		
7/11/2018					165	876		440	888
1/16/2019	219	382	1320	341					
1/17/2019								118	765
1/18/2019					118	154			
1/21/2019							39		
3/25/2019	240								
3/26/2019		1040	1250	317					
3/27/2019					104	158		138	673
7/30/2019							70		
10/7/2019	275								
10/8/2019								613	
10/9/2019		2010	903	338	128	211	46		647
4/6/2020	214								
4/7/2020		483	775	195		819		780	464
4/8/2020					80		38		
9/28/2020	175			373					
9/29/2020							33	1100	440
9/30/2020		652	816			113			
10/1/2020					111				
3/10/2021		1040	2120	329	89	210		1240	566
3/11/2021									
3/12/2021	163								
3/15/2021							11		
3/16/2021									
9/21/2021	145	1240	985			87		842	558

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-9	GWC-22	GWC-2	GWC-11	GWC-12
9/22/2021					94		33		
9/23/2021				360					
1/31/2022	153								
2/1/2022									
2/2/2022			2440		96		43		
2/3/2022		1240		315		89		538	566
8/30/2022	154	886	1810						713
8/31/2022						163		1240	
9/1/2022				228	85		9 (J)		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWB-4R	GWA-7 (bg)	GWC-14
8/30/2016									
8/31/2016	77								
9/1/2016		539	878	1270	470	184	1080	3660	1170
10/24/2016									
10/25/2016		449	585		289	<10		3560	633
10/26/2016	<10			1320			1050		
10/27/2016									
1/3/2017									
1/4/2017			783		639	242			
1/5/2017	146	565		1770					781
1/6/2017							1060	3490	
4/3/2017		632							
4/4/2017					660	187	994		916
4/5/2017			722	1600					
4/6/2017	23 (J)							3170	
7/10/2017									
7/11/2017		569			836				675
7/12/2017	39		962				1070		
7/13/2017				1940		86		2280	
10/2/2017		559			698				689
10/3/2017			1240			66			
10/4/2017	38			2370			1100	3350	
1/9/2018		520				167		2640	653
1/10/2018	<10		935		322				
1/11/2018				2350			838		
7/9/2018					461				659
7/10/2018		524	1040			180			
7/11/2018	63			2260			799	2200	
1/16/2019	44			1540			530	2100	656
1/17/2019		518 (D)	1320			178			
1/18/2019									
1/21/2019					307				
3/25/2019					449		479	2100	
3/26/2019	72	541	1380	1220		292			496
3/27/2019									
7/30/2019									
10/7/2019									
10/8/2019	51	526	1500			278		1840	841
10/9/2019				1100	434		502		
4/6/2020								1670	
4/7/2020		428	1500			106	482		843
4/8/2020	65			881	986				
9/28/2020	60							1450	
9/29/2020									187
9/30/2020		434	1140	752	1860	634			
10/1/2020							424		
3/10/2021							434		
3/11/2021				705				1220	
3/12/2021		353			1730				
3/15/2021	<10								
3/16/2021			980			454			137
9/21/2021	83						476	1210	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 9/28/2022 10:45 AM View: Appendix III
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWB-4R	GWA-7 (bg)	GWC-14
9/22/2021			1680	1530	1430	51			864
9/23/2021		556							
1/31/2022								1260	
2/1/2022			1990	1580	1580	783			
2/2/2022							654		1130
2/3/2022	72	516							
8/30/2022					1210	807	882	1340	720
8/31/2022	55	530		2050					
9/1/2022			1720						

FIGURE G.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 11:11 AM

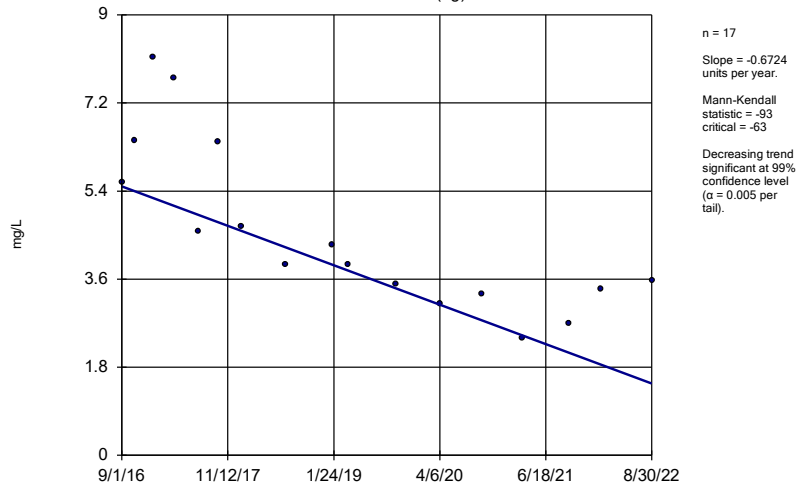
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.6724	-93	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	13.74	86	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	10.79	85	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	5.768	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	6.631	84	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	16.98	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-10.48	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	26.5	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	31.64	64	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-22.35	-89	-63	Yes	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01163	-79	-74	Yes	19	15.79	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.05	-76	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-3.991	-78	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-8 (bg)	-10.42	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	57.5	74	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	98.19	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	91.12	86	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-130.7	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	114.5	88	63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 9/28/2022, 11:11 AM

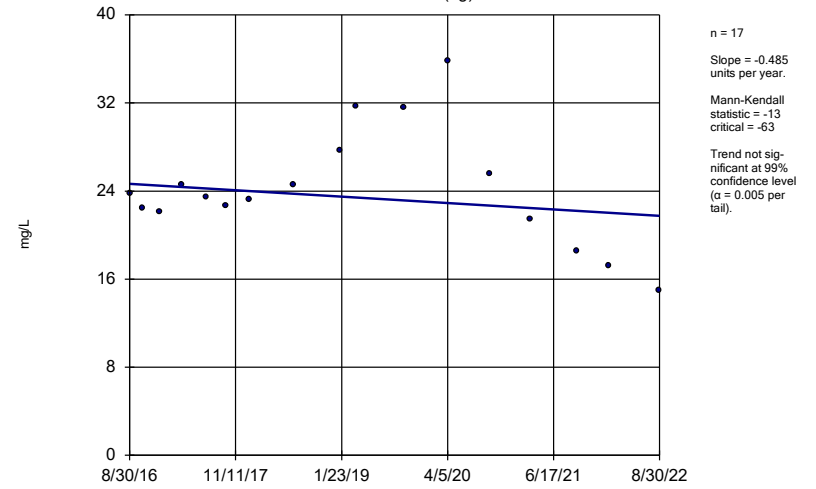
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.6724	-93	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWA-8 (bg)	-0.485	-13	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	13.74	86	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	10.79	85	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	5.768	83	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	6.631	84	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	16.98	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-10.48	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-14	3.68	8	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-15	1.953	15	63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	26.5	90	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-17	-3.105	-18	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	31.64	64	63	Yes	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-21	16.62	57	63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-22.35	-89	-63	Yes	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-8 (bg)	-0.1945	-17	-63	No	17	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-17	-61.65	-37	-63	No	17	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-7 (bg)	-0.004548	-23	-74	No	19	31.58	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01163	-79	-74	Yes	19	15.79	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWC-17	-0.1299	-65	-74	No	19	5.263	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.05	-76	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (SU)	GWA-8 (bg)	0.02069	35	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GWC-12	-0.007247	-14	-74	No	19	0	n/a	n/a	0.01	NP
pH (SU)	GWC-15	0.04875	39	68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-3.991	-78	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-8 (bg)	-10.42	-76	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-4R	4.182	18	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	57.5	74	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	98.19	96	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	91.12	86	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-130.7	-92	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-14	-30.55	-34	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	114.5	88	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-17	-8.669	-7	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-20	112.8	42	63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-21	25.95	49	63	No	17	0	n/a	n/a	0.01	NP

Sen's Slope Estimator
GWA-7 (bg)



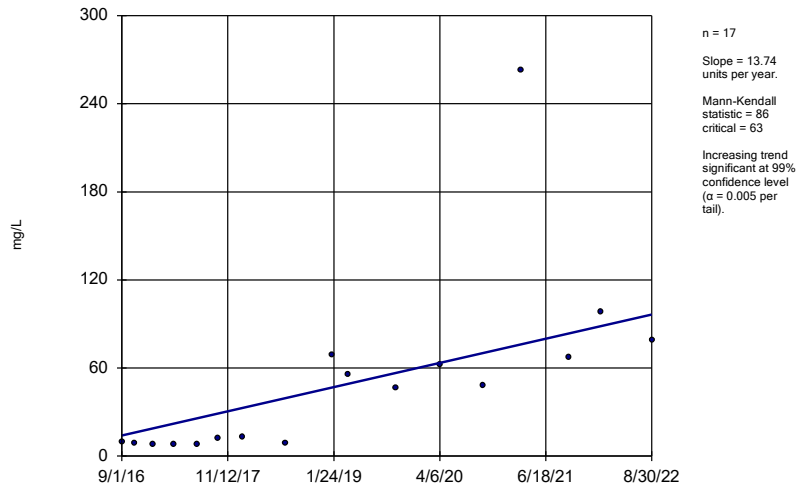
Constituent: Calcium Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



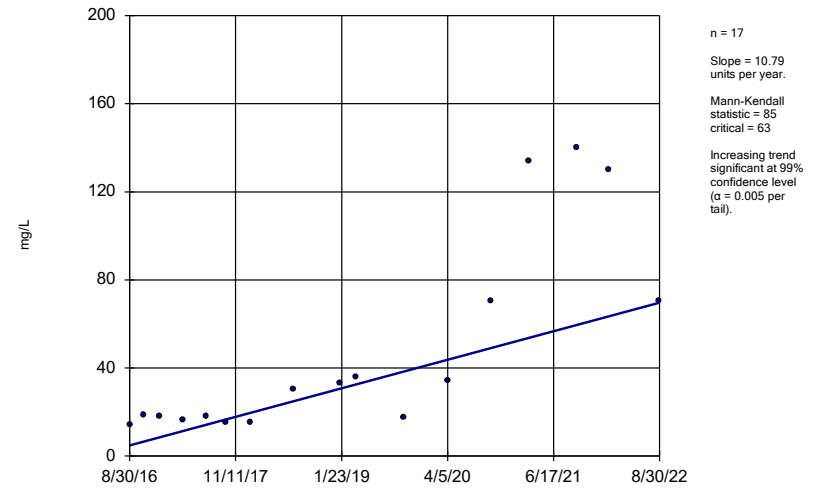
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWB-4R



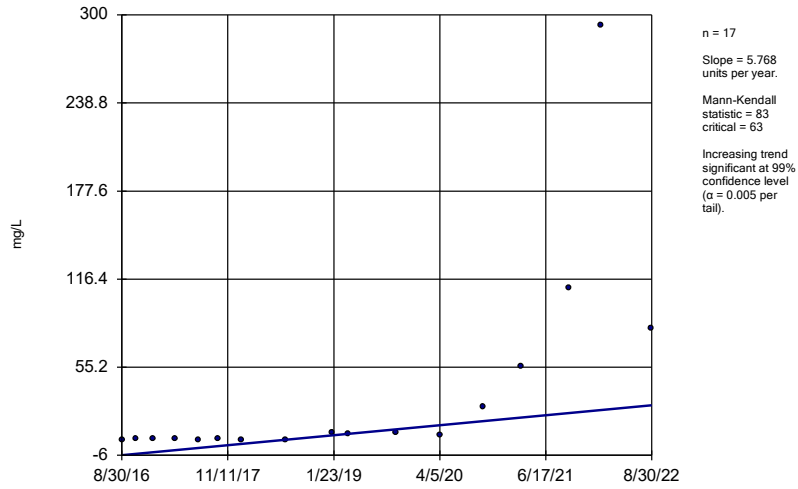
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWB-5R



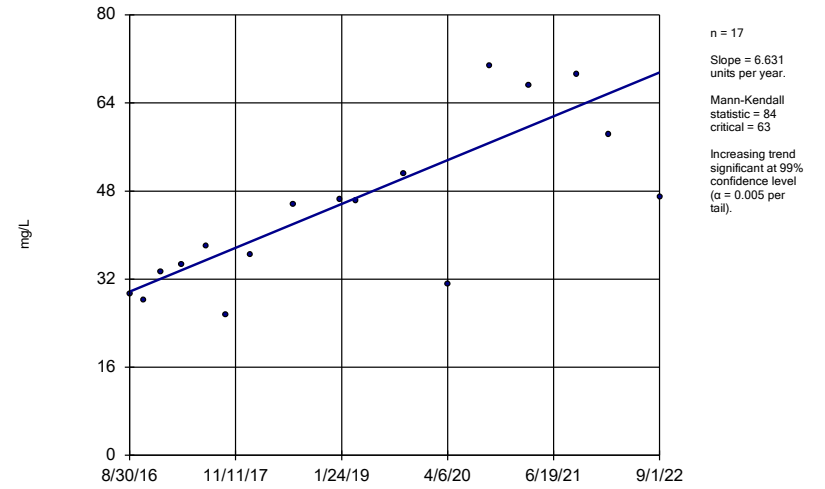
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWB-6R



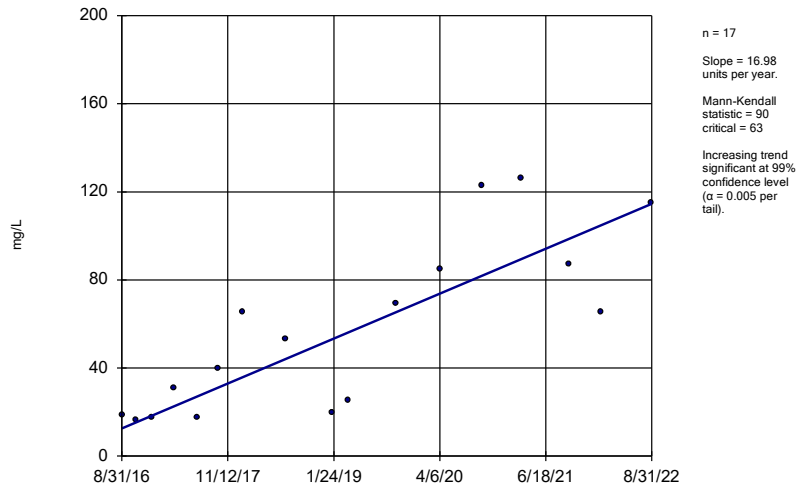
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-1



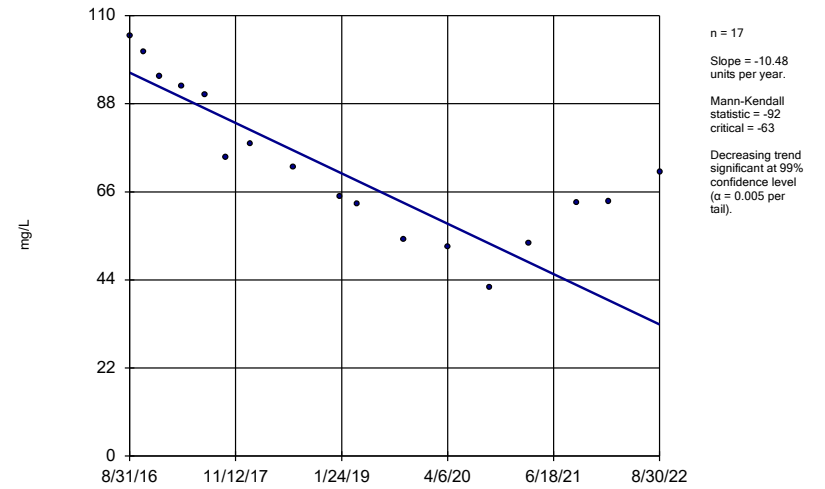
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-11



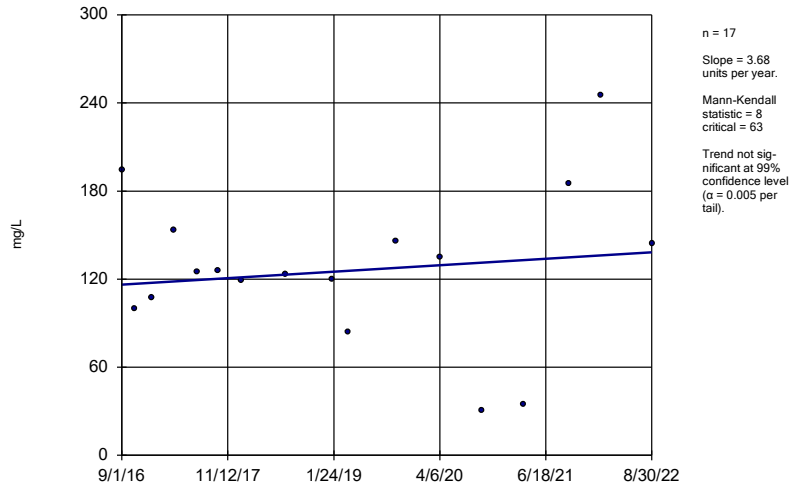
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-12



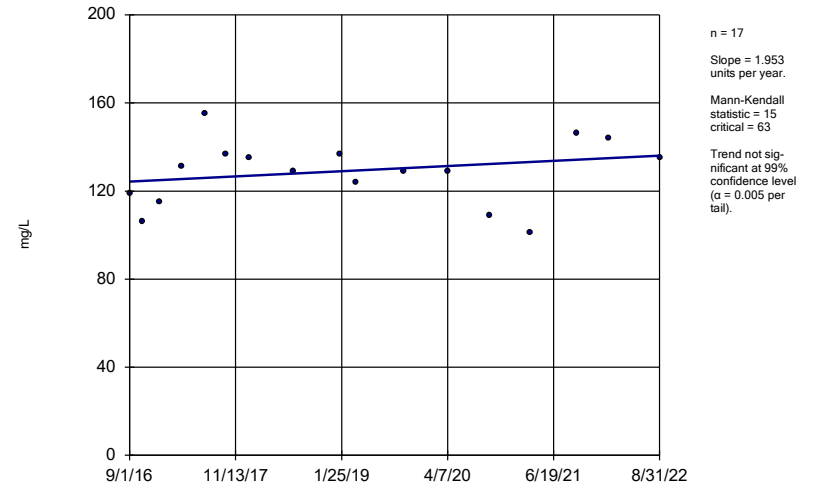
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-14



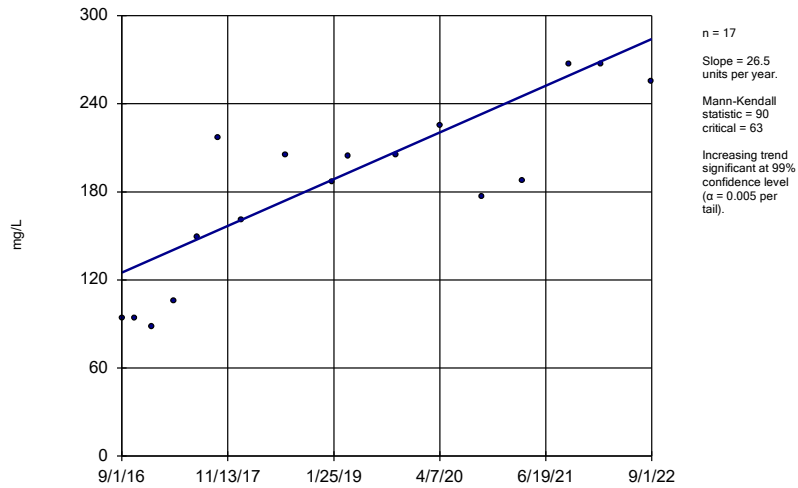
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-15



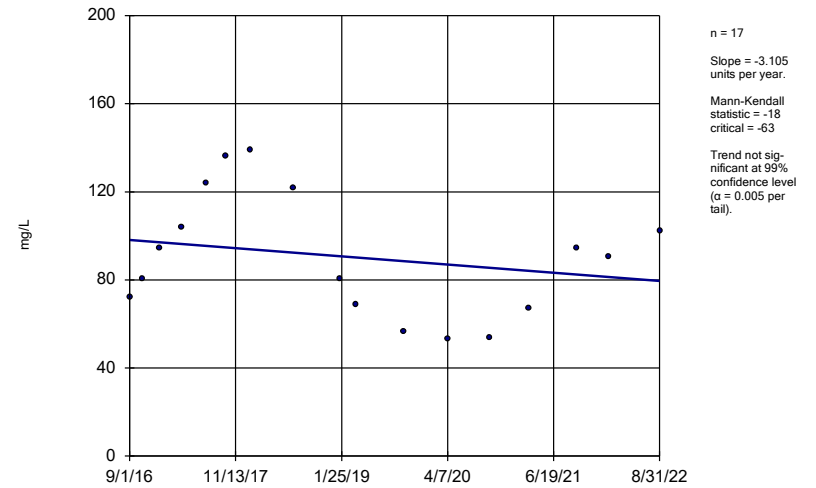
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-16



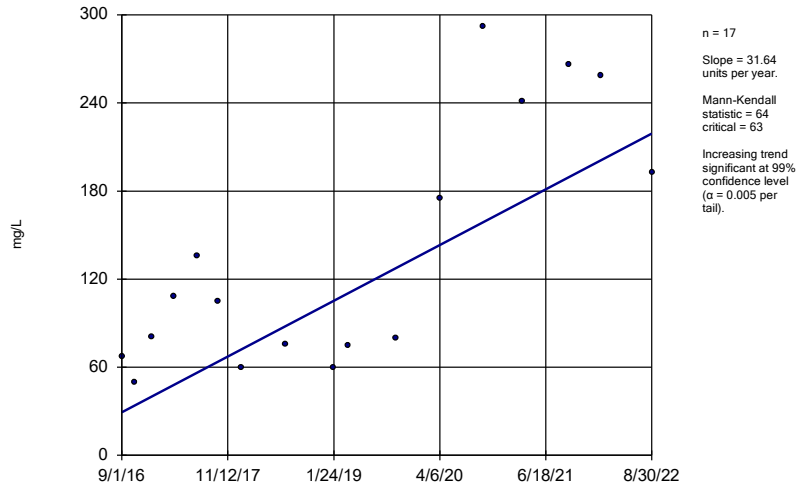
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-17



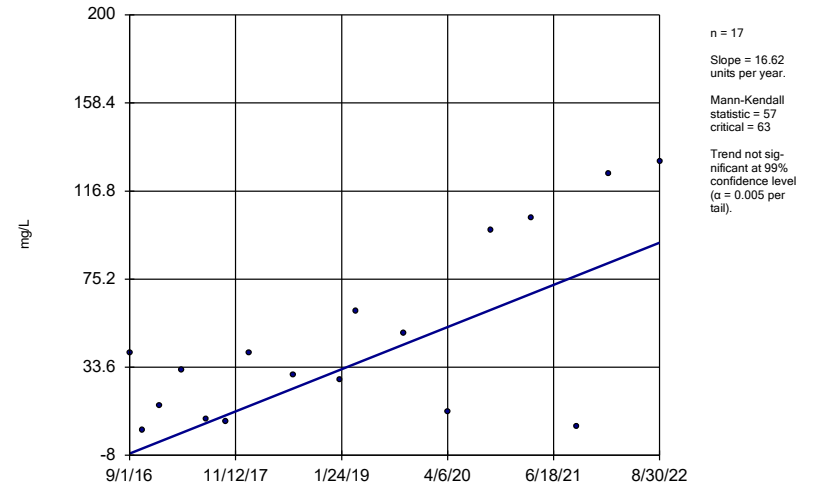
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-20



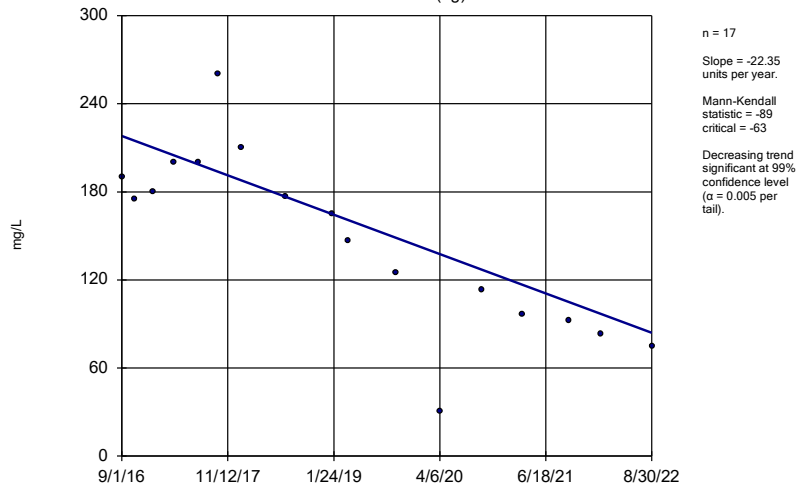
Constituent: Calcium Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-21



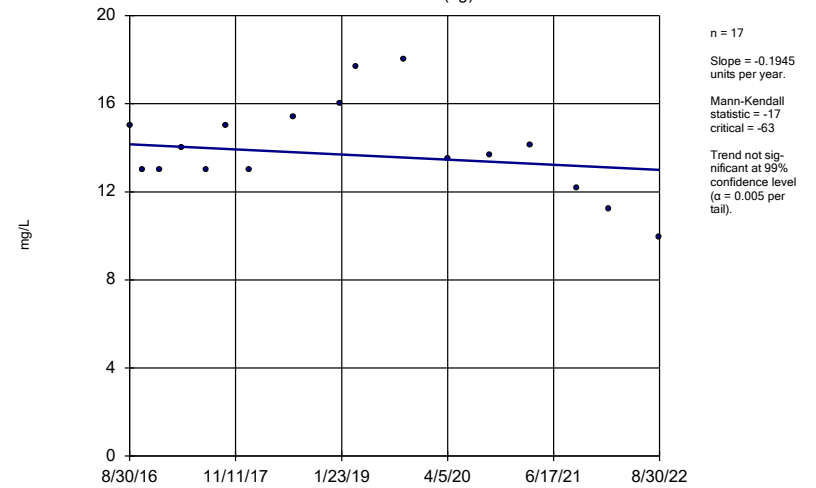
Constituent: Calcium Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-7 (bg)



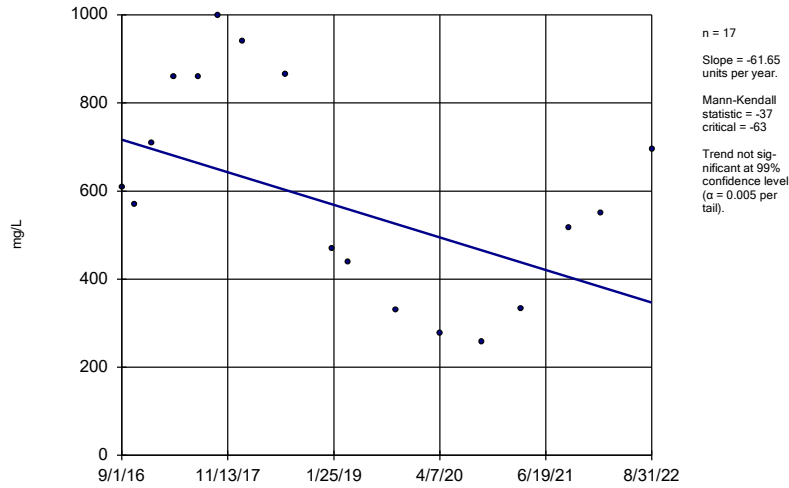
Constituent: Chloride Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



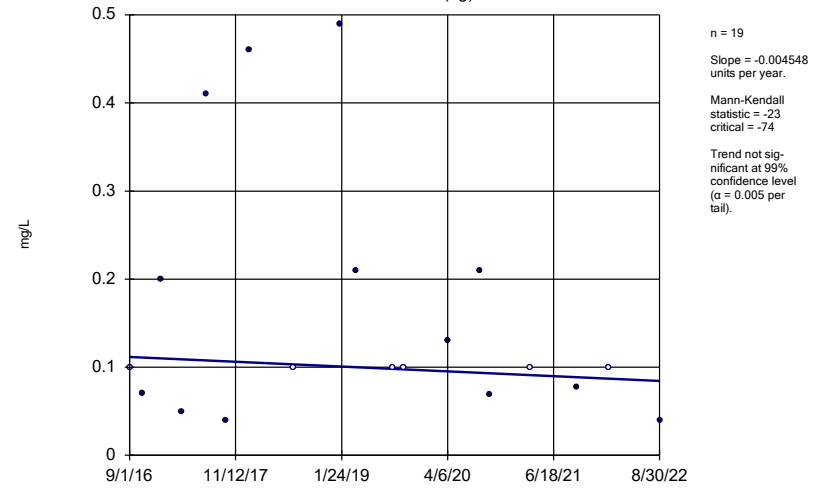
Constituent: Chloride Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-17



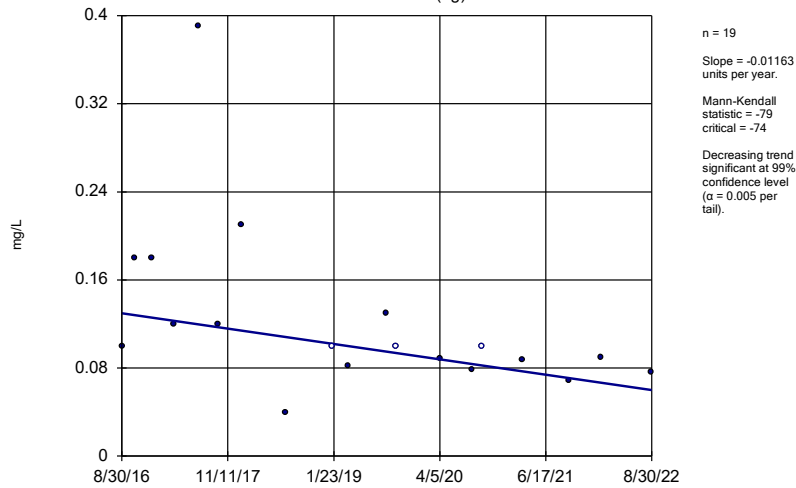
Constituent: Chloride Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-7 (bg)



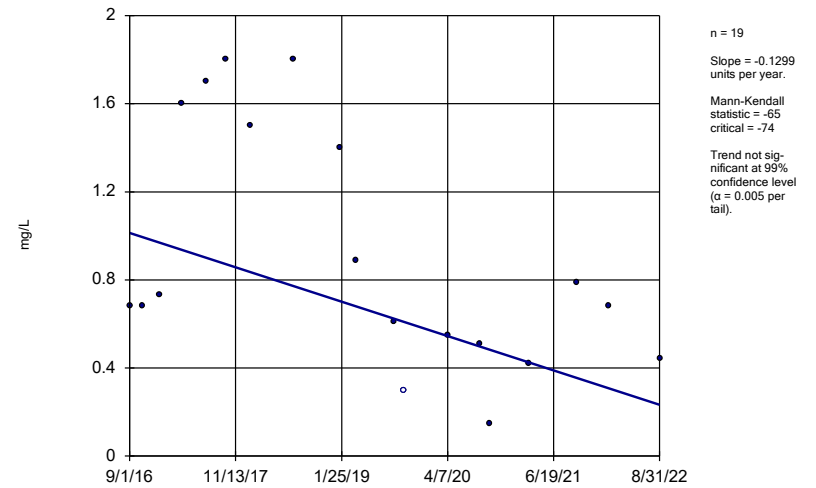
Constituent: Fluoride Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



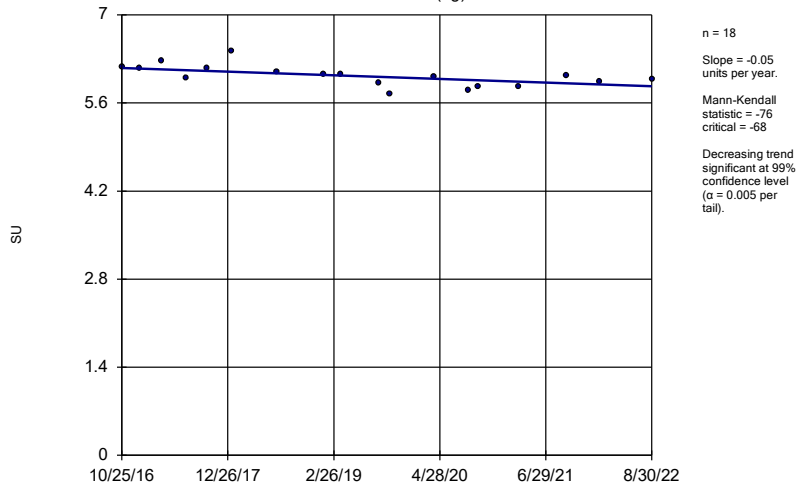
Constituent: Fluoride Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-17



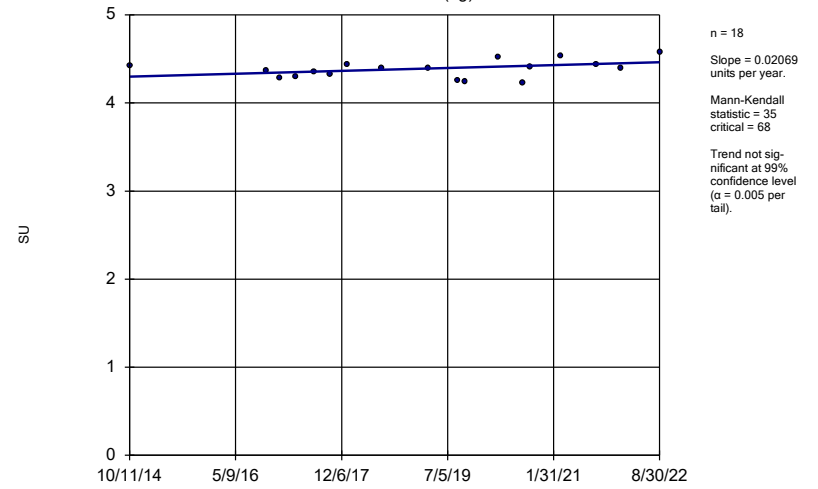
Constituent: Fluoride Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-7 (bg)



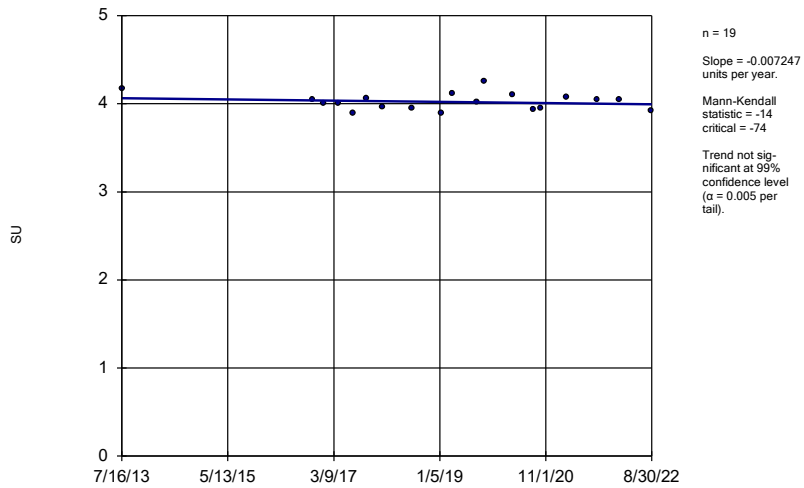
Constituent: pH Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



