



# 2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Plant Yates - Gypsum Landfill

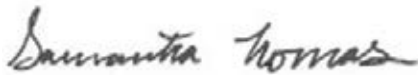
Newnan, Georgia

February 2021

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

Plant Yates - Gypsum Landfill  
Newnan, Georgia



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## SUMMARY

This summary of the 2020 Semiannual Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program through December 2020 at Georgia Power Company’s (Georgia Power’s) Plant Yates Gypsum Landfill (the Site). This summary was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6<sup>1</sup> of the U.S. Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Yates is located at 708 Dyer Road, approximately 8 miles northwest of Newnan and 13 miles southeast of Carrollton in Coweta County, Georgia. Plant Yates originally operated seven coal-fired steam generating units. Five of the units were retired in 2015 and two units were converted from coal to natural gas. CCR material resulting from power generation have historically been transferred and stored at the Site. The Site is located on the northern portion of the Plant Yates property shown on Figure 1. The Gypsum Landfill was closed by removal of CCR material.



Figure 1. Plant Yates and the Site

Groundwater at the Site is monitored using a monitoring system comprised of 1 upgradient and 6 downgradient wells installed at the Site. A permit application package for the Gypsum Landfill was submitted in November 2018 to comply with the CCR rule and is currently under review. Routine sampling and reporting began in 2019 after the completion of eight background sampling events. Based on groundwater conditions at the Site, an assessment monitoring program was established on November 13, 2019. During the 2020 semiannual reporting period, the Site remained in assessment monitoring.

During the 2020 reporting period, Arcadis conducted groundwater sampling events in August and September. Groundwater samples were submitted to Pace Analytical Services, LLC, for analysis. Per the CCR rule, groundwater results were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III<sup>2</sup> parameters in wells provided in the table below. There were no statistically significant levels (SSLs) for Appendix IV parameters.

Appendix III Parameter	September 2020
Boron	GWC-4R
Calcium	GWC-1R, GWC-2R, GWC-5R, GWC-6R

<sup>1</sup> 80 FR 21468, Apr. 17, 2015, as amended at 81 FR 51807, Aug. 5, 2016; 83 FR 36452, July 30, 2018; 85 FR 53561, Aug. 28, 2020

<sup>2</sup> Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

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Appendix III Parameter	September 2020
Chloride	GWC-2R, GWC-4R
Sulfate	GWC-1R, GWC-2R, GWC-5R, GWC-6R
Total Dissolved Solids	GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R

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

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Figure 1. Site Location Map

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## **APPENDICES**

Appendix A. Laboratory Analytical Reports and Data Validation Reports

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## ACRONYMS AND ABBREVIATIONS

ACC	Atlantic Coast Consulting, Inc.
ACM	Assessment of Corrective Measures
AP	Plant Yates Ash Ponds
CCR	Coal Combustion Residuals
CCR Units	the combined monitoring systems of AP-3, A, B, and B', and the R6 Landfill
CFR	Code of Federal Regulations
DO	dissolved oxygen
GAEPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/L	milligrams per liter
QA/QC	Quality Assurance/Quality Control
SSI	Statistically Significant Increase
SSL	statistically significant level
USEPA	United States Environmental Protection Agency

## PROFESSIONAL CERTIFICATION

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* for the Georgia Power Company Plant Yates Gypsum Landfill has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Arcadis, U.S., Inc.

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## 1 INTRODUCTION

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* presents groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Yates Gypsum Landfill (the Site) in the second half of 2020. This report was prepared in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10. Groundwater monitoring requirements for the site are specified by GAEPD Rule 391-3-4-.10(6)(a), which also incorporates the USEPA CCR Rule. For ease of reference, the USEPA CCR Rules are cited within this report.

A permit application package for the Plant Yates Gypsum Stack Landfill was submitted in November 2018 to comply with GAEPD's Rule 391-3-4-.10 and is currently under review. The list of analytes included in the groundwater monitoring program was modified to meet the requirements of 40 CFR §§ 257.90 through 257.95 of the Federal CCR Rule through a minor modification in August 2017. A notice of assessment monitoring was placed in the operating record in November 2019 based on statistically significant increases (SSIs) documented in the *Supplemental 2019 First Semiannual Groundwater Monitoring Report* (ACC 2019). This report presents the results of both the annual monitoring for Appendix IV of 40 CFR Part 257 conducted in August 2020 and one semiannual monitoring event conducted in September 2020.

### 1.1 Site Description and Background

Plant Yates is located at 708 Dyer Road on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line. The Site is approximately 8 miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton. Plant Yates occupies approximately 2,400 acres. **Figure 1** depicts the site location relative to the surrounding area.

The Site ceased accepting CCR prior to October 19, 2015 and is therefore not subject to federal monitoring requirements. The Site was closed following the removal of all gypsum and liner material. A closure certification report was submitted to GAEPD in January 2017.

### 1.2 Site Geology and Hydrogeologic Setting

Plant Yates is located in the Inner Piedmont Physiographic Province of western Georgia, immediately southeast of the Brevard Zone, a regional fault zone that separates the Piedmont from the Blue Ridge. Rock units at Plant Yates are primarily interlayered gneiss and schists. The rocks in the area have been subjected to extensive metamorphism, deformation, and igneous intrusions. Extensive fracture sets are present in the underlying bedrock. Surface expressions of these fractures are observed on topographic maps and aerial photos of the Plant Yates area (ACC February 2020).

A thin layer of soil from one to two feet thick overlies a thick layer of saprolite. The saprolite, which extends to typical depths of 20 to 40 feet below ground surface, was formed in-place by the physical and chemical weathering of the underlying metamorphic rocks. The saprolite typically consists of clay and silt rich soils that grade to sandier soils with depth. A zone of variable thickness (approximately 5 to 20 feet)

of transitionally weathered rock typically exists between the saprolite and competent bedrock. The lithology of the transition zone is highly variable and ranges from medium to coarse unconsolidated material to highly fractured and weathered rock fragments. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) that have been observed in saprolite may be related to historical river channel migration.

At Plant Yates, groundwater is typically encountered slightly above the saprolite/weathered rock interface. Groundwater flow in the saprolite zone is through interconnected pores and relict textures and fractures. As the rock becomes increasingly competent with depth, groundwater flow occurs mainly through joints and fractures (i.e., secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of soil/saprolite, or by direct entrance through openings in outcrops. The average depth of the water table at Plant Yates varies with topography, ranging from approximately 5 to 50 feet below ground surface. The water table occurs in the saprolite and in the transitionally weathered zone, at least several feet above the top of rock.

Field hydraulic conductivity tests (i.e., slug tests) have been performed in saprolite and weathered bedrock at multiple locations on the site. The average hydraulic conductivity for the unit is  $2.3 \times 10^{-4}$  centimeters per second, based on multiple rising-head and falling-head slug tests (SCS 1992). This indicates a fairly uniform medium across the saprolite and weathered rock horizon. The hydraulic conductivity values from the field tests fall within a range consistent with that of Piedmont overburden (Newell et al. 1990).

### 1.3 Groundwater Monitoring Well Network and CCR Unit Description

A groundwater monitoring system was previously installed within the uppermost aquifer at the Site. The monitoring system was designed to monitor groundwater passing the unit boundary within the uppermost aquifer. Wells were placed to serve as upgradient, and downgradient monitoring points based on groundwater flow direction. **Table 1** presents a summary of the monitoring well network depicted in **Figure 2**.

## 2 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed in the second half of 2020 and presents the status of the monitoring program. Groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on **Figure 2**.

**Table 2** summarizes groundwater sampling events conducted by ACC at the Site during the past year. During the August 2020 event, groundwater samples were collected and analyzed for 40 CFR 257 Appendix IV constituents to meet the requirement of 40 CFR § 257.95(b). During the September 2020 semiannual sampling event, groundwater samples were collected for both 40 CFR 257 Appendix III and the Appendix IV constituents detected during the August 2020 event as well as permit-required Appendix I constituents pursuant to Rule 391-3-4-.14. Field sampling logs are provided in **Appendix B**.

## 2.1 Monitoring Well Installation and Maintenance

Monitoring well related activities were limited to visual inspection well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling. Well inspection records are included in **Appendix B**.

## 2.2 Assessment Monitoring

Statistically Significant Increases (SSIs) of Appendix III constituents were identified in the initial detection monitoring event (June 2019). The initial assessment scan monitoring event was conducted in August 2020. A semiannual assessment monitoring event was conducted in September 2020. Pursuant to § 257.95(d)(1), groundwater samples collected from the CCR monitoring wells were analyzed for Appendix III constituents, those Appendix IV constituents detected during the initial assessment event, and the Appendix I and II metals required by the existing state permit.

## 3 SAMPLE METHODOLOGY AND ANALYSIS

Groundwater monitoring methods used at the Site are described in the following sections.

### 3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each assessment sampling event, static water levels were recorded from the wells in the well network for the Gypsum Landfill. Groundwater elevations recorded during the August 2020 and September 2020 monitoring events are summarized in **Table 4**. Potentiometric surface maps are provided in **Figure 3 and Figure 4** for the August 2020 and September 2020 sampling events, respectively. The general direction of groundwater flow across the site is towards the west and is consistent with historical patterns.

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

Specifically:

$$v = \frac{k \left( \frac{dh}{dl} \right)}{n_e}$$

where:

v = groundwater seepage velocity

k = hydraulic conductivity

dh/dl = hydraulic gradient

n<sub>e</sub> = effective porosity

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll 1986, USEPA 1989, and Freeze and Cherry 1979). An alternate effective porosity of 0.48 was also used to define the range of groundwater flow velocities (SCS 1992). Groundwater flow velocities have been calculated and are presented in **Table 5**. The calculated flow velocity ranged from 0.045 feet per day (16 feet per year) to 0.109 feet per day (40 feet per year).

## 3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Monitoring wells were purged and sampled using a dedicated bladder pump until water quality parameters stabilized. For wells sampled with non-dedicated bladder pumps, the pumps were lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations.

An AquaTroll 600™ (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, temperature, oxidation-reduction potential [ORP], and dissolved oxygen [DO]) during well purging to verify stabilization prior to sampling. Turbidity was measured using a portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

- $\pm 0.1$  standard units for pH.
- $\pm 5\%$  for specific conductance.
- Turbidity measurements less than 10 nephelometric turbidity units.

Once stabilization was achieved, samples were collected directly into laboratory-supplied sample containers with preservative (where applicable). The samples were placed on ice in an insulated cooler following their collection. The samples were submitted to Pace Analytical Services, LLC (following chain-of-custody protocol). Stabilization logs for each well are included in **Appendix B**.

## 3.3 Laboratory Analysis

Groundwater samples collected from the August 2020 initial assessment monitoring event were analyzed for Appendix IV parameters. Groundwater samples during the subsequent semiannual assessment event were analyzed for Appendix III constituents, Appendix IV constituents detected during the initial assessment event, and the 40 CFR Part 258 Appendix I and II metals required by the existing state permit. Appendix IV parameter molybdenum was not detected during the initial assessment event. **Table 3** provides a summary of the constituents monitored during the events. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix A**.

Analytical data collected from the initial assessment scan and semiannual sampling are summarized in **Table 6**. A summary of historical groundwater data is provided in **Appendix C**.

Laboratory analyses were performed by Pace Analytical Services, LLC, which is accredited by the National Environmental Laboratory Accreditation Program and maintains this certification for all parameters analyzed for this project. Laboratory reports and chain-of-custody records for the monitoring events are presented in **Appendix A**.

## 3.4 Data Quality Assurance/Quality Control and Validation

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a rate of one sampler per every 10 samples. QA/QC samples included equipment blanks (where non-dedicated equipment is used), field blanks, and duplicate samples. Groundwater quality data in this report was

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 spikes/matrix spike duplicate recoveries and relative percent differences, post-digestion spikes, laboratory and field duplicate relative percent differences, equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags have been applied to the data using USEPA procedures as guidance (USEPA 2017). The data validation report prepared by Arcadis included in **Appendix A** summarizes the validation actions and applicable interpretation.

The purpose of the data quality evaluation was to determine the reliability of the chemical analyses and the accuracy and precision of information acquired from the laboratory. Data quality was assessed through the review and evaluation of field sampling activities, quality control samples, and data associated with the chemical analytical results. The data are considered useable for meeting project objectives and the results are considered valid. The complete results of the data quality evaluations are provided in **Appendix A**.

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the MDL and the laboratory reporting limit. The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses.

## 4 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the Gypsum Landfill groundwater monitoring network pursuant to § 257.93(f) in September 2020. The statistical method used at the site was developed in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, US EPA 530/R-09-007 (USEPA, 2009).

### 4.1 Statistical Methods

The Sanitas™ groundwater statistical software was used to perform the statistical analyses. Sanitas™ is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the Unified Guidance document (USEPA 2009). Although Assessment Monitoring has been implemented, statistical evaluation of both Appendix III constituents and permit required Appendix I and II metals is performed.

#### 4.1.1 Permit-Required Appendix I and II Metals

A permit minor modification was submitted to GAEPD following submittal of the *2019 First Supplemental Semiannual Groundwater Monitoring Report* to allow for intrawell methods to be used for evaluation of state metals. The statistical methodology was revised to an intrawell method following the June 2019 monitoring event.