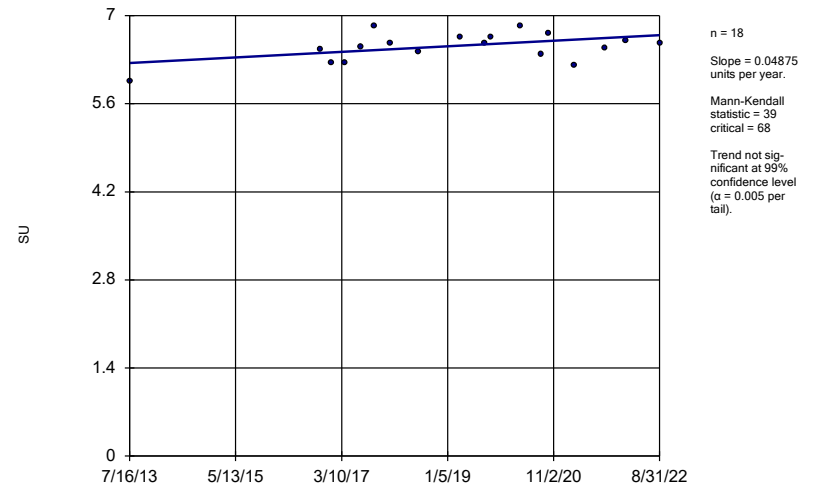
Constituent: pH Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-12



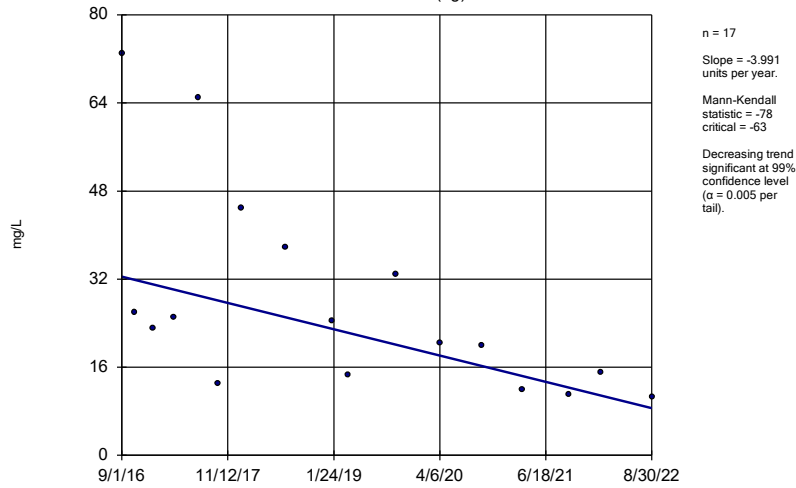
Constituent: pH Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-15



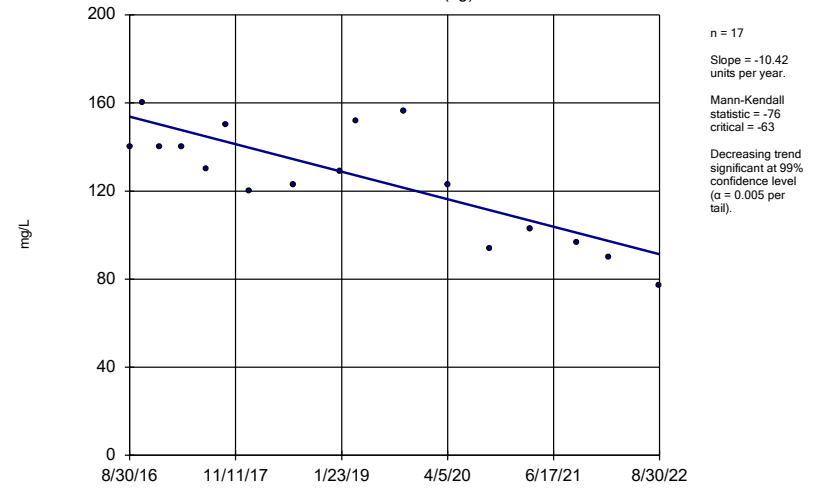
Constituent: pH Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-7 (bg)



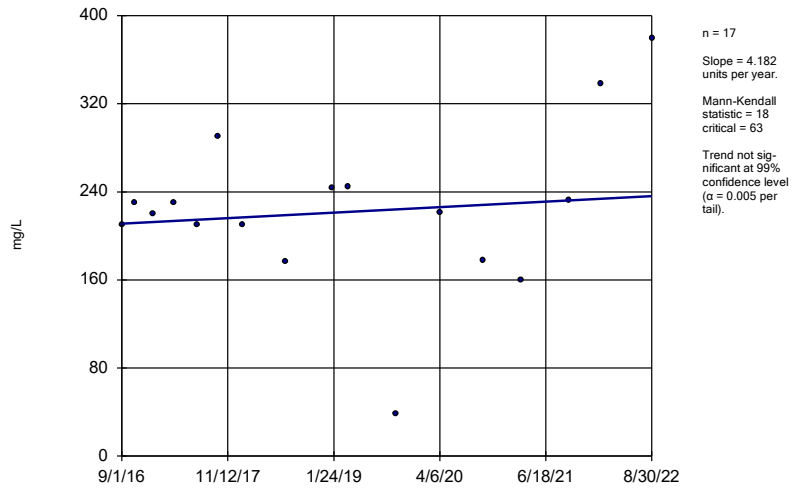
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



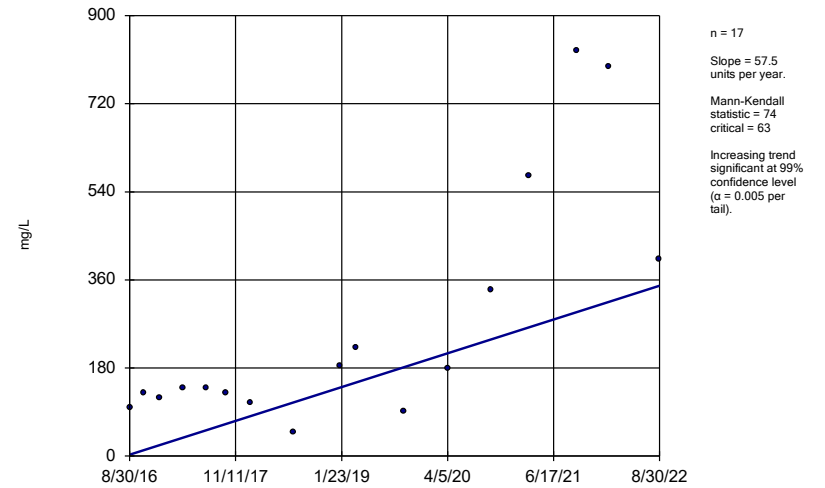
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWB-4R



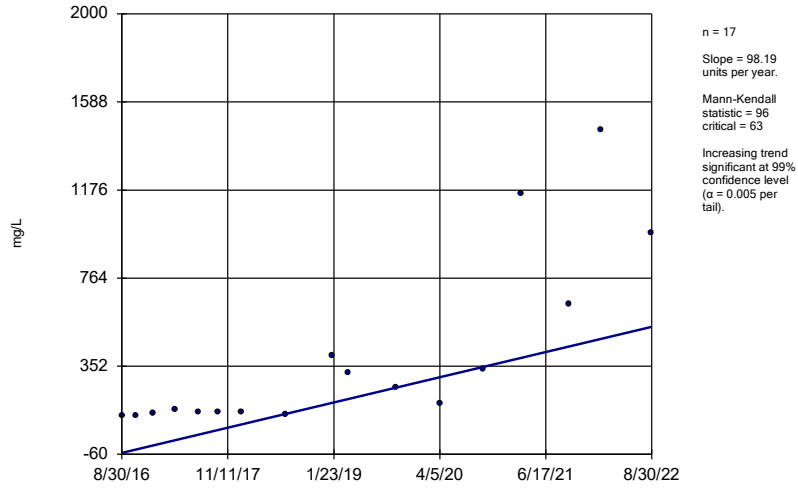
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWB-5R



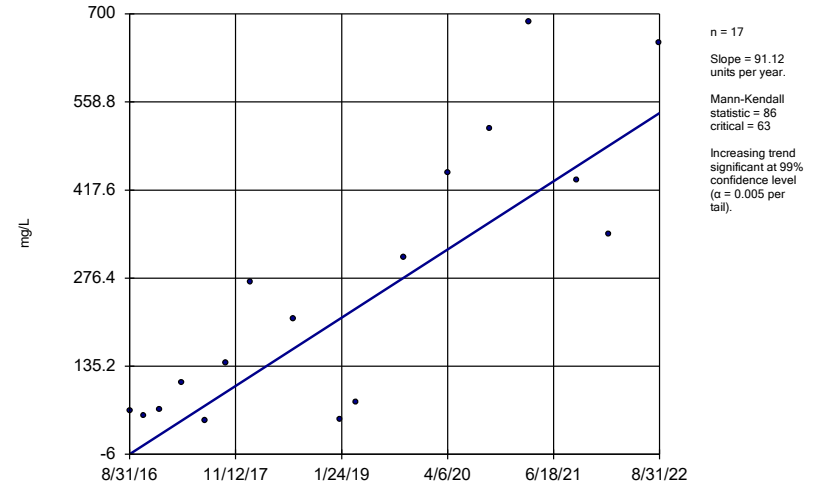
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWB-6R



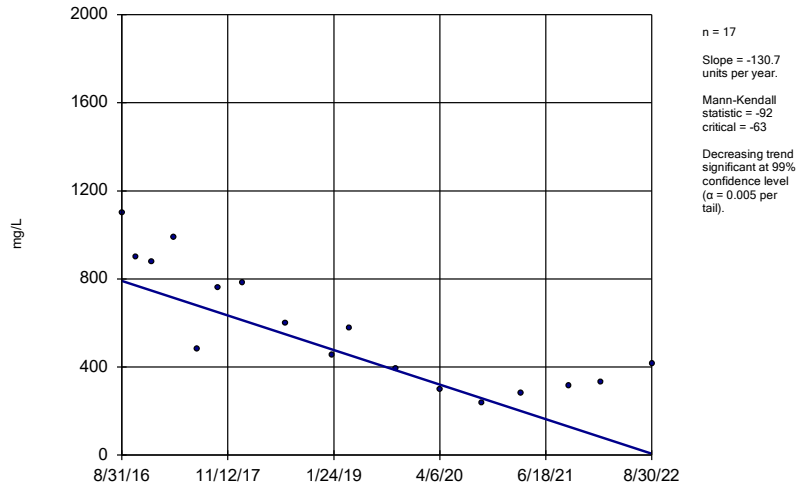
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-11



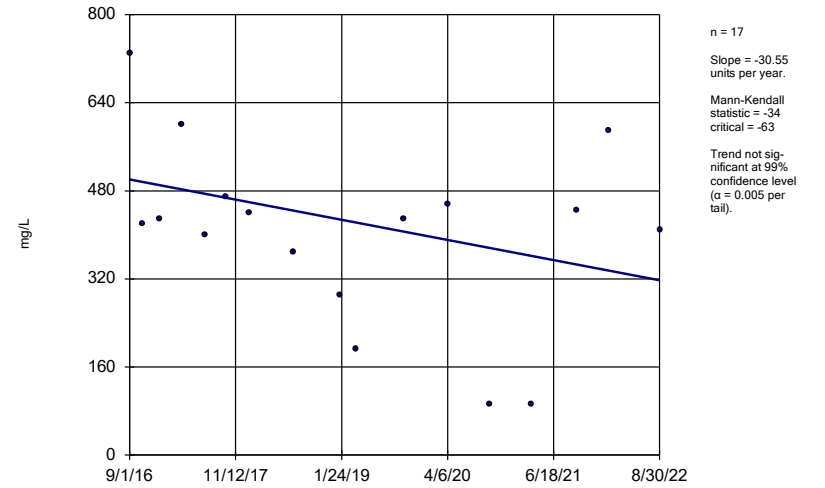
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-12



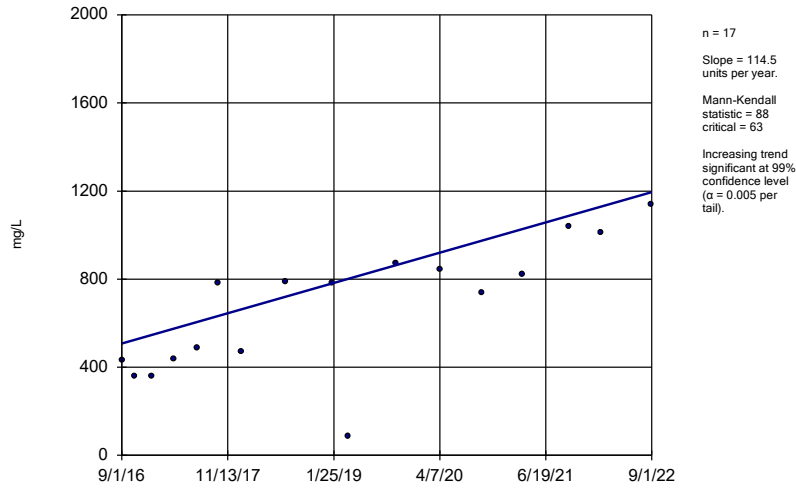
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-14



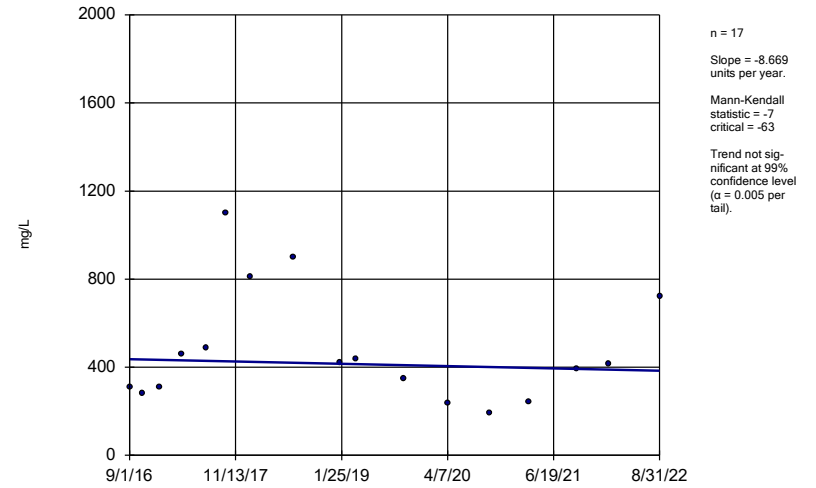
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-16



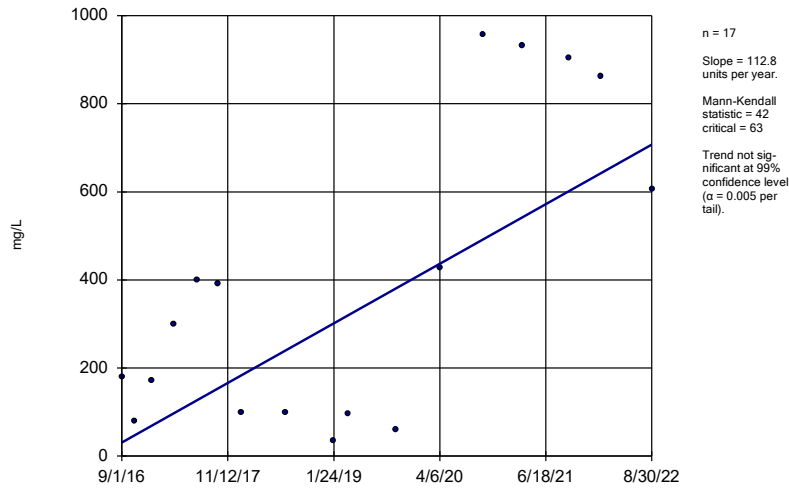
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-17



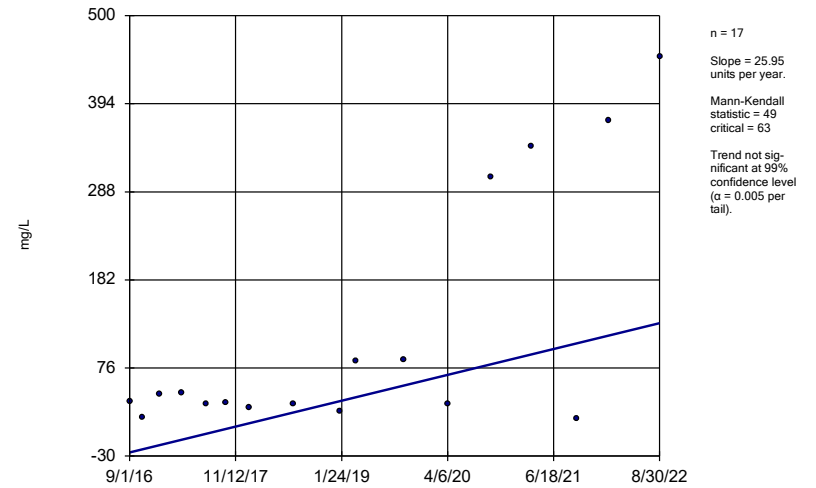
Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-20



Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-21



Constituent: Sulfate Analysis Run 9/28/2022 11:08 AM View: Appendix III - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

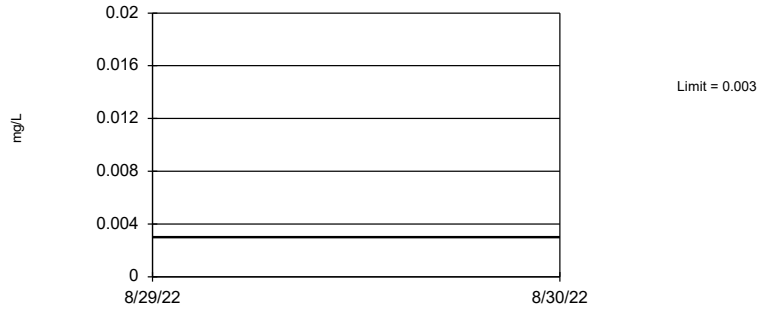
FIGURE H.

Upper Tolerance Limit Summary Table

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 9:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	127	n/a	n/a	95.28	n/a	n/a	0.001482	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0287	n/a	n/a	n/a	n/a	127	n/a	n/a	77.17	n/a	n/a	0.001482	NP Inter(NDs)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	125	n/a	n/a	0	n/a	n/a	0.001642	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0017	n/a	n/a	n/a	n/a	47	n/a	n/a	51.06	n/a	n/a	0.08974	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	45	n/a	n/a	95.56	n/a	n/a	0.09944	NP Inter(NDs)
Chromium (mg/L)	n/a	0.068	n/a	n/a	n/a	n/a	126	n/a	n/a	61.9	n/a	n/a	0.00156	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0102	n/a	n/a	n/a	n/a	45	n/a	n/a	48.89	n/a	n/a	0.09944	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	12.22	n/a	n/a	n/a	n/a	31	1.952	0.6987	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.4072	n/a	n/a	n/a	n/a	38	-2.348	0.6768	23.68	Kaplan-Meier	ln(x)	0.05	Inter
Lead (mg/L)	n/a	0.013	n/a	n/a	n/a	n/a	123	n/a	n/a	75.61	n/a	n/a	0.00182	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	34	n/a	n/a	73.53	n/a	n/a	0.1748	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	28	n/a	n/a	82.14	n/a	n/a	0.2378	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.0098	n/a	n/a	n/a	n/a	34	n/a	n/a	88.24	n/a	n/a	0.1748	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0438	n/a	n/a	n/a	n/a	127	n/a	n/a	83.46	n/a	n/a	0.001482	NP Inter(NDs)
Thallium (mg/L)	n/a	0.002	n/a	n/a	n/a	n/a	66	n/a	n/a	93.94	n/a	n/a	0.03387	NP Inter(NDs)
Vanadium (mg/L)	n/a	0.425	n/a	n/a	n/a	n/a	121	n/a	n/a	61.98	n/a	n/a	0.002016	NP Inter(NDs)
Zinc (mg/L)	n/a	0.16	n/a	n/a	n/a	n/a	119	n/a	n/a	28.57	n/a	n/a	0.002234	NP Inter(normality)

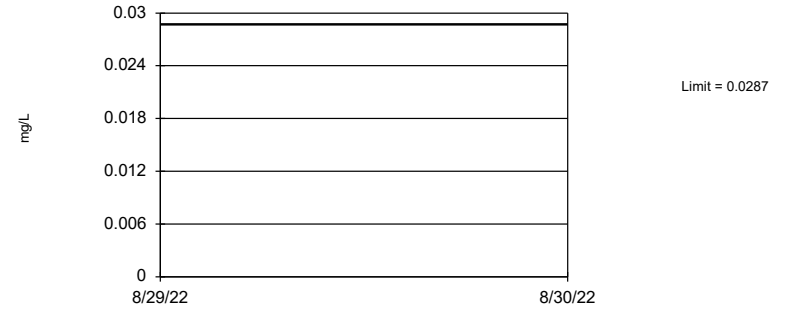
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 127 background values. 95.28% NDs. 96.29% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001482.

Constituent: Antimony Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

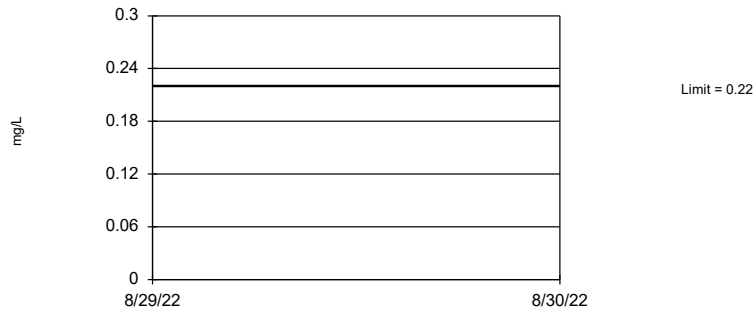
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 127 background values. 77.17% NDs. 96.29% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001482.

Constituent: Arsenic Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

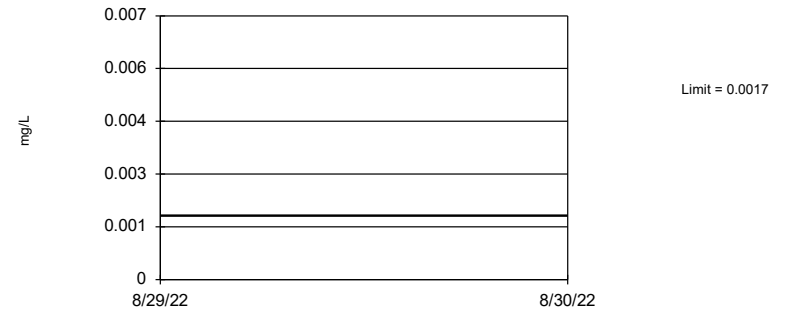
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 125 background values. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001642.

Constituent: Barium Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

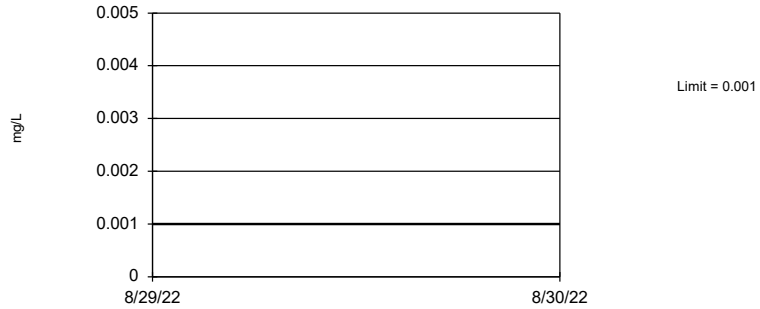
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 47 background values. 51.06% NDs. 90.82% coverage at alpha=0.01; 93.95% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.08974.

Constituent: Beryllium Analysis Run 11/6/2022 9:52 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

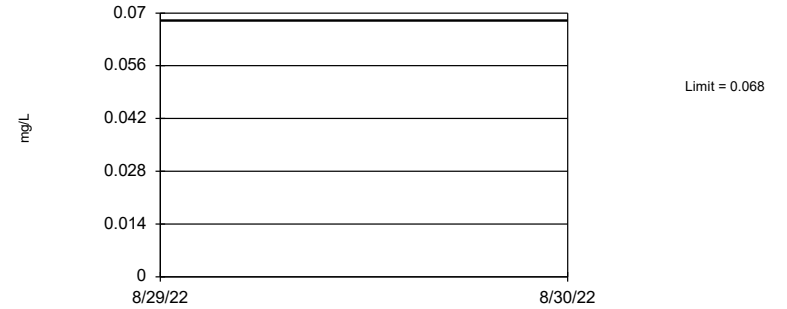
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 45 background values. 95.56% NDs. 90.43% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.09944.

Constituent: Cadmium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

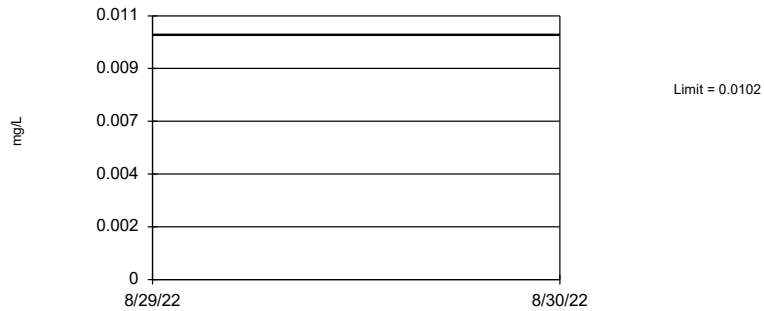
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 126 background values. 61.9% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.00156.

Constituent: Chromium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

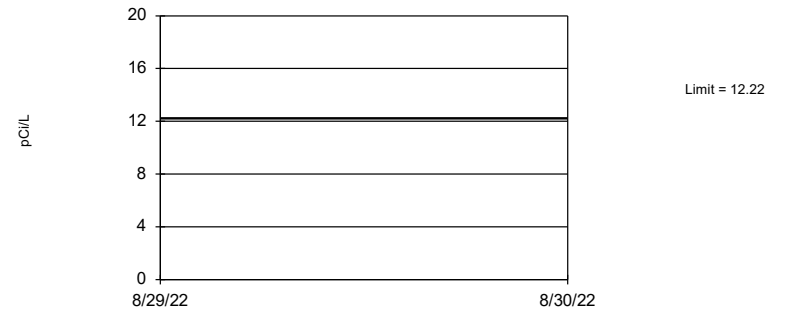
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 45 background values. 48.89% NDs. 90.43% coverage at alpha=0.01; 93.55% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.09944.

Constituent: Cobalt Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Parametric



95% coverage. Background Data Summary (based on square root transformation): Mean=1.952, Std. Dev.=0.6987, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9115, critical = 0.902. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

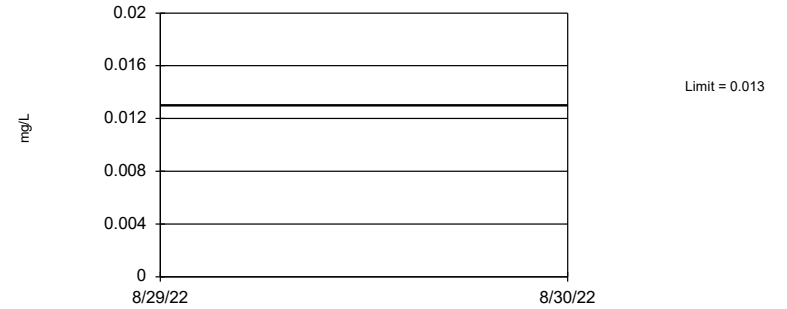
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.348, Std. Dev.=0.6768, n=38, 23.68% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9171, critical = 0.916. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 123 background values. 75.61% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.00182.

Constituent: Lead Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

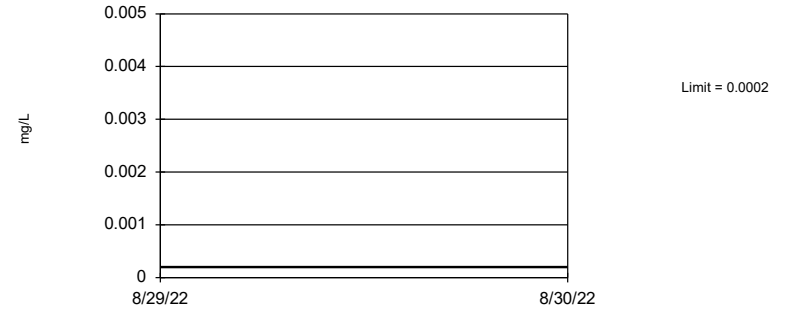
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 34 background values. 73.53% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Lithium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

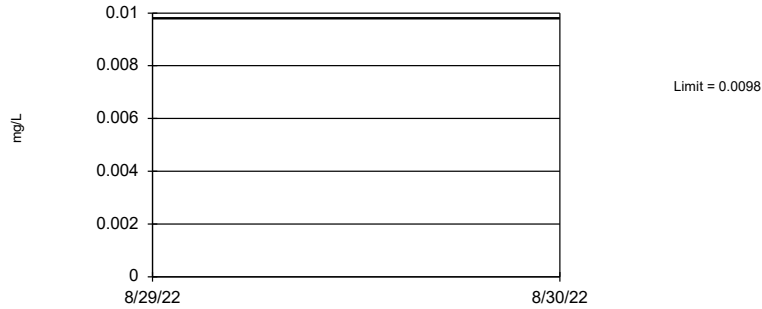
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 28 background values. 82.14% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Mercury Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

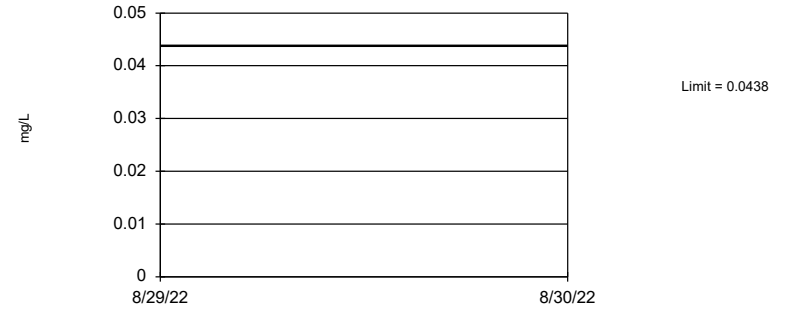
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 34 background values. 88.24% NDs. 87.3% coverage at alpha=0.01; 91.6% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.1748.

Constituent: Molybdenum Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 127 background values. 83.46% NDs. 96.29% coverage at alpha=0.01; 97.85% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.001482.

Constituent: Selenium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

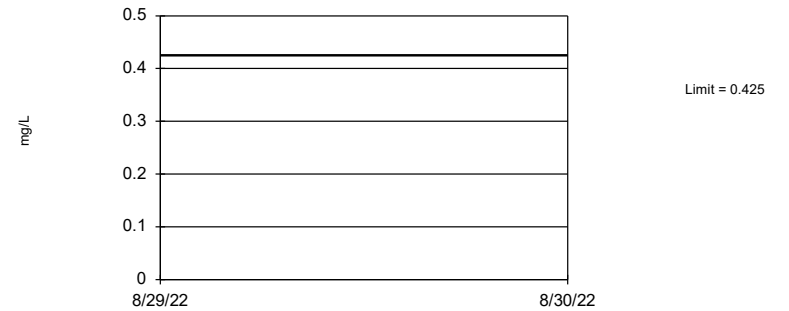
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 66 background values. 93.94% NDs. 93.16% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03387.

Constituent: Thallium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 121 background values. 61.98% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.002016.

Constituent: Vanadium Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 119 background values. 28.57% NDs. 96.29% coverage at alpha=0.01; 97.46% coverage at alpha=0.05; 99.41% coverage at alpha=0.5. Report alpha = 0.002234.

Constituent: Zinc Analysis Run 11/6/2022 9:53 AM View: Appendix IV - UTLs
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE I.

GRUMMAN ROAD LANDFILL GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.029	0.029
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.0017	0.004
Cadmium, Total (mg/L)	0.005		0.001	0.005
Chromium, Total (mg/L)	0.1		0.068	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0102	0.0102
Combined Radium, Total (pCi/L)	5		12.22	12.22
Fluoride, Total (mg/L)	4		0.41	4
Lead, Total (mg/L)	n/a	0.015	0.013	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.044	0.05
Thallium, Total (mg/L)	0.002		0.002	0.002
Vanadium, Total (mg/L)	n/a		0.43	0.43
Zinc, Total (mg/L)	n/a		0.16	0.16

**Highlighted cells indicated Background is higher than MCLs*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

FIGURE J.

Confidence Intervals - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	GWC-15	0.176	0.08366	0.029	Yes	21	0.1298	0.08372	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.08264	0.06341	0.029	Yes	22	0.07303	0.01792	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-20	0.3604	0.2763	0.029	Yes	21	0.3184	0.07621	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.2078	0.1293	0.1	Yes	17	0.1686	0.06266	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-20	0.3536	0.137	0.1	Yes	17	0.2629	0.1946	0	None	sqrt(x)	0.01	Param.