Statistical tests used to evaluate the groundwater monitoring data consist of intrawell prediction limits (PL) combined with a 1-of-2 verification resample plan for all required metals. In an intrawell comparison,

analytical results from an individual well are compared to historical analytical results from that same well. If data from a sampling event initially exceeds the PL, the resampling strategy may be used to verify the result. In 1-of-2 resampling, an independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If a resample exceeds the PL, the initial exceedance is verified, and an SSI is identified. When a re-sample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance.

#### 4.1.2 Appendix III Monitoring Statistics

Groundwater data were evaluated using interwell prediction limits for Appendix III parameters boron, calcium, chloride, sulfate, and total dissolved solids (TDS) combined with a 1-of-2 verification resample plan. Monitoring results for fluoride and pH were evaluated using intrawell prediction limits combined with a 1-of-2 verification resample plan. Interwell prediction limits pool upgradient well data to establish a background statistical limit. The most recent sample from each downgradient well is compared to the background limit to determine whether there are exceedances over background. When the most recent sample exceeds its respective background statistical limit, a statistically significant increase (SSI) is identified. The following criteria were applied to the evaluation:

- Statistical analyses were not performed on analytes containing 100 percent non-detects
- When data contained less than 15 percent non-detects in background, simple substitution of one-half the reporting limit was used in the statistical analysis. The reporting limit used for non-detects is the practical quantification limit reported by the laboratory.
- When data contained between 15 to 50 percent non-detects, the Kaplan-Meier non-detect adjustment was 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.
- Non-parametric prediction limits were used on data containing greater than 50 percent non-detects.

#### 4.1.3 Appendix IV Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from pooled sitewide upgradient well data for Appendix IV parameters with a target of 95 percent confidence and 95 percent coverage. The pool of upgradient data is representative of the range and variability of naturally occurring concentrations at Plant Yates. The background wells at Plant Yates are identified below.

Background Wells		
YGWA-47	YGWA-5D	YGWA-30I
YGWA-1I	YGWA-5I	YGWA-4I
YGWA-1D	YGWA-17S	YGWA-21I
YGWA-2I	YGWA-18I	YGWA-39
YGWA-3I	YGWA-18S	YGWA-40

Background Wells	
YGWA-3D	YGWA-20S
GWA-2	YGWA-14S

The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the groundwater protection standards (GWPS) established under 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a).

As described in 40 CFR § 257.95(h)(1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §§ 141.62 and 141.66 of this title;
- For the following constituents:
  - Cobalt 0.006 mg/L
  - Lead 0.015 mg/L
  - Lithium 0.040 mg/L
  - Molybdenum 0.100 mg/L; and
- The background level for constituents where the background level is higher than the MCL or rule identified GWPS.

USEPA revised the federal CCR Rule on July 30, 2018, providing GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR 257.95(h)(2). Presently those updated GWPS have not yet been incorporated in the current GAEPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing GAEPD rules, the GWPS is:

- The MCL; or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above federal and state rules, GWPS have been established for statistical comparison of Appendix IV constituents at the Gypsum Landfill. **Table 7** summarizes the background limits established at each monitoring well for the September 2020 sampling event along with the GWPS established under federal and state rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS established under the federal and state rules. A well/constituent pair was considered to exceed its respective standard only when the entire confidence interval exceeded a GWPS. If there was an exceedance of the established standard, an SSL exceedance was identified.

## 4.2 Statistical Analysis Results

### 4.2.1 Permit-Required Appendix I and II Metals

Analytes required by the existing state permit were analyzed during the semiannual monitoring events. Concentrations of target metals that exceeded their respective intrawell prediction limits calculated from the September 2020 sampling event include:

- Nickel: GWA-2 (upgradient)
- Selenium: GWC-1R
- Zinc: GWA-2 (upgradient) and GWC-5R

While a prediction limit exceedance was noted for selenium in well GWC-1R and zinc in GWC-5R, the confidence intervals provided in **Appendix D** shows concentrations at these wells are below the groundwater protection standard of 0.05 mg/L for selenium and 5.0 mg/L for zinc.

### 4.2.2 Appendix III Constituents

Based on review of the Appendix III statistical analysis presented in **Appendix D**, Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR § 257.95(f). A table summarizing the Site monitoring wells where analytical sampling results have revealed constituents with SSIs is included in **Appendix D**.

### 4.2.3 Appendix IV Assessment Monitoring Constituents

Statistical analysis of the September 2020 Appendix IV data at the Gypsum Landfill was completed using the GWPS established according to both 40 CFR § 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a). No SSLs were identified.

## 5 MONITORING PROGRAM STATUS

In accordance with GA EPD rule 391-3-4-.10(6)(a) and 40 CFR §257.94(e), an assessment monitoring program was initiated in November 2019. The Site will remain in assessment monitoring due to SSIs for Appendix III parameters.

## 6 CONCLUSIONS AND FUTURE ACTIONS

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* was prepared to fulfill the requirements of USEPA's CCR Rule 40 CFR § 257.95 and GAEPD Rule 391-3-4-.10. Statistical evaluations of the groundwater monitoring data for the Site identified SSIs of Appendix III constituents. The next assessment monitoring event is tentatively scheduled for March 2021.

## 7 REFERENCES

ACC. 2019. *Supplemental 2019 First Semiannual Groundwater Monitoring Report*. Prepared for Georgia Environmental Protection Division. February 2020.



## 2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Driscoll, F.G. 1986. *Groundwater and Wells*, Johnson Screens, Saint Paul, Minnesota, 1089 pp.

EPRI, 2015 Technical Report, Groundwater Monitoring Guidance for the Coal Combustion Residuals Rule.

Freeze, R.A. and Cherry, J.A. 1979. *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.

SCS. 1992. The Geology and Hydrogeology of the Plant Yates CT121 Project Gypsum Stacking Area.

SCS. 2017. *Alternate Source Demonstration – Plant Yates Industrial Solid Waste Landfill – Gypsum Stack*.

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

USEPA. 2011. Data Validation Standard Operating Procedures. Science and Ecosystem Support Division. Region IV. Athens, GA. September.

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

# TABLES



**Table 1**  
**Monitoring Well Network Summary**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - Gypsum Landfill**



Well	Installation Date	Top of Casing Elevation (ft)	Bottom Depth (ft bTOC)	Bottom Elevation (ft)	Depth to Top of Screen (ft bTOC)	Top of Screen Elevation (ft)	Purpose
GWA-2	2007	805.62	52.02	753.60	41.82	763.80	Upgradient
GWC-1R	5/12/2011	773.27	36.37	736.90	26.07	747.20	Downgradient
GWC-2R	10/19/2010	769.76	44.00	725.76	33.70	736.06	Downgradient
GWC-3R	5/11/2011	775.25	38.45	736.80	28.15	747.10	Downgradient
GWC-4R	10/20/2010	757.48	30.20	727.28	19.90	737.58	Downgradient
GWC-5R	5/11/2011	782.45	42.35	740.10	32.05	750.40	Downgradient
GWC-6R	8/11/2009	788.98	55.25	733.73	41.94	747.04	Downgradient

**Notes:**

ft bTOC - feet below top of casing

Elevation in U.S. Survey Feet (NAVD88) based on June 2020 survey

**Table 2**  
**Groundwater Sampling Event Summary**  
**2020 Semiannual Monitoring and Corrective Action Effectiveness Report**  
**Georgia Power Company**  
**Plant Yates - Gypsum Landfill**



Well	Hydraulic Location	Summary of Sampling Events	
		August 2020	September 2020
		Initial Assessment	Semiannual Assessment
GWA-2	Upgradient	Scan	A-01
GWC-1R	Downgradient	Scan	A-01
GWC-2R	Downgradient	Scan	A-01
GWC-3R	Downgradient	Scan	A-01
GWC-4R	Downgradient	Scan	A-01
GWC-5R	Downgradient	Scan	A-01
GWC-6R	Downgradient	Scan	A-01

**Notes**

1. Scan - All Appendix IV
2. A-XX - Assessment Event Number (Appendix III and Detected Appendix IV)

**Table 3**  
**Summary of Groundwater Monitoring Parameters**  
**2020 Semiannual Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - Gypsum Landfill**

Appendix I and II Metals (State Permit)	Appendix III (40 CFR 257)	Appendix IV (40 CFR 257)
Antimony	Boron	Antimony
Arsenic	Calcium	Arsenic
Barium	Chloride	Barium
Beryllium	Fluoride	Beryllium
Cadmium	pH	Cadmium
Chromium	Sulfate	Chromium
Cobalt	Total Dissolved Solids	Cobalt
Copper		Fluoride
Lead		Lead
Mercury		Lithium
Nickel		Mercury
Selenium		<i>Molybdenum</i>
Silver		Radium combined - 226/228
Thallium		Selenium
Vanadium		Thallium
Zinc		

**Notes:**

Italicized groundwater monitoring parameters not detected during the initial assessment monitoring event and, therefore, was not sampled during the semiannual monitoring event.

**Table 4**  
**Summary of Groundwater Elevations**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - Gypsum Landfill**



Well ID	Date Measured	Top of Casing Elevation (ft) <sup>1</sup>	Depth to Water (ft bTOC)	Groundwater Elevation (ft)
GWA-2	8/26/2020	805.62	34.80	770.82
GWC-1R	8/26/2020	773.27	21.58	751.69
GWC-2R	8/26/2020	769.76	27.64	742.12
GWC-3R	8/26/2020	775.25	26.09	749.16
GWC-4R	8/26/2020	757.48	15.34	742.14
GWC-5R	8/26/2020	782.45	27.87	754.58
GWC-6R	8/26/2020	788.98	33.69	755.29
GWA-2	9/21/2020	805.62	34.98	770.64
GWC-1R	9/21/2020	773.27	21.91	751.36
GWC-2R	9/21/2020	769.76	27.96	741.80
GWC-3R	9/21/2020	775.25	27.04	748.21
GWC-4R	9/21/2020	757.48	15.56	741.92
GWC-5R	9/21/2020	782.45	28.25	754.20
GWC-6R	9/21/2020	788.98	34.04	754.94

**Notes**

ft bTOC - feet below top of casing

<sup>1</sup> Elevation in U.S. Survey Feet (NAVD88) based on June 2020 survey.

**Equation**

$$V = \frac{K (dh/dl)}{n_e}$$

where: V = groundwater velocity  
 K = hydraulic conductivity  
 dh/dl = hydraulic gradient  
 n<sub>e</sub> = effective porosity

**Values Used in Calculation**

Value		Source
K: 2.30E-04	cm/sec	See note 1
0.66	ft/day	
i <sub>1</sub> = 0.033	unitless	Hydraulic gradient from: GWA-2 to GWC-4R (Aug. 2020) GWA-2 to GWC-4R (Sept. 2020)
i <sub>1</sub> = 0.033	unitless	
n <sub>e</sub> = 0.48	unitless	See note 1
n <sub>e</sub> = 0.20	unitless	See note 2

**Site-specific groundwater linear velocity using porosity value of 0.48**

Aug. & Sept. 2020

$$v = \frac{(0.66) (0.033)}{0.48}$$

$$v = 0.045 \text{ ft/day or } 16 \text{ ft/year}$$

**Groundwater linear velocity using literature porosity value of 0.20**

Aug. & Sept. 2020

$$v = \frac{(0.66) (0.033)}{0.20}$$

$$v = 0.109 \text{ ft/day or } 40 \text{ ft/year}$$

**Notes**

1. The Geology & Hydrogeology of the Plant Yates CT-121 Project Gypsum Stacking Area (SCS, 1992)
2. Default value recommended by USEPA for silty sand-type soil (USEPA 1996).