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	0.0003	0.006	No	21	0.002871	0.0005892	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-5R	0.003	0.0013	0.006	No	21	0.002673	0.0008364	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-6R	0.003	0.00059	0.006	No	21	0.002756	0.0007715	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-1	0.003	0.0016	0.006	No	21	0.002583	0.0009051	80.95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-11	0.003	0.0006	0.006	No	21	0.00186	0.00123	52.38	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-12	0.003	0.0003	0.006	No	21	0.002871	0.0005892	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-13	0.003	0.0006	0.006	No	21	0.002886	0.0005237	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-15	0.003	0.0018	0.006	No	21	0.002943	0.0002619	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-17	0.003	0.0014	0.006	No	21	0.0028	0.000653	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-2	0.003	0.0016	0.006	No	21	0.002852	0.0004686	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-20	0.003	0.0019	0.006	No	21	0.002836	0.0005552	90.48	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-21	0.003	0.00033	0.006	No	21	0.002873	0.0005826	95.24	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-22	0.003	0.0022	0.006	No	21	0.00253	0.0009363	76.19	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-9	0.003	0.0016	0.006	No	21	0.002806	0.0006442	90.48	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWB-4R	0.003338	0.002047	0.029	No	21	0.002693	0.00117	9.524	None	No	0.01	Param.
Arsenic (mg/L)	GWB-5R	0.001983	0.001062	0.029	No	21	0.002535	0.001726	23.81	Kaplan-Meier	x^(1/3)	0.01	Param.
Arsenic (mg/L)	GWB-6R	0.004092	0.001557	0.029	No	21	0.003714	0.002361	23.81	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	GWC-1	0.00526	0.002364	0.029	No	20	0.004764	0.00551	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-12	0.005	0.0016	0.029	No	21	0.004233	0.001628	80.95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-13	0.005	0.0025	0.029	No	21	0.004461	0.001397	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-14	0.002219	0.001636	0.029	No	22	0.002615	0.001262	18.18	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-15	0.176	0.08366	0.029	Yes	21	0.1298	0.08372	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.08264	0.06341	0.029	Yes	22	0.07303	0.01792	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-17	0.005	0.0011	0.029	No	21	0.002853	0.00192	42.86	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-2	0.005	0.00094	0.029	No	21	0.004378	0.001565	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-20	0.3604	0.2763	0.029	Yes	21	0.3184	0.07621	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-21	0.0059	0.0029	0.029	No	21	0.006271	0.006103	33.33	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-22	0.005	0.0011	0.029	No	21	0.00336	0.001997	57.14	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-9	0.005	0.00084	0.029	No	21	0.004802	0.0009078	95.24	None	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-25D	0.005	0.00092	0.029	No	5	0.004184	0.001825	80	None	No	0.031	NP (NDs)
Barium (mg/L)	GWB-4R	0.098	0.076	2	No	21	0.09233	0.02394	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWB-5R	0.1426	0.0869	2	No	21	0.1184	0.05621	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWB-6R	0.106	0.014	2	No	21	0.0674	0.04169	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1	0.05704	0.05117	2	No	21	0.0541	0.005314	0	None	No	0.01	Param.
Barium (mg/L)	GWC-11	0.1216	0.07385	2	No	21	0.09771	0.04325	0	None	No	0.01	Param.
Barium (mg/L)	GWC-12	0.023	0.017	2	No	21	0.01983	0.004585	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-13	0.02905	0.02171	2	No	21	0.02538	0.006658	0	None	No	0.01	Param.
Barium (mg/L)	GWC-14	0.067	0.025	2	No	22	0.04429	0.02732	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-15	0.05018	0.04022	2	No	21	0.0452	0.009027	0	None	No	0.01	Param.
Barium (mg/L)	GWC-16	0.1648	0.07656	2	No	20	0.1207	0.07768	0	None	No	0.01	Param.
Barium (mg/L)	GWC-17	0.1004	0.04728	2	No	21	0.0791	0.05487	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2	0.053	0.05	2	No	20	0.05294	0.007254	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-20	0.2024	0.1006	2	No	21	0.1746	0.1195	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GWC-21	0.1145	0.05692	2	No	21	0.09323	0.06186	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	GWC-22	0.09072	0.0587	2	No	21	0.07471	0.02902	0	None	No	0.01	Param.
Barium (mg/L)	GWC-9	0.2461	0.1791	2	No	21	0.2126	0.06074	0	None	No	0.01	Param.
Barium (mg/L)	MW-23D	0.079	0.076	2	No	4	0.07688	0.001436	0	None	No	0.0625	NP (normality)
Barium (mg/L)	MW-24D	0.05583	0.01802	2	No	4	0.03693	0.008328	0	None	No	0.01	Param.
Barium (mg/L)	MW-25D	0.03304	0.01676	2	No	4	0.0249	0.003583	0	None	No	0.01	Param.
Beryllium (mg/L)	GWB-4R	0.0005	0.0001	0.004	No	17	0.0003765	0.0001855	64.71	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWB-5R	0.0001657	0.00008436	0.004	No	17	0.0002436	0.000165	23.53	Kaplan-Meier	x^(1/3)	0.01	Param.
Beryllium (mg/L)	GWB-6R	0.0005	0.00005	0.004	No	17	0.0004468	0.0001501	88.24	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-11	0.0005	0.000047	0.004	No	17	0.0004734	0.0001099	94.12	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-12	0.0007522	0.0005148	0.004	No	17	0.0006514	0.0002157	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	GWC-13	0.0005	0.000058	0.004	No	17	0.000474	0.0001072	94.12	None	No	0.01	NP (NDs)

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	GWC-14	0.0005	0.0001	0.004	No	17	0.0004266	0.0001636	82.35	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-16	0.0005	0.00008	0.004	No	17	0.000255	0.0002116	41.18	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-17	0.00262	0.001628	0.004	No	17	0.002181	0.0008605	0	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	GWC-2	0.0005	0.000088	0.004	No	18	0.0003709	0.0001944	66.67	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-22	0.0005	0.00009	0.004	No	17	0.0003433	0.0001961	58.82	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-9	0.0003	0.00019	0.004	No	17	0.0002529	0.00008122	5.882	None	No	0.01	NP (normality)
Beryllium (mg/L)	MW-25D	0.0005	0.000084	0.004	No	4	0.000396	0.000208	75	None	No	0.0625	NP (NDs)
Cadmium (mg/L)	GWB-4R	0.001	0.0002	0.005	No	17	0.0007988	0.0003748	76.47	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-1	0.001	0.0001	0.005	No	17	0.0008924	0.0003039	88.24	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-11	0.0006077	0.000276	0.005	No	17	0.0004418	0.0002647	5.882	None	No	0.01	Param.
Cadmium (mg/L)	GWC-14	0.001	0.00017	0.005	No	17	0.0006582	0.0004219	58.82	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-20	0.001	0.0002	0.005	No	17	0.0008535	0.0003264	82.35	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-22	0.001	0.00012	0.005	No	17	0.0005324	0.0004155	41.18	None	No	0.01	NP (normality)
Cadmium (mg/L)	MW-23D	0.001	0.00027	0.005	No	4	0.0008175	0.000365	75	None	No	0.0625	NP (NDs)
Cadmium (mg/L)	MW-25D	0.001	0.00019	0.005	No	4	0.0007975	0.000405	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	GWB-4R	0.0101	0.0022	0.1	No	21	0.006514	0.004437	4.762	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-5R	0.003715	0.001047	0.1	No	21	0.008143	0.01523	28.57	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	GWB-6R	0.006407	0.002325	0.1	No	21	0.005174	0.005004	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	GWC-1	0.0024	0.0017	0.1	No	21	0.002929	0.002547	9.524	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-11	0.01	0.00091	0.1	No	21	0.004813	0.004589	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-12	0.0028	0.00091	0.1	No	21	0.003316	0.003853	23.81	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-13	0.01	0.00077	0.1	No	21	0.006108	0.004612	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-14	0.01	0.0008	0.1	No	22	0.00503	0.004648	45.45	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-15	0.01	0.0013	0.1	No	21	0.004343	0.004122	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-16	0.01	0.001	0.1	No	22	0.005121	0.004563	40.91	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-17	0.01	0.00096	0.1	No	21	0.004262	0.004269	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2	0.01	0.0008	0.1	No	21	0.006482	0.004596	61.9	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-20	0.01	0.0009	0.1	No	21	0.004576	0.004398	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-21	0.01	0.00067	0.1	No	21	0.005583	0.004749	47.62	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-22	0.01	0.0006	0.1	No	21	0.00597	0.004768	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-9	0.01	0.0011	0.1	No	21	0.004604	0.00435	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	MW-24D	0.01	0.00069	0.1	No	4	0.007672	0.004655	75	None	No	0.0625	NP (NDs)
Chromium (mg/L)	MW-25D	0.01	0.0016	0.1	No	4	0.0079	0.0042	75	None	No	0.0625	NP (NDs)
Cobalt (mg/L)	GWB-4R	0.001418	0.0008127	0.0102	No	17	0.001188	0.0006122	11.76	None	ln(x)	0.01	Param.
Cobalt (mg/L)	GWB-5R	0.00401	0.00056	0.0102	No	17	0.003782	0.005909	41.18	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-6R	0.0049	0.00038	0.0102	No	17	0.007993	0.01955	76.47	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-11	0.001	0.000646	0.0102	No	17	0.0008656	0.0002376	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-12	0.001239	0.000785	0.0102	No	17	0.001012	0.0003624	0	None	No	0.01	Param.
Cobalt (mg/L)	GWC-14	0.001	0.0003	0.0102	No	17	0.0009588	0.0001698	94.12	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-17	0.005438	0.002894	0.0102	No	17	0.004305	0.002077	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	GWC-2	0.0011	0.00036	0.0102	No	18	0.0008544	0.0002951	72.22	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-22	0.001	0.00077	0.0102	No	17	0.0009082	0.0001762	64.71	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-9	0.0017	0.00096	0.0102	No	17	0.00132	0.0004016	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-4R	5	2.44	12.22	No	17	3.468	1.248	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-5R	3.835	2.314	12.22	No	17	3.141	1.362	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWB-6R	4.788	2.83	12.22	No	17	3.809	1.562	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-1	2.147	1.447	12.22	No	17	1.797	0.5585	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-11	6.438	3.399	12.22	No	17	4.918	2.425	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-12	2.849	1.731	12.22	No	17	2.29	0.8921	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-13	1.468	0.8765	12.22	No	17	1.172	0.4722	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-14	1.467	0.7077	12.22	No	17	1.088	0.6063	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-15	1.879	1.065	12.22	No	17	1.472	0.6494	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-16	2.705	1.753	12.22	No	17	2.279	0.847	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-17	3.853	2.7	12.22	No	17	3.276	0.92	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2	1.09	0.725	12.22	No	17	0.8945	0.3858	0	None	No	0.01	NP (normality)

Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	GWC-20	4.759	2.321	12.22	No	17	3.54	1.945	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-21	2.443	1.317	12.22	No	17	1.88	0.8982	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-22	6.161	3.134	12.22	No	17	4.825	2.333	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-9	3.524	2.026	12.22	No	17	2.947	1.554	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-23D	2.044	0.9313	12.22	No	4	1.488	0.245	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-24D	4.691	-1.605	12.22	No	4	1.543	1.386	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	MW-25D	1.504	-0.2912	12.22	No	4	0.6065	0.3954	0	None	No	0.01	Param.
Fluoride (mg/L)	GWB-4R	0.17	0.08	4	No	19	0.1671	0.26	63.16	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWB-5R	0.11	0.05	4	No	19	0.0872	0.03977	47.37	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-6R	0.13	0.09	4	No	19	0.1173	0.05903	52.63	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-1	0.18	0.051	4	No	19	0.1048	0.03827	78.95	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-12	0.7212	0.2723	4	No	19	0.4968	0.3833	5.263	None	No	0.01	Param.
Fluoride (mg/L)	GWC-13	0.55	0.09	4	No	19	0.1181	0.1057	78.95	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-14	0.25	0.1	4	No	19	0.1674	0.124	68.42	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-15	0.13	0.06	4	No	19	0.1295	0.09513	73.68	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-16	0.2	0.1	4	No	19	0.1767	0.2046	57.89	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-17	1.162	0.5173	4	No	19	0.8964	0.5551	5.263	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GWC-2	0.17	0.08	4	No	19	0.1233	0.1224	63.16	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-20	0.14	0.043	4	No	19	0.09174	0.02744	78.95	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-21	0.1	0.071	4	No	19	0.09847	0.006653	94.74	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-22	0.12	0.1	4	No	19	0.09316	0.02358	68.42	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-9	0.2313	0.09769	4	No	19	0.2058	0.2196	10.53	None	ln(x)	0.01	Param.
Fluoride (mg/L)	MW-23D	0.1	0.0791	4	No	5	0.09582	0.009347	80	None	No	0.031	NP (NDs)
Fluoride (mg/L)	MW-25D	0.1881	0.04793	4	No	5	0.118	0.04182	0	None	No	0.01	Param.
Lead (mg/L)	GWB-4R	0.004315	0.001028	0.015	No	20	0.003249	0.002759	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	GWB-5R	0.002	0.0002	0.015	No	21	0.001221	0.0008915	42.86	None	No	0.01	NP (normality)
Lead (mg/L)	GWB-6R	0.002	0.0002	0.015	No	21	0.001118	0.0008882	47.62	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-1	0.002	0.00012	0.015	No	21	0.001636	0.0007683	80.95	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-11	0.00042	0.00021	0.015	No	21	0.0006767	0.0007619	23.81	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-12	0.002	0.000081	0.015	No	21	0.0009953	0.001073	38.1	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-13	0.002	0.00013	0.015	No	21	0.001028	0.0008476	38.1	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-14	0.002	0.00051	0.015	No	22	0.001672	0.0007159	81.82	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-15	0.002	0.0001	0.015	No	21	0.00112	0.0009478	52.38	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-16	0.002	0.0001	0.015	No	22	0.0009847	0.0009495	45.45	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-17	0.002	0.00014	0.015	No	21	0.00132	0.0009033	61.9	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-2	0.002	0.0002	0.015	No	21	0.001471	0.000859	71.43	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-20	0.002	0.0002	0.015	No	21	0.001553	0.0008197	76.19	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-21	0.002	0.0001	0.015	No	21	0.001286	0.0009331	61.9	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-22	0.0007979	0.0002964	0.015	No	21	0.0009176	0.0008104	19.05	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	GWC-9	0.002	0.0001	0.015	No	21	0.00122	0.0009321	57.14	Kaplan-Meier	No	0.01	NP (NDs)
Lead (mg/L)	MW-23D	0.002	0.000057	0.015	No	4	0.001514	0.0009715	75	Kaplan-Meier	No	0.0625	NP (NDs)
Lead (mg/L)	MW-24D	0.002	0.000094	0.015	No	4	0.001524	0.000953	75	Kaplan-Meier	No	0.0625	NP (NDs)
Lead (mg/L)	MW-25D	0.002	0.000095	0.015	No	4	0.001524	0.0009525	75	None	No	0.0625	NP (NDs)
Lithium (mg/L)	GWB-4R	0.015	0.0042	0.04	No	17	0.009871	0.005	0	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-5R	0.03	0.0041	0.04	No	17	0.01921	0.01331	58.82	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-12	0.03	0.00094	0.04	No	17	0.01293	0.01472	41.18	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-13	0.03	0.00087	0.04	No	17	0.02657	0.009691	88.24	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-17	0.006758	0.005122	0.04	No	17	0.00594	0.001306	0	None	No	0.01	Param.
Lithium (mg/L)	GWC-9	0.0022	0.0017	0.04	No	16	0.003662	0.007026	6.25	None	No	0.01	NP (normality)
Mercury (mg/L)	GWB-4R	0.0002	0.0001	0.002	No	14	0.0001821	0.00004666	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-5R	0.0002	0.0001	0.002	No	15	0.0001858	0.00003755	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-6R	0.0002	0.0001	0.002	No	14	0.0001816	0.00004798	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-1	0.0002	0.0001	0.002	No	14	0.0001814	0.00004865	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-11	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-12	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)

Confidence Intervals - All Results

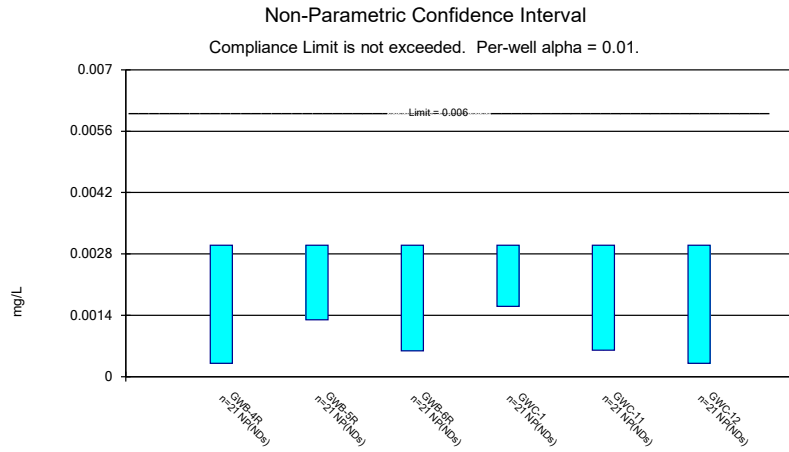
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/6/2022, 10:03 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Mercury (mg/L)	GWC-13	0.0002	0.00013	0.002	No	14	0.0001879	0.00003142	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-14	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-15	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-16	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-17	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2	0.0002	0.0001	0.002	No	15	0.0001933	0.00002582	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-20	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-21	0.0002	0.00011	0.002	No	14	0.0001936	0.00002405	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-22	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-9	0.0002	0.00011	0.002	No	14	0.0001829	0.00004514	85.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-4R	0.13	0.024	0.1	No	17	0.07922	0.05491	0	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWB-5R	0.0012	0.001	0.1	No	17	0.001012	0.00004851	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-6R	0.0013	0.001	0.1	No	17	0.001081	0.0004098	64.71	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-1	0.146	0.06224	0.1	No	17	0.1041	0.06687	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-11	0.0018	0.00077	0.1	No	17	0.001005	0.0002412	82.35	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-12	0.001	0.000205	0.1	No	17	0.0009532	0.0001928	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-13	0.0056	0.001	0.1	No	17	0.001271	0.001116	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-14	0.01488	0.004383	0.1	No	17	0.01072	0.009545	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GWC-15	0.1091	0.08978	0.1	No	17	0.09946	0.01545	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.2078	0.1293	0.1	Yes	17	0.1686	0.06266	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-17	0.0038	0.001	0.1	No	17	0.002214	0.001477	47.06	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWC-20	0.3536	0.137	0.1	Yes	17	0.2629	0.1946	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GWC-21	0.05718	0.02102	0.1	No	17	0.0391	0.02886	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-24D	0.003964	0.000932	0.1	No	5	0.002448	0.0009047	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-25D	0.001454	0.0006211	0.1	No	5	0.001093	0.0002428	40	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-4R	0.003863	0.0026	0.05	No	21	0.004131	0.001264	42.86	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-5R	0.006	0.0033	0.05	No	21	0.004924	0.0009823	80.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWB-6R	0.005	0.0023	0.05	No	21	0.00617	0.01014	57.14	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-1	0.0026	0.0018	0.05	No	21	0.003491	0.004609	9.524	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-11	0.007591	0.003421	0.05	No	21	0.007207	0.005946	19.05	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	GWC-12	0.005	0.003	0.05	No	21	0.004495	0.001084	80.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-14	0.004476	0.003098	0.05	No	22	0.003787	0.001284	4.545	None	No	0.01	Param.
Selenium (mg/L)	GWC-15	0.004932	0.002125	0.05	No	21	0.005101	0.002916	42.86	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-16	0.005345	0.003529	0.05	No	22	0.004437	0.001692	4.545	None	No	0.01	Param.
Selenium (mg/L)	GWC-17	0.005	0.0016	0.05	No	21	0.003619	0.001743	57.14	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-2	0.005	0.0035	0.05	No	21	0.004786	0.0007171	90.48	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-20	0.005	0.00192	0.05	No	21	0.003868	0.001656	66.67	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-21	0.01972	0.0105	0.05	No	21	0.01511	0.008357	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-22	0.005	0.0023	0.05	No	21	0.004376	0.00134	80.95	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-4R	0.002	0.00007	0.002	No	17	0.001773	0.000641	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-5R	0.002	0.00031	0.002	No	17	0.001786	0.0006049	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-1	0.002	0.000054	0.002	No	17	0.001656	0.0007652	82.35	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-11	0.002	0.0001	0.002	No	17	0.001125	0.000958	52.94	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-12	0.002	0.00014	0.002	No	17	0.001146	0.0009346	52.94	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-14	0.002	0.00007	0.002	No	17	0.001772	0.0006426	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-16	0.002	0.00006	0.002	No	17	0.001771	0.0006459	88.24	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-17	0.002	0.000076	0.002	No	17	0.001323	0.0009444	64.71	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-2	0.002	0.00011	0.002	No	18	0.001895	0.0004455	94.44	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-21	0.002	0.00005	0.002	No	17	0.001885	0.0004729	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-22	0.002	0.0001	0.002	No	17	0.00144	0.0008944	70.59	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWB-4R	0.0388	0.0031	0.43	No	16	0.01918	0.01676	6.25	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-5R	0.01088	0.004351	0.43	No	16	0.008994	0.00808	6.25	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWB-6R	0.02669	0.008142	0.43	No	16	0.02263	0.02488	0	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-1	0.008409	0.00372	0.43	No	16	0.006849	0.005337	12.5	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-11	0.00481	0.0021	0.43	No	16	0.005832	0.007061	18.75	None	No	0.01	NP (normality)

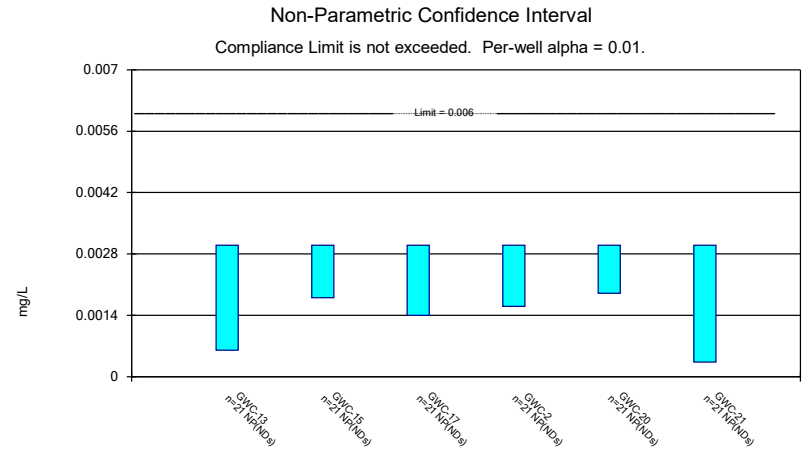
Confidence Intervals - All Results

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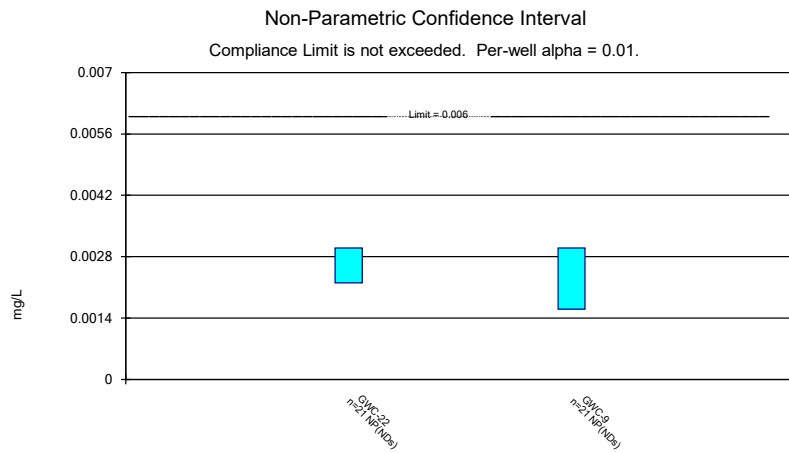
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Vanadium (mg/L)	GWC-12	0.008356	0.003653	0.43	No	16	0.006837	0.005433	12.5	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-13	0.02	0.0019	0.43	No	16	0.01482	0.008138	68.75	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-14	0.01685	0.008245	0.43	No	19	0.01406	0.007586	15.79	Kaplan-Meier	No	0.01	Param.
Vanadium (mg/L)	GWC-15	0.02	0.0022	0.43	No	18	0.00837	0.008492	33.33	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-16	0.0065	0.0026	0.43	No	19	0.006719	0.007108	21.05	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-17	0.02	0.0024	0.43	No	16	0.0105	0.008699	43.75	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-2	0.02	0.0045	0.43	No	16	0.01793	0.005666	87.5	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-20	0.02	0.0025	0.43	No	18	0.007865	0.007799	27.78	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-21	0.02	0.0029	0.43	No	16	0.007603	0.007491	25	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-22	0.02	0.0016	0.43	No	16	0.01237	0.008989	56.25	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-9	0.02	0.00514	0.43	No	16	0.01675	0.00704	81.25	None	No	0.01	NP (NDs)
Vanadium (mg/L)	MW-24D	0.02	0.00414	0.43	No	4	0.01603	0.00793	75	None	No	0.0625	NP (NDs)
Vanadium (mg/L)	MW-25D	0.02	0.0024	0.43	No	4	0.0156	0.0088	75	None	No	0.0625	NP (NDs)
Zinc (mg/L)	GWB-4R	0.008677	0.004539	0.16	No	16	0.01116	0.006702	31.25	Kaplan-Meier	x^(1/3)	0.01	Param.
Zinc (mg/L)	GWB-5R	0.02	0.0023	0.16	No	16	0.01588	0.007495	75	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-6R	0.02	0.0032	0.16	No	16	0.01415	0.007714	56.25	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-1	0.02	0.0057	0.16	No	16	0.01526	0.007441	68.75	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-11	0.02	0.0031	0.16	No	16	0.01487	0.007904	68.75	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-12	0.02	0.0025	0.16	No	16	0.009019	0.008732	25	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-13	0.039	0.0027	0.16	No	16	0.02045	0.01819	0	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-14	0.02	0.01	0.16	No	19	0.01682	0.006502	78.95	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-15	0.032	0.0051	0.16	No	18	0.01895	0.005959	83.33	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-16	0.02	0.0031	0.16	No	19	0.01362	0.008076	57.89	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-17	0.01465	0.008288	0.16	No	16	0.01147	0.004888	12.5	None	No	0.01	Param.
Zinc (mg/L)	GWC-2	0.056	0.0018	0.16	No	16	0.01656	0.01312	56.25	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-20	0.031	0.0171	0.16	No	18	0.01869	0.005951	77.78	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-21	0.02	0.002	0.16	No	16	0.01437	0.007802	62.5	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-22	0.02	0.0031	0.16	No	16	0.01322	0.007473	50	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-9	0.02	0.0026	0.16	No	16	0.009862	0.008504	25	None	No	0.01	NP (normality)
Zinc (mg/L)	MW-23D	0.01308	0.004223	0.16	No	4	0.01432	0.006744	50	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	MW-24D	0.01509	-0.002391	0.16	No	4	0.01317	0.008485	50	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	MW-25D	0.06176	-0.02013	0.16	No	4	0.02312	0.01958	25	Kaplan-Meier	No	0.01	Param.



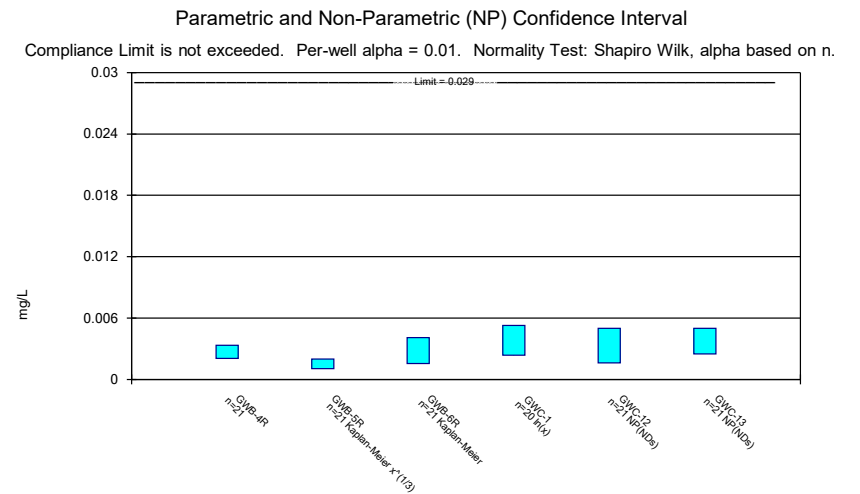
Constituent: Antimony Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Antimony Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



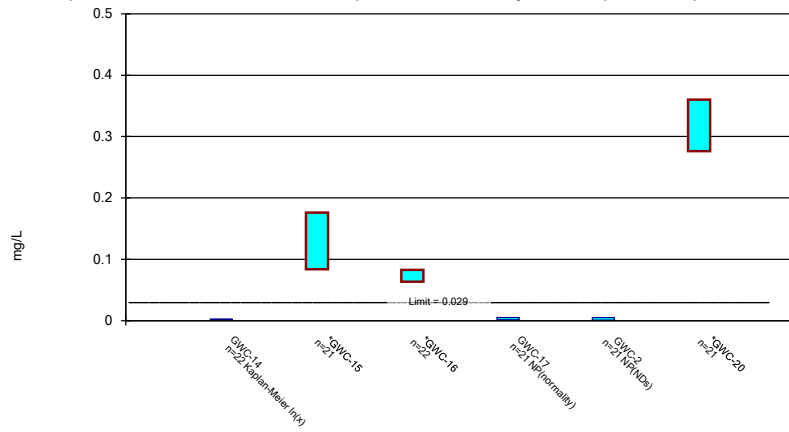
Constituent: Antimony Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Arsenic Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

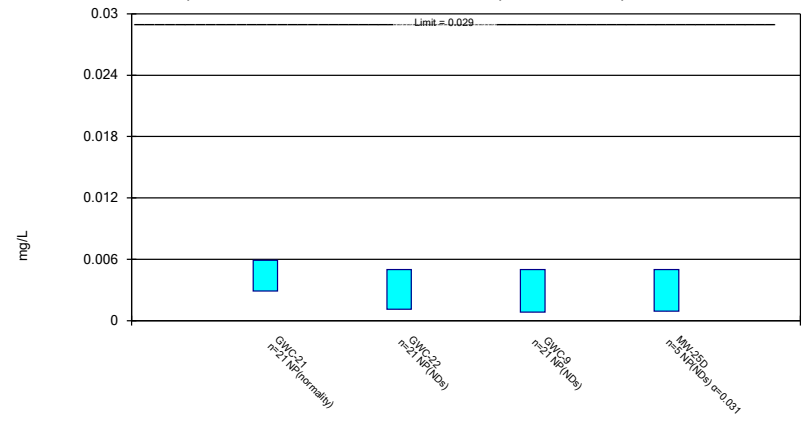
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Constituent: Arsenic Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

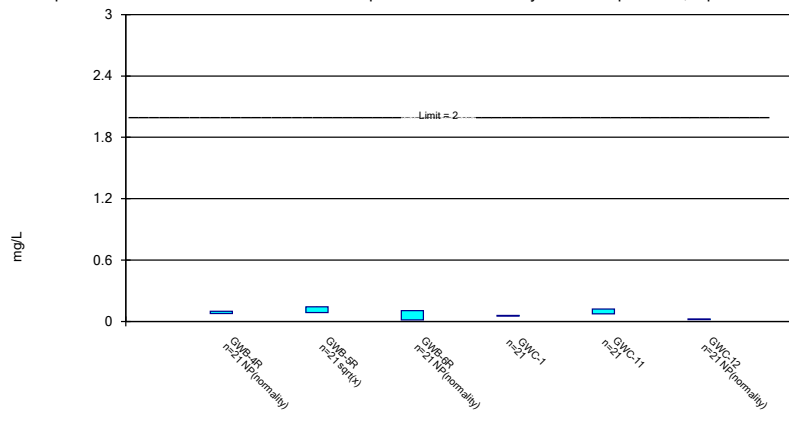
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Arsenic Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

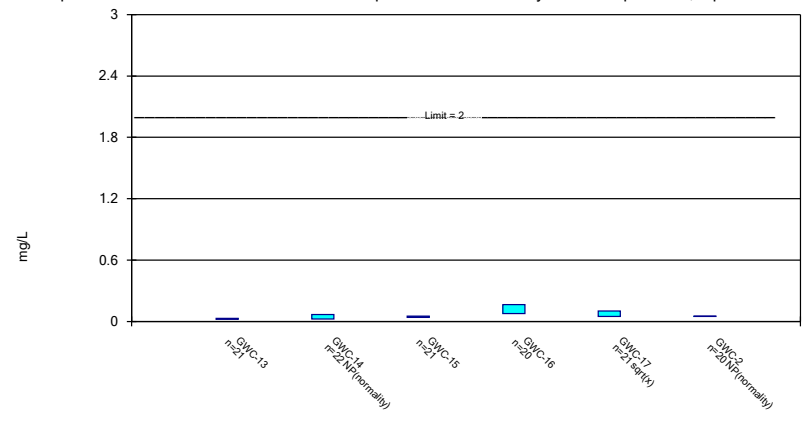
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Constituent: Barium Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

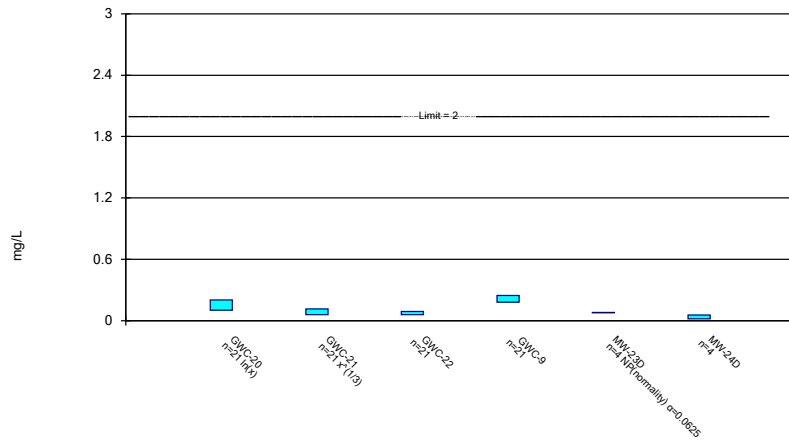
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

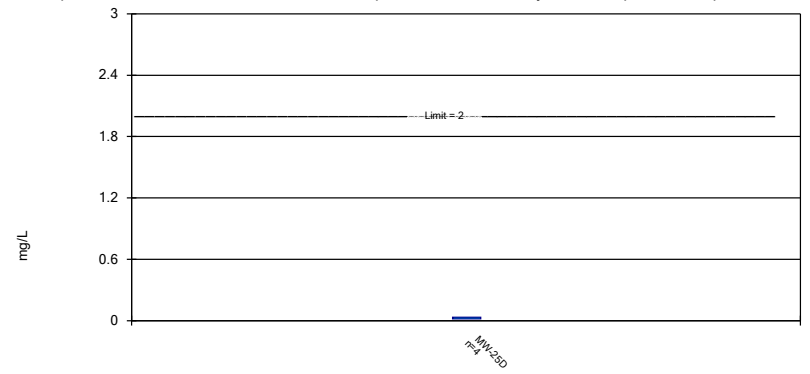
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric Confidence Interval

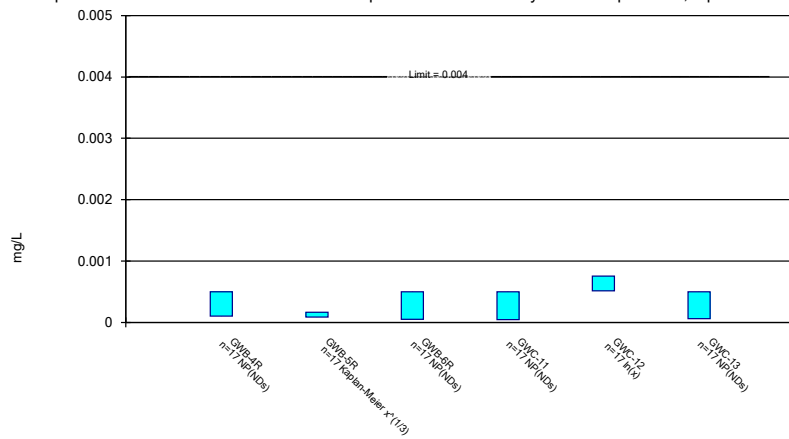
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Constituent: Barium Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

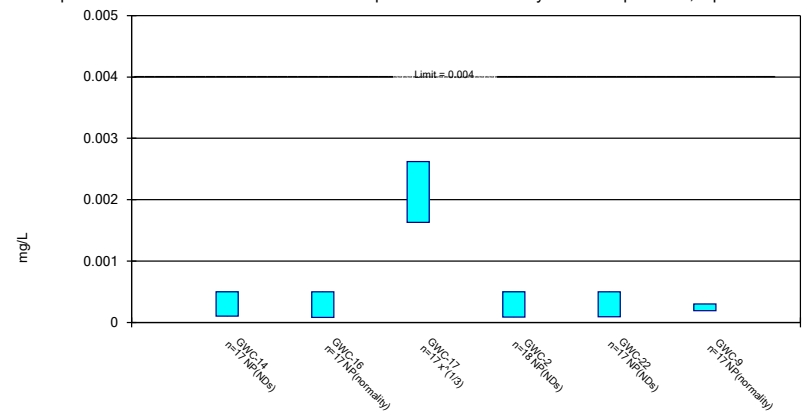
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Constituent: Beryllium Analysis Run 11/6/2022 10:01 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

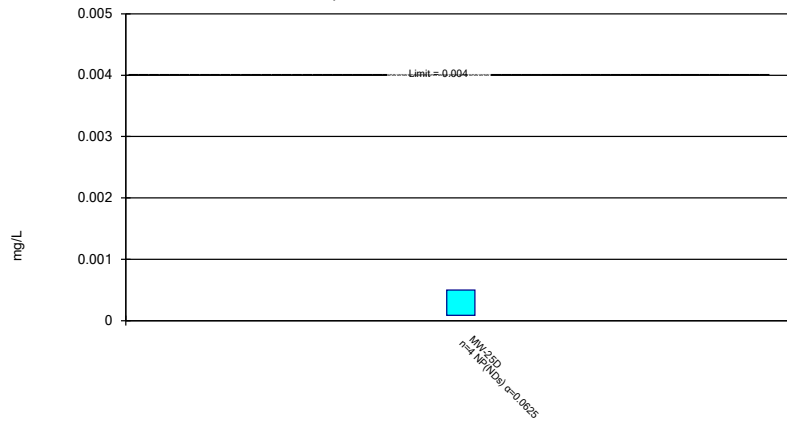
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

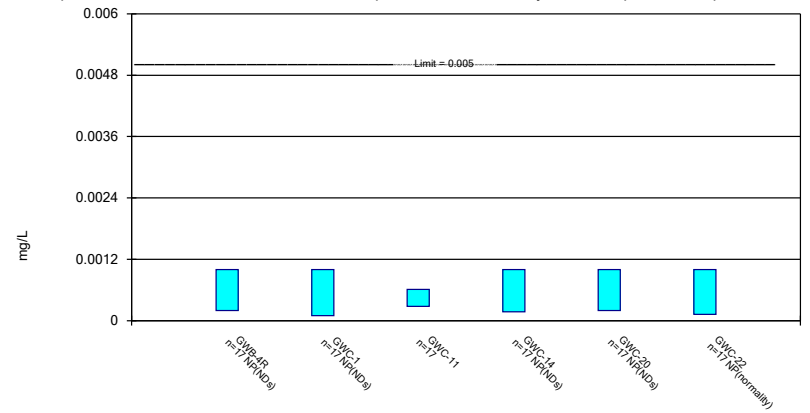
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Constituent: Beryllium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

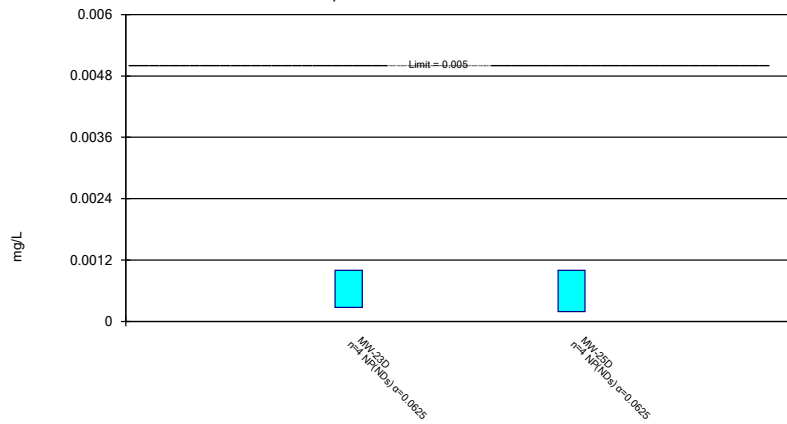
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

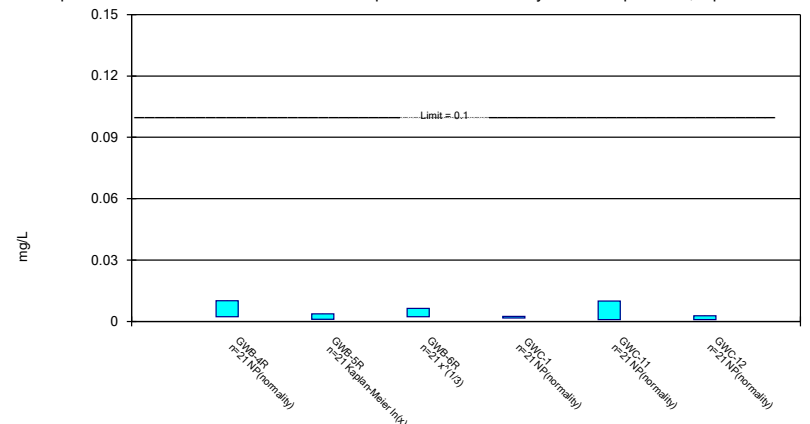
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

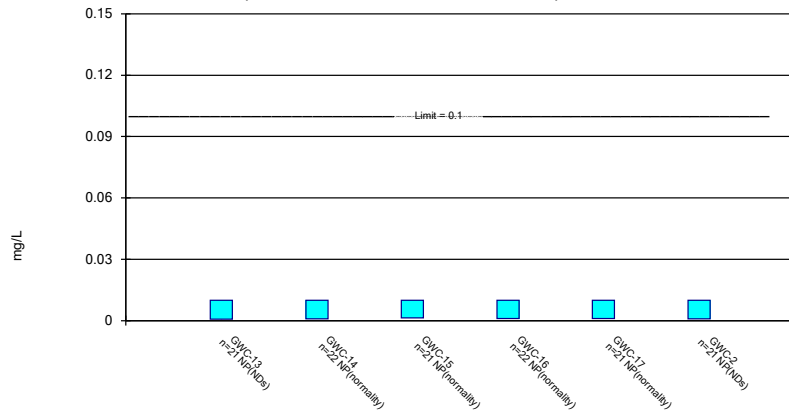
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

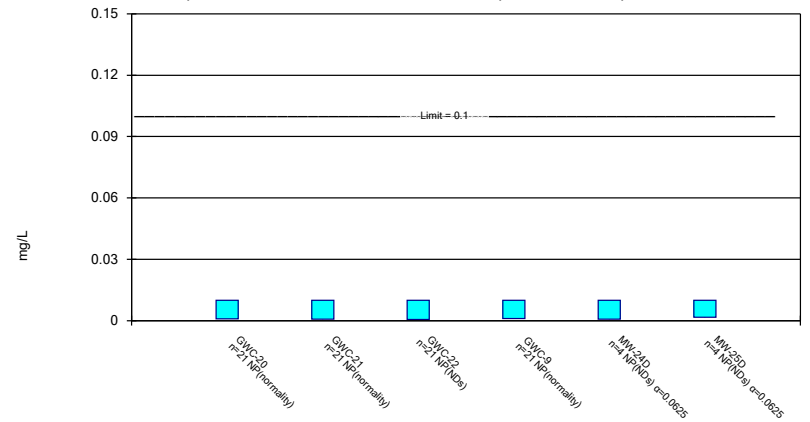
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Constituent: Chromium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

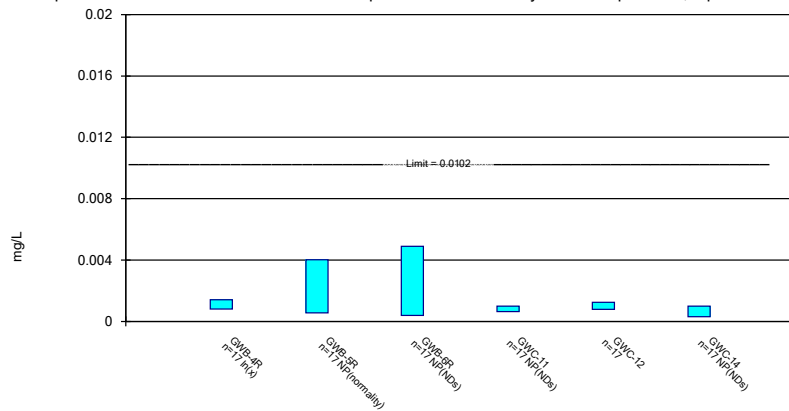
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Constituent: Chromium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

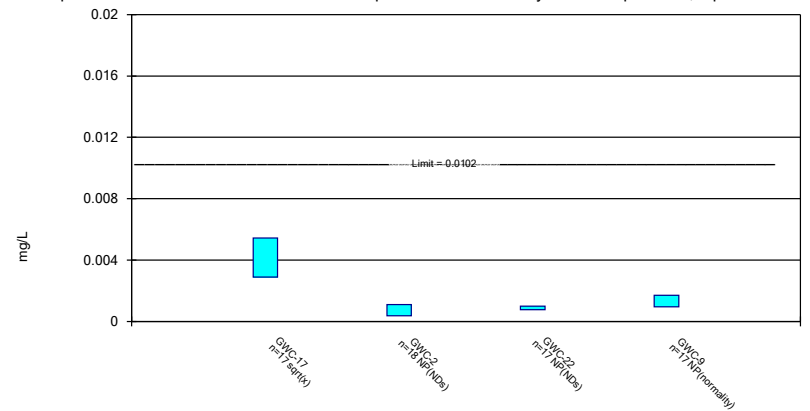
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

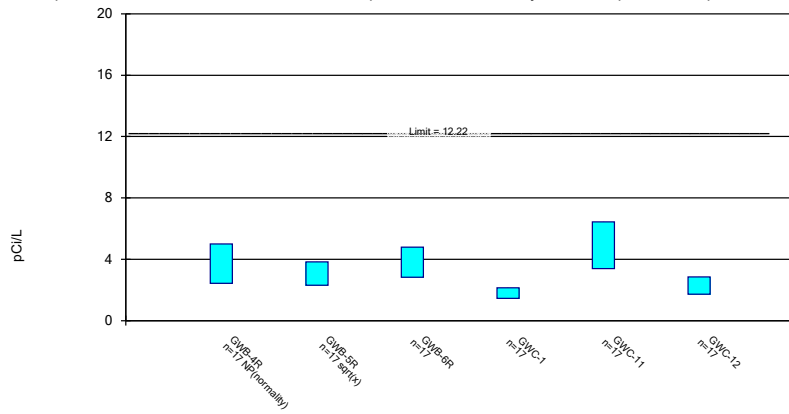
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

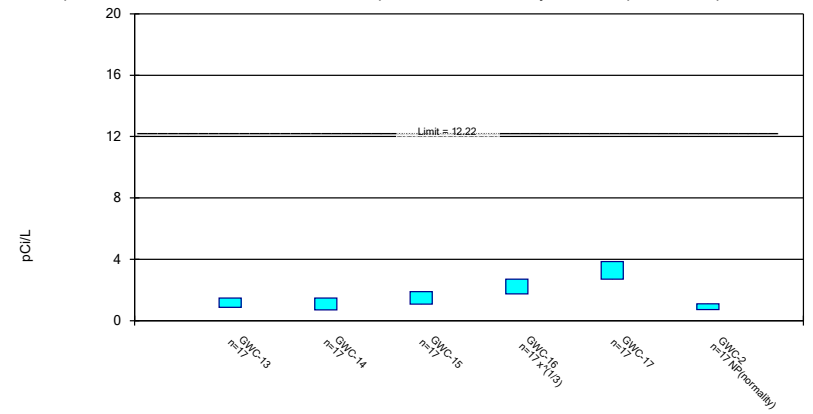
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Constituent: Combined Radium 226 + 228 Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Con
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

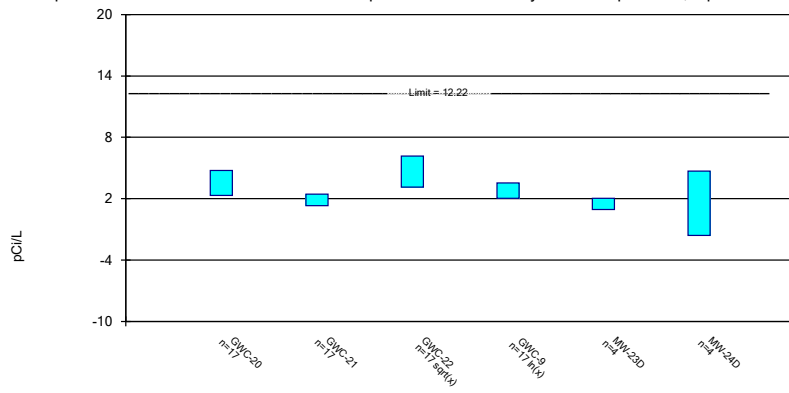
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Con
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric Confidence Interval

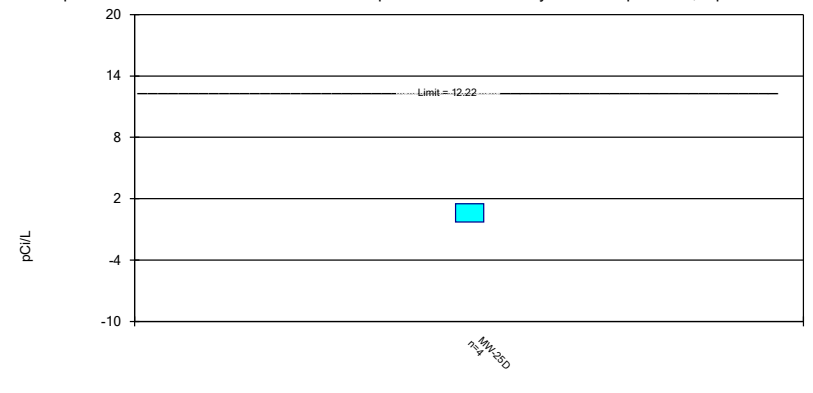
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Con
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric Confidence Interval

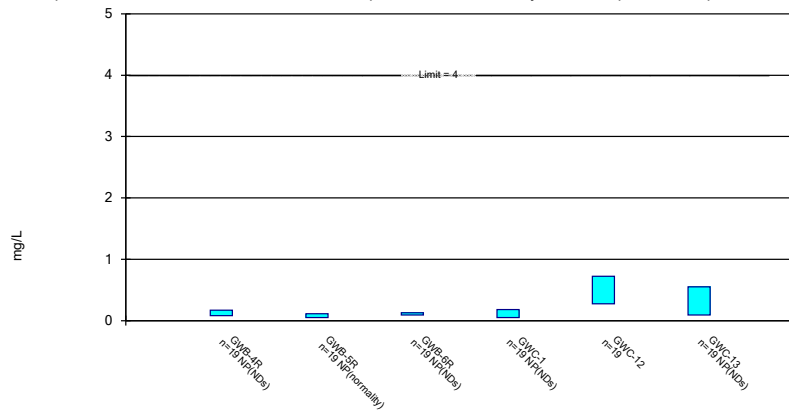
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Constituent: Combined Radium 226 + 228 Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Con
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

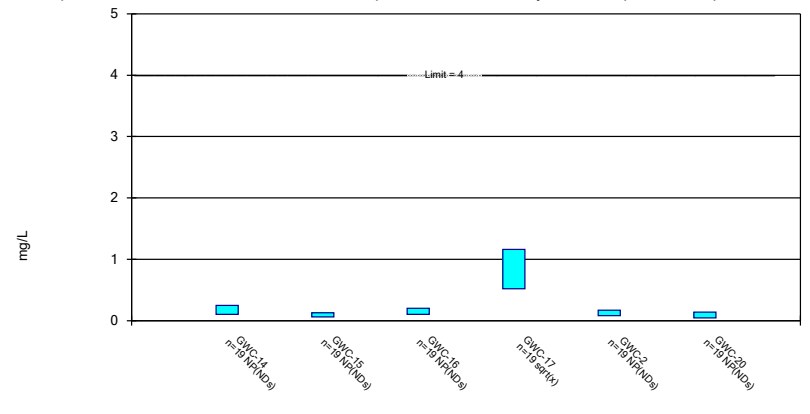
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Constituent: Fluoride Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

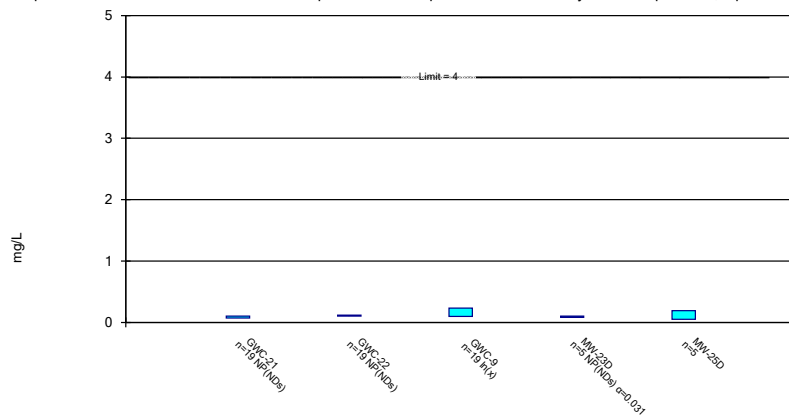
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

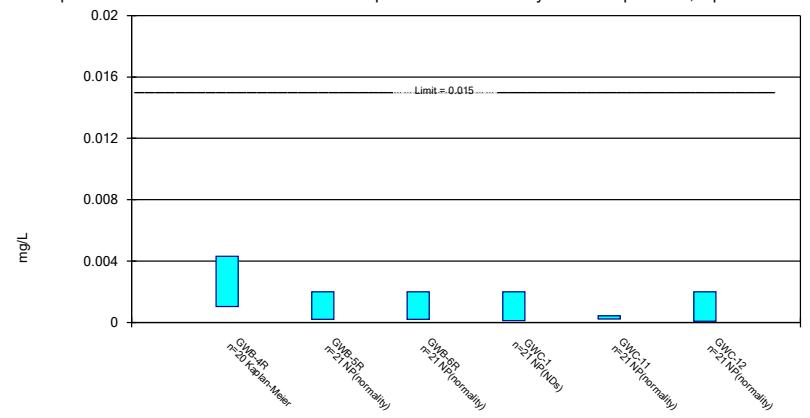
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

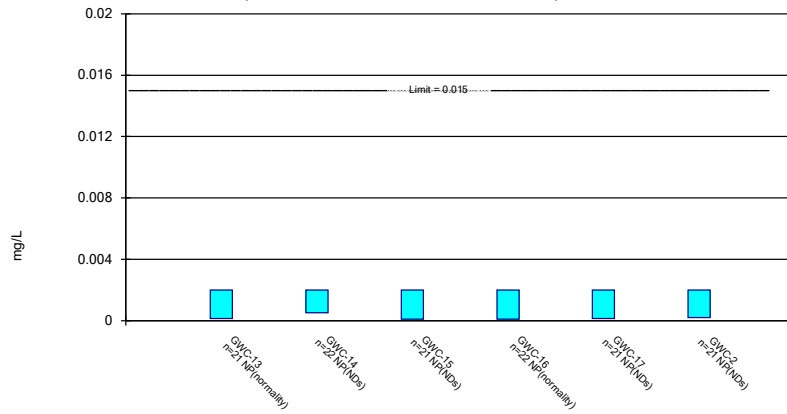
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Constituent: Lead Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

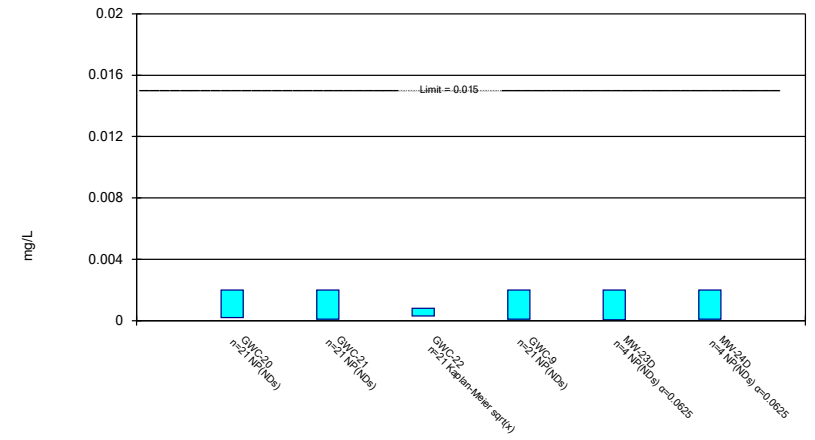
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Constituent: Lead Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

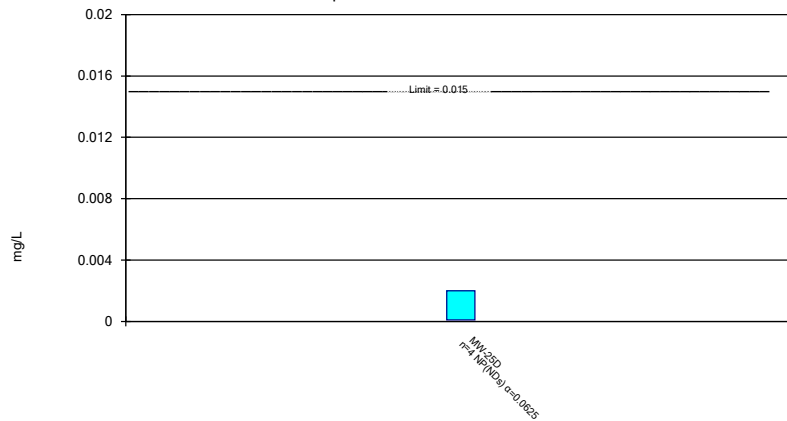
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

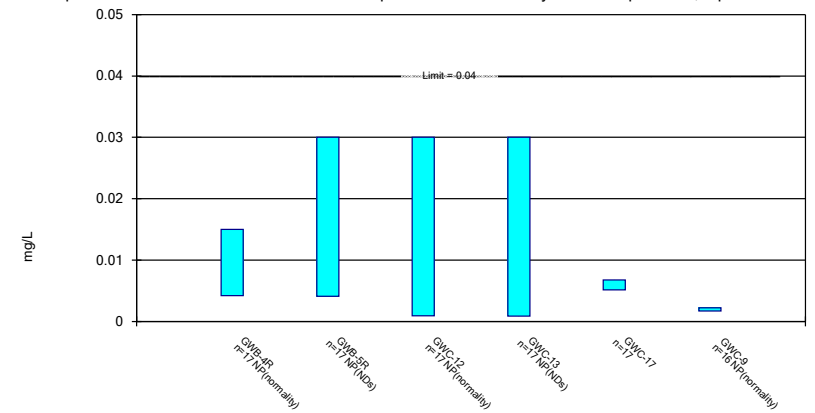
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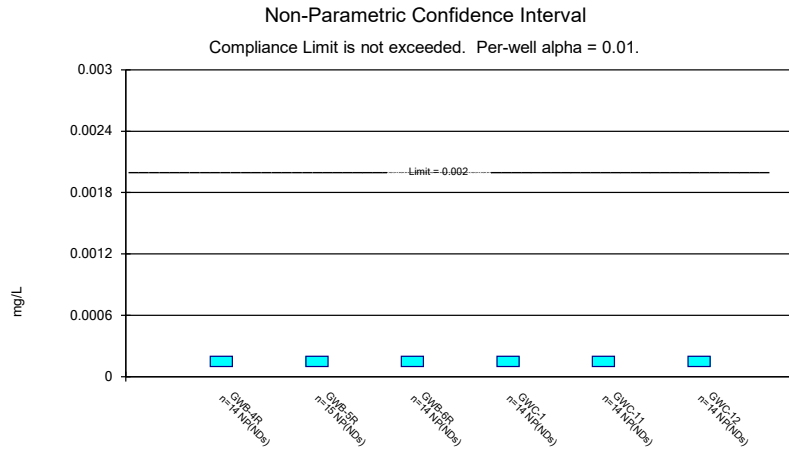
Constituent: Lead Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

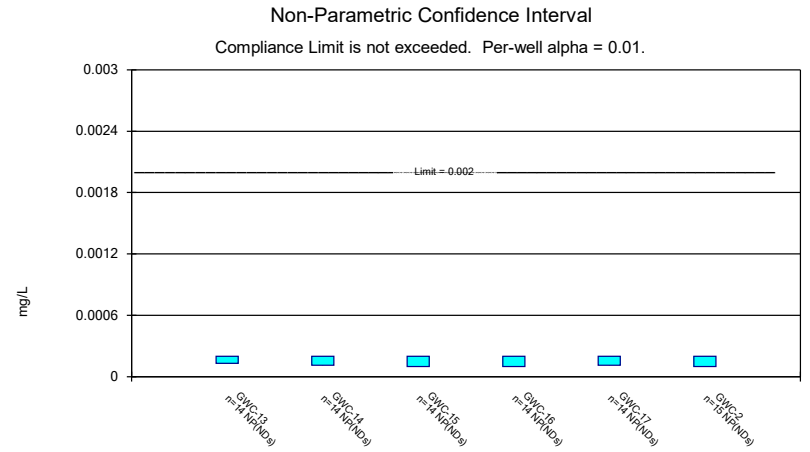
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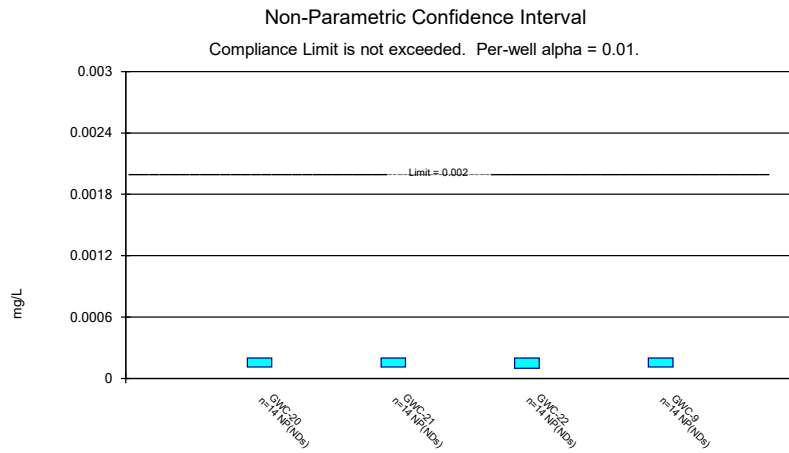
Constituent: Lithium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



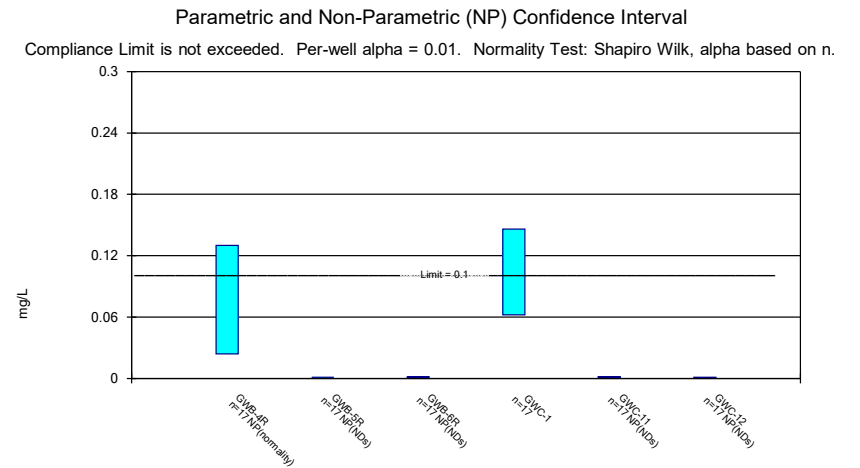
Constituent: Mercury Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Mercury Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



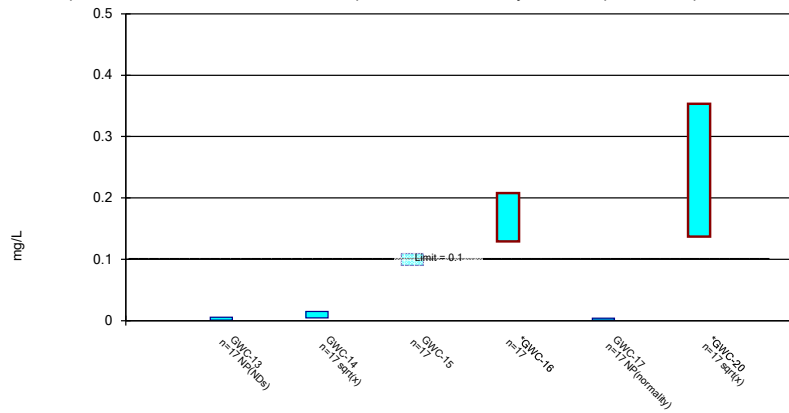
Constituent: Mercury Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Molybdenum Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

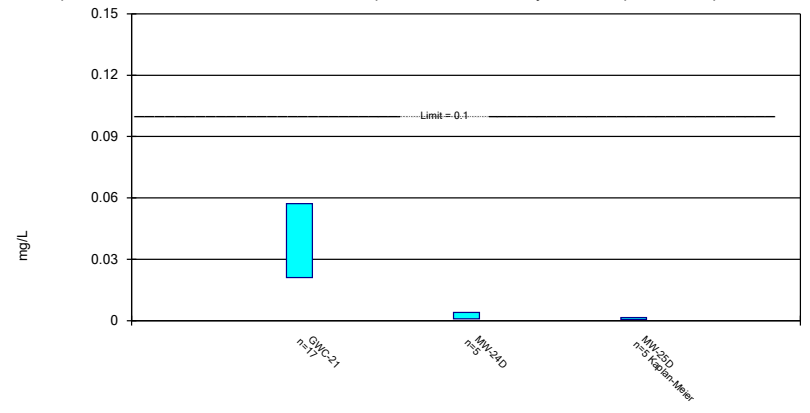
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric Confidence Interval

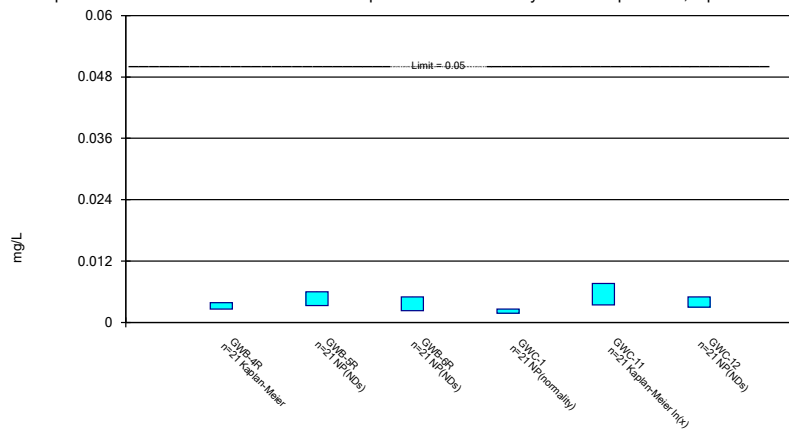
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

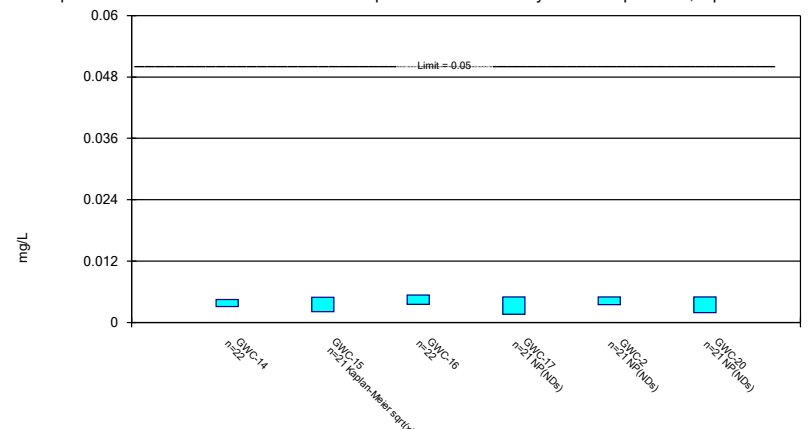
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

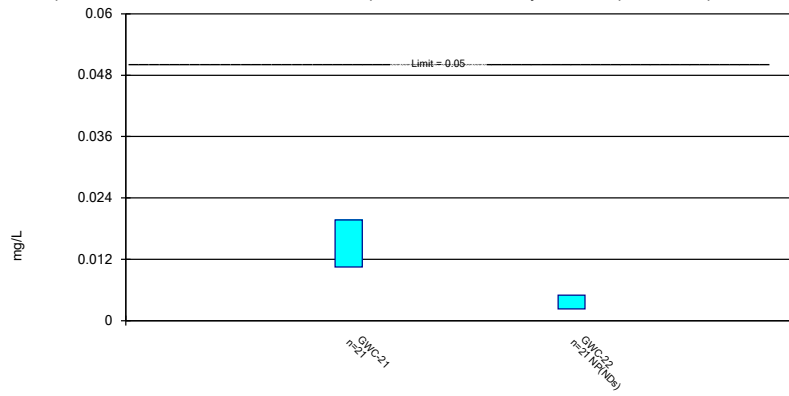
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