**Table 6**  
**Summary of Groundwater Analytical Data**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - Gypsum Landfill**



Analyte	Units	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
		8/26/2020	9/22/2020	8/27/2020	9/22/2020	8/28/2020	9/22/2020	8/28/2020	9/22/2020
<b>Appendix III (40 CFR 257)</b>									
pH	SU	5.67	5.78	5.39	5.25	5.45	5.34	5.20	5.11
Boron	mg/L	--	0.0079 J	--	0.025 J	--	0.046 J	--	0.0066 J
Calcium	mg/L	--	31.0	--	98.8	--	40.5	--	6.2
Chloride	mg/L	--	4.2	--	5.5	--	24.7	--	4.2
Fluoride	mg/L	0.068 J	0.058 J	< 0.050	< 0.050	< 0.050	< 0.050	0.097 J	< 0.050
Sulfate	mg/L	--	145	--	478	--	216	--	55.1
Total Dissolved Solids	mg/L	--	281	--	675	--	394	--	110
<b>Appendix IV (40 CFR 257)</b>									
Antimony	mg/L	0.00042 JB	0.00044 J	< 0.00028	< 0.00028	< 0.00028	0.0017 J	< 0.00028	< 0.00028
Arsenic	mg/L	< 0.00078	< 0.00078	0.0011 J	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
Barium	mg/L	0.044	0.045	0.072	0.068	0.044	0.040	0.014	0.014
Beryllium	mg/L	< 0.000046	< 0.000046	0.00024 J	0.00021 J	0.00020 J	0.00021 J	0.00050 J	0.00042 J
Cadmium	mg/L	< 0.00012	< 0.00012	0.00012 J	0.00016 J	0.00015 J	0.00016 J	0.00014 J	0.00013 J
Chromium	mg/L	< 0.00055	< 0.00055	0.0013 J	0.0012 J	0.00057 J	< 0.00055	0.00088 J	0.0011 J
Cobalt	mg/L	0.20	0.16	0.00081 J	0.00080 J	0.0072	0.0054	0.0041 J	0.0021 J
Fluoride	mg/L	0.068 J	0.058 J	< 0.050	< 0.050	< 0.050	< 0.050	0.097 J	< 0.050
Lead	mg/L	< 0.000036	0.00010 J	0.000067 J	< 0.000036	0.000084 J	0.000082 J	0.000054 J	0.000064 J
Lithium	mg/L	0.0032 J	0.0029 J	0.0017 J	0.0015 J	0.0047 J	0.0042 J	< 0.00081	< 0.00081
Mercury	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078
Molybdenum	mg/L	< 0.00069	--	< 0.00069	--	< 0.00069	--	< 0.00069	--
Radium	mg/L	1.75	0.688 U	0.413 U	0.700 U	1.52	2.09	0.494 U	1.24 U
Selenium	mg/L	< 0.0016	< 0.0016	0.011	0.012	0.0037 J	0.0056 J	0.0045 J	0.0091 J
Thallium	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014
<b>Appendix I &amp; II Metals (State Permit) <sup>4</sup></b>									
Copper	mg/L	--	0.0041 J	--	< 0.0017	--	< 0.0017	--	< 0.0017
Nickel	mg/L	--	0.027	--	0.0021 J	--	< 0.00069	--	< 0.00069
Silver	mg/L	--	< 0.00036	--	< 0.00036	--	< 0.00036	--	< 0.00036
Vanadium	mg/L	--	< 0.0022	--	< 0.0022	--	< 0.0022	--	< 0.0022
Zinc	mg/L	--	0.033	--	0.0029 J	--	0.0030 J	--	0.0036 J

Notes on last page



**Table 6**  
**Summary of Groundwater Analytical Data**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - Gypsum Landfill**



Analyte	Units	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R
		8/28/2020	9/22/2020	8/27/2020	9/23/2020	8/27/2020	9/23/2020
<b>Appendix III (40 CFR 257)</b>							
pH	SU	5.38	5.43	5.17	5.04	5.77	5.81
Boron	mg/L	--	1.0	--	0.028 J	--	0.0055 J
Calcium	mg/L	--	21.8	--	144	--	103
Chloride	mg/L	--	60.2	--	3.0	--	4.7
Fluoride	mg/L	< 0.050	< 0.050	0.064 J	< 0.050	< 0.050	< 0.050
Sulfate	mg/L	--	72.1	--	992	--	518
Total Dissolved Solids	mg/L	--	217	--	1000	--	820
<b>Appendix IV (40 CFR 257)</b>							
Antimony	mg/L	< 0.00028	0.00053 J	< 0.00028	0.00031 J	< 0.00028	< 0.00028
Arsenic	mg/L	< 0.00078	< 0.00078	0.0016 J	0.00092 J	0.0011 J	< 0.00078
Barium	mg/L	0.026	0.026	0.013	0.012	0.045	0.044
Beryllium	mg/L	< 0.000046	0.000058 J	0.0023 J	0.0023 J	< 0.000046	< 0.000046
Cadmium	mg/L	< 0.00012	< 0.00012	0.00091 J	0.00094 J	< 0.00012	< 0.00012
Chromium	mg/L	< 0.00055	< 0.00055	0.0022 J	0.0020 J	0.0012 J	0.0015 J
Cobalt	mg/L	0.00049 J	0.00039 J	< 0.00038	< 0.00038	< 0.00038	< 0.00038
Fluoride	mg/L	< 0.050	< 0.050	0.064 J	< 0.050	< 0.050	< 0.050
Lead	mg/L	< 0.000036	0.000041 J	0.000049 J	0.00019 J	< 0.000036	< 0.000036
Lithium	mg/L	0.0011 J	0.0013 J	0.0013 J	0.0012 J	0.0083 J	0.0023 J
Mercury	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078
Molybdenum	mg/L	< 0.00069	--	< 0.00069	--	< 0.00069	--
Radium	mg/L	0.336 U	0.509 U	0.691 U	0.000 U	0.514 U	0.960 U
Selenium	mg/L	0.0031 J	0.0032 J	0.021	0.026	0.0027 J	0.0031 J
Thallium	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014
<b>Appendix I &amp; II Metals (State Permit) <sup>4</sup></b>							
Copper	mg/L	--	< 0.0017	--	< 0.0017	--	< 0.0017
Nickel	mg/L	--	0.00077 J	--	0.0012 J	--	0.0016 J
Silver	mg/L	--	< 0.00036	--	< 0.00036	--	< 0.00036
Vanadium	mg/L	--	< 0.0022	--	< 0.0022	--	< 0.0022
Zinc	mg/L	--	< 0.0022	--	0.018	--	< 0.0022

Notes on last page

**Table 6 Notes - Summary of Groundwater Analytical Data  
2020 Semiannual Groundwater Monitoring and Corrective Action Report  
Plant Yates - Gypsum Landfill**

**Notes:**

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.
  2. Appendix III = Indicator parameters evaluated during Detection Monitoring.
  3. Appendix IV = Parameters evaluated during Assessment Monitoring.
  4. Appendix I parameter included to meet EPD Rule 391-3-4-.14 requirements that is not included in the Appendix IV parameter list
- Not analyzed for this constituent.  
< Analyte was not detected above the laboratory method detection limit (MDL).

**Laboratory Qualifiers:**

- J = Estimated concentration above the method detection limit and below the reporting limit.  
U = 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.  
B = Analyte was detected in the associated method blank.

**Table 7 - Background Levels and Groundwater Protection Standards  
2020 Semiannual Groundwater Monitoring and Corrective Action Report  
Georgia Power Company  
Plant Yates - Gypsum Landfill**



Constituent	Units	Background	Federal GWPS	State GWPS
<b>September 2020</b>				
Antimony	mg/L	0.0047	0.006	0.006
Arsenic	mg/L	0.005	0.01	0.01
Barium	mg/L	0.071	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.0025	0.005	0.005
Chromium	mg/L	0.01	0.1	0.1
Cobalt	mg/L	0.035 <sup>1</sup>	0.035 <sup>1</sup>	0.035 <sup>1</sup>
Fluoride	mg/L	0.68	4	4
Lead	mg/L	0.005	0.015	0.005
Lithium	mg/L	0.03	0.040	0.03
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.014	0.1	0.014
Selenium	mg/L	0.01	0.05	0.05
Thallium	mg/L	0.001	0.002	0.002
Combined Radium - 226/228	pCi/L	6.9 <sup>1</sup>	6.9 <sup>1</sup>	6.9 <sup>1</sup>

**Notes**

1. Background concentration is higher than the federally promulgated value (0.006); therefore background is the GWPS.

Site background - Tolerance limits calculated from pooled upgradient well data.

State GWPS - Groundwater Protection Standard per Georgia EPD Rule 391-3-4-.10(6)(a).

Federal GWPS - Groundwater Protection Standard per 40 CFR §257.95(h).

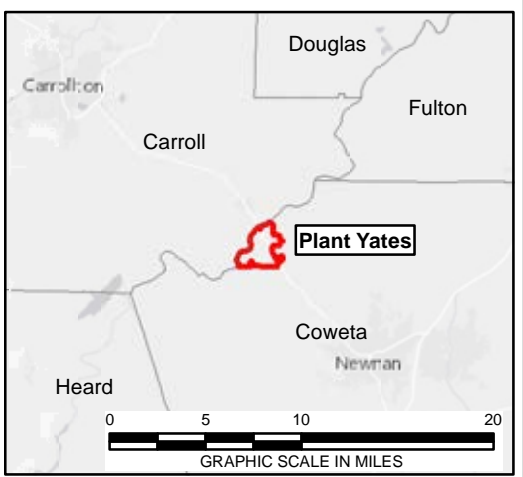
**Acronyms and Abbreviations:**

mg/L - milligrams per liter

pCi/L - picocuries per liter

# FIGURES

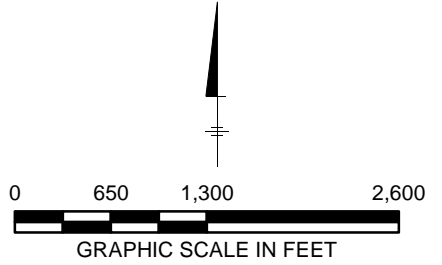




**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- PERMITTED UNIT BOUNDARY

**NOTE:**  
AERIAL IMAGE SOURCES: NOVEMBER 11, 2020  
IMAGERY FLOWN AND PROCESSED BY SAM LLC;  
NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP)  
2019 IMAGERY.



COORDINATE SYSTEM: NAD 1983 STATEPLANE  
GEORGIA WEST FIPS 1002 FEET

**Georgia Power**  
PLANT YATES  
2020 SEMIANNUAL GROUNDWATER MONITORING  
AND CORRECTIVE ACTION REPORT

**SITE LOCATION MAP**

**ARCADIS** Design & Consulting  
for natural and  
built assets

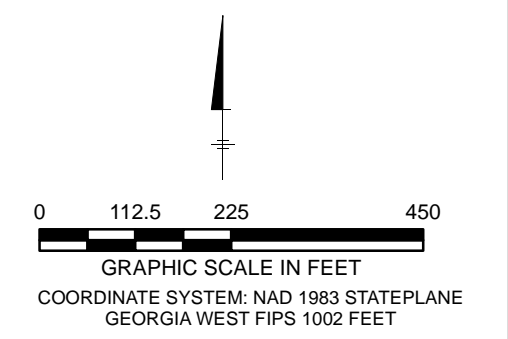
FIGURE  
**1**

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- LEGEND**
- SAPROLITE NETWORK MONITORING
  - BEDROCK NETWORK MONITORING
  - PERMITTED UNIT BOUNDARY

**NOTE:**  
 AERIAL IMAGE SOURCES: NOVEMBER 11, 2020  
 IMAGERY FLOWN AND PROCESSED BY SAM LLC;  
 NATIONAL AGRICULTURE IMAGERY PROGRAM  
 (NAIP) 2019 IMAGERY.



<b>Georgia Power</b> PLANT YATES 2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT	
<b>WELL LOCATION MAP</b>	
ARCADIS <small>Design &amp; Consulting for natural and built assets</small>	FIGURE <b>2</b>

PATH: T:\EN\GA\_Power\GPC\_Plan\_Yates\MD\2020\Former\_Gypsum\Well\_Locations.mxd DATE SAVED: 2/2/2021 10:55:38 AM LAST SAVED BY: biron

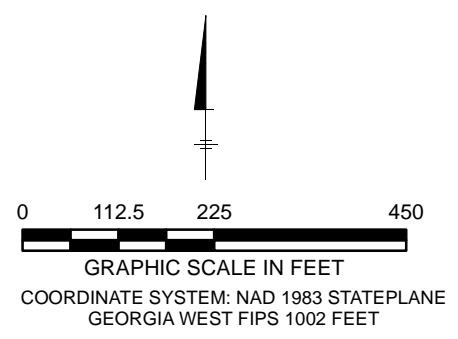



**LEGEND**

- ◆ SAPROLITE NETWORK MONITORING
- ◆ BEDROCK NETWORK MONITORING
- PERMITTED UNIT BOUNDARY
- ~ APPROXIMATE POTENTIOMETRIC CONTOUR (FEET) DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- 742.12 GROUNDWATER ELEVATION (FEET)

**NOTES:**

1. \* = GROUNDWATER ELEVATION WAS NOT USED FOR POTENTIOMETRIC CONTOURING.
2. ELEVATION IS PRESENTED IN U.S. SURVEY FEET (NAVD 1988).
3. AERIAL IMAGE SOURCES: NOVEMBER 11, 2020 IMAGERY FLOWN AND PROCESSED BY SAM LLC; NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.





**Georgia Power**  
PLANT YATES  
2020 SEMIANNUAL GROUNDWATER MONITORING  
AND CORRECTIVE ACTION REPORT

**GROUNDWATER ELEVATION MAP  
AUGUST 2020**




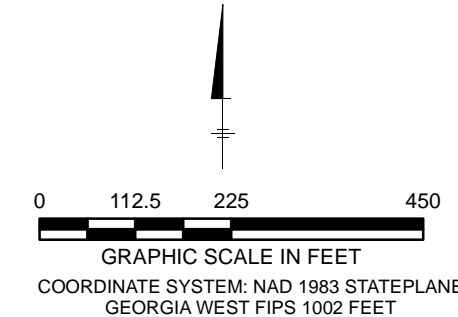
FIGURE  
**3**

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- LEGEND**
- SAPROLITE NETWORK MONITORING
  - BEDROCK NETWORK MONITORING
  - PERMITTED UNIT BOUNDARY
  - APPROXIMATE POTENTIOMETRIC CONTOUR (FEET) DASHED WHERE INFERRED
  - GROUNDWATER FLOW DIRECTION
  - 741.80** GROUNDWATER ELEVATION (FEET)

- NOTES:**
1. \* = GROUNDWATER ELEVATION WAS NOT USED FOR POTENTIOMETRIC CONTOURING.
  2. ELEVATION IS PRESENTED IN U.S. SURVEY FEET (NAVD 1988).
  3. AERIAL IMAGE SOURCES: NOVEMBER 11, 2020 IMAGERY FLOWN AND PROCESSED BY SAM LLC; NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.