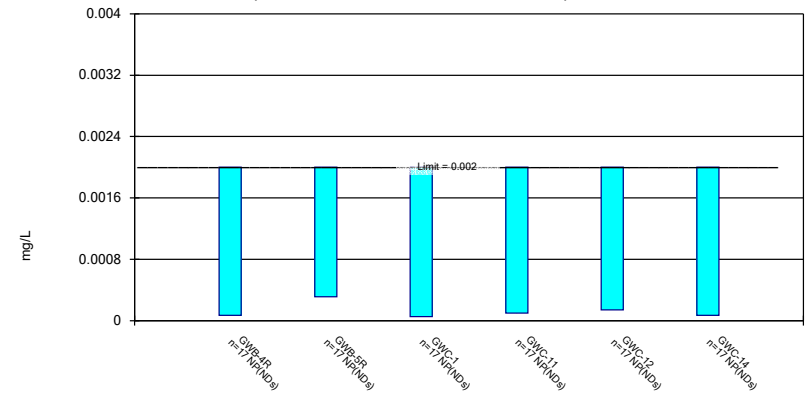
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

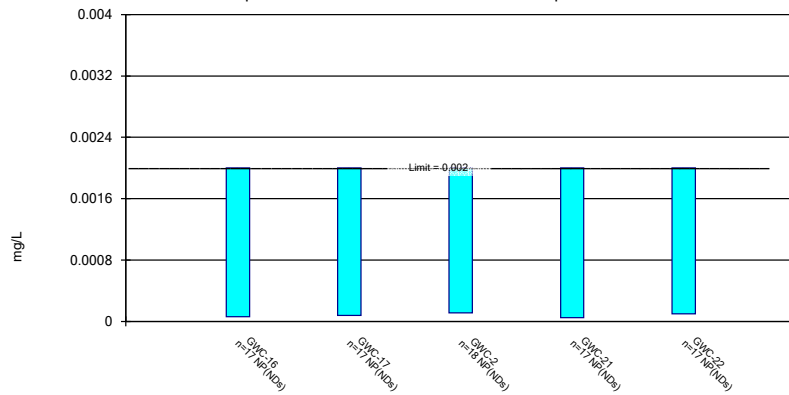
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

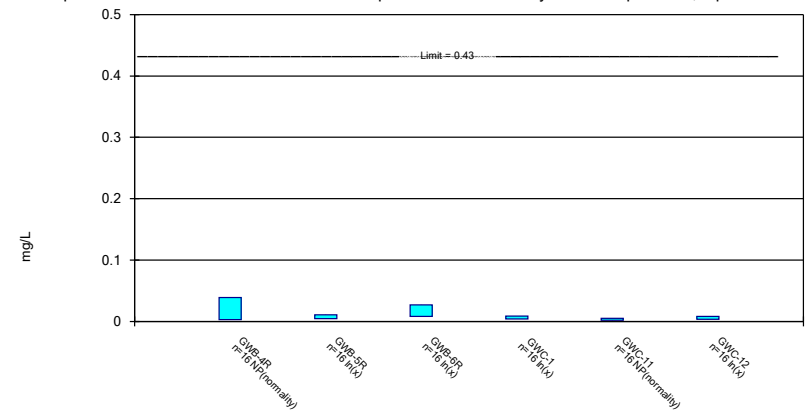
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

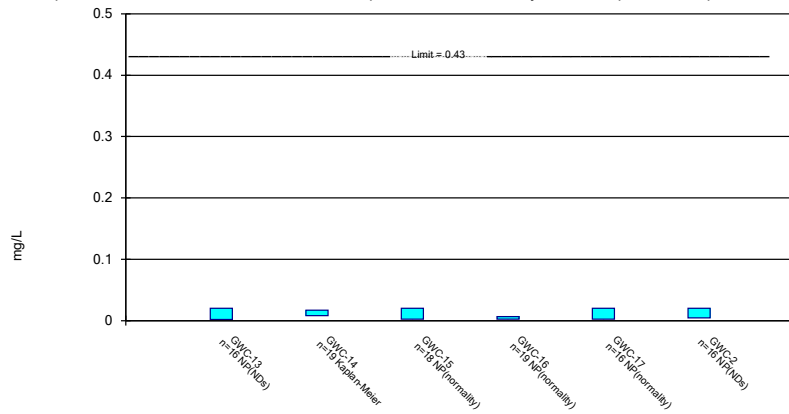
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Vanadium Analysis Run 11/6/2022 10:02 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

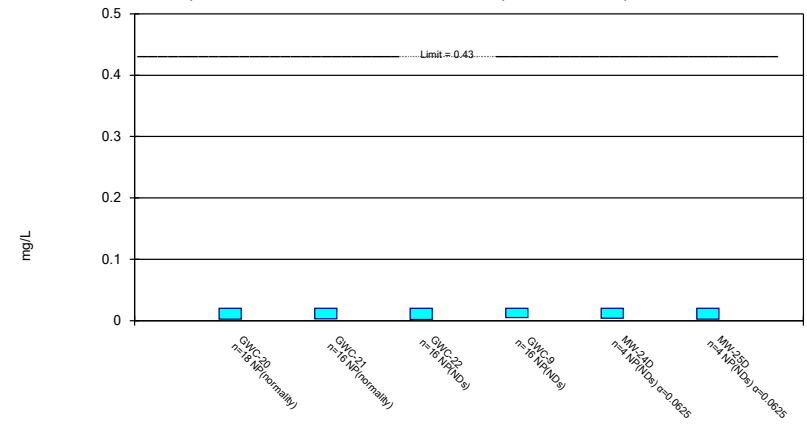
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Vanadium Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

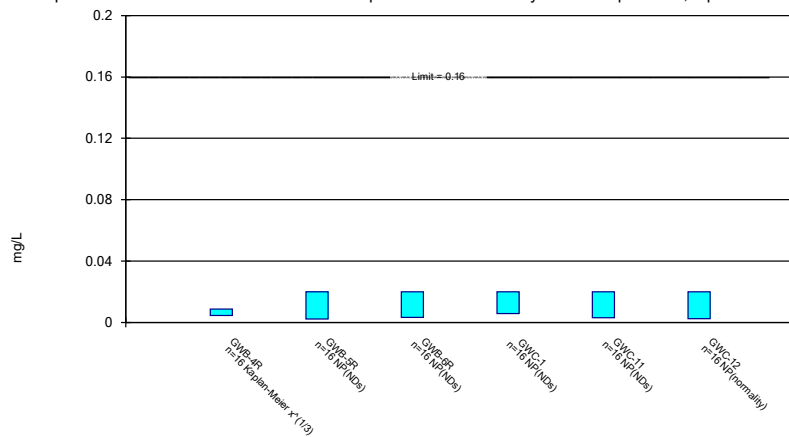
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Vanadium Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

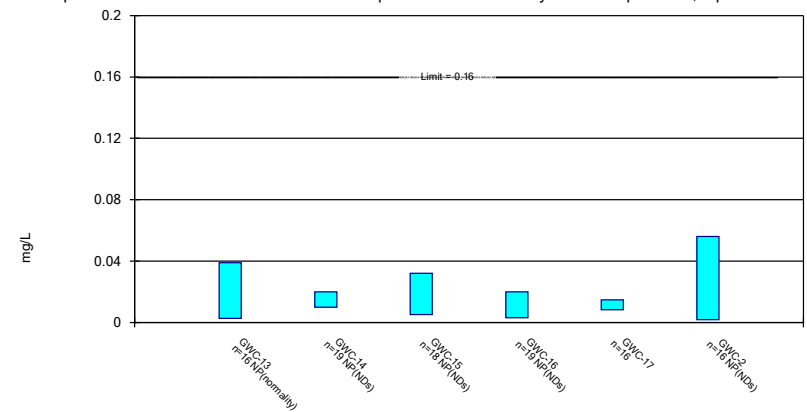
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

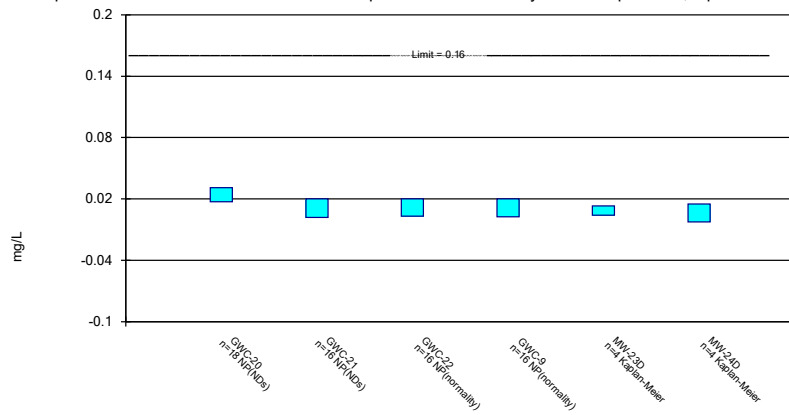
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

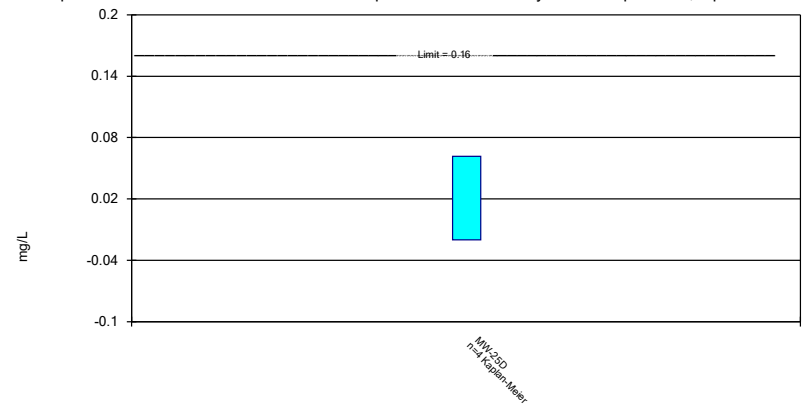
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.003		
1/18/2016	<0.003	<0.003	<0.003			<0.003
1/19/2016					<0.003	
7/26/2016					0.0005 (J)	
7/27/2016		<0.003		<0.003		<0.003
7/28/2016			<0.003			
7/29/2016	0.0003 (J)					
8/30/2016		<0.003	<0.003	<0.003		
8/31/2016					<0.003	<0.003
9/1/2016	<0.003					
10/25/2016				<0.003		
10/26/2016	<0.003	<0.003	<0.003		<0.003	<0.003
1/3/2017		<0.003				
1/4/2017				<0.003	<0.003	<0.003
1/5/2017			<0.003			
1/6/2017	<0.003					
4/4/2017	<0.003			<0.003		
4/5/2017						<0.003
4/6/2017		<0.003	<0.003		0.0006 (J)	
7/10/2017						<0.003
7/11/2017					0.0009 (J)	
7/12/2017	<0.003	<0.003	<0.003	<0.003		
10/3/2017		<0.003	<0.003	<0.003	<0.003	
10/4/2017	<0.003					<0.003
1/9/2018			<0.003			
1/10/2018		<0.003		<0.003		
1/11/2018	<0.003				0.0007 (J)	<0.003
7/10/2018		<0.003	<0.003	<0.003		
7/11/2018	<0.003				<0.003	<0.003
1/16/2019	<0.003	<0.003	<0.003	<0.003		
1/17/2019					<0.003	<0.003
3/25/2019	<0.003					
3/26/2019		<0.003	<0.003	<0.003		
3/27/2019					<0.003	<0.003
8/27/2019	<0.003		<0.003	<0.003	0.00033 (J)	<0.003
8/28/2019		0.00054 (J)				
10/8/2019					0.00046 (J)	
10/9/2019	<0.003	<0.003	<0.003	<0.003		<0.003
4/7/2020	<0.003	<0.003	<0.003	<0.003	0.00066 (J)	<0.003
8/17/2020						<0.003
8/18/2020					0.00064 (J)	
8/19/2020	<0.003	<0.003	<0.003	0.00061 (J)		
9/28/2020				0.00035 (J)		
9/29/2020					0.00051 (J)	<0.003
9/30/2020		0.0003 (J)	0.00059 (J)			
10/1/2020	<0.003					
3/10/2021	<0.003	<0.003	0.00029 (J)	0.00069 (J)	0.00076 (J)	0.0003 (J)
9/21/2021	<0.003	0.0013 (J)	<0.003		<0.003	<0.003
9/23/2021				0.0016 (J)		
2/2/2022	<0.003		<0.003			
2/3/2022		<0.003		<0.003	<0.003	<0.003
8/30/2022	<0.003	<0.003	<0.003			<0.003

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/31/2022					<0.003	
9/1/2022				<0.003		
Mean	0.002871	0.002673	0.002756	0.002583	0.00186	0.002871
Std. Dev.	0.0005892	0.0008364	0.0007715	0.0009051	0.00123	0.0005892
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0003	0.0013	0.00059	0.0016	0.0006	0.0003

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-15	GWC-17	GWC-2	GWC-20	GWC-21
1/17/2016		<0.003		<0.003	<0.003	<0.003
1/18/2016	<0.003		<0.003			
7/26/2016	0.0006 (J)					
7/27/2016		<0.003		<0.003		
7/28/2016					0.0019 (J)	<0.003
7/29/2016			<0.003			
8/31/2016	<0.003			<0.003		
9/1/2016		<0.003	<0.003		<0.003	<0.003
10/25/2016		<0.003			<0.003	<0.003
10/26/2016	<0.003		<0.003	<0.003		
1/4/2017					<0.003	<0.003
1/5/2017	<0.003	<0.003	<0.003	<0.003		
4/3/2017		<0.003				
4/4/2017				<0.003	<0.003	<0.003
4/5/2017			<0.003			
4/6/2017	<0.003					
7/11/2017		<0.003			<0.003	
7/12/2017	<0.003					
7/13/2017			<0.003	<0.003		<0.003
10/2/2017		<0.003			<0.003	
10/3/2017				<0.003		<0.003
10/4/2017	<0.003		<0.003			
1/9/2018		<0.003				<0.003
1/10/2018	<0.003			<0.003	<0.003	
1/11/2018			<0.003			
7/9/2018					<0.003	
7/10/2018		<0.003		<0.003		<0.003
7/11/2018	<0.003		<0.003			
1/16/2019	<0.003		<0.003			
1/17/2019		<0.003				<0.003
1/21/2019				<0.003	<0.003	
3/25/2019					<0.003	
3/26/2019	<0.003	<0.003	<0.003			<0.003
7/30/2019				<0.003		
8/27/2019	<0.003	<0.003		<0.003		
8/28/2019			<0.003		<0.003	<0.003
10/8/2019	<0.003	<0.003				<0.003
10/9/2019			<0.003	<0.003	<0.003	
4/7/2020		<0.003				<0.003
4/8/2020	<0.003		<0.003	0.0013 (J)	<0.003	
8/17/2020	<0.003					
8/18/2020		<0.003	<0.003	<0.003	<0.003	<0.003
9/28/2020	<0.003					
9/29/2020				0.0016 (J)		
9/30/2020		<0.003	<0.003		<0.003	0.00033 (J)
3/11/2021			0.00039 (J)			
3/12/2021		0.0018 (J)			0.00065 (J)	
3/15/2021	<0.003			<0.003		
3/16/2021						<0.003
9/21/2021	<0.003					
9/22/2021			0.0014 (J)	<0.003	<0.003	<0.003
9/23/2021		<0.003				

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-15	GWC-17	GWC-2	GWC-20	GWC-21
2/1/2022			<0.003		<0.003	<0.003
2/2/2022				<0.003		
2/3/2022	<0.003	<0.003				
8/30/2022					<0.003	<0.003
8/31/2022	<0.003	<0.003	<0.003			
9/1/2022				<0.003		
Mean	0.002886	0.002943	0.0028	0.002852	0.002836	0.002873
Std. Dev.	0.0005237	0.0002619	0.000653	0.0004686	0.0005552	0.0005826
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0006	0.0018	0.0014	0.0016	0.0019	0.00033

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-22	GWC-9
1/18/2016	<0.003	<0.003
7/28/2016		<0.003
7/29/2016	<0.003	
8/31/2016	<0.003	<0.003
10/26/2016	<0.003	
10/27/2016		0.0016 (J)
1/4/2017	<0.003	
1/6/2017		<0.003
4/6/2017	<0.003	<0.003
7/11/2017	<0.003	
7/12/2017		<0.003
10/4/2017	<0.003	<0.003
1/11/2018	<0.003	<0.003
7/11/2018	<0.003	<0.003
1/18/2019	<0.003	<0.003
3/27/2019	<0.003	<0.003
8/27/2019	0.00045 (J)	
8/28/2019		<0.003
10/9/2019	<0.003	<0.003
4/7/2020	0.00049 (J)	
4/8/2020		0.00033 (J)
8/18/2020	0.0022 (J)	
8/19/2020		<0.003
9/30/2020	0.0016 (J)	
10/1/2020		<0.003
3/10/2021	0.0004 (J)	<0.003
9/21/2021	<0.003	
9/22/2021		<0.003
2/2/2022		<0.003
2/3/2022	<0.003	
8/31/2022	<0.003	
9/1/2022		<0.003
Mean	0.00253	0.002806
Std. Dev.	0.0009363	0.0006442
Upper Lim.	0.003	0.003
Lower Lim.	0.0022	0.0016

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-12	GWC-13
1/17/2016				0.024 (O)		
1/18/2016	<0.005	<0.005	<0.005		<0.005	<0.005
7/26/2016						<0.005
7/27/2016		0.0008 (J)		0.0046 (J)	<0.005	
7/28/2016			0.0009 (J)			
7/29/2016	0.0014 (J)					
8/30/2016		<0.005	<0.005	0.0023 (J)		
8/31/2016					<0.005	<0.005
9/1/2016	0.0033 (J)					
10/25/2016				0.0035 (J)		
10/26/2016	0.0016 (J)	<0.005	<0.005		<0.005	<0.005
1/3/2017		<0.005				
1/4/2017				0.0018 (J)	<0.005	
1/5/2017			0.0021 (J)			<0.005
1/6/2017	<0.005					
4/4/2017	0.0021 (J)			0.0015 (J)		
4/5/2017					0.0006 (J)	
4/6/2017		0.0006 (J)	0.0011 (J)			<0.005
7/10/2017					0.0008 (J)	
7/12/2017	0.0015 (J)	0.0009 (J)	0.0014 (J)	0.0015 (J)		<0.005
10/3/2017		0.001 (J)	0.0014 (J)	0.0013 (J)		
10/4/2017	0.0018 (J)				0.0009 (J)	<0.005
1/9/2018			0.0017 (J)			
1/10/2018		0.0012 (J)		0.0023 (J)		0.0006 (J)
1/11/2018	0.0015 (J)				<0.005	
7/10/2018		0.0016 (J)	0.00063 (J)	0.0031 (J)		
7/11/2018	0.00095 (J)				<0.005	<0.005
1/16/2019	0.0024 (J)	0.0011 (J)	<0.005	0.0023 (J)		<0.005
1/17/2019					<0.005	
3/25/2019	0.0029 (J)					
3/26/2019		0.0014 (J)	0.0029 (J)	0.0032 (J)		0.00058 (J)
3/27/2019					<0.005	
8/27/2019	0.0023 (J)		0.0035 (J)	0.0022 (J)	<0.005	<0.005
8/28/2019		0.0023 (J)				
10/8/2019						<0.005
10/9/2019	0.0024 (J)	0.0053 (J)	0.0018 (J)	0.0042 (J)	<0.005	
4/7/2020	0.0027 (J)	0.0011 (J)	<0.005	0.027	<0.005	
4/8/2020						<0.005
8/17/2020					<0.005	<0.005
8/19/2020	0.0033 (J)	0.0019 (J)	0.0036 (J)	0.007		
9/28/2020				0.0058		<0.005
9/29/2020					<0.005	
9/30/2020		0.0017 (J)	0.004 (J)			
10/1/2020	0.0027 (J)					
3/10/2021	0.0025 (J)	0.0019 (J)	0.0054	0.0055	<0.005	
3/15/2021						<0.005
9/21/2021	0.0027 (J)	<0.005	0.0054		<0.005	<0.005
9/23/2021				0.0048 (J)		
2/2/2022	0.0036 (J)		0.01			
2/3/2022		0.0029 (J)		0.0057	0.0016 (J)	0.0025 (J)
8/30/2022	0.0049 (J)	0.00253 (J)	0.00716		<0.005	
8/31/2022						<0.005

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-12	GWC-13
9/1/2022				0.00568		
Mean	0.002693	0.002535	0.003714	0.004764	0.004233	0.004461
Std. Dev.	0.00117	0.001726	0.002361	0.00551	0.001628	0.001397
Upper Lim.	0.003338	0.001983	0.004092	0.00526	0.005	0.005
Lower Lim.	0.002047	0.001062	0.001557	0.002364	0.0016	0.0025

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
1/17/2016	0.002 (J)	0.014	0.089		<0.005	0.34
1/18/2016				<0.005		
4/26/2016	0.00183 (J)		0.0731			
7/27/2016	0.0021 (J)	0.0303			<0.005	
7/28/2016			0.0627			0.209
7/29/2016				0.0009 (J)		
8/31/2016					<0.005	
9/1/2016	0.0024 (J)	0.0533	0.0551	<0.005		0.215
10/25/2016	<0.005	0.0551	0.0466			0.307
10/26/2016				<0.005	<0.005	
1/4/2017			0.0444			0.311
1/5/2017	0.0024 (J)	0.0437		<0.005	<0.005	
4/3/2017		0.0713				
4/4/2017	0.003 (J)				<0.005	0.317
4/5/2017			0.0591	0.0011 (J)		
7/11/2017	0.0019 (J)	0.0745				0.299
7/12/2017			0.0776			
7/13/2017				0.0016 (J)	<0.005	
10/2/2017	0.0026 (J)	0.0723				0.216
10/3/2017			0.0813		<0.005	
10/4/2017				0.0019 (J)		
1/9/2018	0.0021 (J)	0.0731				
1/10/2018			0.085		0.0006 (J)	0.347
1/11/2018				0.0015 (J)		
7/9/2018	0.0019 (J)					0.37
7/10/2018		0.09	0.067		<0.005	
7/11/2018				0.00082 (J)		
1/16/2019	0.0016 (J)			<0.005		
1/17/2019		0.13	0.079			
1/21/2019					<0.005	0.44
3/25/2019						0.41
3/26/2019	0.0023 (J)	0.1	0.089	0.0015 (J)		
7/30/2019					0.00039 (J)	
8/27/2019	0.0017 (J)	0.17			<0.005	
8/28/2019			0.091	0.0011 (J)		0.43
10/8/2019	0.0017 (J)	0.13	0.088			
10/9/2019				0.0011 (J)	<0.005	0.35
4/7/2020	0.0018 (J)	0.24	0.091			
4/8/2020				0.0013 (J)	0.00094 (J)	0.33
8/18/2020	0.0012 (J)	0.28	0.045	<0.005	<0.005	0.3
9/29/2020	<0.005				<0.005	
9/30/2020		0.24	0.044	0.0012 (J)		0.31
3/11/2021				0.0009 (J)		
3/12/2021		0.16				0.27
3/15/2021					<0.005	
3/16/2021	<0.005		0.064			
9/22/2021	0.0014 (J)		0.081	<0.005	<0.005	0.23
9/23/2021		0.21				
2/1/2022			0.095	<0.005		0.22
2/2/2022	0.0036 (J)				<0.005	
2/3/2022		0.23				
8/30/2022	<0.005					0.465

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
8/31/2022		0.259		<0.005		
9/1/2022			0.0987		<0.005	
Mean	0.002615	0.1298	0.07303	0.002853	0.004378	0.3184
Std. Dev.	0.001262	0.08372	0.01792	0.00192	0.001565	0.07621
Upper Lim.	0.002219	0.176	0.08264	0.005	0.005	0.3604
Lower Lim.	0.001636	0.08366	0.06341	0.0011	0.00094	0.2763

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWC-22	GWC-9	MW-25D
1/17/2016	0.0065			
1/18/2016		<0.005	<0.005	
7/28/2016	<0.005		<0.005	
7/29/2016		0.002 (J)		
8/31/2016		0.0017 (J)	<0.005	
9/1/2016	0.0039 (J)			
10/25/2016	<0.005			
10/26/2016		<0.005		
10/27/2016			<0.005	
1/4/2017	<0.005	<0.005		
1/6/2017			<0.005	
4/4/2017	0.0031 (J)			
4/6/2017		0.0006 (J)	<0.005	
7/11/2017		0.0012 (J)		
7/12/2017			<0.005	
7/13/2017	<0.005			
10/3/2017	<0.005			
10/4/2017		0.0025 (J)	<0.005	
1/9/2018	0.0033 (J)			
1/11/2018		0.0006 (J)	<0.005	
7/10/2018	0.0027 (J)			
7/11/2018		0.0011 (J)	<0.005	
1/17/2019	0.0022 (J)			
1/18/2019		<0.005	<0.005	
3/26/2019	0.0045 (J)			
3/27/2019		<0.005	<0.005	
8/27/2019		0.00044 (J)		
8/28/2019	0.002 (J)		<0.005	
10/8/2019	0.0028 (J)			
10/9/2019		<0.005	<0.005	
4/7/2020	<0.005	0.00043 (J)		
4/8/2020			0.00084 (J)	
8/18/2020	0.0059	<0.005		
8/19/2020			<0.005	
9/30/2020	0.0029 (J)	<0.005		
10/1/2020			<0.005	
1/20/2021				<0.005
3/10/2021		<0.005	<0.005	
3/11/2021				0.00092 (J)
3/16/2021	0.0098			
9/21/2021		<0.005		
9/22/2021	<0.005		<0.005	
9/23/2021				<0.005
2/1/2022	0.02			
2/2/2022			<0.005	
2/3/2022		<0.005		<0.005
8/30/2022	0.0271			
8/31/2022		<0.005		<0.005
9/1/2022			<0.005	
Mean	0.006271	0.00336	0.004802	0.004184
Std. Dev.	0.006103	0.001997	0.0009078	0.001825
Upper Lim.	0.0059	0.005	0.005	0.005

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWC-22	GWC-9	MW-25D
Lower Lim.	0.0029	0.0011	0.00084	0.00092

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				0.062		
1/18/2016	0.095	0.12	0.11			0.032
1/19/2016					0.048	
7/26/2016					0.051	
7/27/2016		0.112		0.0417		0.0191
7/28/2016			0.105			
7/29/2016	0.0883					
8/30/2016		0.135	0.106	0.0545		
8/31/2016					0.0565	0.019
9/1/2016	0.123					
10/25/2016				0.0504		
10/26/2016	0.0863	0.103	0.107		0.0591	0.0197
1/3/2017		0.118				
1/4/2017				0.0534	0.0598	0.0174
1/5/2017			0.107			
1/6/2017	0.0758					
4/4/2017	0.091			0.0549		
4/5/2017						0.0174
4/6/2017		0.162	0.111		0.0813	
7/10/2017						0.0172
7/11/2017					0.0302	
7/12/2017	0.0941	0.157	0.106	0.0614		
10/3/2017		0.127	0.105	0.0436	0.103	
10/4/2017	0.0994					0.0162
1/9/2018			0.0969			
1/10/2018		0.158		0.053		
1/11/2018	0.088				0.166	0.018
7/10/2018		0.31	0.087	0.059		
7/11/2018	0.071				0.12	0.014
1/16/2019	0.083	0.054	0.013 (J)	0.054		
1/17/2019					0.039	0.017
3/25/2019	0.077					
3/26/2019		0.057	0.012 (J)	0.055		
3/27/2019					0.053	0.017
8/27/2019	0.076		0.013	0.054	0.12	0.017
8/28/2019		0.1				
10/8/2019					0.13	
10/9/2019	0.076	0.13	0.014 (J)	0.058		0.019
4/7/2020	0.09	0.098	0.01 (J)	0.05	0.14	0.017
8/17/2020						0.018
8/18/2020					0.12	
8/19/2020	0.076	0.1	0.064	0.057		
9/28/2020				0.051		
9/29/2020					0.14	0.018
9/30/2020		0.16	0.092			
10/1/2020	0.077					
3/10/2021	0.07	0.096	0.027	0.052	0.13	0.028
9/21/2021	0.098	0.076	0.077		0.12	0.023
9/23/2021				0.062		
2/2/2022	0.17		0.026			
2/3/2022		0.062		0.051	0.17	0.025
8/30/2022	0.134	0.051	0.0266			0.0275

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/31/2022					0.115	
9/1/2022				0.0583		
Mean	0.09233	0.1184	0.0674	0.0541	0.09771	0.01983
Std. Dev.	0.02394	0.05621	0.04169	0.005314	0.04325	0.004585
Upper Lim.	0.098	0.1426	0.106	0.05704	0.1216	0.023
Lower Lim.	0.076	0.0869	0.014	0.05117	0.07385	0.017

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		0.038	0.048	0.056		0.049
1/18/2016	0.026				0.13	
4/26/2016		0.025		0.0721		
7/26/2016	0.0236					
7/27/2016		0.0248	0.0487			0.0796
7/28/2016				0.0534		
7/29/2016					0.181	
8/31/2016	0.0273					0.0429
9/1/2016		0.0346	0.0403	0.0445	0.203	
10/25/2016		0.0248	0.0329	0.0464		
10/26/2016	0.0238				0.177	0.113 (O)
1/4/2017				0.0379		
1/5/2017	0.0218	0.0245	0.0392		0.142	0.0526
4/3/2017			0.0439			
4/4/2017		0.0342				0.0503
4/5/2017				0.0534	0.106	
4/6/2017	0.0204					
7/11/2017		0.0276	0.051			
7/12/2017	0.0161			0.0944		
7/13/2017					0.0686	0.0529
10/2/2017		0.0274	0.047			
10/3/2017				0.135 (O)		0.057
10/4/2017	0.0185				0.0589	
1/9/2018		0.0222	0.0431			
1/10/2018	0.0166			0.0603		0.0527
1/11/2018					0.0412	
7/9/2018		0.026				
7/10/2018			0.047	0.16 (O)		0.054
7/11/2018	0.019				0.049	
1/16/2019	0.019	0.028			0.063	
1/17/2019			0.042	0.13		
1/21/2019						0.05
3/26/2019	0.026	0.034	0.047	0.14	0.025	
7/30/2019						0.052
8/27/2019	0.024	0.067	0.049			0.053
8/28/2019				0.09	0.026	
10/8/2019	0.024	0.085	0.057	0.13		
10/9/2019					0.032	0.05
4/7/2020		0.073	0.033	0.13		
4/8/2020	0.027				0.055	0.061
8/17/2020	0.024					
8/18/2020		0.028	0.03	0.32	0.074	0.05
9/28/2020	0.029					
9/29/2020		0.026				0.049
9/30/2020			0.034	0.14	0.035	
3/11/2021					0.044	
3/12/2021			0.038			
3/15/2021	0.034					0.053
3/16/2021		0.037		0.16		
9/21/2021	0.037					
9/22/2021		0.11		0.26	0.058	0.047
9/23/2021			0.062			

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
2/1/2022				0.23	0.055	
2/2/2022		0.1				0.052
2/3/2022	0.038		0.061			
8/30/2022		0.0773				
8/31/2022	0.0379		0.055		0.0375	
9/1/2022				0.165		0.0508
Mean	0.02538	0.04429	0.0452	0.1207	0.0791	0.05294
Std. Dev.	0.006658	0.02732	0.009027	0.07768	0.05487	0.007254
Upper Lim.	0.02905	0.067	0.05018	0.1648	0.1004	0.053
Lower Lim.	0.02171	0.025	0.04022	0.07656	0.04728	0.05

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-23D	MW-24D
1/17/2016	0.08	0.079				
1/18/2016			0.062	0.2		
7/28/2016	0.164	0.0626		0.234		
7/29/2016			0.0575			
8/31/2016			0.0693	0.284		
9/1/2016	0.0976	0.077				
10/25/2016	0.0702	0.0217				
10/26/2016			0.0966			
10/27/2016				0.244		
1/4/2017	0.0999	0.0617	0.0975			
1/6/2017				0.305		
4/4/2017	0.136	0.0761				
4/6/2017			0.064	0.249		
7/11/2017	0.145		0.0778			
7/12/2017				0.256		
7/13/2017		0.0428				
10/2/2017	0.148					
10/3/2017		0.0376				
10/4/2017			0.156	0.356		
1/9/2018		0.0704				
1/10/2018	0.0788					
1/11/2018			0.0702	0.226		
7/9/2018	0.087					
7/10/2018		0.061				
7/11/2018			0.12	0.29		
1/17/2019		0.061				
1/18/2019			0.052	0.21		
1/21/2019	0.069					
3/25/2019	0.085					
3/26/2019		0.084				
3/27/2019			0.057	0.19		
8/27/2019			0.097			
8/28/2019	0.078	0.063		0.17		
10/8/2019		0.079				
10/9/2019	0.078		0.065	0.18		
4/7/2020		0.054	0.1			
4/8/2020	0.19			0.15		
8/18/2020	0.38	0.18	0.085			
8/19/2020				0.17		
9/30/2020	0.35	0.19	0.045			
10/1/2020				0.15		
3/10/2021			0.049	0.15		
3/11/2021					0.076	0.047
3/12/2021	0.34					
3/16/2021		0.18				
9/21/2021			0.036			
9/22/2021	0.42	0.046		0.15	0.076	0.038
2/1/2022	0.36	0.24				0.036
2/2/2022				0.15		
2/3/2022			0.038		0.079	
8/30/2022	0.21	0.191				
8/31/2022			0.0741		0.0765	

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-23D	MW-24D
9/1/2022				0.151		0.0267
Mean	0.1746	0.09323	0.07471	0.2126	0.07688	0.03693
Std. Dev.	0.1195	0.06186	0.02902	0.06074	0.001436	0.008328
Upper Lim.	0.2024	0.1145	0.09072	0.2461	0.079	0.05583
Lower Lim.	0.1006	0.05692	0.0587	0.1791	0.076	0.01802

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-25D
3/11/2021	0.03
9/23/2021	0.024
2/3/2022	0.024
8/31/2022	0.0216
Mean	0.0249
Std. Dev.	0.003583
Upper Lim.	0.03304
Lower Lim.	0.01676