**Georgia Power**  
 PLANT YATES  
 2020 SEMIANNUAL GROUNDWATER MONITORING  
 AND CORRECTIVE ACTION REPORT

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**GROUNDWATER ELEVATION MAP  
 SEPTEMBER 2020**

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**ARCADIS** Design & Consulting for natural and built assets

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# APPENDIX A

## Laboratory Analytical Reports and Data Validation Report



# Georgia Power Co. – Plant Yates

## DATA REVIEW

Metals, Radium, and General Chemistry Analyses

SDGs #92493131, 92493137, 92497113, and 92497151

Analyses Performed By:

Pace Analytical Services – Asheville, North Carolina


Pace Analytical Services – Peachtree Corners, Georgia

Pace Analytical Services – Greensburg, Pennsylvania

Report #39333R

Review Level: Tier II

Project: 30053438.00004



## DATA REVIEW REPORT

### SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #92493131, 92493137, 92497113, and 92497151 for samples collected in association with the Georgia Power Company – Plant Yates. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the chain of custody form and a table summarizing the data validation qualifiers. Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						RAD	MET	GEN CHEM
92493131 92493137	GWA-2 (08/26/2020)	92493131001 92493137001	Water	8/26/2020		X	X	X
	GWC-1R (08/27/2020)	92493131002 92493137002	Water	8/27/2020		X	X	X
	GWC-2R (08/28/2020)	92493131003 92493137003	Water	8/28/2020		X	X	X
	GWC-3R (08/28/2020)	92493131004 92493137004	Water	8/28/2020		X	X	X
	GWC-4R (08/28/2020)	92493131005 92493137005	Water	8/28/2020		X	X	X
	GWC-5R (08/27/2020)	92493131006 92493137006	Water	8/27/2020		X	X	X
	GWC-6R (08/27/2020)	92493131007 92493137007	Water	8/27/2020		X	X	X
	DUP-1	92493131008 92493137008	Water	8/28/2020	GWC-3R (08/28/2020)	X	X	X
	EB-1	92493131009 92493137009	Water	8/28/2020		X	X	X
92497113 92497151	GWC-2R (09/22/2020)	92497113001 92497151001	Water	9/22/2020		X	X	X
	GWC-4R (09/22/2020)	92497113002 92497151002	Water	9/22/2020		X	X	X
	GWC-5R (09/23/2020)	92497113003 92497151003	Water	9/23/2020		X	X	X
	GWC-6R (09/23/2020)	92497113004 92497151004	Water	9/23/2020		X	X	X
	DUP-01 (09/23/2020)	92497113005 92497151005	Water	9/23/2020	GWC-5R (09/23/2020)	X	X	X

## DATA REVIEW REPORT

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						RAD	MET	GEN CHEM
	EQUIPMENT BLANK (09/23/2020)	92497113006 92497151006	Water	9/23/2020		X	X	X
	FIELD BLANK (09/22/2020)	92497113007 92497151007	Water	9/22/2020		X	X	X
	GWA-2 (09/22/2020)	92497113008 92497151008	Water	9/22/2020		X	X	X
	GWA-1R (09/22/2020)	92497113009 92497151009	Water	9/22/2020		X	X	X
	GWA-3R (09/22/2020)	92497113010 92497151010	Water	9/22/2020		X	X	X

### Notes:

1. Metals and total dissolved solids (TDS) analysis performed by Pace Analytical Services – Peachtree Corners, Georgia.
2. Anions (chloride, fluoride, and sulfate) analysis performed by Pace Analytical Services – Asheville, North Carolina.
3. Radium analysis performed by Pace Analytical Services – Greensburg, Pennsylvania.
4. pH analysis performed as a field measurement.

## DATA REVIEW REPORT

### ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:

QA - Quality Assurance

## DATA REVIEW REPORT

### INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010D, 6020B, 9315, and 9320; Standard Method (SM) SM4500-H+ B and SM2540C; and USEPA Method 300.0. Data were reviewed in accordance with 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), USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2), and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
  - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
  - E The reported value is estimated due to the presence of interference.
  - N Spiked sample recovery is not within control limits.
  - \* Duplicate analysis is not within control limits.
- Validation Qualifiers
  - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
  - UB Analyte considered non-detect at the listed value due to associated blank contamination.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the “R” flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. “R” values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

# DATA REVIEW REPORT

## METALS ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010D/6020B	Water	180 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.
SW-846 7470A	Water	28 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

Note:

s.u. = Standard units

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDG #92493137: All analytes exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
GWA-2 (08/26/2020)	Antimony (MB)	Detected sample results <RL and <BAL	"UB" at the RL

Note:

MB Method blank

RL Reporting limit

SDG #92497151: Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

### 3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

## DATA REVIEW REPORT

### 3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater.

SDG #92493137: The MS/MSD analysis performed using sample GWA-2 (08/26/2020) in association with SW-846 7470A analysis exhibited recoveries within the control limits.

SDG #92497151: MS/MSD analysis was not performed using a sample from this SDG.

### 3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

SDG #92493137: MS/MSD analysis was performed using sample GWA-2 (08/26/2020) in association with SW-846 7470A analysis in replacement of laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable an RPD.

SDG #92497151: Laboratory duplicate analysis was not performed using a sample from this SDG.

## 4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
GWC-3R (08/28/2020) / DUP-1	Barium	0.014	0.014	AC
	Beryllium	0.00050 J	0.00046 J	
	Cadmium	0.00014 J	0.00014 J	
	Chromium	0.00088 J	0.00092 J	
	Cobalt	0.0041 J	0.0039 J	
	Lead	0.000054 J	0.0050 U	
	Selenium	0.0045 J	0.0043 J	
GWC-5R (09/23/2020) / DUP-01 (09/23/2020)	Calcium	144	152	5.4%
	Antimony	0.00031 J	0.0030 U	AC



## DATA REVIEW REPORT

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
	Arsenic	0.00092 J	0.00093 J	
	Barium	0.012	0.013	
	Beryllium	0.0023 J	0.0021 J	
	Boron	0.028 J	0.021 J	
	Cadmium	0.00094 J	0.00085 J	
	Chromium	0.0020 J	0.0018 J	
	Lead	0.00019 J	0.000038 J	
	Lithium	0.0012 J	0.0011 J	
	Nickel	0.0012 J	0.0012 J	
	Selenium	0.026	0.025	
	Zinc	0.018	0.016	

### Notes:

AC = Acceptable

The differences in the results between the parent sample GWC-3R (08/28/2020) and field duplicate sample DUP-1 were acceptable.

The differences in the results between the parent sample GWC-5R (09/23/2020) and field duplicate sample DUP-01 (09/23/2020) were acceptable.

## 5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

## 6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

**DATA REVIEW REPORT**

**DATA VALIDATION CHECKLIST FOR METALS**

METALS: SW-846 6010D/6020B/7470A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	

Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES)

Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

Cold Vapor Atomic Absorption (CVAA)

**Tier II Validation**

Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method Blanks		X	X		
B. Equipment/Field Blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Reporting Limit Verification		X		X	

Notes:

%R     Percent recovery

RPD     Relative percent difference

## DATA REVIEW REPORT

### GENERAL CHEMISTRY ANALYSES

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
pH by SM4500-H+ B	Water	ASAP	Cool to <6°C
Total Dissolved Solids by SM2540C	Water	7 days from collection to analysis	Cool to <6°C
Chloride, Fluoride, and Sulfate by USEPA 300.0	Water	28 days from collection to analysis	Cool to <6°C

All samples were analyzed within the specified holding times.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

#### 3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

##### 3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

SDG #92493137: The MS/MSD analysis performed using sample GWC-2R (08/28/2020) in association with fluoride analysis exhibited recoveries within the control limits.

SDG #92497151: The MS/MSD analysis performed using samples EQUIPMENT BLANK (09/23/2020) and FIELD BLANK (09/22/2020) in association with chloride, fluoride, and sulfate exhibited recoveries within control limits.

## DATA REVIEW REPORT

### 3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

SDG #92493137: MS/MSD analysis was performed using sample GWC-2R (08/28/2020) in association with fluoride analysis in replacement of laboratory duplicate analysis. The MS/MSD recoveries exhibited an acceptable RPD.

SDG #92497151: The laboratory duplicate analyses performed on sample location GWC-2R (09/22/2020) in association with TDS analysis exhibited an RPD within the control limit.

SDG #92497151: MS/MSD analysis was performed using samples EQUIPMENT BLANK (09/23/2020) and FIELD BLANK (09/22/2020) in association with chloride, fluoride, and sulfate analysis in replacement of laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPDs.

### 4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
GWC-3R (08/28/2020) / DUP-1	Fluoride	0.097 J	0.067 J	AC
GWC-5R (09/23/2020) / DUP-01 (09/23/2020)	TDS	1,000	1,350	29.5%
	Chloride	3.0	2.9	AC
	Fluoride	0.10 U	0.10 U	AC
	Sulfate	992	990	0.2%

Notes:

AC = Acceptable

The difference in the fluoride results between the parent sample GWC-3R (08/28/2020) and field duplicate sample DUP-1 was acceptable.

The differences in the results between the parent sample GWC-5R (09/23/2020) and field duplicate sample DUP-01 (09/23/2020) were acceptable.

## DATA REVIEW REPORT

### **5. Laboratory Control Sample (LCS) Analysis**

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

### **6. System Performance and Overall Assessment**

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

# DATA REVIEW REPORT

## DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SM4500-H+ B, SM2540C, USEPA 300.0	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
<b>Tier II Validation</b>					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

# DATA REVIEW REPORT

## RADIOLOGICAL ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Radium-226 by SW-846 9315	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.
Radium-228 by SW-846 9320	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.

Note:

s.u. = Standard units

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and field/rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field/rinse blanks measure contamination of samples during field operations.

Blank results should be verified to be accurately reported and that tolerance limits (+/- 2 sigma or standard deviation) were not exceeded; and blank results verified to be less than the reporting limit (RL) of 1 pCi/L.

For blanks to be considered not applicable, verify net blank results are less than the associated uncertainty by evaluating the blank results based on the following three criteria. If either of these criteria is true, the blank is considered not suspect of contamination (or non-detect).

1. Is the blank result less than the uncertainty and less than the minimum detectable concentration (MDC)?
2. Does the blank have an uncertainty greater than the result (or indistinguishable from background) or does the blank result fall between its uncertainty and its MDC?

If the blank QC results fall outside the appropriate tolerance limits or if the net blank results are not less than the associated uncertainty, the following equation for normalized absolute difference (NAD) should be used in determining the effect of possible blank contamination on the sample results:

$$\text{Normalized absolute difference}_{\text{MethodBlank}} = \frac{| \text{Sample} - \text{Blank} |}{\sqrt{(U_{\text{Sample}})^2 + (U_{\text{Blank}})^2}}$$

Where:

$U_{\text{Sample}}$  = uncertainty of the sample

$U_{\text{Blank}}$  = uncertainty of the blank

Sample = concentration of isotope in sample

Blank = concentration of isotope in blank

## DATA REVIEW REPORT

Normalized Absolute Difference	Qualification
> 2.58	None
1.96 > x < 2.58	J
x < 1.96	J*

\* = Minimally the result should be qualified as estimated, J; however, if other quality indicators are deficient the validator may determine the result should be qualified as rejected, R

SDG #92493131: Radium-228, Radium-226, and total Radium were detected in the QA blanks, however, the activities were measured as less than the uncertainty and MDC or between the uncertainty and MDC as described above. Hence, the blank results are considered non-detect and no qualification of the results was required.

SDG #92497113: Radium-228 was detected in the method blank at an activity greater than the MDC. The calculated NAD for sample GWC-2R (09/22/2020) was less than 1.96, hence, the radium-228 and total radium results were assigned "J" qualifiers.

### 3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

#### 3.1 MS Analysis

MS samples are not typically analyzed for gamma spectral content due to the inability of the laboratory to homogenize spike material with the sample.

If performed, the spike analysis must exhibit a percent recovery within the control limits of 70% to 130%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits.

In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of < +/- 3 sigma for either.

The numerical performance indicator for a matrix spike sample is calculated by:

$$Z_{MS} = \frac{x - x_0 - c}{\sqrt{u^2(x) + u^2(x_0) + u^2(c)}}$$

Where:

x = measured concentration of the spiked sample.

x<sub>0</sub> = measured concentration of the unspiked sample.

c = spike concentration added.

u<sup>2</sup>(x), u<sup>2</sup>(x<sub>0</sub>), u<sup>2</sup>(c) = the squares of the respective standard uncertainties of these values.

MS performance for all matrices is acceptable when the numerical performance indicator calculation yields a value between +/-3 sigma. Warning limits have been established as +/- 2 sigma.

MS analysis was not performed using a sample from these SDGs.



## DATA REVIEW REPORT

### 3.2 Laboratory Duplicate Analysis

Duplicate analyses are indicators of laboratory precision based on each sample matrix. For replicate analysis results to be considered in agreement the duplicate error ratio (DER) must be less than 2.13. In the event the DER is outside of the limit of 2.13, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma or standard deviation.

The numerical performance indicator for laboratory duplicates is calculated by:

$$Z_{Dup} = \frac{x_1 - x_2}{\sqrt{u^2(x_1) + u^2(x_2)}}$$

Where:

$x_1, x_2$  = two measured activity concentrations.

$u^2(x_1), u^2(x_2)$  = the combined standard uncertainty of each measurement squared.

Duplicate sample performance is acceptable when the numerical performance indicator calculation yields a value between +/- 3 sigma. Warning limits have been established as +/- 2 sigma.

The laboratory duplicate performed on sample Drake for Lead 210 exhibited a RPD within the control limits.

SDG #92493131: Laboratory duplicate analysis was not performed using a sample from this SDG.

SDG #92497113: The laboratory duplicate performed on sample GWC-2R (09/22/2020) in association with SW-846 9315 analysis exhibited an RPD within the control limits.

## 4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. There are no specific review criteria for radiological field replicate analyses comparability. The degree of agreement between these replicates is to be used in conjunction with all of the remaining quality control results as an aid in the decision as to the overall quality of the data. Data are not to be qualified due to field replicates alone. To determine the level of agreement between the replicates, the following guidelines have been established:

For all analyses in soil matrices, data should be considered in agreement if results are within a factor of four of each other. Data between a factor of four and five of each other should be considered as a minor discrepancy and data greater than a factor of five should be considered a major discrepancy.

The field duplicate sample results are summarized in the following table.

## DATA REVIEW REPORT

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
GWC-3R (08/28/2020) / DUP-1	Radium-226	0.0868 ± 0.458	0.113 ± 0.267	AC
	Radium-228	0.407 ± 0.544	0.782 ± 0.526	
	Total Radium	0.494 ± 1.00	0.895 ± 0.793	
GWC-5R (09/23/2020) / DUP-01 (09/23/2020)	Radium-226	-0.0254 ± 0.145	0.164 ± 0.210	AC
	Radium-228	-0.442 ± 0.504	0.2415 ± 0.388	
	Total Radium	0.00 ± 0.649	0.579 ± 0.598	

### Notes:

AC = Acceptable

The differences in the results between the parent sample GWC-3R (08/28/2020) and field duplicate sample DUP-1 were acceptable.

The differences in the results between the parent sample GWC-5R (09/23/2020) and field duplicate sample DUP-01 (09/23/2020) were acceptable.

## 5. Tracer or Carrier

Tracers and carriers are used in radiological separation methods to provide evaluation of chemical separation. Chemical yield is evaluated through the recovery of chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. A control limit of 30% to 110% is applied to each sample spiked with either a carrier and/or a tracer.

SDG #92493135: The tracer and carrier analyses exhibited recoveries within the control limits.

## 6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 60% to 135%. In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma.

The numerical performance indicator for a laboratory control sample is calculated

by:

$$Z_{LCS} = \frac{x - c}{\sqrt{u^2(x) + u^2(c)}}$$

Where:

x = Analytical result of the LCS

c = Known concentration of the LCS

$u^2(x)$  = combined standard uncertainty of the result squared.

$u^2(c)$  = combined standard uncertainty of the LCS value squared.

## DATA REVIEW REPORT

LCS performance is acceptable when the numerical performance indicator calculation yields a value between +/- 3 sigma. Warning limits have been established as +/- 2 sigma.

The LCS/LCSD analysis exhibited recoveries within the control limits.

### 7. Isotope Identification

For sample results to be considered “non-detect”, evaluate data based on the following two criteria. If either one of these criteria is true, the sample result is considered “non-detect”.

1. Sample result is less than the uncertainty and less than the MDC/MDA; or
2. Sample has an uncertainty greater than the result (or indistinguishable from background) or result falls between its uncertainty and its MDC/MDA.

Based on the above criteria sample results should be considered non-detect as follows:

- SDG #92493131: GWC-3R (08/28/2020), GWC-5R (08/27/2020), DUP-1, and EB-1; SDG #92497113: GWC-4R (09/22/2020), GWC-5R (09/23/2020), GWC-6R (09/23/2020), DUP-01 (09/23/2020), EQUIPMENT BLANK (09/23/2020), FIELD BLANK (09/22/2020), GWA-2 (09/22/2020), GWC-1R (09/22/2020), and GWC-3R (09/22/2020) – Radium-226, Radium-228, and total Radium
- SDG #92493131: GWC-1R (08/27/2020), GWC-4R (08/28/2020), GWC-6R (08/27/2020) – Radium-228 and total Radium
- SDG #92493131: GWC-2R (08/28/2020) – Radium-228
- SDG #92497113: GWC-2R (09/22/2020) – Radium-226

### 8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

**DATA REVIEW REPORT**

**DATA VALIDATION CHECKLIST FOR RADIOLOGICALS**

RADIOLOGICALS: SW-846 9315/9320	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas-Flow Proportional System					
<b>Tier II Validation</b>					
Holding Times		X		X	
Activity, +/- uncertainty, MDC/MDA		X		X	
Blanks					
A. Method Blanks		X	X		
B. Equipment/Field Blanks		X		X	
Carrier (Surrogate) %R		X		X	
Tracer (Surrogate) %R		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	

Notes:

%R     Percent recovery

RPD     Relative percent difference

## DATA REVIEW REPORT

VALIDATION PERFORMED BY: Jennifer Singer

SIGNATURE:



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DATE: December 11, 2020

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PEER REVIEW: Dennis Capria

DATE: December 14, 2020

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# CHAIN OF CUSTODY / DATA QUALIFIER SUMMARY TABLE





# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Client Information: Agency: Arcadis (GA Power) Address: 2839 Paces Ferry Rd Atlanta, GA 30339 Phone: _____ Fax: _____ Requested Due Date: _____		<b>Section B</b> Required Project Information: Report To: Becky Steever Copy To: _____ Purchase Order #: _____ Project Name: Yates Gypsum Landfill Project #: _____		<b>Section C</b> Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote: _____ Pace Project Manager: kevin.herring@paceclabs.com Pace Profile #: 10840		Regulatory Agency: _____ State / Location: GA
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ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, ., -) Sample IDs must be unique	MATRIX CODE Drinking Water: DWC Water: WTG Waste Water: WWG Product: PC Sewerage: SLC Oil: OLC Wastewater: WWC Air: ARZ Other: OTC Soil: TS	CODED	COLLECTED				SAMPLER TEMP AT COLLECTION	Preservatives								ANALYSIS TEST	Requested Analysis Filtered (Y/N)			Residual Chlorine (Y/N)			
				MATRIX CODE (see yield codes to left)	SAMPLE TYPE (G-GRAB, C-COMP)	START			END		# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH		Na2S2O3	Methanol	Other		300.0 - F	App IV Metals	RAD 8315/9320
						DATE	TIME		DATE	TIME														
1	GWA-2 (08/26/2020) Ph: 5.67	WT		8/26	1620			4		X							X	X	X					001
2	GWC-1R (08/27/2020) Ph: 5.39	WT		8/27	1710			4		X							X	X	X					002
3	GWC-2R (08/28/2020) Ph: 5.45	WT		8/28	1030			4		X							X	X	X					003
4	GWC-3R (08/28/2020) Ph: 5.20	WT		8/28	1230			4		X							X	X	X					004
5	GWC-4R	WT															X	X	X					005
6	GWC-5R (08/27/2020) Ph: 5.17	WT		8/27	1115												X	X	X					006
7	GWC-6R (08/27/2020) Ph: 5.77	WT		8/27	1530												X	X	X					007
8	DUP-1	WT		8/28	-												X	X	X					008
9	EB-1			8/28													X	X	X					009

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
-IV, Sb, As, Ba, Be, Bi, Cd, Cr, Co, Hg, Pb, Li, Mn, Se, Tl	Jake Swanson	8/28/20	1814	Becky Steever	8/28/20	1814	
	Becky Steever	8/28/20	1814	Trace	8/28/20	1814	

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Jake Swanson SIGNATURE of SAMPLER:		DATE Signed: 8/28/20	TEMP in C Received on Ice (Y/N) Custody Sealed (Y/N) Cooled (Y/N) Samples Intact (Y/N)
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SDG	Sample ID	Method	Analyte	Result	Units	Validation Qualifier	Reason for Validation Qualifier
92493131	No qualifiers assigned						
92493137	GWA-2 (08/26/2020)	SW846 6020B	Antimony	0.0030	mg/L	UB	Blank contamination
92497113	GWC-2R (09/22/2020)	SW846 9320	Radium-228	1.70 ± 0.643	pCi/L	J	Blank contamination
		Calculation	Total Radium	2.09 ± 0.906	pCi/L	J	Blank contamination
92497151	No qualifiers assigned						

**Abbreviations:**

mg/L = milligrams per liter  
pCi/L = picoCuries per liter

**Qualifiers:**

UB = not detected due to blank contamination

October 16, 2020

Ms. Lauren Petty  
Southern Co. Services  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Project: YATES GYPSUM LF RADS  
Pace Project No.: 92497113

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Geoffrey Gay, ARCADIS - Atlanta  
Kristen Jurinko  
Kelley Sharpe, ARCADIS - Atlanta  
Alex Simpson, Arcadis  
Samantha Thomas  
Maribel Vital



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92497113

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92497113001	GWC-2R (09/22/2020)	Water	09/22/20 13:25	09/23/20 17:40
92497113002	GWC-4R (09/22/2020)	Water	09/22/20 12:30	09/23/20 17:40
92497113003	GWC-5R (09/23/2020)	Water	09/23/20 10:05	09/23/20 17:40
92497113004	GWC-6R (09/23/2020)	Water	09/23/20 11:10	09/23/20 17:40
92497113005	DUP-01 (09/23/2020)	Water	09/23/20 00:00	09/23/20 17:40
92497113006	EQUIPMENT BLANK (09/23/2020)	Water	09/23/20 11:20	09/23/20 17:40
92497113007	FIELD BLANK (09/22/2020)	Water	09/22/20 11:30	09/23/20 17:40
92497113008	GWA-2 (09/22/2020)	Water	09/22/20 11:00	09/23/20 17:40
92497113009	GWC-1R (09/22/2020)	Water	09/22/20 13:20	09/23/20 17:40
92497113010	GWC-3R (09/22/2020)	Water	09/22/20 15:40	09/23/20 17:40

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92497113

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92497113001	GWC-2R (09/22/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113002	GWC-4R (09/22/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113003	GWC-5R (09/23/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113004	GWC-6R (09/23/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113005	DUP-01 (09/23/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113006	EQUIPMENT BLANK (09/23/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113007	FIELD BLANK (09/22/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113008	GWA-2 (09/22/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113009	GWC-1R (09/22/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92497113010	GWC-3R (09/22/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92497113

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92497113001</b>	<b>GWC-2R (09/22/2020)</b>					
EPA 9315	Radium-226	0.393 ± 0.263 (0.404)	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	C:83% T:NA 1.70 ± 0.643 (1.02)	pCi/L		10/15/20 11:10	
Total Radium Calculation	Total Radium	C:70% T:83% 2.09 ± 0.906 (1.42)	pCi/L		10/16/20 12:16	
<b>92497113002</b>	<b>GWC-4R (09/22/2020)</b>					
EPA 9315	Radium-226	0.0865 ± 0.221 (0.531)	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	C:80% T:NA 0.422 ± 0.537 (1.15)	pCi/L		10/15/20 11:10	
Total Radium Calculation	Total Radium	C:70% T:78% 0.509 ± 0.758 (1.68)	pCi/L		10/16/20 12:16	
<b>92497113003</b>	<b>GWC-5R (09/23/2020)</b>					
EPA 9315	Radium-226	-0.0254 ± 0.145 (0.437)	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	C:85% T:NA -0.442 ± 0.504 (1.22)	pCi/L		10/15/20 11:10	
Total Radium Calculation	Total Radium	C:64% T:85% 0.000 ± 0.649 (1.66)	pCi/L		10/16/20 12:16	
<b>92497113004</b>	<b>GWC-6R (09/23/2020)</b>					
EPA 9315	Radium-226	0.202 ± 0.201 (0.369)	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	C:87% T:NA 0.758 ± 0.552 (1.08)	pCi/L		10/15/20 13:55	
Total Radium Calculation	Total Radium	C:72% T:89% 0.960 ± 0.753 (1.45)	pCi/L		10/16/20 12:16	

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92497113

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92497113005</b>	<b>DUP-01 (09/23/2020)</b>					
EPA 9315	Radium-226	0.164 ± 0.210 (0.436) C:87% T:NA	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	0.415 ± 0.388 (0.796) C:73% T:83%	pCi/L		10/15/20 14:28	
Total Radium Calculation	Total Radium	0.579 ± 0.598 (1.23)	pCi/L		10/16/20 12:16	
<b>92497113006</b>	<b>EQUIPMENT BLANK (09/23/2020)</b>					
EPA 9315	Radium-226	0.0795 ± 0.182 (0.434) C:78% T:NA	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	0.725 ± 0.444 (0.843) C:75% T:82%	pCi/L		10/15/20 14:32	
Total Radium Calculation	Total Radium	0.805 ± 0.626 (1.28)	pCi/L		10/16/20 12:16	
<b>92497113007</b>	<b>FIELD BLANK (09/22/2020)</b>					
EPA 9315	Radium-226	0.0465 ± 0.185 (0.474) C:76% T:NA	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	0.758 ± 0.432 (0.794) C:78% T:76%	pCi/L		10/15/20 14:32	
Total Radium Calculation	Total Radium	0.805 ± 0.617 (1.27)	pCi/L		10/16/20 12:16	
<b>92497113008</b>	<b>GWA-2 (09/22/2020)</b>					
EPA 9315	Radium-226	0.429 ± 0.302 (0.469) C:73% T:NA	pCi/L		10/14/20 06:24	
EPA 9320	Radium-228	0.259 ± 0.408 (0.885) C:78% T:76%	pCi/L		10/15/20 14:29	
Total Radium Calculation	Total Radium	0.688 ± 0.710 (1.35)	pCi/L		10/16/20 12:16	