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-11	GWC-12	GWC-13
8/30/2016		0.0002 (J)	<0.0005			
8/31/2016				<0.0005	0.0011 (J)	<0.0005
9/1/2016	0.0004 (J)					
10/26/2016	0.0001 (J)	0.0001 (J)	<0.0005	<0.0005	0.0011 (J)	<0.0005
1/3/2017		0.0001 (J)				
1/4/2017				<0.0005	0.0009 (J)	
1/5/2017			<0.0005			<0.0005
1/6/2017	0.0001 (J)					
4/4/2017	0.0001 (J)					
4/5/2017					0.0008 (J)	
4/6/2017		0.0003 (J)	<0.0005	<0.0005		<0.0005
7/10/2017					0.0008 (J)	
7/11/2017				<0.0005		
7/12/2017	<0.0005	0.0002 (J)	<0.0005			<0.0005
10/3/2017		0.0002 (J)	<0.0005	<0.0005		
10/4/2017	0.0001 (J)				0.0006 (J)	<0.0005
1/9/2018			<0.0005			
1/10/2018		0.0003 (J)				<0.0005
1/11/2018	0.0001 (J)			<0.0005	0.0006 (J)	
7/10/2018		0.00028 (J)	<0.0005			
7/11/2018	<0.0005			<0.0005	0.00061 (J)	5.8E-05 (J)
8/27/2019	<0.0005		<0.0005	<0.0005	0.00047 (J)	<0.0005
8/28/2019		7.6E-05 (J)				
10/8/2019				<0.0005		<0.0005
10/9/2019	<0.0005	<0.0005	<0.0005		0.00046 (J)	
4/7/2020	<0.0005	<0.0005	<0.0005	<0.0005	0.00051 (J)	
4/8/2020						<0.0005
8/17/2020					0.00046 (J)	<0.0005
8/18/2020				<0.0005		
8/19/2020	<0.0005	<0.0005	5E-05 (J)			
9/28/2020						<0.0005
9/29/2020				<0.0005	0.00043 (J)	
9/30/2020		6.5E-05 (J)	4.6E-05 (J)			
10/1/2020	<0.0005					
3/10/2021	<0.0005	8.2E-05 (J)	<0.0005	4.7E-05 (J)	0.00054	
3/15/2021						<0.0005
9/21/2021	<0.0005	9.9E-05 (J)	<0.0005	<0.0005	0.00047 (J)	<0.0005
2/2/2022	<0.0005		<0.0005			
2/3/2022		0.00014 (J)		<0.0005	0.00056	<0.0005
8/30/2022	<0.0005	<0.0005	<0.0005		0.000663	
8/31/2022				<0.0005		<0.0005
Mean	0.0003765	0.0002436	0.0004468	0.0004734	0.0006514	0.000474
Std. Dev.	0.0001855	0.000165	0.0001501	0.0001099	0.0002157	0.0001072
Upper Lim.	0.0005	0.0001657	0.0005	0.0005	0.0007522	0.0005
Lower Lim.	0.0001	8.436E-05	5E-05	4.7E-05	0.0005148	5.8E-05

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-16	GWC-17	GWC-2	GWC-22	GWC-9
8/31/2016				<0.0005	0.0002 (J)	0.0003 (J)
9/1/2016	0.0001 (J)	0.0001 (J)	0.0014 (J)			
10/25/2016	<0.0005	<0.0005				
10/26/2016			0.0016 (J)	0.0003 (J)	0.0002 (J)	
10/27/2016						0.0003 (J)
1/4/2017		9E-05 (J)			0.0001 (J)	
1/5/2017	<0.0005		0.0019 (J)	<0.0005		
1/6/2017						0.0002 (J)
4/4/2017	9E-05 (J)			9E-05 (J)		
4/5/2017		9E-05 (J)	0.0024 (J)			
4/6/2017					<0.0005	0.0003 (J)
7/11/2017	<0.0005				<0.0005	
7/12/2017		<0.0005				0.0003 (J)
7/13/2017			0.0034	<0.0005		
10/2/2017	<0.0005					
10/3/2017		<0.0005		<0.0005		
10/4/2017			0.0037		0.0001 (J)	0.0002 (J)
1/9/2018	<0.0005					
1/10/2018		0.0001 (J)		<0.0005		
1/11/2018			0.0033		<0.0005	0.0003 (J)
7/9/2018	6.2E-05 (J)					
7/10/2018		6E-05 (J)		<0.0005		
7/11/2018			0.0038		7E-05 (J)	0.0003 (J)
7/30/2019				<0.0005		
8/27/2019	<0.0005			<0.0005	9E-05 (J)	
8/28/2019		8E-05 (J)	0.0017 (J)			0.00022 (J)
10/8/2019	<0.0005	9.8E-05 (J)				
10/9/2019			0.0018 (J)	<0.0005	<0.0005	0.00023 (J)
4/7/2020	<0.0005	<0.0005			<0.0005	
4/8/2020			0.0017 (J)	8.8E-05 (J)		0.00019 (J)
8/18/2020	<0.0005	6.8E-05 (J)	0.0016 (J)	5.1E-05 (J)	7.6E-05 (J)	
8/19/2020						0.00022 (J)
9/29/2020	<0.0005			7.5E-05 (J)		
9/30/2020		8.9E-05 (J)	0.0013 (J)		<0.0005	
10/1/2020						0.0002 (J)
3/10/2021					<0.0005	0.00019 (J)
3/11/2021			0.0012			
3/15/2021				7.3E-05 (J)		
3/16/2021	<0.0005	<0.0005				
9/21/2021					<0.0005	
9/22/2021	<0.0005	6E-05 (J)	0.0017	<0.0005		0.00017 (J)
2/1/2022		<0.0005	0.002			
2/2/2022	<0.0005			<0.0005		0.00018 (J)
2/3/2022					<0.0005	
8/30/2022	<0.0005					
8/31/2022			0.00258		<0.0005	
9/1/2022		<0.0005		<0.0005		<0.0005
Mean	0.0004266	0.000255	0.002181	0.0003709	0.0003433	0.0002529
Std. Dev.	0.0001636	0.0002116	0.0008605	0.0001944	0.0001961	8.122E-05
Upper Lim.	0.0005	0.0005	0.00262	0.0005	0.0005	0.0003
Lower Lim.	0.0001	8E-05	0.001628	8.8E-05	9E-05	0.00019

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-25D
3/11/2021	8.4E-05 (J)
9/23/2021	<0.0005
2/3/2022	<0.0005
8/31/2022	<0.0005
Mean	0.000396
Std. Dev.	0.000208
Upper Lim.	0.0005
Lower Lim.	8.4E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-1	GWC-11	GWC-14	GWC-20	GWC-22
8/30/2016		<0.001				
8/31/2016			0.0002 (J)			8E-05 (J)
9/1/2016	0.0002 (J)			0.0001 (J)	<0.001	
10/25/2016		<0.001		0.0002 (J)	<0.001	
10/26/2016	<0.001		0.0001 (J)			<0.001
1/4/2017		0.0001 (J)	0.0001 (J)		<0.001	0.0001 (J)
1/5/2017				0.0002 (J)		
1/6/2017	9E-05 (J)					
4/4/2017	9E-05 (J)	7E-05 (J)		0.0002 (J)	<0.001	
4/6/2017			0.0002 (J)			0.0001 (J)
7/11/2017			<0.001	0.0002 (J)	<0.001	<0.001
7/12/2017	<0.001	<0.001				
10/2/2017				<0.001	<0.001	
10/3/2017		<0.001	0.0003 (J)			
10/4/2017	<0.001					0.0002 (J)
1/9/2018				<0.001		
1/10/2018		<0.001			<0.001	
1/11/2018	0.0002 (J)		0.0006 (J)			0.0002 (J)
7/9/2018				0.00017 (J)	<0.001	
7/10/2018		<0.001				
7/11/2018	<0.001		0.0004 (J)			0.00023 (J)
8/27/2019	<0.001	<0.001	0.00044 (J)	<0.001		<0.001
8/28/2019					<0.001	
10/8/2019			0.00043 (J)	<0.001		
10/9/2019	<0.001	<0.001			<0.001	0.00012 (J)
4/7/2020	<0.001	<0.001	0.00051 (J)	<0.001		0.00054 (J)
4/8/2020					<0.001	
8/18/2020			0.00058 (J)	<0.001	<0.001	0.00024 (J)
8/19/2020	<0.001	<0.001				
9/28/2020		<0.001				
9/29/2020			0.00077 (J)	0.00012 (J)		
9/30/2020					<0.001	0.00024 (J)
10/1/2020	<0.001					
3/10/2021	<0.001	<0.001	0.0009			<0.001
3/12/2021					0.00018 (J)	
3/16/2021				<0.001		
9/21/2021	<0.001		0.00036 (J)			<0.001
9/22/2021				<0.001	0.00013 (J)	
9/23/2021		<0.001				
2/1/2022					0.0002 (J)	
2/2/2022	<0.001			<0.001		
2/3/2022		<0.001	0.00019 (J)			<0.001
8/30/2022	<0.001			<0.001	<0.001	
8/31/2022			0.000431 (J)			<0.001
9/1/2022		<0.001				
Mean	0.0007988	0.0008924	0.0004418	0.0006582	0.0008535	0.0005324
Std. Dev.	0.0003748	0.0003039	0.0002647	0.0004219	0.0003264	0.0004155
Upper Lim.	0.001	0.001	0.0006077	0.001	0.001	0.001
Lower Lim.	0.0002	0.0001	0.000276	0.00017	0.0002	0.00012

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-23D	MW-25D
3/11/2021	<0.001	0.00019 (J)
9/22/2021	0.00027 (J)	
9/23/2021		<0.001
2/3/2022	<0.001	<0.001
8/31/2022	<0.001	<0.001
Mean	0.0008175	0.0007975
Std. Dev.	0.000365	0.000405
Upper Lim.	0.001	0.001
Lower Lim.	0.00027	0.00019

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.01		
1/18/2016	0.014	<0.01	0.0011 (J)			<0.01
1/19/2016					<0.01	
7/26/2016					0.0005 (J)	
7/27/2016		0.0006 (J)		0.0016 (J)		0.0014 (J)
7/28/2016			0.001 (J)			
7/29/2016	0.0077 (J)					
8/30/2016		<0.01	0.0013 (J)	0.0015 (J)		
8/31/2016					0.001 (J)	0.0012 (J)
9/1/2016	0.015					
10/25/2016				0.0018 (J)		
10/26/2016	0.0106	<0.01	0.0014 (J)		<0.01	0.0012 (J)
1/3/2017		0.001 (J)				
1/4/2017				0.0021 (J)	<0.01	0.0012 (J)
1/5/2017			0.002 (J)			
1/6/2017	0.0098 (J)					
4/4/2017	0.0101			0.002 (J)		
4/5/2017						0.0013 (J)
4/6/2017		0.0013 (J)	0.0034 (J)		0.0007 (J)	
7/10/2017						0.0014 (J)
7/11/2017					0.0006 (J)	
7/12/2017	0.0096 (J)	0.0011 (J)	0.0024 (J)	0.0021 (J)		
10/3/2017		0.0012 (J)	0.0022 (J)	0.0014 (J)	0.0007 (J)	
10/4/2017	0.0097 (J)					0.0011 (J)
1/9/2018			0.0019 (J)			
1/10/2018		0.0016 (J)		0.0017 (J)		
1/11/2018	0.0109				0.0098 (J)	0.001 (J)
7/10/2018		0.0055 (J)	0.0023 (J)	0.0021 (J)		
7/11/2018	0.0055 (J)				<0.01	<0.01
1/16/2019	0.0024 (J)	<0.01	0.018 (J)	0.0021 (J)		
1/17/2019					<0.01	0.0028 (J)
3/25/2019	0.002 (J)					
3/26/2019		0.072	0.017 (J)	0.0018 (J)		
3/27/2019					<0.01	<0.01
8/27/2019	0.0027 (J)		0.0097 (J)	0.0062 (J)	0.00092 (J)	0.00085 (J)
8/28/2019		0.0071 (J)				
10/8/2019					0.00091 (J)	
10/9/2019	0.002 (J)	0.012 (J)	0.011 (J)	0.0019 (J)		0.00081 (J)
4/7/2020	0.0028 (J)	0.0022 (J)	0.0094 (J)	0.0015 (J)	0.00094 (J)	0.00082 (J)
8/17/2020						0.001 (J)
8/18/2020					0.0015 (J)	
8/19/2020	0.0022 (J)	0.0012 (J)	0.0037 (J)	0.0028 (J)		
9/28/2020				0.0024 (J)		
9/29/2020					0.0011 (J)	0.00085 (J)
9/30/2020		0.0018 (J)	0.0045 (J)			
10/1/2020	0.002 (J)					
3/10/2021	0.003 (J)	0.001 (J)	0.006	0.0023 (J)	0.0013 (J)	0.00091 (J)
9/21/2021	0.0018 (J)	<0.01	0.0035 (J)		<0.01	<0.01
9/23/2021				0.0023 (J)		
2/2/2022	0.003 (J)		0.0033 (J)			
2/3/2022		0.0014 (J)		0.0019 (J)	0.0011 (J)	0.0018 (J)
8/30/2022	<0.01	<0.01	0.00356 (J)			<0.01

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/31/2022					<0.01	
9/1/2022				<0.01		
Mean	0.006514	0.008143	0.005174	0.002929	0.004813	0.003316
Std. Dev.	0.004437	0.01523	0.005004	0.002547	0.004589	0.003853
Upper Lim.	0.0101	0.003715	0.006407	0.0024	0.01	0.0028
Lower Lim.	0.0022	0.001047	0.002325	0.0017	0.00091	0.00091

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		0.0012 (J)	<0.01	<0.01		<0.01
1/18/2016	<0.01				<0.01	
4/26/2016		<0.01		<0.01		
7/26/2016	<0.01					
7/27/2016		0.0008 (J)	0.0007 (J)			0.0008 (J)
7/28/2016				0.0006 (J)		
7/29/2016					0.0009 (J)	
8/31/2016	0.0011 (J)					<0.01
9/1/2016		0.0015 (J)	0.0011 (J)	0.0011 (J)	0.0011 (J)	
10/25/2016		<0.01	<0.01	<0.01		
10/26/2016	<0.01				<0.01	0.001 (J)
1/4/2017				<0.01		
1/5/2017	<0.01	0.001 (J)	<0.01		0.0012 (J)	<0.01
4/3/2017			0.0015 (J)			
4/4/2017		0.001 (J)				0.0008 (J)
4/5/2017				0.001 (J)	0.0015 (J)	
4/6/2017	0.0011 (J)					
7/11/2017		0.0008 (J)	0.0013 (J)			
7/12/2017	0.0007 (J)			0.0011 (J)		
7/13/2017					0.0012 (J)	0.0006 (J)
10/2/2017		0.0009 (J)	0.0013 (J)			
10/3/2017				0.0009 (J)		<0.01
10/4/2017	0.0008 (J)				0.0055 (J)	
1/9/2018		0.0006 (J)	0.0012 (J)			
1/10/2018	0.0007 (J)			0.0007 (J)		<0.01
1/11/2018					0.0009 (J)	
7/9/2018		<0.01				
7/10/2018			<0.01	<0.01		<0.01
7/11/2018	0.0019 (J)				<0.01	
1/16/2019	<0.01	<0.01			<0.01	
1/17/2019			<0.01	0.01 (J)		
1/21/2019						<0.01
3/26/2019	<0.01	<0.01	<0.01	<0.01	<0.01	
7/30/2019						0.00065 (J)
8/27/2019	<0.01	0.001 (J)	0.0016 (J)			<0.01
8/28/2019				0.0011 (J)	0.0013 (J)	
10/8/2019	<0.01	0.00053 (J)	0.0017 (J)	0.00099 (J)		
10/9/2019					0.00081 (J)	0.00049 (J)
4/7/2020		0.00074 (J)	0.0014 (J)	<0.01		
4/8/2020	0.00058 (J)				0.00073 (J)	0.00069 (J)
8/17/2020	0.00077 (J)					
8/18/2020		0.00059 (J)	0.0018 (J)	0.0012 (J)	0.0011 (J)	<0.01
9/28/2020	0.00062 (J)					
9/29/2020		<0.01				<0.01
9/30/2020			0.0016 (J)	0.00098 (J)	0.00096 (J)	
3/11/2021					0.0009 (J)	
3/12/2021			0.0031 (J)			
3/15/2021	<0.01					0.0011 (J)
3/16/2021		<0.01		0.0012 (J)		
9/21/2021	<0.01					
9/22/2021		<0.01		0.0018 (J)	<0.01	<0.01
9/23/2021			0.0013 (J)			

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
2/1/2022				<0.01	0.0014 (J)	
2/2/2022		<0.01				<0.01
2/3/2022	<0.01		0.0016 (J)			
8/30/2022		<0.01				
8/31/2022	<0.01		<0.01		<0.01	
9/1/2022				<0.01		<0.01
Mean	0.006108	0.00503	0.004343	0.005121	0.004262	0.006482
Std. Dev.	0.004612	0.004648	0.004122	0.004563	0.004269	0.004596
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.00077	0.0008	0.0013	0.001	0.00096	0.0008

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-24D	MW-25D
1/17/2016	<0.01	<0.01				
1/18/2016			<0.01	<0.01		
7/28/2016	0.0007 (J)	0.0005 (J)		0.0011 (J)		
7/29/2016			0.0007 (J)			
8/31/2016			<0.01	0.0024 (J)		
9/1/2016	<0.01	<0.01				
10/25/2016	<0.01	<0.01				
10/26/2016			<0.01			
10/27/2016				<0.01		
1/4/2017	<0.01	<0.01	<0.01			
1/6/2017				<0.01		
4/4/2017	0.0011 (J)	0.0008 (J)				
4/6/2017			0.0006 (J)	0.0019 (J)		
7/11/2017	0.0009 (J)		0.0005 (J)			
7/12/2017				0.0011 (J)		
7/13/2017		0.0006 (J)				
10/2/2017	0.0009 (J)					
10/3/2017		0.0005 (J)				
10/4/2017			0.0006 (J)	0.0011 (J)		
1/9/2018		0.0007 (J)				
1/10/2018	0.0008 (J)					
1/11/2018			<0.01	0.001 (J)		
7/9/2018	<0.01					
7/10/2018		<0.01				
7/11/2018			<0.01	<0.01		
1/17/2019		0.01				
1/18/2019			<0.01	<0.01		
1/21/2019	<0.01					
3/25/2019	<0.01					
3/26/2019		<0.01				
3/27/2019			<0.01	<0.01		
8/27/2019			0.00057 (J)			
8/28/2019	0.00089 (J)	0.00087 (J)		0.00089 (J)		
10/8/2019		0.00065 (J)				
10/9/2019	0.0011 (J)		0.00072 (J)	0.0009 (J)		
4/7/2020		<0.01	0.00049 (J)			
4/8/2020	0.001 (J)			0.0015 (J)		
8/18/2020	0.0011 (J)	0.0012 (J)	0.00056 (J)			
8/19/2020				0.0013 (J)		
9/30/2020	0.0013 (J)	0.00067 (J)	0.00064 (J)			
10/1/2020				0.0012 (J)		
3/10/2021			<0.01	0.0011 (J)		
3/11/2021					0.00069 (J)	0.0016 (J)
3/12/2021	0.0014 (J)					
3/16/2021		0.00075 (J)				
9/21/2021			<0.01			
9/22/2021	0.0013 (J)	<0.01		<0.01	<0.01	
9/23/2021						<0.01
2/1/2022	0.0036 (J)	<0.01			<0.01	
2/2/2022				0.0012 (J)		
2/3/2022			<0.01			<0.01
8/30/2022	<0.01	<0.01				

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-24D	MW-25D
8/31/2022			<0.01			<0.01
9/1/2022				<0.01	<0.01	
Mean	0.004576	0.005583	0.00597	0.004604	0.007672	0.0079
Std. Dev.	0.004398	0.004749	0.004768	0.00435	0.004655	0.0042
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.0009	0.00067	0.0006	0.0011	0.00069	0.0016

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-11	GWC-12	GWC-14
8/30/2016		<0.001	<0.001			
8/31/2016				<0.001	0.0018 (J)	
9/1/2016	0.0024 (J)					<0.001
10/25/2016						<0.001
10/26/2016	0.0011 (J)	<0.001	<0.001	<0.001	0.0016 (J)	
1/3/2017		<0.001				
1/4/2017				<0.001	0.0014 (J)	
1/5/2017			<0.001			<0.001
1/6/2017	0.001 (J)					
4/4/2017	0.001 (J)					<0.001
4/5/2017					0.0013 (J)	
4/6/2017		<0.001	<0.001	<0.001		
7/10/2017					0.0013 (J)	
7/11/2017				<0.001		0.0003 (J)
7/12/2017	0.0008 (J)	<0.001	<0.001			
10/2/2017						<0.001
10/3/2017		<0.001	<0.001	<0.001		
10/4/2017	0.001 (J)				0.0011 (J)	
1/9/2018			<0.001			<0.001
1/10/2018		0.0004 (J)				
1/11/2018	0.0008 (J)			0.0003 (J)	0.0011 (J)	
7/9/2018						<0.001
7/10/2018		0.002 (J)	<0.001			
7/11/2018	<0.001			<0.001	0.00096 (J)	
8/27/2019	0.0011 (J)		0.00038 (J)	<0.001	0.0009 (J)	<0.001
8/28/2019		0.0024 (J)				
10/8/2019				<0.001		<0.001
10/9/2019	0.0015 (J)	0.0037 (J)	<0.001		0.00094 (J)	
4/7/2020	0.0009 (J)	0.00053 (J)	<0.001	<0.001	0.00077 (J)	<0.001
8/17/2020					0.0006 (J)	
8/18/2020				0.0004 (J)		<0.001
8/19/2020	0.00072 (J)	<0.001	<0.001			
9/29/2020				0.00055 (J)	0.00057 (J)	<0.001
9/30/2020		0.00056 (J)	<0.001			
10/1/2020	0.0005 (J)					
3/10/2021	0.00069 (J)	0.0057	<0.001	0.00082 (J)	0.00071 (J)	
3/16/2021						<0.001
9/21/2021	<0.001	0.019	0.0049 (J)	<0.001	0.00065 (J)	
9/22/2021						<0.001
2/2/2022	0.0027 (J)		0.07			<0.001
2/3/2022		0.019		<0.001	0.00072 (J)	
8/30/2022	0.00198	0.00401	0.0476		0.000786 (J)	<0.001
8/31/2022				0.000646 (J)		
Mean	0.001188	0.003782	0.007993	0.0008656	0.001012	0.0009588
Std. Dev.	0.0006122	0.005909	0.01955	0.0002376	0.0003624	0.0001698
Upper Lim.	0.001418	0.00401	0.0049	0.001	0.001239	0.001
Lower Lim.	0.0008127	0.00056	0.00038	0.000646	0.000785	0.0003

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2022 10:03 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-22	GWC-9
8/31/2016		<0.001	0.001 (J)	0.0021 (J)
9/1/2016	0.0046 (J)			
10/26/2016	0.0046 (J)	0.0011 (J)	0.0009 (J)	
10/27/2016				0.0017 (J)
1/4/2017			0.0007 (J)	
1/5/2017	0.0062 (J)	<0.001		
1/6/2017				0.0017 (J)
4/4/2017		<0.001		
4/5/2017	0.007 (J)			
4/6/2017			<0.001	0.0017 (J)
7/11/2017			<0.001	
7/12/2017				0.0016 (J)
7/13/2017	0.0077 (J)	0.0003 (J)		
10/3/2017		0.0003 (J)		
10/4/2017	0.0073 (J)		0.0007 (J)	0.0015 (J)
1/10/2018		<0.001		
1/11/2018	0.0061 (J)		<0.001	0.0017 (J)
7/10/2018		<0.001		
7/11/2018	0.0064 (J)		<0.001	0.0017 (J)
7/30/2019		0.00032 (J)		
8/27/2019		<0.001	0.00077 (J)	
8/28/2019	0.0023 (J)			0.00099 (J)
10/9/2019	0.0024 (J)	<0.001	<0.001	0.00099 (J)
4/7/2020			0.00037 (J)	
4/8/2020	0.0024 (J)	0.00036 (J)		0.001 (J)
8/18/2020	0.0025 (J)	<0.001	<0.001	
8/19/2020				0.0011 (J)
9/29/2020		<0.001		
9/30/2020	0.0018 (J)		<0.001	
10/1/2020				0.00099 (J)
3/10/2021			<0.001	0.00096 (J)
3/11/2021	0.0019 (J)			
3/15/2021		<0.001		
9/21/2021			<0.001	
9/22/2021	0.0028 (J)	<0.001		0.00082 (J)
2/1/2022	0.0036 (J)			
2/2/2022		<0.001		0.00096 (J)
2/3/2022			<0.001	
8/31/2022	0.00358		<0.001	
9/1/2022		<0.001		0.00093 (J)
Mean	0.004305	0.0008544	0.0009082	0.00132
Std. Dev.	0.002077	0.0002951	0.0001762	0.0004016
Upper Lim.	0.005438	0.0011	0.001	0.0017
Lower Lim.	0.002894	0.00036	0.00077	0.00096

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/30/2016		1.81	2.19	2.36		
8/31/2016					2.2	2.61
9/1/2016	5.27					
10/25/2016				2.02		
10/26/2016	2.32	2.03	2.67		1.96	3.28
1/3/2017		1.85				
1/4/2017				2.1	1.88	3.77
1/5/2017			3.74			
1/6/2017	5.1					
4/4/2017	5			1.39 (U)		
4/5/2017						3.25
4/6/2017		2.66	2.36			
4/8/2017					0.893 (U)	
7/10/2017						1.55
7/11/2017					1.89	
7/12/2017	2.69	2.1	1.54	1.63		
10/3/2017		2	3.63	1.84	4.73	
10/4/2017	4.82					1.68
1/9/2018			2.07			
1/10/2018		2.55		2.11		
1/11/2018	4.48				7.49	2.94
7/10/2018		3.14	1.63	1.29		
7/11/2018	2.69				5.88	2.03
8/27/2019	2.97		4.63	2.41	5.09	2.09
8/28/2019		3.74				
10/8/2019					6.39	
10/9/2019	2.17	7.23	5.45	3.13		3.11
4/7/2020	2.44	3.57	6.25	1.97	7.87	2.18
8/17/2020						2.25
8/18/2020					6.76	
8/19/2020	3.1	2.49	4.53	1.91		
9/28/2020				1.29		
9/29/2020					8.3	0.845 (U)
9/30/2020		4.45	6.39			
10/1/2020	2.6					
3/10/2021	2.11	4.67	4.61	1.7	7.55	1.77
9/21/2021	2.45	3.1	5.07		4.35	1.24 (U)
9/23/2021				1.48		
2/2/2022	3.17		4.79			
2/3/2022		2.65		1	4.04	0.957
8/30/2022	5.57	3.36	3.2			3.37
8/31/2022					6.34	
9/1/2022				0.911 (U)		
Mean	3.468	3.141	3.809	1.797	4.918	2.29
Std. Dev.	1.248	1.362	1.562	0.5585	2.425	0.8921
Upper Lim.	5	3.835	4.788	2.147	6.438	2.849
Lower Lim.	2.44	2.314	2.83	1.447	3.399	1.731

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
8/31/2016	1.23					1.01
9/1/2016		1.28	2.45	1.99	5.19	
10/25/2016		1.54	1.04 (U)	1.98		
10/26/2016	0.641 (U)				4.25	0.725 (U)
1/4/2017				1.72		
1/5/2017	0.657 (U)	0.715 (U)	1.36		3.55	0.735 (U)
4/3/2017			0.697 (U)			
4/4/2017		0.699 (U)				0.87 (U)
4/5/2017				1.72	4.39	
4/6/2017	0.439 (U)					
7/11/2017		1.12	0.754 (U)			
7/12/2017	0.414 (U)			1.11		
7/13/2017					2.44	0.42 (U)
10/2/2017		0.855 (U)	1.52			
10/3/2017				2.13		0.995 (U)
10/4/2017	1.33				4.95	
1/9/2018		0.861 (U)	1.17			
1/10/2018	1.21			1.74		0.698 (U)
1/11/2018					3.53	
7/9/2018		0.693 (U)				
7/10/2018			1.26	1.97		1.01
7/11/2018	1.4 (U)				3.13	
8/27/2019	1.27	1.32	1.75			0.787 (U)
8/28/2019				2.04	2.01	
10/8/2019	1.62	1.41	1.52	1.89		
10/9/2019					2.91	0.22 (U)
4/7/2020		1.41	1.82	4.17		
4/8/2020	1.08 (U)				2.79	1.13 (U)
8/17/2020	1.42					
8/18/2020		0.731 (U)	1.84	4.24	3.11	1.09 (U)
9/28/2020	1.28					
9/29/2020		0.331 (U)				1 (U)
9/30/2020			2.14	2.47	3.09	
3/11/2021					2.77	
3/12/2021			0.607 (U)			
3/15/2021	0.769 (U)					0.804 (U)
3/16/2021		0.0831 (U)		2.15		
9/21/2021	2.09					
9/22/2021		1.94 (U)		3.06	2.36	0.769 (U)
9/23/2021			1.64			
2/1/2022				2.73	2.51	
2/2/2022		0.881 (U)				0.854 (U)
2/3/2022	1.18		0.58 (U)			
8/30/2022		2.62				
8/31/2022	1.9		2.88		2.72	
9/1/2022				1.64 (U)		2.09
Mean	1.172	1.088	1.472	2.279	3.276	0.8945
Std. Dev.	0.4722	0.6063	0.6494	0.847	0.92	0.3858
Upper Lim.	1.468	1.467	1.879	2.705	3.853	1.09
Lower Lim.	0.8765	0.7077	1.065	1.753	2.7	0.725

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-23D	MW-24D
8/31/2016			5.96	3.3		
9/1/2016	2.21	1.05				
10/25/2016	1.51 (U)	1.2				
10/26/2016			7.42			
10/27/2016				2.7		
1/4/2017	2.56	2.11	6.07			
1/6/2017				4.45		
4/4/2017	1.77	2.02				
4/6/2017			3	3.1		
7/11/2017	2.76		4.2			
7/12/2017				2.73		
7/13/2017		0.576 (U)				
10/2/2017	4.15					
10/3/2017		0.86				
10/4/2017			7.16	8.16		
1/9/2018		1.43				
1/10/2018	1.96					
1/11/2018			3.57	2.31		
7/9/2018	1.11					
7/10/2018		1.63				
7/11/2018			7.57	3.31		
8/27/2019			7.04			
8/28/2019	1.13 (U)	1.4 (U)		1.91		
10/8/2019		1.88				
10/9/2019	2.28		3.68	3.09		
4/7/2020		1.8	7.66			
4/8/2020	4.19			1.92		
8/18/2020	6.86	3.27	7.65			
8/19/2020				2.34		
9/30/2020	5.62	3.83	2.79			
10/1/2020				3.3		
3/10/2021			2.53	2.08		
3/11/2021					1.55	1.29
3/12/2021	5.17					
3/16/2021		2.88				
9/21/2021			1.25 (U)			
9/22/2021	6.84	0.959 (U)		2.08	1.4	0.982 (U)
2/1/2022	5.11	2.51				0.36 (U)
2/2/2022				0.967 (U)		
2/3/2022			1.4		1.21	
8/30/2022	4.95	2.56				
8/31/2022			3.07		1.79	
9/1/2022				2.35		3.54
Mean	3.54	1.88	4.825	2.947	1.488	1.543
Std. Dev.	1.945	0.8982	2.333	1.554	0.245	1.386
Upper Lim.	4.759	2.443	6.161	3.524	2.044	4.691
Lower Lim.	2.321	1.317	3.134	2.026	0.9313	-1.605

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-25D
3/11/2021	0.353 (U)
9/23/2021	1.15
2/3/2022	0.278 (U)
8/31/2022	0.645 (U)
Mean	0.6065
Std. Dev.	0.3954
Upper Lim.	1.504
Lower Lim.	-0.2912

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-12	GWC-13
8/30/2016		0.04 (J)	0.09 (J)	0.22 (J)		
8/31/2016					0.7	<0.1
9/1/2016	<0.1					
10/25/2016				<0.1		
10/26/2016	0.05 (J)	0.05 (J)	0.24 (J)		0.91	0.55
1/3/2017		0.08 (J)				
1/4/2017				0.18 (J)	0.51	
1/5/2017			0.11 (J)			0.09 (J)
1/6/2017	0.08 (J)					
4/4/2017	<0.1			<0.1		
4/5/2017					0.71	
4/6/2017		0.006 (J)	0.3			<0.1
7/10/2017					0.88	
7/12/2017	0.38	0.05 (J)	0.15 (J)	0.04 (J)		<0.1
10/3/2017		0.11 (J)	0.11 (J)	<0.1		
10/4/2017	<0.1				0.37	<0.1
1/9/2018			<0.1			
1/10/2018		<0.1		<0.1		<0.1
1/11/2018	<0.1				1.4	
7/10/2018		0.2 (J)	<0.1	<0.1		
7/11/2018	<0.1				0.62	<0.1
1/16/2019	1.2	<0.1	0.053 (J)	<0.1		<0.1
1/17/2019					1.2	
3/25/2019	0.064 (J)					
3/26/2019		<0.1	0.046 (J)	0.051 (J)		0.052 (J)
3/27/2019					0.036 (J)	
8/27/2019	0.031 (J)		0.13 (J)	<0.1	0.3	<0.1
8/28/2019		0.097 (J)				
10/8/2019						<0.1
10/9/2019	<0.1	<0.1	<0.1	<0.1	<0.1	
4/7/2020	<0.1	<0.1	<0.1	<0.1	0.27 (J)	
4/8/2020						<0.1
8/17/2020					0.19	<0.1
8/19/2020	0.17	<0.1	<0.1	<0.1		
9/28/2020				<0.1		<0.1
9/29/2020					0.16	
9/30/2020		<0.1	<0.1			
10/1/2020	<0.1					
3/10/2021	<0.1	<0.1	<0.1	<0.1	0.14	
3/15/2021						<0.1
9/21/2021	<0.1	<0.1	<0.1		0.31	<0.1
9/23/2021				<0.1		
2/2/2022	<0.1		<0.1			
2/3/2022		0.081 (J)		<0.1	0.36	<0.1
8/30/2022	<0.1	0.0428 (J)	<0.1		0.273	
8/31/2022						0.051 (J)
9/1/2022				<0.1		
Mean	0.1671	0.0872	0.1173	0.1048	0.4968	0.1181
Std. Dev.	0.26	0.03977	0.05903	0.03827	0.3833	0.1057
Upper Lim.	0.17	0.11	0.13	0.18	0.7212	0.55
Lower Lim.	0.08	0.05	0.09	0.051	0.2723	0.09