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92497113009</b>	<b>GWC-1R (09/22/2020)</b>					
EPA 9315	Radium-226	0.137 ± 0.249 (0.567) C:82% T:NA	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	0.563 ± 0.459 (0.918) C:66% T:75%	pCi/L		10/15/20 14:28	
Total Radium Calculation	Total Radium	0.700 ± 0.708 (1.49)	pCi/L		10/16/20 12:16	
<b>92497113010</b>	<b>GWC-3R (09/22/2020)</b>					
EPA 9315	Radium-226	0.287 ± 0.257 (0.468) C:80% T:NA	pCi/L		10/14/20 07:09	
EPA 9320	Radium-228	0.950 ± 0.570 (1.08) C:69% T:70%	pCi/L		10/15/20 14:28	
Total Radium Calculation	Total Radium	1.24 ± 0.827 (1.55)	pCi/L		10/16/20 12:16	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

Sample: **GWC-2R (09/22/2020)** Lab ID: **92497113001** Collected: 09/22/20 13:25 Received: 09/23/20 17:40 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.393 ± 0.263 (0.404)</b> <b>C:83% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.70 ± 0.643 (1.02)</b> <b>C:70% T:83%</b>	pCi/L	10/15/20 11:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.09 ± 0.906 (1.42)</b>	pCi/L	10/16/20 12:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

**Sample: GWC-4R (09/22/2020)**      **Lab ID: 92497113002**      Collected: 09/22/20 12:30      Received: 09/23/20 17:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0865 ± 0.221 (0.531)</b> <b>C:80% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.422 ± 0.537 (1.15)</b> <b>C:70% T:78%</b>	pCi/L	10/15/20 11:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.509 ± 0.758 (1.68)</b>	pCi/L	10/16/20 12:16	7440-14-4	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

Sample: **GWC-5R (09/23/2020)** Lab ID: **92497113003** Collected: 09/23/20 10:05 Received: 09/23/20 17:40 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0254 ± 0.145 (0.437)</b> <b>C:85% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.442 ± 0.504 (1.22)</b> <b>C:64% T:85%</b>	pCi/L	10/15/20 11:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.000 ± 0.649 (1.66)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

**Sample: GWC-6R (09/23/2020)**      **Lab ID: 92497113004**      Collected: 09/23/20 11:10      Received: 09/23/20 17:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.202 ± 0.201 (0.369)</b> <b>C:87% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.758 ± 0.552 (1.08)</b> <b>C:72% T:89%</b>	pCi/L	10/15/20 13:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.960 ± 0.753 (1.45)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

Sample: **DUP-01 (09/23/2020)** Lab ID: **92497113005** Collected: 09/23/20 00:00 Received: 09/23/20 17:40 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.164 ± 0.210 (0.436)</b> <b>C:87% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.415 ± 0.388 (0.796)</b> <b>C:73% T:83%</b>	pCi/L	10/15/20 14:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.579 ± 0.598 (1.23)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

**Sample: EQUIPMENT BLANK (09/23/2020)**      **Lab ID: 92497113006**      Collected: 09/23/20 11:20      Received: 09/23/20 17:40      Matrix: Water

PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0795 ± 0.182 (0.434)</b> <b>C:78% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.725 ± 0.444 (0.843)</b> <b>C:75% T:82%</b>	pCi/L	10/15/20 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.805 ± 0.626 (1.28)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

**Sample:** FIELD BLANK (09/22/2020)    **Lab ID:** 92497113007    Collected: 09/22/20 11:30    Received: 09/23/20 17:40    Matrix: Water  
**PWS:**    Site ID:    Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0465 ± 0.185 (0.474)</b> C:76% T:NA	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.758 ± 0.432 (0.794)</b> C:78% T:76%	pCi/L	10/15/20 14:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.805 ± 0.617 (1.27)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

Sample: **GWA-2 (09/22/2020)** Lab ID: **92497113008** Collected: 09/22/20 11:00 Received: 09/23/20 17:40 Matrix: Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.429 ± 0.302 (0.469)</b> <b>C:73% T:NA</b>	pCi/L	10/14/20 06:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.259 ± 0.408 (0.885)</b> <b>C:78% T:76%</b>	pCi/L	10/15/20 14:29	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.688 ± 0.710 (1.35)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

**Sample: GWC-1R (09/22/2020)**      **Lab ID: 92497113009**      Collected: 09/22/20 13:20      Received: 09/23/20 17:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.137 ± 0.249 (0.567)</b> <b>C:82% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.563 ± 0.459 (0.918)</b> <b>C:66% T:75%</b>	pCi/L	10/15/20 14:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.700 ± 0.708 (1.49)</b>	pCi/L	10/16/20 12:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

**Sample: GWC-3R (09/22/2020)**      **Lab ID: 92497113010**      Collected: 09/22/20 15:40      Received: 09/23/20 17:40      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.287 ± 0.257 (0.468)</b> <b>C:80% T:NA</b>	pCi/L	10/14/20 07:09	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.950 ± 0.570 (1.08)</b> <b>C:69% T:70%</b>	pCi/L	10/15/20 14:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.24 ± 0.827 (1.55)</b>	pCi/L	10/16/20 12:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

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QC Batch:	417131	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92497113001, 92497113002, 92497113003, 92497113004, 92497113005, 92497113006, 92497113007, 92497113008, 92497113009, 92497113010

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METHOD BLANK: 2016812 Matrix: Water

Associated Lab Samples: 92497113001, 92497113002, 92497113003, 92497113004, 92497113005, 92497113006, 92497113007, 92497113008, 92497113009, 92497113010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.888 ± 0.380 (0.600) C:70% T:99%	pCi/L	10/15/20 11:15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: YATES GYPSUM LF RADDS  
 Pace Project No.: 92497113

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QC Batch: 417130	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92497113001, 92497113002, 92497113003, 92497113004, 92497113005, 92497113006, 92497113007, 92497113008, 92497113009, 92497113010

---

METHOD BLANK: 2016810 Matrix: Water

Associated Lab Samples: 92497113001, 92497113002, 92497113003, 92497113004, 92497113005, 92497113006, 92497113007, 92497113008, 92497113009, 92497113010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00529 ± 0.135 (0.392) C:94% T:NA	pCi/L	10/14/20 07:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: YATES GYPSUM LF RADS

Pace Project No.: 92497113

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92497113

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497113001	GWC-2R (09/22/2020)	EPA 9315	417130		
92497113002	GWC-4R (09/22/2020)	EPA 9315	417130		
92497113003	GWC-5R (09/23/2020)	EPA 9315	417130		
92497113004	GWC-6R (09/23/2020)	EPA 9315	417130		
92497113005	DUP-01 (09/23/2020)	EPA 9315	417130		
92497113006	EQUIPMENT BLANK (09/23/2020)	EPA 9315	417130		
92497113007	FIELD BLANK (09/22/2020)	EPA 9315	417130		
92497113008	GWA-2 (09/22/2020)	EPA 9315	417130		
92497113009	GWC-1R (09/22/2020)	EPA 9315	417130		
92497113010	GWC-3R (09/22/2020)	EPA 9315	417130		
92497113001	GWC-2R (09/22/2020)	EPA 9320	417131		
92497113002	GWC-4R (09/22/2020)	EPA 9320	417131		
92497113003	GWC-5R (09/23/2020)	EPA 9320	417131		
92497113004	GWC-6R (09/23/2020)	EPA 9320	417131		
92497113005	DUP-01 (09/23/2020)	EPA 9320	417131		
92497113006	EQUIPMENT BLANK (09/23/2020)	EPA 9320	417131		
92497113007	FIELD BLANK (09/22/2020)	EPA 9320	417131		
92497113008	GWA-2 (09/22/2020)	EPA 9320	417131		
92497113009	GWC-1R (09/22/2020)	EPA 9320	417131		
92497113010	GWC-3R (09/22/2020)	EPA 9320	417131		
92497113001	GWC-2R (09/22/2020)	Total Radium Calculation	418910		
92497113002	GWC-4R (09/22/2020)	Total Radium Calculation	418910		
92497113003	GWC-5R (09/23/2020)	Total Radium Calculation	418910		
92497113004	GWC-6R (09/23/2020)	Total Radium Calculation	418910		
92497113005	DUP-01 (09/23/2020)	Total Radium Calculation	418910		
92497113006	EQUIPMENT BLANK (09/23/2020)	Total Radium Calculation	418910		
92497113007	FIELD BLANK (09/22/2020)	Total Radium Calculation	418910		
92497113008	GWA-2 (09/22/2020)	Total Radium Calculation	418910		
92497113009	GWC-1R (09/22/2020)	Total Radium Calculation	418910		
92497113010	GWC-3R (09/22/2020)	Total Radium Calculation	418910		

### REPORT OF LABORATORY ANALYSIS

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**Sample Condition Upon Receipt**



Client Name: GAPower

WO#: **92497113**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  
 Tracking #: \_\_\_\_\_



Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 230    Type of Ice: Wet Blue None     Samples on ice; cooling process has begun

Cooler Temperature 3.4°C  
 Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/23/2004

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>GWC-BR is labeled GWC-1R</u>
-Includes date/time/ID/Analysis Matrix:	<u>9/24/04</u> <u>W</u>	<u>9/22/20 1320 as collection date + time</u>
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank-Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? **Y / N**

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Project Manager Review: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Document Name: Bottle Identification Form (BIF)
Document No.: F-CAR-CS-043-Rev.00

Document issued: March 14, 2019
Page 1 of 1
Issuing Authority: Pace Carolinas Quality Office

Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

Bottom half of box is to list number of bottle

Project #

WO#: 92497113

PM: KLH1

Due Date: 10/14/20

CLIENT: GA-GA Power

Table with 13 columns: Matrix, Item#, BP4U-125 ml Plastic Unpreserved (N/A) (C-), BP3U-250 ml Plastic Unpreserved (N/A), BP2U-500 ml Plastic Unpreserved (N/A), BP1U-1 liter Plastic Unpreserved (N/A), BP4S-125 ml Plastic H2SO4 (pH < 2) (C-), BP3N-250 ml plastic HNO3 (pH < 2), BP4C-125 ml Plastic 2N Acetate & NaOH (>9), BP4C-125 ml Plastic NaOH (pH > 12) (C-), WGFU-Wide-mouthed Glass Jar Unpreserved, AG1U-1 liter Amber Unpreserved (N/A) (C-), AG1H-1 liter Amber HCl (pH < 2), AG3U-250 ml Amber Unpreserved (N/A) (C-), AG1S-1 liter Amber H2SO4 (pH < 2), AG3S-250 ml Amber H2SO4 (pH < 2), AG3A(DG3A)-250 ml Amber NH4Cl (N/A)(C-), DG9H-40 ml VOA HCl (N/A), VG9T-40 ml VOA Na2S2O3 (N/A), VG9U-40 ml VOA Unp (N/A), DG9P-40 ml VOA H3PO4 (N/A), VQAK (6 vials per kit)-SO3S kit (N/A), V/GK (3 vials per kit)-VPH/Gas kit (N/A), SP5T-125 ml Sterile Plastic (N/A - lab), SP2T-250 ml Sterile Plastic (N/A - lab), BP3A-250 ml Plastic (NH2)2SO4 (9.9-9.7), AG9U-100 ml Amber Unpreserved vials (N/A), VSGU-20 ml Scintillation vials (N/A)

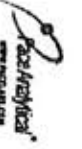
BPIN

2
2
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2

pH Adjustment Log for Preserved Samples

Table with 6 columns: Sample ID, Type of Preservative, pH upon receipt, Date preservation adjusted, Time preservation adjusted, Amount of Preservative added, Lot

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office.