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
8/31/2016					0.07 (J)	
9/1/2016	0.25 (J)	<0.1	0.55	0.68		<0.1
10/25/2016	0.43	0.5	0.36			<0.1
10/26/2016				0.68	0.62	
1/4/2017			0.1 (J)			0.04 (J)
1/5/2017	0.21 (J)	0.22 (J)		0.73	0.17 (J)	
4/3/2017		<0.1				
4/4/2017	0.45				0.08 (J)	0.02 (J)
4/5/2017			0.2 (J)	1.6		
7/11/2017	0.41	0.06 (J)				0.14 (J)
7/12/2017			0.04 (J)			
7/13/2017				1.7	0.06 (J)	
10/2/2017	<0.1	<0.1				<0.1
10/3/2017			0.86		0.06 (J)	
10/4/2017				1.8		
1/9/2018	<0.1	<0.1				
1/10/2018			<0.1		<0.1	<0.1
1/11/2018				1.5		
7/9/2018	<0.1					<0.1
7/10/2018		0.15 (J)	<0.1		<0.1	
7/11/2018				1.8		
1/16/2019	<0.1			1.4		
1/17/2019		<0.1	<0.1			
1/21/2019					<0.1	<0.1
3/25/2019						0.043 (J)
3/26/2019	0.13 (J)	0.13 (J)	0.11 (J)	0.89		
7/30/2019					0.083 (J)	
8/27/2019	<0.1	<0.1			<0.1	
8/28/2019			<0.1	0.61		<0.1
10/8/2019	<0.1	<0.1	<0.1			
10/9/2019				<0.1	<0.1	<0.1
4/7/2020	<0.1	<0.1	<0.1			
4/8/2020				0.55	<0.1	<0.1
8/18/2020	<0.1	<0.1	<0.1	0.51	<0.1	<0.1
9/29/2020	<0.1				<0.1	
9/30/2020		<0.1	<0.1	0.15		<0.1
3/11/2021				0.42		
3/12/2021		<0.1				<0.1
3/15/2021					<0.1	
3/16/2021	<0.1		<0.1			
9/22/2021	<0.1		<0.1	0.79	<0.1	<0.1
9/23/2021		<0.1				
2/1/2022			<0.1	0.68		<0.1
2/2/2022	<0.1				<0.1	
2/3/2022		<0.1				
8/30/2022	<0.1					<0.1
8/31/2022		<0.1		0.442		
9/1/2022			0.0374 (J)		<0.1	
Mean	0.1674	0.1295	0.1767	0.8964	0.1233	0.09174
Std. Dev.	0.124	0.09513	0.2046	0.5551	0.1224	0.02744
Upper Lim.	0.25	0.13	0.2	1.162	0.17	0.14
Lower Lim.	0.1	0.06	0.1	0.5173	0.08	0.043

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWC-22	GWC-9	MW-23D	MW-25D
8/31/2016		0.04 (J)	0.55		
9/1/2016	<0.1				
10/25/2016	<0.1				
10/26/2016		0.12 (J)			
10/27/2016			0.26 (J)		
1/4/2017	<0.1	0.06 (J)			
1/6/2017			0.25 (J)		
4/4/2017	<0.1				
4/6/2017		<0.1	0.16 (J)		
7/11/2017		0.03 (J)			
7/12/2017			0.2 (J)		
7/13/2017	<0.1				
10/3/2017	<0.1				
10/4/2017		0.12 (J)	0.22 (J)		
1/9/2018	<0.1				
1/11/2018		<0.1	0.98		
7/10/2018	<0.1				
7/11/2018		<0.1	0.14 (J)		
1/17/2019	<0.1				
1/18/2019		<0.1	0.24 (J)		
3/26/2019	0.071 (J)				
3/27/2019		<0.1	0.13 (J)		
8/27/2019		0.1			
8/28/2019	<0.1		0.088 (J)		
10/8/2019	<0.1				
10/9/2019		<0.1	0.068 (J)		
4/7/2020	<0.1	<0.1			
4/8/2020			0.058 (J)		
8/18/2020	<0.1	<0.1			
8/19/2020			0.092 (J)		
9/30/2020	<0.1	<0.1			
10/1/2020			<0.1		
1/20/2021					0.11
1/21/2021				<0.1	
3/10/2021		<0.1	0.066 (J)		
3/11/2021				<0.1	0.12
3/16/2021	<0.1				
9/21/2021		<0.1			
9/22/2021	<0.1		0.13	<0.1	
9/23/2021					0.096 (J)
2/1/2022	<0.1				
2/2/2022			<0.1		
2/3/2022		<0.1		<0.1	0.077 (J)
8/30/2022	<0.1				
8/31/2022		<0.1		0.0791 (J)	0.187
9/1/2022			0.0783 (J)		
Mean	0.09847	0.09316	0.2058	0.09582	0.118
Std. Dev.	0.006653	0.02358	0.2196	0.009347	0.04182
Upper Lim.	0.1	0.12	0.2313	0.1	0.1881
Lower Lim.	0.071	0.1	0.09769	0.0791	0.04793

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.002		
1/18/2016	0.0055 (J)	<0.002	<0.002			0.0034 (J)
1/19/2016					<0.002	
7/26/2016					0.0001 (J)	
7/27/2016		<0.002		<0.002		0.0001 (J)
7/28/2016			<0.002			
7/29/2016	0.003 (J)					
8/30/2016		<0.002	<0.002	<0.002		
8/31/2016					0.0002 (J)	0.0001 (J)
9/1/2016	0.0166 (O)					
10/25/2016				<0.002		
10/26/2016	0.0057	0.0002 (J)	<0.002		0.0001 (J)	0.0001 (J)
1/3/2017		0.0001 (J)				
1/4/2017				<0.002	0.0002 (J)	<0.002
1/5/2017			0.0003 (J)			
1/6/2017	0.0053					
4/4/2017	0.0092			<0.002		
4/5/2017						0.0003 (J)
4/6/2017		0.0003 (J)	0.0002 (J)		0.0003 (J)	
7/10/2017						0.0003 (J)
7/11/2017					0.0002 (J)	
7/12/2017	0.006	0.0002 (J)	0.0002 (J)	<0.002		
10/3/2017		0.0002 (J)	0.0001 (J)	<0.002	0.0003 (J)	
10/4/2017	0.0057					0.0001 (J)
1/9/2018			0.0003 (J)			
1/10/2018		0.0003 (J)		0.0001 (J)		
1/11/2018	0.0085				0.0003 (J)	0.0002 (J)
7/10/2018		<0.002	<0.002	<0.002		
7/11/2018	0.0029 (J)				<0.002	<0.002
1/16/2019	<0.002	<0.002	<0.002	<0.002		
1/17/2019					0.00028 (J)	<0.002
3/25/2019	<0.002					
3/26/2019		<0.002	<0.002	<0.002		
3/27/2019					0.00029 (J)	<0.002
8/27/2019	0.001 (J)		0.0011 (J)	<0.002	0.00021 (J)	<0.002
8/28/2019		0.0011 (J)				
10/8/2019					0.00028 (J)	
10/9/2019	0.00041 (J)	0.0025 (J)	0.00033 (J)	<0.002		6.6E-05 (J)
4/7/2020	0.00073 (J)	0.0014 (J)	0.00063 (J)	0.00012 (J)	0.00036 (J)	8.1E-05 (J)
8/17/2020						4.9E-05 (J)
8/18/2020					0.00035 (J)	
8/19/2020	0.00048 (J)	7.9E-05 (J)	0.00014 (J)	<0.002		
9/28/2020				4.3E-05 (J)		
9/29/2020					0.00032 (J)	3.7E-05 (J)
9/30/2020		0.0012 (J)	8E-05 (J)			
10/1/2020	0.00026 (J)					
3/10/2021	0.0003 (J)	5.2E-05 (J)	9.6E-05 (J)	0.0001 (J)	0.00042 (J)	6.8E-05 (J)
9/21/2021	<0.002	<0.002	<0.002		<0.002	<0.002
9/23/2021				<0.002		
2/2/2022	<0.002		<0.002			
2/3/2022		<0.002		<0.002	<0.002	<0.002
8/30/2022	<0.002	<0.002	<0.002			<0.002

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/31/2022						
9/1/2022				<0.002	<0.002	
Mean	0.003249	0.001221	0.001118	0.001636	0.0006767	0.0009953
Std. Dev.	0.002759	0.0008915	0.0008882	0.0007683	0.0007619	0.001073
Upper Lim.	0.004315	0.002	0.002	0.002	0.00042	0.002
Lower Lim.	0.001028	0.0002	0.0002	0.00012	0.00021	8.1E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		<0.002	<0.002	<0.002		<0.002
1/18/2016	<0.002				<0.002	
4/26/2016		<0.002		<0.002		
7/26/2016	<0.002					
7/27/2016		<0.002	<0.002			<0.002
7/28/2016				<0.002		
7/29/2016					<0.002	
8/31/2016	<0.002					<0.002
9/1/2016		<0.002	<0.002	<0.002	<0.002	
10/25/2016		<0.002	<0.002	0.0002 (J)		
10/26/2016	<0.002				<0.002	<0.002
1/4/2017				0.0001 (J)		
1/5/2017	0.0002 (J)	<0.002	<0.002		<0.002	<0.002
4/3/2017			0.0003 (J)			
4/4/2017		0.0001 (J)				0.0002 (J)
4/5/2017				0.0002 (J)	0.0009 (J)	
4/6/2017	0.0005 (J)					
7/11/2017		8E-05 (J)	0.0001 (J)			
7/12/2017	0.0005 (J)			0.0001 (J)		
7/13/2017					<0.002	0.0003 (J)
10/2/2017		0.0001 (J)	0.0002 (J)			
10/3/2017				0.0001 (J)		<0.002
10/4/2017	0.0007 (J)				0.0001 (J)	
1/9/2018		<0.002	0.0002 (J)			
1/10/2018	0.0009 (J)			0.0002 (J)		8E-05 (J)
1/11/2018					0.0001 (J)	
7/9/2018		<0.002				
7/10/2018			<0.002	<0.002		<0.002
7/11/2018	0.0015 (J)				<0.002	
1/16/2019	0.00061 (J)	<0.002			<0.002	
1/17/2019			<0.002	<0.002		
1/21/2019						<0.002
3/26/2019	<0.002	<0.002	<0.002	<0.002	<0.002	
7/30/2019						0.0002 (J)
8/27/2019	0.0001 (J)	0.00051 (J)	0.00033 (J)			<0.002
8/28/2019				0.0001 (J)	<0.002	
10/8/2019	0.00013 (J)	<0.002	0.00012 (J)	0.0001 (J)		
10/9/2019					0.00015 (J)	6.4E-05 (J)
4/7/2020		<0.002	8.6E-05 (J)	0.00023 (J)		
4/8/2020	0.00017 (J)				8.4E-05 (J)	<0.002
8/17/2020	7.6E-05 (J)					
8/18/2020		<0.002	9E-05 (J)	0.00017 (J)	0.00014 (J)	<0.002
9/28/2020	6.4E-05 (J)					
9/29/2020		<0.002				<0.002
9/30/2020			4.7E-05 (J)	9.1E-05 (J)	6E-05 (J)	
3/11/2021					0.00019 (J)	
3/12/2021			5.3E-05 (J)			
3/15/2021	0.00013 (J)					4.1E-05 (J)
3/16/2021		<0.002		7.3E-05 (J)		
9/21/2021	<0.002					
9/22/2021		<0.002		<0.002	<0.002	<0.002
9/23/2021			<0.002			

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
2/1/2022				<0.002	<0.002	
2/2/2022		<0.002				<0.002
2/3/2022	<0.002		<0.002			
8/30/2022		<0.002				
8/31/2022	<0.002		<0.002		<0.002	
9/1/2022				<0.002		<0.002
Mean	0.001028	0.001672	0.00112	0.0009847	0.00132	0.001471
Std. Dev.	0.0008476	0.0007159	0.0009478	0.0009495	0.0009033	0.000859
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002
Lower Lim.	0.00013	0.00051	0.0001	0.0001	0.00014	0.0002

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-23D	MW-24D
1/17/2016	<0.002	<0.002				
1/18/2016			<0.002	<0.002		
7/28/2016	<0.002	<0.002		<0.002		
7/29/2016			0.0004 (J)			
8/31/2016			0.0003 (J)	0.0007 (J)		
9/1/2016	<0.002	<0.002				
10/25/2016	0.0001 (J)	<0.002				
10/26/2016			0.0003 (J)			
10/27/2016				<0.002		
1/4/2017	<0.002	<0.002	0.0003 (J)			
1/6/2017				<0.002		
4/4/2017	7E-05 (J)	9E-05 (J)				
4/6/2017			0.0003 (J)	0.0001 (J)		
7/11/2017	<0.002		0.0002 (J)			
7/12/2017				<0.002		
7/13/2017		7E-05 (J)				
10/2/2017	<0.002					
10/3/2017		0.0001 (J)				
10/4/2017			0.0008 (J)	9E-05 (J)		
1/9/2018		9E-05 (J)				
1/10/2018	0.0002 (J)					
1/11/2018			0.0009 (J)	0.0002 (J)		
7/9/2018	<0.002					
7/10/2018		<0.002				
7/11/2018			0.001 (J)	<0.002		
1/17/2019		<0.002				
1/18/2019			0.0012 (J)	<0.002		
1/21/2019	<0.002					
3/25/2019	<0.002					
3/26/2019		<0.002				
3/27/2019			0.00047 (J)	<0.002		
8/27/2019			0.003 (J)			
8/28/2019	6.5E-05 (J)	0.00018 (J)		6.1E-05 (J)		
10/8/2019		0.00016 (J)				
10/9/2019	0.00018 (J)		0.00032 (J)	<0.002		
4/7/2020		<0.002	0.00067 (J)			
4/8/2020	<0.002			0.00021 (J)		
8/18/2020	<0.002	0.00027 (J)	0.00072 (J)			
8/19/2020				9.6E-05 (J)		
9/30/2020	<0.002	5.4E-05 (J)	0.00023 (J)			
10/1/2020				3.8E-05 (J)		
3/10/2021			0.00016 (J)	0.00012 (J)		
3/11/2021					5.7E-05 (J)	9.4E-05 (J)
3/12/2021	<0.002					
3/16/2021		<0.002				
9/21/2021			<0.002			
9/22/2021	<0.002	<0.002		<0.002	<0.002	<0.002
2/1/2022	<0.002	<0.002				<0.002
2/2/2022				<0.002		
2/3/2022			<0.002	<0.002		
8/30/2022	<0.002	<0.002			<0.002	
8/31/2022			<0.002		<0.002	

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-23D	MW-24D
9/1/2022				<0.002		<0.002
Mean	0.001553	0.001286	0.0009176	0.00122	0.001514	0.001524
Std. Dev.	0.0008197	0.0009331	0.0008104	0.0009321	0.0009715	0.000953
Upper Lim.	0.002	0.002	0.0007979	0.002	0.002	0.002
Lower Lim.	0.0002	0.0001	0.0002964	0.0001	5.7E-05	9.4E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-25D
3/11/2021	9.5E-05 (J)
9/23/2021	<0.002
2/3/2022	<0.002
8/31/2022	<0.002
Mean	0.001524
Std. Dev.	0.0009525
Upper Lim.	0.002
Lower Lim.	9.5E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWC-12	GWC-13	GWC-17	GWC-9
8/30/2016		0.0042 (J)				
8/31/2016			<0.03	<0.03		<0.05 (O)
9/1/2016	0.0092 (J)				0.0066 (J)	
10/26/2016	0.0046 (J)	<0.03	<0.03	<0.03	0.0065 (J)	
10/27/2016						0.0023 (J)
1/3/2017		0.0024 (J)				
1/4/2017			<0.03			
1/5/2017				<0.03	0.0062 (J)	
1/6/2017	0.0042 (J)					0.0021 (J)
4/4/2017	0.0056 (J)					
4/5/2017			0.0012 (J)		0.007 (J)	
4/6/2017		0.0051 (J)		<0.03		0.0021 (J)
7/10/2017			<0.03			
7/12/2017	0.0035 (J)	0.0031 (J)		<0.03		0.0017 (J)
7/13/2017					0.0069 (J)	
10/3/2017		0.0027 (J)				
10/4/2017	0.0041 (J)		<0.03	<0.03	0.0082 (J)	0.0021 (J)
1/10/2018		0.0041 (J)		<0.03		
1/11/2018	0.0052 (J)		<0.03		0.0061 (J)	0.0022 (J)
7/10/2018		0.005 (J)				
7/11/2018	0.0039 (J)		0.00098 (J)	<0.03	0.0075 (J)	0.0019 (J)
8/27/2019	0.013 (J)		0.00094 (J)	<0.03		
8/28/2019		<0.03			0.0041 (J)	0.0018 (J)
10/8/2019				<0.03		
10/9/2019	0.013 (J)	<0.03	0.0011 (J)		0.0046 (J)	0.0018 (J)
4/7/2020	0.014 (J)	<0.03	0.00094 (J)			
4/8/2020				<0.03	0.0051 (J)	0.0018 (J)
8/17/2020			0.00091 (J)	<0.03		
8/18/2020					0.0065 (J)	
8/19/2020	0.014 (J)	<0.03				0.0019 (J)
9/28/2020				<0.03		
9/29/2020			0.00086 (J)			
9/30/2020		<0.03			0.0041 (J)	
10/1/2020	0.013 (J)					0.0019 (J)
3/10/2021	0.012 (J)	<0.03	0.00095 (J)			0.0018 (J)
3/11/2021					0.0036 (J)	
3/15/2021				<0.03		
9/21/2021	0.016 (J)	<0.03	0.00091 (J)	0.00087 (J)		
9/22/2021					0.005 (J)	0.0015 (J)
2/1/2022					0.0061 (J)	
2/2/2022	0.015 (J)					0.0017 (J)
2/3/2022		<0.03	0.001 (J)	0.00077 (J)		
8/30/2022	0.0175	<0.03	<0.03			
8/31/2022				<0.03	0.00688 (J)	
9/1/2022						<0.03
Mean	0.009871	0.01921	0.01293	0.02657	0.00594	0.003662
Std. Dev.	0.005	0.01331	0.01472	0.009691	0.001306	0.007026
Upper Lim.	0.015	0.03	0.03	0.03	0.006758	0.0022
Lower Lim.	0.0042	0.0041	0.00094	0.00087	0.005122	0.0017

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
8/31/2016	<0.0002					<0.0002
9/1/2016		<0.0002	<0.0002	<0.0002	<0.0002	
10/25/2016		<0.0002	<0.0002	<0.0002		
10/26/2016	<0.0002				<0.0002	<0.0002
1/4/2017				<0.0002		
1/5/2017	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
4/3/2017			<0.0002			
4/4/2017		<0.0002				<0.0002
4/5/2017				<0.0002	<0.0002	
4/6/2017	0.00013 (J)					
7/11/2017		<0.0002	<0.0002			
7/12/2017	<0.0002			<0.0002		
7/13/2017					<0.0002	<0.0002
10/2/2017		<0.0002	<0.0002			
10/3/2017				<0.0002		<0.0002
10/4/2017	<0.0002				<0.0002	
1/9/2018		<0.0002	<0.0002			
1/10/2018	<0.0002			<0.0002		<0.0002
1/11/2018					<0.0002	
7/9/2018		<0.0002				
7/10/2018			<0.0002	<0.0002		<0.0002
7/11/2018	<0.0002				<0.0002	
1/16/2019	<0.0002	<0.0002			<0.0002	
1/17/2019			<0.0002	<0.0002		
1/21/2019						<0.0002
7/30/2019						<0.0002
8/27/2019	<0.0002	<0.0002	<0.0002			<0.0002
8/28/2019				<0.0002	<0.0002	
8/17/2020	<0.0002					
8/18/2020		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/21/2021	0.0001 (J)					
9/22/2021		0.00011 (J)		0.0001 (J)	0.00011 (J)	0.0001 (J)
9/23/2021			0.0001 (J)			
2/1/2022				<0.0002	<0.0002	
2/2/2022		<0.0002				<0.0002
2/3/2022	<0.0002		<0.0002			
8/30/2022		<0.0002				
8/31/2022	<0.0002		<0.0002		<0.0002	
9/1/2022				<0.0002		<0.0002
Mean	0.0001879	0.0001936	0.0001929	0.0001929	0.0001936	0.0001933
Std. Dev.	3.142E-05	2.405E-05	2.673E-05	2.673E-05	2.405E-05	2.582E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.00013	0.00011	0.0001	0.0001	0.00011	0.0001

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016			<0.0002	<0.0002
9/1/2016	<0.0002	<0.0002		
10/25/2016	<0.0002	<0.0002		
10/26/2016			<0.0002	
10/27/2016				<0.0002
1/4/2017	<0.0002	<0.0002	<0.0002	
1/6/2017				<0.0002
4/4/2017	<0.0002	<0.0002		
4/6/2017			<0.0002	<0.0002
7/11/2017	<0.0002		<0.0002	
7/12/2017				<0.0002
7/13/2017		<0.0002		
10/2/2017	<0.0002			
10/3/2017		<0.0002		
10/4/2017			<0.0002	5E-05 (J)
1/9/2018		<0.0002		
1/10/2018	<0.0002			
1/11/2018			<0.0002	<0.0002
7/9/2018	<0.0002			
7/10/2018		<0.0002		
7/11/2018			<0.0002	<0.0002
1/17/2019		<0.0002		
1/18/2019			<0.0002	<0.0002
1/21/2019	<0.0002			
8/27/2019			<0.0002	
8/28/2019	<0.0002	<0.0002		<0.0002
8/18/2020	<0.0002	<0.0002	<0.0002	
8/19/2020				<0.0002
9/21/2021			0.0001 (J)	
9/22/2021	0.00011 (J)	0.00011 (J)		0.00011 (J)
2/1/2022	<0.0002	<0.0002		
2/2/2022				<0.0002
2/3/2022			<0.0002	
8/30/2022	<0.0002	<0.0002		
8/31/2022			<0.0002	
9/1/2022				<0.0002
Mean	0.0001936	0.0001936	0.0001929	0.0001829
Std. Dev.	2.405E-05	2.405E-05	2.673E-05	4.514E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.00011	0.00011	0.0001	0.00011

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/30/2016		<0.001	<0.001	0.175		
8/31/2016					<0.001	<0.001
9/1/2016	0.035					
10/25/2016				0.242		
10/26/2016	0.0267	<0.001	<0.001		<0.001	<0.001
1/3/2017		<0.001				
1/4/2017				0.167	<0.001	<0.001
1/5/2017			<0.001			
1/6/2017	0.0278					
4/4/2017	0.0265			0.172		
4/5/2017						<0.001
4/6/2017		<0.001	<0.001		<0.001	
7/10/2017						<0.001
7/11/2017					<0.001	
7/12/2017	0.0209	<0.001	<0.001	0.182		
10/3/2017		<0.001	<0.001	0.162	<0.001	
10/4/2017	0.0181					<0.001
1/9/2018			<0.001			
1/10/2018		<0.001		0.117		
1/11/2018	0.0237				0.0018 (J)	<0.001
7/10/2018		<0.001	<0.001	0.11		
7/11/2018	0.024				<0.001	<0.001
8/27/2019	0.1		0.0026 (J)	0.06	<0.001	<0.001
8/28/2019		0.0012 (J)				
10/8/2019					<0.001	
10/9/2019	0.1	<0.001	<0.001	0.06		<0.001
4/7/2020	0.13	<0.001	<0.001	0.014	<0.001	<0.001
8/17/2020						<0.001
8/18/2020					0.00077 (J)	
8/19/2020	0.16	<0.001	0.001 (J)	0.061		
9/28/2020				0.059		
9/29/2020					<0.001	<0.001
9/30/2020		<0.001	0.00097 (J)			
10/1/2020	0.15					
3/10/2021	0.12	<0.001	0.0013 (J)	0.057	<0.001	<0.001
9/21/2021	0.12	<0.001	<0.001		<0.001	<0.001
9/23/2021				0.06		
2/2/2022	0.11		0.00085 (J)			
2/3/2022		<0.001		0.038	<0.001	<0.001
8/30/2022	0.154	<0.001	0.000649 (J)			0.000205 (J)
8/31/2022					0.000512 (J)	
9/1/2022				0.0343		
Mean	0.07922	0.001012	0.001081	0.1041	0.001005	0.0009532
Std. Dev.	0.05491	4.851E-05	0.0004098	0.06687	0.0002412	0.0001928
Upper Lim.	0.13	0.0012	0.0013	0.146	0.0018	0.001
Lower Lim.	0.024	0.001	0.001	0.06224	0.00077	0.000205

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-20
8/31/2016	<0.001					
9/1/2016		0.0027 (J)	0.132	0.08	<0.001	0.296
10/25/2016		0.0028 (J)	0.117	0.08		0.395
10/26/2016	<0.001				<0.001	
1/4/2017				0.0786		0.229
1/5/2017	<0.001	0.0022 (J)	0.109		<0.001	
4/3/2017			0.0994			
4/4/2017		0.0022 (J)				0.147
4/5/2017				0.113	<0.001	
4/6/2017	<0.001					
7/11/2017		0.0024 (J)	0.0938			0.136
7/12/2017	<0.001			0.178		
7/13/2017					<0.001	
10/2/2017		0.0025 (J)	0.103			0.13
10/3/2017				0.201		
10/4/2017	<0.001				<0.001	
1/9/2018		0.0038 (J)	0.106			
1/10/2018	<0.001			0.161		0.229
1/11/2018					<0.001	
7/9/2018		0.01				0.13
7/10/2018			0.088	0.14		
7/11/2018	<0.001				<0.001	
8/27/2019	<0.001	0.028	0.095			
8/28/2019				0.22	0.004 (J)	0.11
10/8/2019	<0.001	0.034	0.091	0.2		
10/9/2019					0.0036 (J)	0.071
4/7/2020		0.014	0.07	0.25		
4/8/2020	0.0056 (J)				0.0024 (J)	0.06
8/17/2020	<0.001					
8/18/2020		0.017	0.12	0.15	0.00092 (J)	0.097
9/28/2020	<0.001					
9/29/2020		0.0089 (J)				
9/30/2020			0.11	0.15	0.0041 (J)	0.33
3/11/2021					0.0038 (J)	
3/12/2021			0.098			0.53
3/15/2021	<0.001					
3/16/2021		0.0054 (J)		0.31		
9/21/2021	<0.001					
9/22/2021		0.018		0.22	0.0053 (J)	0.5
9/23/2021			0.094			
2/1/2022				0.18	0.003 (J)	0.77
2/2/2022		0.015				
2/3/2022	<0.001		0.086			
8/30/2022		0.0133				0.309
8/31/2022	<0.001		0.0786		0.00252	
9/1/2022				0.154		
Mean	0.001271	0.01072	0.09946	0.1686	0.002214	0.2629
Std. Dev.	0.001116	0.009545	0.01545	0.06266	0.001477	0.1946
Upper Lim.	0.0056	0.01488	0.1091	0.2078	0.0038	0.3536
Lower Lim.	0.001	0.004383	0.08978	0.1293	0.001	0.137

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	MW-24D	MW-25D
9/1/2016	0.0686		
10/25/2016	0.0018 (J)		
1/4/2017	0.0222		
4/4/2017	0.0476		
7/13/2017	0.0105		
10/3/2017	0.0031 (J)		
1/9/2018	0.09		
7/10/2018	0.047		
8/28/2019	0.07		
10/8/2019	0.078		
4/7/2020	0.012		
8/18/2020	0.069		
9/30/2020	0.028		
1/20/2021			0.0011 (J)
1/21/2021		0.0014 (J)	
3/11/2021		0.0035 (J)	0.0015 (J)
3/16/2021	0.024		
9/22/2021	0.0019 (J)	0.0032 (J)	
9/23/2021			<0.001
2/1/2022	0.042	0.0024 (J)	
2/3/2022			<0.001
8/30/2022	0.049		
8/31/2022			0.000863 (J)
9/1/2022		0.00174	
Mean	0.0391	0.002448	0.001093
Std. Dev.	0.02886	0.0009047	0.0002428
Upper Lim.	0.05718	0.003964	0.001454
Lower Lim.	0.02102	0.000932	0.0006211

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				0.023		
1/18/2016	<0.005	<0.005	<0.005			<0.005
1/19/2016					0.023	
7/26/2016					0.0056 (J)	
7/27/2016		<0.005		0.002 (J)		0.0025 (J)
7/28/2016			<0.005			
7/29/2016	0.0036 (J)					
8/30/2016		<0.005	<0.005	0.002 (J)		
8/31/2016					0.0084 (J)	0.0019 (J)
9/1/2016	0.0067 (J)					
10/25/2016				0.0022 (J)		
10/26/2016	0.0042 (J)	<0.005	<0.005		0.0052 (J)	0.002 (J)
1/3/2017		<0.005				
1/4/2017				0.0016 (J)	0.0062 (J)	<0.005
1/5/2017			0.0014 (J)			
1/6/2017	0.0042 (J)					
4/4/2017	0.0043 (J)			0.0052 (J)		
4/5/2017						<0.005
4/6/2017		<0.005	<0.005		0.0195	
7/10/2017						<0.005
7/11/2017					<0.005	
7/12/2017	0.0033 (J)	<0.005	<0.005	0.0024 (J)		
10/3/2017		<0.005	<0.005	<0.005	0.0079 (J)	
10/4/2017	0.0038 (J)					<0.005
1/9/2018			<0.005			
1/10/2018		<0.005		0.0018 (J)		
1/11/2018	0.0029 (J)				0.0054 (J)	<0.005
7/10/2018		0.0018 (J)	0.0016 (J)	0.0026 (J)		
7/11/2018	0.0015 (J)				0.0022 (J)	<0.005
1/16/2019	<0.005	<0.005	<0.005	0.0018 (J)		
1/17/2019					<0.005	<0.005
3/25/2019	<0.005					
3/26/2019		<0.005	0.05 (J)	0.0023 (J)		
3/27/2019					0.01 (J)	<0.005
8/27/2019	<0.005		0.0033 (J)	0.0016 (J)	<0.005	<0.005
8/28/2019		0.0033 (J)				
10/8/2019					<0.005	
10/9/2019	<0.005	0.0073 (J)	<0.005	0.0024 (J)		<0.005
4/7/2020	0.0025 (J)	<0.005	<0.005	0.0013 (J)	0.0021 (J)	<0.005
8/17/2020						<0.005
8/18/2020					0.0028 (J)	
8/19/2020	<0.005	<0.005	<0.005	0.002 (J)		
9/28/2020				<0.005		
9/29/2020					0.0024 (J)	<0.005
9/30/2020		<0.005	0.0023 (J)			
10/1/2020	<0.005					
3/10/2021	0.0021 (J)	0.006	0.0049 (J)	0.0026 (J)	0.0044 (J)	0.003 (J)
9/21/2021	<0.005	<0.005	0.0016 (J)		0.0038 (J)	<0.005
9/23/2021				0.0018 (J)		
2/2/2022	<0.005		0.0017 (J)			
2/3/2022		<0.005		0.0022 (J)	0.019	<0.005
8/30/2022	0.00265 (J)	<0.005	0.00277 (J)			<0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/31/2022					0.00344 (J)	
9/1/2022				0.00252 (J)		
Mean	0.004131	0.004924	0.00617	0.003491	0.007207	0.004495
Std. Dev.	0.001264	0.0009823	0.01014	0.004609	0.005946	0.001084
Upper Lim.	0.003863	0.006	0.005	0.0026	0.007591	0.005
Lower Lim.	0.0026	0.0033	0.0023	0.0018	0.003421	0.003

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
1/17/2016	<0.005	<0.005	0.0031 (J)		<0.005	<0.005
1/18/2016				<0.005		
4/26/2016	0.00428 (J)		0.00497 (J)			
7/27/2016	0.0038 (J)	<0.005			0.002 (J)	
7/28/2016			0.0076 (J)			<0.005
7/29/2016				0.0011 (J)		
8/31/2016					<0.005	
9/1/2016	0.0056 (J)	<0.005	0.0052 (J)	0.0012 (J)		<0.005
10/25/2016	0.0023 (J)	<0.005	0.0085 (J)			0.0014 (J)
10/26/2016				0.0013 (J)	0.0035 (J)	
1/4/2017			0.0048 (J)			0.0014 (J)
1/5/2017	0.0038 (J)	<0.005		0.0012 (J)	<0.005	
4/3/2017		<0.005				
4/4/2017	0.0064 (J)				<0.005	<0.005
4/5/2017			0.0068 (J)	<0.005		
7/11/2017	0.0044 (J)	<0.005				<0.005
7/12/2017			0.0048 (J)			
7/13/2017				0.0018 (J)	<0.005	
10/2/2017	0.004 (J)	<0.005				<0.005
10/3/2017			0.0051 (J)		<0.005	
10/4/2017				0.0042 (J)		
1/9/2018	0.0019 (J)	0.0019 (J)				
1/10/2018			0.0018 (J)		<0.005	<0.005
1/11/2018				<0.005		
7/9/2018	0.0029 (J)					<0.005
7/10/2018		0.0086 (J)	0.0045 (J)		<0.005	
7/11/2018				0.0016 (J)		
1/16/2019	0.0016 (J)			<0.005		
1/17/2019		0.0029 (J)	0.0031 (J)			
1/21/2019					<0.005	0.0014 (J)
3/25/2019						<0.005
3/26/2019	0.0022 (J)	0.0074 (J)	0.0033 (J)	<0.005		
7/30/2019					<0.005	
8/27/2019	0.0035 (J)	0.0092 (J)			<0.005	
8/28/2019			0.004 (J)	<0.005		0.0014 (J)
10/8/2019	0.0026 (J)	0.014	0.0023 (J)			
10/9/2019				<0.005	<0.005	<0.005
4/7/2020	0.005 (J)	0.0029 (J)	<0.005			
4/8/2020				<0.005	<0.005	0.0013 (J)
8/18/2020	0.0029 (J)	0.0022 (J)	0.0058 (J)	0.002 (J)	<0.005	<0.005
9/29/2020	0.0051 (J)				<0.005	
9/30/2020		<0.005	0.0037 (J)	<0.005		<0.005
3/11/2021				0.0016 (J)		
3/12/2021		0.0064				<0.005
3/15/2021					<0.005	
3/16/2021	0.0034 (J)		0.0044 (J)			
9/22/2021	0.0034 (J)		0.0031 (J)	<0.005	<0.005	0.0024 (J)
9/23/2021		0.0016 (J)				
2/1/2022			0.0024 (J)	<0.005		<0.005
2/2/2022	0.0038 (J)				<0.005	
2/3/2022		0.0031 (J)				
8/30/2022	0.00544					0.00192 (J)

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
8/31/2022		0.00192 (J)		<0.005		
9/1/2022			0.00334 (J)		<0.005	
Mean	0.003787	0.005101	0.004437	0.003619	0.004786	0.003868
Std. Dev.	0.001284	0.002916	0.001692	0.001743	0.0007171	0.001656
Upper Lim.	0.004476	0.004932	0.005345	0.005	0.005	0.005
Lower Lim.	0.003098	0.002125	0.003529	0.0016	0.0035	0.00192

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWC-22
1/17/2016	0.021	
1/18/2016		<0.005
7/28/2016	0.0341	
7/29/2016		0.0022 (J)
8/31/2016		0.0014 (J)
9/1/2016	0.0297	
10/25/2016	0.0095 (J)	
10/26/2016		0.001 (J)
1/4/2017	0.022	<0.005
4/4/2017	0.0236	
4/6/2017		<0.005
7/11/2017		<0.005
7/13/2017	0.013	
10/3/2017	0.01 (J)	
10/4/2017		0.0023 (J)
1/9/2018	0.0162	
1/11/2018		<0.005
7/10/2018	0.016	
7/11/2018		<0.005
1/17/2019	0.011	
1/18/2019		<0.005
3/26/2019	0.022	
3/27/2019		<0.005
8/27/2019		<0.005
8/28/2019	0.019	
10/8/2019	0.019	
10/9/2019		<0.005
4/7/2020	0.012	<0.005
8/18/2020	0.013	<0.005
9/30/2020	0.0061 (J)	<0.005
3/10/2021		<0.005
3/16/2021	0.0055	
9/21/2021		<0.005
9/22/2021	0.0027 (J)	
2/1/2022	0.0054	
2/3/2022		<0.005
8/30/2022	0.00648	
8/31/2022		<0.005
Mean	0.01511	0.004376
Std. Dev.	0.008357	0.00134
Upper Lim.	0.01972	0.005
Lower Lim.	0.0105	0.0023