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Client Information:  
 Agency: Georgia Power  
 Address: 1070 Bridge Mill Ave  
 City: Marietta, GA 30014  
 Phone: (770) 594-6326  
 Fax: \_\_\_\_\_  
 Project Name: Yates Gypsum LP  
 Project #: \_\_\_\_\_

**Section B**  
 Required Project Information:  
 Report To: Becky Stever  
 Copy To: \_\_\_\_\_  
 Purchase Order #: \_\_\_\_\_  
 Yates Gypsum LP  
 Project #: \_\_\_\_\_

**Section C**  
 Invoice Information:  
 Attention: \_\_\_\_\_  
 Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_  
 State: \_\_\_\_\_  
 Zip: \_\_\_\_\_  
 Project Manager: kevin.lensing@epacris.com  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

**Regulatory Agency:** GA  
**State Location:** \_\_\_\_\_

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9, /, ., -)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES							Analysis Test	Residual Chlorine (Y/N)		
				START DATE	START TIME			END DATE	END TIME	Unpreserved	H2SO4	HNO3	HCl	NaOH			Na2S2O3	Methanol
1	GW-2R (09/28/2020)			9/28	1325		5	✓									✓	5.34 = Pk
2	GW-4R (09/22/2020)			9/22	1730		5	✓									✓	5.43 = Pk
3	GW-5R (09/23/2020)			9/23	1005		5	✓									✓	5.01 = Pk
4	GW-6R (09/23/2020)			9/23	1110		5	✓									✓	5.81 = Pk
5	DUP-01 (09/23/2020)			9/23	1125		5	✓									✓	
6	FP-01 (09/23/2020)			9/23	1130		5	✓									✓	
7	FP-01 (09/23/2020)			9/23	1120		5	✓									✓	

**ADDITIONAL COMMENTS:** \_\_\_\_\_

**NO** **MP**

Not Submitted by Lab/Station: \_\_\_\_\_

Accepted by/Description: \_\_\_\_\_

Signature: Mike Swanson Date: 9/23/20 Time: 15:11

Signature: Bob Date: 9/23/20 Time: 1746

Signature: David Date: 9/23/20 Time: 1740

**Signature Name and Signature:**

Print Name of Sampler: Mike Swanson

Signature of Sampler: [Signature]

DATE Signed: 9/23/20

TEMP in C: \_\_\_\_\_

Received on Ice (Y/N): \_\_\_\_\_

Cooler Sealed (Y/N): \_\_\_\_\_

Cooler (Y/N): \_\_\_\_\_

Samples Intact (Y/N): \_\_\_\_\_



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Client Information:  
 Name: Georgia Power  
 Address: 1070 Brydge Mill Ave  
 City: Atlanta, GA 30114

**Section B**  
 Requested Project Information:  
 Report For: Bucky Steiner  
 Copy To:  
 Purchase Order #: Yated Gypsum LP  
 Project Name:  
 Project #:

**Section C**  
 Invoicing Information:  
 Attribution:  
 Company Name:  
 Address:  
 POC Name:  
 POC Project Manager: Kevin.henry@ge.com  
 POC Profile #: 10040

**Section D**  
 Regulatory Agency:  
 State / Location: GA

ITEM #	DESCRIPTION	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES							Analytes Test	Residual Chlorine (Y/N)	
				START DATE	END DATE			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			Other
1	DUP	WT															
2	FIELD BLANK (092220)	WT		9/22/20	11:30		5	X									
3	COMPONENT-BLANK	WT															
4	GWA-2 (092220)	WT-G		9/22/20	11:30		5	X									
5	GWC-4R (092220)	WT-G		9/22/20	11:30		5	X									
6	GWC-3R	WT															
7	GWC-1R	WT															
8	GWC-3R (092220)	WT-G		9/22/20	11:40		5	X									
9	GWA-1R	WT															
10	GWC-3R	WT															
11																	
12																	

ADDITIONAL COMMENTS	REQUISITIONED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
NO MD	[Signature]	9/23/20	17:30	[Signature]	9/24/20	17:30	
	[Signature]	9/23/20	17:46	[Signature]	9/23/20	17:46	

**SAMPLER NAME AND SIGNATURE**  
 PRINT NAME OF SAMPLER: Peter Argonakis  
 SIGNATURE OF SAMPLER: [Signature]  
 DATE SIGNED: 09/23/2020

TEMP in C: \_\_\_\_\_  
 Received on Ice:  (Y/N)  
 Custody Sealed:  Cooler:  (Y/N)  
 Samples Intact:  (Y/N)

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-226  
 Analyst: LAL  
 Date: 10/13/2020  
 Worklist: 56587  
 Matrix: DW

Method Blank Assessment	
MB Sample ID	2018610
MB Concentration:	-0.005
MB Counting Uncertainty:	0.135
MB MDC:	0.392
MB Numerical Performance Indicator:	-0.08
MB Status vs. Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS/D (Y or N)?	Y
Count Date:	10/14/2020	LCS/D56587	10/14/2020
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044		24.044
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.508		0.512
Target Conc. (pCi/L, g, F):	4.732		4.697
Uncertainty (Calculated):	0.057		0.066
Result (pCi/L, g, F):	4.419		4.459
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.793		0.781
Numerical Performance Indicator:	-0.77		-0.59
Percent Recovery:	93.40%		94.94%
Status vs Numerical Indicator:	N/A		N/A
Status vs Recovery:	Pass		Pass
Upper % Recovery Limits:	125%		125%
Lower % Recovery Limits:	75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS56587
Duplicate Sample I.D.:	LCS56587
Sample Result (pCi/L, g, F):	4.419
Sample Result Counting Uncertainty (pCi/L, g, F):	0.793
Sample Duplicate Result (pCi/L, g, F):	4.459
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.781
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.071
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	1.64%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
Spike Volume Used in MSD (mL):			
MS Aliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result:			
Sample Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Result:			
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

*Handwritten signature: OMA 10/14/2020*

*Handwritten date: 10/14/2020*

# Quality Control Sample Performance Assessment

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**



Test: Ra-226  
Analyst: LAL  
Date: 10/13/2020  
Worklist: 56587  
Matrix: DW

Method Blank Assessment	
MB Sample ID	2016810
MB concentration:	-0.005
M/B Counting Uncertainty:	0.135
MB MDC:	0.392
MB Numerical Performance Indicator:	-0.08
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?		N
	LCS56587	LCS56587	
Count Date:	10/14/2020		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.044		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.508		
Target Conc. (pCi/L, g, F):	4.732		
Uncertainty (Calculated):	0.057		
Result (pCi/L, g, F):	4.419		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.793		
Numerical Performance Indicator:	-0.77		
Percent Recovery:	93.40%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment	LCS/D (Y or N)?		N
	LCS56587	LCS56587	
Sample I.D.:	92497113001		
Duplicate Sample I.D.:	92497113001DUP		
Sample Result (pCi/L, g, F):	0.393		
Sample Duplicate Result (pCi/L, g, F):	0.257		
Sample Duplicate Result (pCi/L, g, F):	0.393		
Sample Duplicate Result (pCi/L, g, F):	0.369		
Are sample and/or duplicate results below RL?	See Below ##		
Duplicate Numerical Performance Indicator:	-0.003		
Duplicate RPD:	0.20%		
Duplicate Status vs Numerical Indicator:	N/A		
Duplicate Status vs RPD:	Pass		
% RPD Limit:	25%		

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MS Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result:</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator:</p> <p>MSD Numerical Performance Indicator:</p> <p>MS Percent Recovery:</p> <p>MSD Percent Recovery:</p> <p>MS Status vs Numerical Indicator:</p> <p>MSD Status vs Numerical Indicator:</p> <p>MS Status vs Recovery:</p> <p>MSD Status vs Recovery:</p> <p>MS/MSD Upper % Recovery Limits:</p> <p>MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.:</p> <p>Sample MS I.D.:</p> <p>Sample MSD I.D.:</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result Counting Uncertainty (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</p> <p>Duplicate Numerical Performance Indicator:</p> <p>Duplicate Numerical Performance Indicator:</p> <p>(Based on the Percent Recoveries) MS/MSD Duplicate RPD:</p> <p>MS/MSD Duplicate Status vs Numerical Indicator:</p> <p>MS/MSD Duplicate Status vs RPD:</p> <p>% RPD Limit:</p>

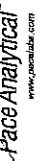
*Handwritten signature and date: 10/14/2020*

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

10/14/2020

# Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228  
Analyst: VAL  
Date: 10/13/2020  
Worklist: 56588  
Matrix: WT

Method Blank Assessment	
MB Sample ID	2016812
MB concentration:	0.888
MB 2 Sigma CSU:	0.360
MB MDC:	0.600
MB Numerical Performance Indicator:	4.58
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCSID (Y or N)?	Y
Count Date:		LCS56588	
Spike I.D.:		10/15/2020	
Decay Corrected Spike Concentration (pCi/mL):		20-030	
Volume Used (mL):		38.018	
Aliquot Volume (L, g, F):		0.10	
Target Conc. (pCi/L, g, F):		0.817	
Uncertainty (Calculated):		4.654	
Result (pCi/L, g, F):		5.189	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		1.207	
Numerical Performance Indicator:		0.85	
Percent Recovery:		114.37%	
Status vs Numerical Indicator:		N/A	
Status vs Recovery:		Pass	
Upper % Recovery Limits:		135%	
Lower % Recovery Limits:		60%	

Duplicate Sample Assessment		LCSID (Y or N)?	Y
Duplicate Sample I.D.:		LCS56588	
Duplicate Sample I.D.:		LCSD56588	
Sample Result (pCi/L, g, F):		5.189	
Sample Result 2 Sigma CSU (pCi/L, g, F):		1.207	
Sample Duplicate Result (pCi/L, g, F):		5.370	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		1.191	
Are sample and/or duplicate results below RL?		NO	
Duplicate Numerical Performance Indicator:		-0.210	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:		2.55%	
Duplicate Status vs Numerical Indicator:		Pass	
Duplicate Status vs RPD:		Pass	
% RPD Limit:		36%	

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
MS Aliquot (L, g, F):			
MS Target Conc. (pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Result:			
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:			
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits:			
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:  
\*The method blank result is below the reporting limit for this analysis and is acceptable.

*Handwritten signature/initials*

September 18, 2020

Ms. Lauren Petty  
Southern Co. Services  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

Dear Ms. Petty:

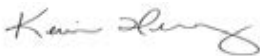
Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Geoffrey Gay, ARCADIS - Atlanta  
Kristen Jurinko  
Kelley Sharpe, ARCADIS - Atlanta  
Alex Simpson, Arcadis  
Samantha Thomas



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

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### **Pace Analytical Services Pennsylvania**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92493131001	GWA-2 (08/26/20)	Water	08/26/20 16:20	08/28/20 18:14
92493131002	GWC-1R (08/27/2020)	Water	08/27/20 17:10	08/28/20 18:14
92493131003	GWC-2R (08/28/2020)	Water	08/28/20 10:30	08/28/20 18:14
92493131004	GWC-3R (08/28/2020)	Water	08/28/20 12:30	08/28/20 18:14
92493131005	GWC-4R (08/28/2020)	Water	08/28/20 17:30	08/28/20 18:14
92493131006	GWC-5R (08/27/2020)	Water	08/27/20 11:15	08/28/20 18:14
92493131007	GWC-6R (08/27/2020)	Water	08/27/20 15:30	08/28/20 18:14
92493131008	DUP-1	Water	08/28/20 00:00	08/28/20 18:14
92493131009	EB-1	Water	08/28/20 16:15	08/28/20 18:14

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92493131001	GWA-2 (08/26/20)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131002	GWC-1R (08/27/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131003	GWC-2R (08/28/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131004	GWC-3R (08/28/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131005	GWC-4R (08/28/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131006	GWC-5R (08/27/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131007	GWC-6R (08/27/2020)	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131008	DUP-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493131009	EB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92493131001</b>	<b>GWA-2 (08/26/20)</b>					
EPA 9315	Radium-226	0.558 ± 0.269 (0.357) C:80% T:NA	pCi/L		09/14/20 08:57	
EPA 9320	Radium-228	1.19 ± 0.608 (1.09) C:64% T:82%	pCi/L		09/16/20 14:44	
Total Radium Calculation	Total Radium	1.75 ± 0.877 (1.45)	pCi/L		09/17/20 11:28	
<b>92493131002</b>	<b>GWC-1R (08/27/2020)</b>					
EPA 9315	Radium-226	0.413 ± 0.227 (0.330) C:88% T:NA	pCi/L		09/14/20 08:57	
EPA 9320	Radium-228	-0.245 ± 0.575 (1.36) C:58% T:79%	pCi/L		09/16/20 14:44	
Total Radium Calculation	Total Radium	0.413 ± 0.802 (1.69)	pCi/L		09/17/20 11:28	
<b>92493131003</b>	<b>GWC-2R (08/28/2020)</b>					
EPA 9315	Radium-226	0.602 ± 0.209 (0.294) C:87% T:NA	pCi/L		09/08/20 18:05	
EPA 9320	Radium-228	0.916 ± 0.502 (0.920) C:72% T:76%	pCi/L		09/16/20 11:15	
Total Radium Calculation	Total Radium	1.52 ± 0.711 (1.21)	pCi/L		09/17/20 14:16	
<b>92493131004</b>	<b>GWC-3R (08/28/2020)</b>					
EPA 9315	Radium-226	0.0868 ± 0.458 (0.956) C:87% T:NA	pCi/L		09/08/20 18:14	
EPA 9320	Radium-228	0.407 ± 0.544 (1.17) C:70% T:74%	pCi/L		09/16/20 14:19	
Total Radium Calculation	Total Radium	0.494 ± 1.00 (2.13)	pCi/L		09/17/20 14:16	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92493131005</b>	<b>GWC-4R (08/28/2020)</b>					
EPA 9315	Radium-226	0.313 ± 0.131 (0.177)	pCi/L		09/08/20 18:15	
EPA 9320	Radium-228	C:86% T:NA 0.0226 ± 0.447 (1.03)	pCi/L		09/16/20 14:19	
Total Radium Calculation	Total Radium	C:73% T:73% 0.336 ± 0.578 (1.21)	pCi/L		09/17/20 14:16	
<b>92493131006</b>	<b>GWC-5R (08/27/2020)</b>					
EPA 9315	Radium-226	0.194 ± 0.154 (0.277)	pCi/L		09/08/20 18:15	
EPA 9320	Radium-228	C:92% T:NA 0.497 ± 0.490 (1.02)	pCi/L		09/16/20 14:19	
Total Radium Calculation	Total Radium	C:71% T:81% 0.691 ± 0.644 (1.30)	pCi/L		09/17/20 14:16	
<b>92493131007</b>	<b>GWC-6R (08/27/2020)</b>					
EPA 9315	Radium-226	0.270 ± 0.123 (0.171)	pCi/L		09/08/20 18:15	
EPA 9320	Radium-228	C:89% T:NA 0.244 ± 0.471 (1.03)	pCi/L		09/16/20 14:19	
Total Radium Calculation	Total Radium	C:72% T:81% 0.514 ± 0.594 (1.20)	pCi/L		09/17/20 14:16	
<b>92493131008</b>	<b>DUP-1</b>					
EPA 9315	Radium-226	0.113 ± 0.267 (0.633)	pCi/L		09/09/20 07:19	
EPA 9320	Radium-228	C:82% T:NA 0.782 ± 0.526 (1.02)	pCi/L		09/16/20 11:39	
Total Radium Calculation	Total Radium	C:66% T:82% 0.895 ± 0.793 (1.65)	pCi/L		09/17/20 14:16	