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWC-1	GWC-11	GWC-12	GWC-14
8/30/2016		<0.002	<0.002			
8/31/2016				<0.002	<0.002	
9/1/2016	<0.002					<0.002
10/25/2016			<0.002			<0.002
10/26/2016	<0.002	<0.002		<0.002	0.0003 (J)	
1/3/2017		<0.002				
1/4/2017			<0.002	<0.002	<0.002	
1/5/2017						<0.002
1/6/2017	<0.002					
4/4/2017	7E-05 (J)		5E-05 (J)			7E-05 (J)
4/5/2017					0.0002 (J)	
4/6/2017		<0.002		6E-05 (J)		
7/10/2017					0.0002 (J)	
7/11/2017				<0.002		6E-05 (J)
7/12/2017	<0.002	<0.002	<0.002			
10/2/2017						<0.002
10/3/2017		<0.002	<0.002	7E-05 (J)		
10/4/2017	<0.002				0.0002 (J)	
1/9/2018						<0.002
1/10/2018		<0.002	<0.002			
1/11/2018	7E-05 (J)			0.0001 (J)	0.0002 (J)	
7/9/2018						<0.002
7/10/2018		<0.002	<0.002			
7/11/2018	<0.002			<0.002	<0.002	
8/27/2019	<0.002		<0.002	<0.002	0.00011 (J)	<0.002
8/28/2019		5.7E-05 (J)				
10/8/2019				9.8E-05 (J)		<0.002
10/9/2019	<0.002	0.00031 (J)	5.4E-05 (J)		0.00014 (J)	
4/7/2020	<0.002	<0.002	5.4E-05 (J)	0.00019 (J)	0.00013 (J)	<0.002
8/17/2020					<0.002	
8/18/2020				0.00021 (J)		<0.002
8/19/2020	<0.002	<0.002	<0.002			
9/28/2020			<0.002			
9/29/2020				0.00017 (J)	<0.002	<0.002
9/30/2020		<0.002				
10/1/2020	<0.002					
3/10/2021	<0.002	<0.002	<0.002	0.00022 (J)	<0.002	
3/16/2021						<0.002
9/21/2021	<0.002	<0.002		<0.002	<0.002	
9/22/2021						<0.002
9/23/2021			<0.002			
2/2/2022	<0.002					<0.002
2/3/2022		<0.002	<0.002	<0.002	<0.002	
8/30/2022	<0.002	<0.002			<0.002	<0.002
8/31/2022				<0.002		
9/1/2022			<0.002			
Mean	0.001773	0.001786	0.001656	0.001125	0.001146	0.001772
Std. Dev.	0.000641	0.0006049	0.0007652	0.000958	0.0009346	0.0006426
Upper Lim.	0.002	0.002	0.002	0.002	0.002	0.002
Lower Lim.	7E-05	0.00031	5.4E-05	0.0001	0.00014	7E-05

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-2	GWC-21	GWC-22
8/31/2016			<0.002		<0.002
9/1/2016	<0.002	<0.002		<0.002	
10/25/2016	<0.002			<0.002	
10/26/2016		<0.002	<0.002		<0.002
1/4/2017	<0.002			<0.002	<0.002
1/5/2017		<0.002	<0.002		
4/4/2017			<0.002	5E-05 (J)	
4/5/2017	6E-05 (J)	0.0001 (J)			
4/6/2017					<0.002
7/11/2017					<0.002
7/12/2017	<0.002				
7/13/2017		<0.002	<0.002	<0.002	
10/3/2017	<0.002		<0.002	<0.002	
10/4/2017		0.0001 (J)			0.0001 (J)
1/9/2018				<0.002	
1/10/2018	5E-05 (J)		<0.002		
1/11/2018		0.0001 (J)			6E-05 (J)
7/10/2018	<0.002		<0.002	<0.002	
7/11/2018		<0.002			<0.002
7/30/2019			0.00011 (J)		
8/27/2019			<0.002		8.6E-05 (J)
8/28/2019	<0.002	6.6E-05 (J)		<0.002	
10/8/2019	<0.002			<0.002	
10/9/2019		7.6E-05 (J)	<0.002		<0.002
4/7/2020	<0.002			<0.002	6.5E-05 (J)
4/8/2020		5.6E-05 (J)	<0.002		
8/18/2020	<0.002	<0.002	<0.002	<0.002	0.00017 (J)
9/29/2020			<0.002		
9/30/2020	<0.002	<0.002		<0.002	<0.002
3/10/2021					<0.002
3/11/2021		<0.002			
3/15/2021			<0.002		
3/16/2021	<0.002			<0.002	
9/21/2021					<0.002
9/22/2021	<0.002	<0.002	<0.002	<0.002	
2/1/2022	<0.002	<0.002		<0.002	
2/2/2022			<0.002		
2/3/2022					<0.002
8/30/2022				<0.002	
8/31/2022		<0.002			<0.002
9/1/2022	<0.002		<0.002		
Mean	0.001771	0.001323	0.001895	0.001885	0.00144
Std. Dev.	0.0006459	0.0009444	0.0004455	0.0004729	0.0008944
Upper Lim.	0.002	0.002	0.002	0.002	0.002
Lower Lim.	6E-05	7.6E-05	0.00011	5E-05	0.0001

Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				0.0046 (J)		
1/18/2016	0.049	0.0069	0.0044 (J)			0.0058
1/19/2016					0.0025 (J)	
7/26/2016					0.0027 (J)	
7/27/2016		0.0046 (J)		0.0064 (J)		0.0058 (J)
7/28/2016			0.0038 (J)			
7/29/2016	0.0388					
1/3/2017		<0.02				
1/4/2017				<0.02	<0.02	<0.02
1/5/2017			0.0077 (J)			
1/6/2017	0.0341					
4/4/2017	0.0371			0.0061 (J)		
4/5/2017						0.0039 (J)
4/6/2017		0.0063 (J)	0.0069 (J)		0.0025 (J)	
7/10/2017						0.0062 (J)
7/11/2017					0.0027 (J)	
7/12/2017	0.0399	0.0064 (J)	0.0098 (J)	0.0067 (J)		
1/9/2018			0.0086 (J)			
1/10/2018		0.0077 (J)		0.0056 (J)		
1/11/2018	0.0327				0.0019 (J)	0.0025 (J)
7/10/2018		0.016	0.0098 (J)	0.0056 (J)		
7/11/2018	0.02				0.0021 (J)	0.0059 (J)
1/16/2019	0.0022 (J)	0.0033 (J)	0.077	0.0043 (J)		
1/17/2019					0.0021 (J)	<0.02
3/25/2019	0.004 (J)					
3/26/2019		0.0058 (J)	0.086	0.0051 (J)		
3/27/2019					0.0023 (J)	0.0049 (J)
10/8/2019					<0.02	
10/9/2019	<0.02	0.033 (J)	0.018 (J)	<0.02		0.0021 (J)
4/7/2020	0.0037 (J)	0.0053 (J)	0.041 (J)	0.0015 (J)	<0.02	0.0024 (J)
9/28/2020				0.0042 (J)		
9/29/2020					0.0023 (J)	0.0046 (J)
9/30/2020		0.0037 (J)	0.018			
10/1/2020	0.0047 (J)					
3/10/2021	0.0054 (J)	0.0026 (J)	0.027	0.005 (J)	0.0023 (J)	0.0055 (J)
9/21/2021	0.0027 (J)	0.0039 (J)	0.015		0.002 (J)	0.0051 (J)
9/23/2021				0.0042 (J)		
2/2/2022	0.0031 (J)		0.0099 (J)			
2/3/2022		0.0046 (J)		0.0028 (J)	0.0031 (J)	0.0052 (J)
8/30/2022	0.00943 (J)	0.0138 (J)	0.0192 (J)			0.00949 (J)
8/31/2022					0.00481 (J)	
9/1/2022				0.00748 (J)		
Mean	0.01918	0.008994	0.02263	0.006849	0.005832	0.006837
Std. Dev.	0.01676	0.00808	0.02488	0.005337	0.007061	0.005433
Upper Lim.	0.0388	0.01088	0.02669	0.008409	0.00481	0.008356
Lower Lim.	0.0031	0.004351	0.008142	0.00372	0.0021	0.003653

Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		0.028	0.0013 (J)	0.0029 (J)		<0.02
1/18/2016	0.0011 (J)				0.0019 (J)	
4/26/2016		0.0181		0.00296 (J)		
7/26/2016	<0.02					
7/27/2016		0.0189	<0.02			<0.02
7/28/2016				0.0026 (J)		
7/29/2016					0.0031 (J)	
10/25/2016		0.0206	<0.02	<0.02		
1/4/2017				<0.02		
1/5/2017	<0.02	0.0172	<0.02		<0.02	<0.02
4/3/2017			0.002 (J)			
4/4/2017		0.0235				<0.02
4/5/2017				0.0033 (J)	0.0029 (J)	
4/6/2017	<0.02					
7/11/2017		0.0136	0.0022 (J)			
7/12/2017	0.0016 (J)			0.0037 (J)		
7/13/2017					0.0037 (J)	<0.02
10/2/2017		0.0175	0.0022 (J)			
10/3/2017				0.0036 (J)		
1/9/2018		0.0103	0.0021 (J)			
1/10/2018	0.0019 (J)			0.0029 (J)		<0.02
1/11/2018					0.0026 (J)	
7/9/2018		0.0078 (J)				
7/10/2018			0.0025 (J)	0.0025 (J)		<0.02
7/11/2018	0.0097 (J)				0.0032 (J)	
1/16/2019	<0.02	0.0043 (J)			<0.02	
1/17/2019			<0.02	0.0021 (J)		
1/21/2019						0.0024 (J)
3/26/2019	0.0029 (J)	0.0063 (J)	0.0026 (J)	0.0038 (J)	0.0024 (J)	
7/30/2019						<0.02
10/8/2019	<0.02	<0.02	<0.02	<0.02		
10/9/2019					<0.02	<0.02
4/7/2020		0.0026 (J)	<0.02	<0.02		
4/8/2020	<0.02				<0.02	<0.02
9/28/2020	<0.02					
9/29/2020		<0.02				<0.02
9/30/2020			0.0028 (J)	0.0028 (J)	<0.02	
3/11/2021					<0.02	
3/12/2021			0.0037 (J)			
3/15/2021	<0.02					<0.02
3/16/2021		<0.02		0.0034 (J)		
9/21/2021	<0.02					
9/22/2021		0.0052 (J)		0.0025 (J)	<0.02	<0.02
9/23/2021			0.0022 (J)			
2/1/2022				0.0021 (J)	0.0022 (J)	
2/2/2022		0.004 (J)				<0.02
2/3/2022	<0.02		0.0023 (J)			
8/30/2022		0.00933 (J)				
8/31/2022	<0.02		0.00476 (J)		0.00599 (J)	
9/1/2022				0.0065 (J)		0.0045 (J)
Mean	0.01482	0.01406	0.00837	0.006719	0.0105	0.01793
Std. Dev.	0.008138	0.007586	0.008492	0.007108	0.008699	0.005666

Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
Upper Lim.	0.02	0.01685	0.02	0.0065	0.02	0.02
Lower Lim.	0.0019	0.008245	0.0022	0.0026	0.0024	0.0045

Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-24D	MW-25D
1/17/2016	0.0025 (J)	0.0039 (J)				
1/18/2016			<0.02	<0.02		
7/28/2016	0.0024 (J)	0.0022 (J)		<0.02		
7/29/2016			0.0052 (J)			
10/25/2016	<0.02					
1/4/2017	<0.02	<0.02	<0.02			
1/6/2017				<0.02		
4/4/2017	0.0024 (J)	0.003 (J)				
4/6/2017			<0.02	<0.02		
7/11/2017	0.003 (J)		0.0016 (J)			
7/12/2017				0.0013 (J)		
7/13/2017		0.0019 (J)				
10/2/2017	0.0028 (J)					
1/9/2018		0.0046 (J)				
1/10/2018	0.0026 (J)					
1/11/2018			0.0012 (J)	<0.02		
7/9/2018	<0.02					
7/10/2018		0.0031 (J)				
7/11/2018			0.0025 (J)	<0.02		
1/17/2019		0.0022 (J)				
1/18/2019			<0.02	<0.02		
1/21/2019	0.0031 (J)					
3/25/2019	0.0024 (J)					
3/26/2019		0.0041 (J)				
3/27/2019			0.002 (J)	<0.02		
10/8/2019		<0.02				
10/9/2019	<0.02		<0.02	<0.02		
4/7/2020		<0.02	0.0014 (J)			
4/8/2020	<0.02			0.0015 (J)		
9/30/2020	0.0029 (J)	0.0029 (J)	<0.02			
10/1/2020				<0.02		
3/10/2021			<0.02	<0.02		
3/11/2021					<0.02	0.0024 (J)
3/12/2021	0.0038 (J)					
3/16/2021		0.003 (J)				
9/21/2021			<0.02			
9/22/2021	0.0033 (J)	<0.02		<0.02	<0.02	
9/23/2021						<0.02
2/1/2022	0.0039 (J)	0.0036 (J)			<0.02	
2/2/2022				<0.02		
2/3/2022			<0.02			<0.02
8/30/2022	0.00647 (J)	0.00715 (J)				
8/31/2022			0.00396 (J)			<0.02
9/1/2022				0.00514 (J)	0.00414 (J)	
Mean	0.007865	0.007603	0.01237	0.01675	0.01603	0.0156
Std. Dev.	0.007799	0.007491	0.008989	0.00704	0.00793	0.0088
Upper Lim.	0.02	0.02	0.02	0.02	0.02	0.02
Lower Lim.	0.0025	0.0029	0.0016	0.00514	0.00414	0.0024

Confidence Interval

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.02		
1/18/2016	0.0092	<0.02	0.0029			0.0025
1/19/2016					0.0029	
7/26/2016					<0.02	
7/27/2016		0.0015 (J)		<0.02		0.0021 (J)
7/28/2016			<0.02			
7/29/2016	0.003 (J)					
1/3/2017		<0.02				
1/4/2017				<0.02	<0.02	0.0025 (J)
1/5/2017			<0.02			
1/6/2017	0.0104					
4/4/2017	0.0132			<0.02		
4/5/2017						0.0026 (J)
4/6/2017		0.0023 (J)	0.0032 (J)		0.004 (J)	
7/10/2017						0.0023 (J)
7/11/2017					<0.02	
7/12/2017	0.0046 (J)	<0.02	0.002 (J)	<0.02		
1/9/2018			0.0036 (J)			
1/10/2018		0.0022 (J)		0.0014 (J)		
1/11/2018	0.0095 (J)				0.0018 (J)	0.0031 (J)
7/10/2018		<0.02	0.0055 (J)	0.0021 (J)		
7/11/2018	0.0028 (J)				<0.02	0.0036 (J)
1/16/2019	0.0052 (J)	<0.02	<0.02	<0.02		
1/17/2019					<0.02	0.0032 (J)
3/25/2019	0.0078 (J)					
3/26/2019		<0.02	<0.02	<0.02		
3/27/2019					<0.02	0.0031 (J)
10/8/2019					0.0061 (J)	
10/9/2019	0.0064 (J)	0.0081 (J)	0.016 (J)	0.0057 (J)		0.0057 (J)
4/7/2020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
9/28/2020				0.0092 (J)		
9/29/2020					0.0031 (J)	0.0074 (J)
9/30/2020		<0.02	<0.02			
10/1/2020	0.0064 (J)					
3/10/2021	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
9/21/2021	<0.02	<0.02	<0.02		<0.02	<0.02
9/23/2021				<0.02		
2/2/2022	<0.02		<0.02			
2/3/2022		<0.02		<0.02	<0.02	<0.02
8/30/2022	<0.02	<0.02	0.0132 (J)			0.0262
8/31/2022					<0.02	
9/1/2022				0.00578 (J)		
Mean	0.01116	0.01588	0.01415	0.01526	0.01487	0.009019
Std. Dev.	0.006702	0.007495	0.007714	0.007441	0.007904	0.008732
Upper Lim.	0.008677	0.02	0.02	0.02	0.02	0.02
Lower Lim.	0.004539	0.0023	0.0032	0.0057	0.0031	0.0025

Confidence Interval

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		<0.02	<0.02	<0.02		<0.02
1/18/2016	0.0017 (J)				0.012	
4/26/2016		<0.02		<0.02		
7/26/2016	0.0028 (J)					
7/27/2016		<0.02	<0.02			0.0018 (J)
7/28/2016				<0.02		
7/29/2016					0.0086 (J)	
10/25/2016		<0.02	<0.02	<0.02		
1/4/2017				0.0025 (J)		
1/5/2017	0.0021 (J)	<0.02	<0.02		0.016	<0.02
4/3/2017			<0.02			
4/4/2017		<0.02				0.0015 (J)
4/5/2017				0.0025 (J)	0.0175	
4/6/2017	0.0027 (J)					
7/11/2017		<0.02	<0.02			
7/12/2017	0.0043 (J)			0.002 (J)		
7/13/2017					0.0126	0.0014 (J)
10/2/2017		0.0026 (J)	<0.02			
10/3/2017				<0.02		
1/9/2018		0.0018 (J)	<0.02			
1/10/2018	0.0021 (J)			0.0016 (J)		<0.02
1/11/2018					0.012	
7/9/2018		<0.02				
7/10/2018			<0.02	0.0031 (J)		<0.02
7/11/2018	0.0039 (J)				0.011	
1/16/2019	0.047	<0.02			0.0094 (J)	
1/17/2019			<0.02	<0.02		
1/21/2019						<0.02
3/26/2019	0.03	<0.02	<0.02	<0.02	0.0057 (J)	
7/30/2019						0.0067 (J)
10/8/2019	0.053	0.0052 (J)	0.0051 (J)	0.01		
10/9/2019					0.011	0.005 (J)
4/7/2020		<0.02	<0.02	<0.02		
4/8/2020	0.023				<0.02	<0.02
9/28/2020	0.016					
9/29/2020		<0.02				0.056
9/30/2020			0.032	0.0051 (J)	0.0043 (J)	
3/11/2021					0.0056 (J)	
3/12/2021			<0.02			
3/15/2021	0.039					<0.02
3/16/2021		<0.02		<0.02		
9/21/2021	0.036					
9/22/2021		0.01		<0.02	<0.02	<0.02
9/23/2021			<0.02			
2/1/2022				<0.02	0.011	
2/2/2022		<0.02				<0.02
2/3/2022	0.037		<0.02			
8/30/2022		<0.02				
8/31/2022	0.0266		0.00395 (J)		0.0068 (J)	
9/1/2022				0.0119 (J)		0.0125 (J)
Mean	0.02045	0.01682	0.01895	0.01362	0.01147	0.01656
Std. Dev.	0.01819	0.006502	0.005959	0.008076	0.004888	0.01312

Confidence Interval

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
Upper Lim.	0.039	0.02	0.032	0.02	0.01465	0.056
Lower Lim.	0.0027	0.01	0.0051	0.0031	0.008288	0.0018

Confidence Interval

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9	MW-23D	MW-24D
1/17/2016	<0.02	<0.02				
1/18/2016			<0.02	0.0059		
7/28/2016	<0.02	<0.02		0.0019 (J)		
7/29/2016			0.0129			
10/25/2016	<0.02					
1/4/2017	<0.02	<0.02	0.006 (J)			
1/6/2017				0.0026 (J)		
4/4/2017	<0.02	0.0015 (J)				
4/6/2017			0.0031 (J)	0.0047 (J)		
7/11/2017	<0.02		0.0029 (J)			
7/12/2017				0.003 (J)		
7/13/2017		0.002 (J)				
10/2/2017	<0.02					
1/9/2018		0.0016 (J)				
1/10/2018	0.0034 (J)					
1/11/2018			0.0106	0.0046 (J)		
7/9/2018	<0.02					
7/10/2018		<0.02				
7/11/2018			0.0057 (J)	0.0033 (J)		
1/17/2019		<0.02				
1/18/2019			0.0024 (J)	0.0025 (J)		
1/21/2019	<0.02					
3/25/2019	<0.02					
3/26/2019		<0.02				
3/27/2019			<0.02	0.0026 (J)		
10/8/2019		0.0071 (J)				
10/9/2019	0.0049 (J)		0.0079 (J)	0.0054 (J)		
4/7/2020		<0.02	<0.02			
4/8/2020	<0.02			<0.02		
9/30/2020	0.031	0.0096 (J)	<0.02			
10/1/2020				0.025		
3/10/2021			<0.02	<0.02		
3/11/2021					0.0067 (J)	0.0025 (J)
3/12/2021	<0.02					
3/16/2021		<0.02				
9/21/2021			<0.02			
9/22/2021	<0.02	<0.02		<0.02	<0.02	<0.02
2/1/2022	<0.02	<0.02				<0.02
2/2/2022				<0.02		
2/3/2022			<0.02		<0.02	
8/30/2022	0.0171 (J)	0.00814 (J)				
8/31/2022			<0.02		0.0106 (J)	
9/1/2022				0.0163 (J)		0.0102 (J)
Mean	0.01869	0.01437	0.01322	0.009862	0.01432	0.01317
Std. Dev.	0.005951	0.007802	0.007473	0.008504	0.006744	0.008485
Upper Lim.	0.031	0.02	0.02	0.02	0.01308	0.01509
Lower Lim.	0.0171	0.002	0.0031	0.0026	0.004223	-0.002391

Confidence Interval

Constituent: Zinc (mg/L) Analysis Run 11/6/2022 10:04 AM View: Appendix II & IV - Confidence Intervals
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	MW-25D
3/11/2021	0.0054 (J)
9/23/2021	<0.02
2/3/2022	0.051
8/31/2022	0.0161 (J)
Mean	0.02312
Std. Dev.	0.01958
Upper Lim.	0.06176
Lower Lim.	-0.02013

FIGURE K.

Appendix IV Trend Tests - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/5/2022, 6:52 PM

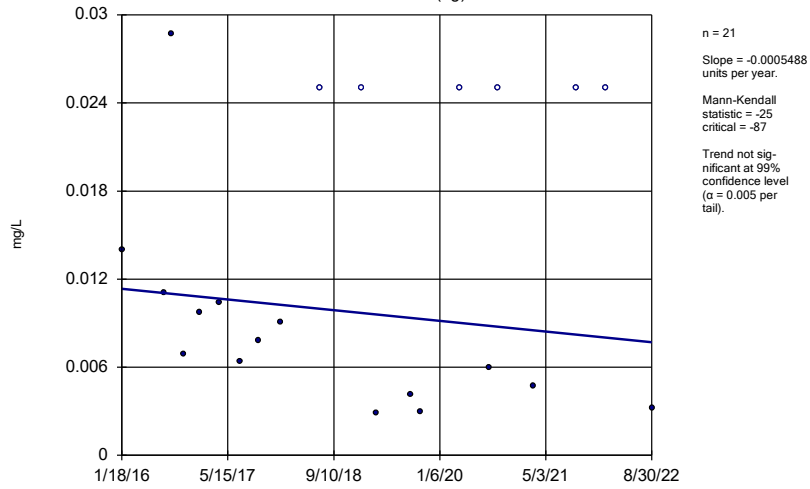
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.03505	172	87	Yes	21	0	n/a	n/a	0.01	NP

Appendix IV Trend Tests - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/5/2022, 6:52 PM

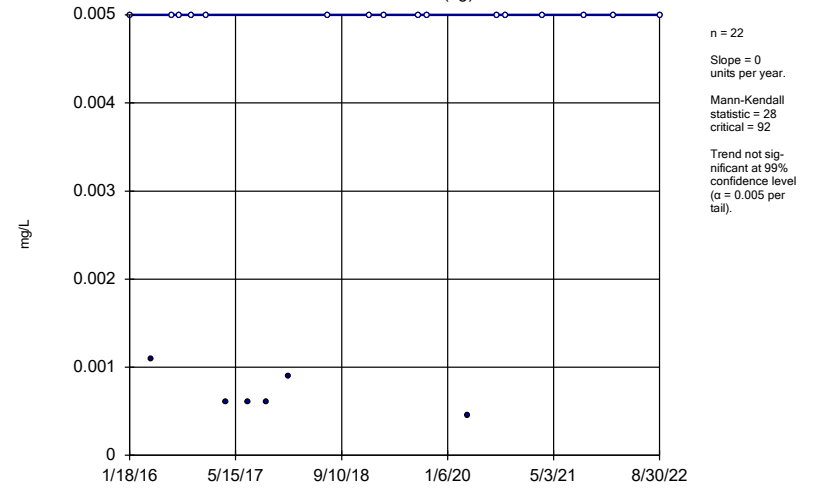
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0005488	-25	-87	No	21	28.57	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	28	92	No	22	72.73	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.03505	172	87	Yes	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	0.003681	65	92	No	22	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.003801	24	87	No	21	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-7 (bg)	0	9	63	No	17	76.47	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-8 (bg)	0	0	63	No	17	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-16	0.01903	57	63	No	17	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-20	0.005248	4	63	No	17	0	n/a	n/a	0.01	NP

Sen's Slope Estimator
GWA-7 (bg)



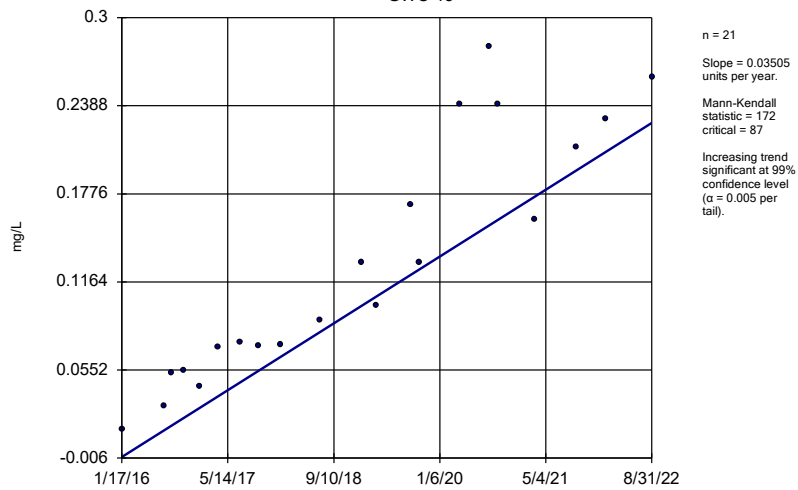
Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



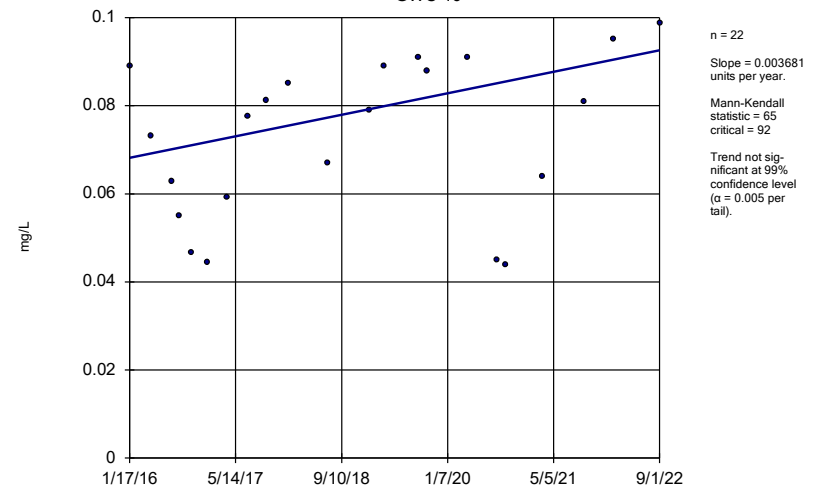
Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-15



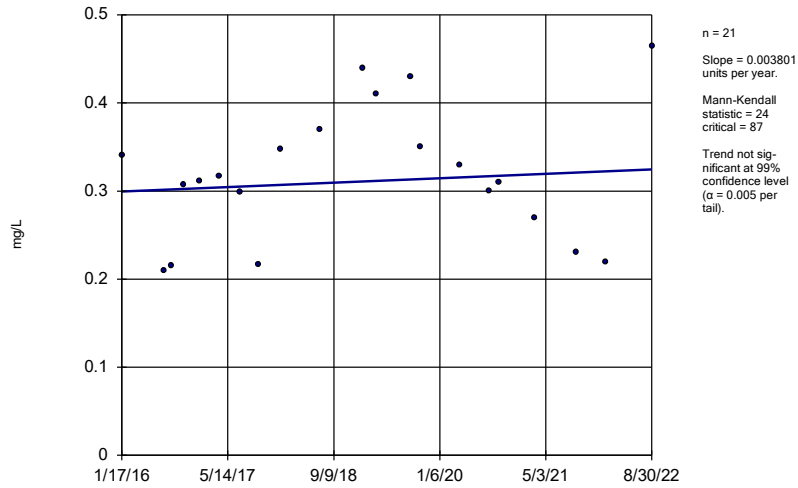
Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-16



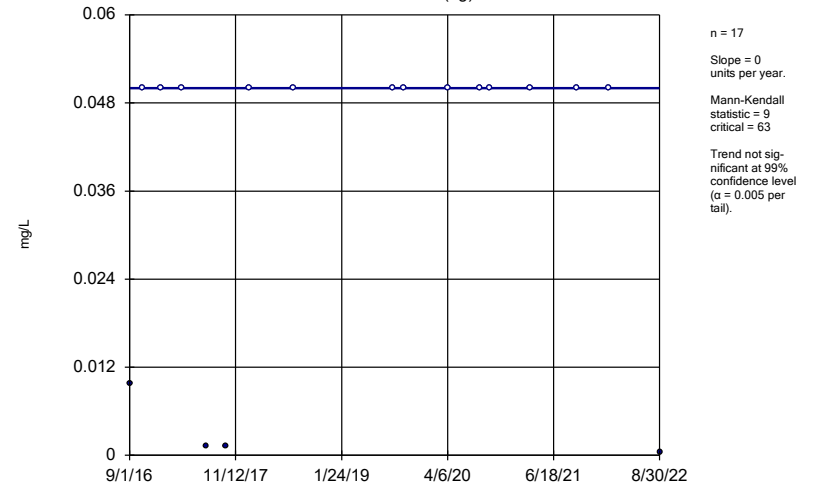
Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWC-20



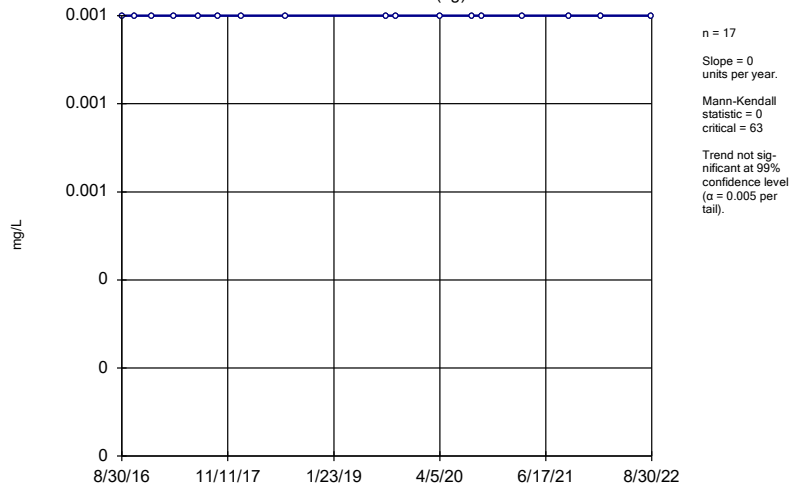
Constituent: Arsenic Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-7 (bg)



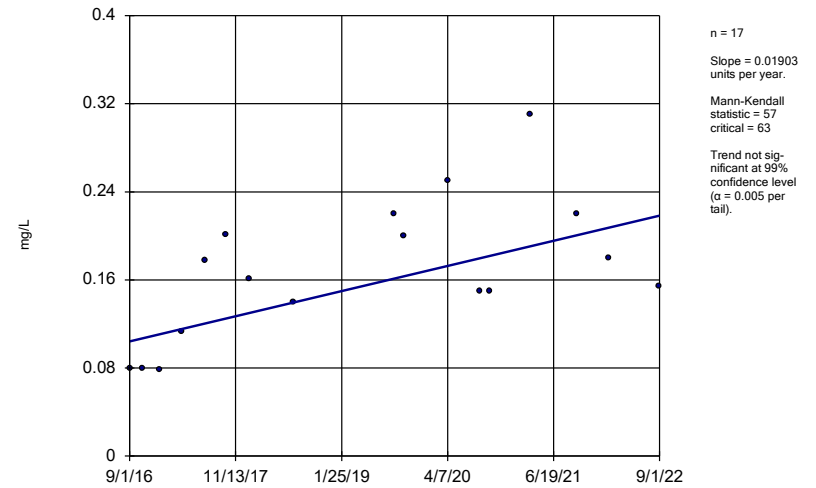
Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator
GWA-8 (bg)



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

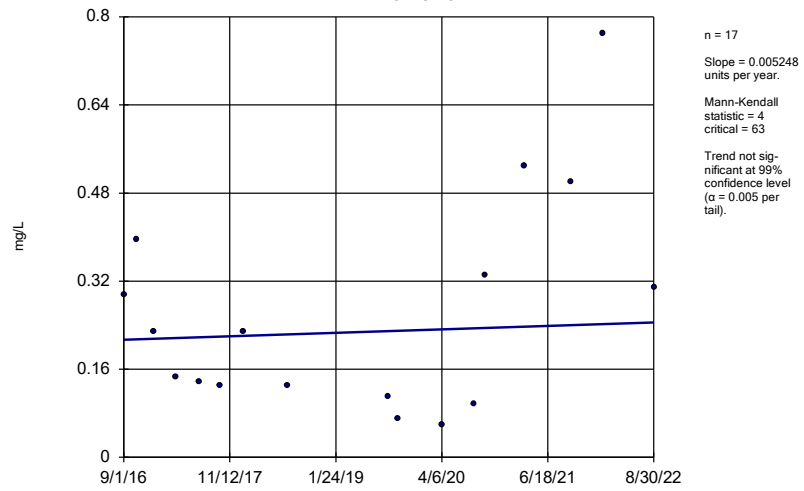
Sen's Slope Estimator
GWC-16



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator

GWC-20



Constituent: Molybdenum Analysis Run 11/5/2022 6:48 PM View: Appendix IV - Trend Tests
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



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