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92493131009</b>	<b>EB-1</b>					
EPA 9315	Radium-226	-0.00430 ± 0.227 (0.602) C:91% T:NA	pCi/L		09/09/20 07:37	
EPA 9320	Radium-228	0.182 ± 0.435 (0.964) C:68% T:79%	pCi/L		09/16/20 11:39	
Total Radium Calculation	Total Radium	0.182 ± 0.662 (1.57)	pCi/L		09/17/20 14:16	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: GWA-2 (08/26/20)**      **Lab ID: 92493131001**      Collected: 08/26/20 16:20      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.558 ± 0.269 (0.357)</b> <b>C:80% T:NA</b>	pCi/L	09/14/20 08:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.19 ± 0.608 (1.09)</b> <b>C:64% T:82%</b>	pCi/L	09/16/20 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.75 ± 0.877 (1.45)</b>	pCi/L	09/17/20 11:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: GWC-1R (08/27/2020)**      **Lab ID: 92493131002**      Collected: 08/27/20 17:10      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.413 ± 0.227 (0.330)</b> <b>C:88% T:NA</b>	pCi/L	09/14/20 08:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.245 ± 0.575 (1.36)</b> <b>C:58% T:79%</b>	pCi/L	09/16/20 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.413 ± 0.802 (1.69)</b>	pCi/L	09/17/20 11:28	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: GWC-2R (08/28/2020)**      **Lab ID: 92493131003**      Collected: 08/28/20 10:30      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.602 ± 0.209 (0.294)</b> <b>C:87% T:NA</b>	pCi/L	09/08/20 18:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.916 ± 0.502 (0.920)</b> <b>C:72% T:76%</b>	pCi/L	09/16/20 11:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.52 ± 0.711 (1.21)</b>	pCi/L	09/17/20 14:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

Sample: **GWC-3R (08/28/2020)** Lab ID: **92493131004** Collected: 08/28/20 12:30 Received: 08/28/20 18:14 Matrix: Water

PWS: Site ID: Sample Type:

Comments: • 1 1 L received with 500 ml in container.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0868 ± 0.458 (0.956)</b> <b>C:87% T:NA</b>	pCi/L	09/08/20 18:14	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.407 ± 0.544 (1.17)</b> <b>C:70% T:74%</b>	pCi/L	09/16/20 14:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.494 ± 1.00 (2.13)</b>	pCi/L	09/17/20 14:16	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: GWC-4R (08/28/2020)**      **Lab ID: 92493131005**      Collected: 08/28/20 17:30      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.313 ± 0.131 (0.177)</b> <b>C:86% T:NA</b>	pCi/L	09/08/20 18:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0226 ± 0.447 (1.03)</b> <b>C:73% T:73%</b>	pCi/L	09/16/20 14:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.336 ± 0.578 (1.21)</b>	pCi/L	09/17/20 14:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: GWC-5R (08/27/2020)**      **Lab ID: 92493131006**      Collected: 08/27/20 11:15      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.194 ± 0.154 (0.277)</b> <b>C:92% T:NA</b>	pCi/L	09/08/20 18:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.497 ± 0.490 (1.02)</b> <b>C:71% T:81%</b>	pCi/L	09/16/20 14:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.691 ± 0.644 (1.30)</b>	pCi/L	09/17/20 14:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: GWC-6R (08/27/2020)**      **Lab ID: 92493131007**      Collected: 08/27/20 15:30      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.270 ± 0.123 (0.171)</b> <b>C:89% T:NA</b>	pCi/L	09/08/20 18:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.244 ± 0.471 (1.03)</b> <b>C:72% T:81%</b>	pCi/L	09/16/20 14:19	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.514 ± 0.594 (1.20)</b>	pCi/L	09/17/20 14:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: DUP-1**      **Lab ID: 92493131008**      Collected: 08/28/20 00:00      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.113 ± 0.267 (0.633)</b> <b>C:82% T:NA</b>	pCi/L	09/09/20 07:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.782 ± 0.526 (1.02)</b> <b>C:66% T:82%</b>	pCi/L	09/16/20 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.895 ± 0.793 (1.65)</b>	pCi/L	09/17/20 14:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

**Sample: EB-1**      **Lab ID: 92493131009**      Collected: 08/28/20 16:15      Received: 08/28/20 18:14      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.00430 ± 0.227 (0.602)</b> <b>C:91% T:NA</b>	pCi/L	09/09/20 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.182 ± 0.435 (0.964)</b> <b>C:68% T:79%</b>	pCi/L	09/16/20 11:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.182 ± 0.662 (1.57)</b>	pCi/L	09/17/20 14:16	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

QC Batch: 412347

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92493131001, 92493131002

METHOD BLANK: 1994502

Matrix: Water

Associated Lab Samples: 92493131001, 92493131002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.314 ± 0.487 (1.05) C:61% T:69%	pCi/L	09/16/20 14:42	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

QC Batch: 412358

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92493131001, 92493131002

METHOD BLANK: 1994517

Matrix: Water

Associated Lab Samples: 92493131001, 92493131002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0557 ± 0.119 (0.278) C:90% T:NA	pCi/L	09/14/20 08:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: YATES GYPSUM LF RADS  
 Pace Project No.: 92493131

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QC Batch:	412653	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92493131003, 92493131004, 92493131005, 92493131006, 92493131007, 92493131008, 92493131009

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METHOD BLANK: 1995813 Matrix: Water

Associated Lab Samples: 92493131003, 92493131004, 92493131005, 92493131006, 92493131007, 92493131008, 92493131009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0793 ± 0.359 (0.855) C:71% T:76%	pCi/L	09/16/20 11:15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

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QC Batch:	412359	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92493131003, 92493131004, 92493131005, 92493131006, 92493131007, 92493131008, 92493131009

---

METHOD BLANK: 1994519 Matrix: Water

Associated Lab Samples: 92493131003, 92493131004, 92493131005, 92493131006, 92493131007, 92493131008, 92493131009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0753 ± 0.0856 (0.159) C:96% T:NA	pCi/L	09/08/20 17:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: YATES GYPSUM LF RADS

Pace Project No.: 92493131

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES GYPSUM LF RADS  
Pace Project No.: 92493131

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92493131001	GWA-2 (08/26/20)	EPA 9315	412358		
92493131002	GWC-1R (08/27/2020)	EPA 9315	412358		
92493131003	GWC-2R (08/28/2020)	EPA 9315	412359		
92493131004	GWC-3R (08/28/2020)	EPA 9315	412359		
92493131005	GWC-4R (08/28/2020)	EPA 9315	412359		
92493131006	GWC-5R (08/27/2020)	EPA 9315	412359		
92493131007	GWC-6R (08/27/2020)	EPA 9315	412359		
92493131008	DUP-1	EPA 9315	412359		
92493131009	EB-1	EPA 9315	412359		
92493131001	GWA-2 (08/26/20)	EPA 9320	412347		
92493131002	GWC-1R (08/27/2020)	EPA 9320	412347		
92493131003	GWC-2R (08/28/2020)	EPA 9320	412653		
92493131004	GWC-3R (08/28/2020)	EPA 9320	412653		
92493131005	GWC-4R (08/28/2020)	EPA 9320	412653		
92493131006	GWC-5R (08/27/2020)	EPA 9320	412653		
92493131007	GWC-6R (08/27/2020)	EPA 9320	412653		
92493131008	DUP-1	EPA 9320	412653		
92493131009	EB-1	EPA 9320	412653		
92493131001	GWA-2 (08/26/20)	Total Radium Calculation	414382		
92493131002	GWC-1R (08/27/2020)	Total Radium Calculation	414382		
92493131003	GWC-2R (08/28/2020)	Total Radium Calculation	414421		
92493131004	GWC-3R (08/28/2020)	Total Radium Calculation	414421		
92493131005	GWC-4R (08/28/2020)	Total Radium Calculation	414421		
92493131006	GWC-5R (08/27/2020)	Total Radium Calculation	414421		
92493131007	GWC-6R (08/27/2020)	Total Radium Calculation	414421		
92493131008	DUP-1	Total Radium Calculation	414421		
92493131009	EB-1	Total Radium Calculation	414421		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GA Power

WO#: **92493131**



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other  
Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 2/4    Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 4.1    Biological Tissue is Frozen: Yes No    Date and Initials of person examining contents: 6/25/04  
Temp should be above freezing to 6°C    Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>collection time not listed on COC for EB-1</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>EB-1 metals pit adjusted from 7 to 42</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<u>EHNO3</u>
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>LH</u> Lot # of added preservative <u>072720-2ETZ</u>
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	_____	

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: EB-1 collection time 16/5 per labels

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Project Manager Review: \_\_\_\_\_ Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Document Name:  
Bottle Identification Form (BIF)  
Document No:  
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

**WO# : 92493131**

PM: KLH1

Due Date: 09/14/20

CLIENT: GA-GA Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LHg  
♦♦ Bottom half of box is to list number of bottle

Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix				
BP4U-125 mL Plastic Unpreserved (N/A) (C-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	EP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)	BP3M-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG8U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lo
EB-1	HNO3	7	8/28/20	1520	2.5ml	01270-251

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Out of hold, incorrect preservative, out of temp, incorrect containers.



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A** Client Information:  
 Agency: Arcadis (GA Power)  
 Address: 2839 Paces Ferry Rd  
 Atlanta, GA 30339  
 Phone: [ ] Fax: [ ]

**Section B** Required Project Information:  
 Report To: Becky Stever  
 Copy To: [ ]  
 Purchase Order #: [ ]  
 Project Name: Yates Gypsum Landfill  
 Project #: [ ]

**Section C** Invoice Information:  
 Attention: [ ]  
 Company Name: [ ]  
 Address: [ ]  
 State: [ ]  
 Zip: [ ]  
 Project Manager: Kevin Hertling@pacarb.com  
 Project Profile #: 10840

**Regulatory Agency:** GA  
**State / Location:** GA

ITEM #	DESCRIPTION	MATRIX CODE (See valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Requested Analytic Filtered (Y/N)	Residual Chlorine (Y/N)	LABORATORY ID
				START DATE	END TIME			UNPRESERVED	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	ANALYSES TEST	Y/N			
1	GWA-2 (08/26/2020) Ph: 5:67	WT	8/26	1620	4	X	X	X	X	X	X	X	X	X	X	X	X	001		
2	GWC-R (08/27/2020) Ph: 5:39	WT	8/27	1710	4	X	X	X	X	X	X	X	X	X	X	X	X	002		
3	GWC-R (08/28/2020) Ph: 5:45	WT	8/28	1020	4	X	X	X	X	X	X	X	X	X	X	X	X	003		
4	GWC-R (08/28/2020) Ph: 5:20	WT	8/28	1330	4	X	X	X	X	X	X	X	X	X	X	X	X	004		
5	GWC-R	WT																005		
6	GWC-R (08/27/2020) Ph: 5:17	WT	8/27	1115	4	X	X	X	X	X	X	X	X	X	X	X	X	006		
7	GWC-R (08/27/2020) Ph: 5:27	WT	8/27	1530	4	X	X	X	X	X	X	X	X	X	X	X	X	007		
8	DUP-1	WT	8/28	-	4	X	X	X	X	X	X	X	X	X	X	X	X	008		
9	ER-1	WT	8/28	(S)	4	X	X	X	X	X	X	X	X	X	X	X	X	009		
10																				
11																				
12																				

**ADDITIONAL COMMENTS:**

**RELINQUISHED BY / AFFILIATION:** SWC Suburbs / Becky Stever

**ACCEPTED BY / AFFILIATION:** [Signature] / [Signature]

**DATE:** 8/28/20

**TEMP in C:** [ ]

**SAMPLE CONDITIONS:** Received on Ice  (Y/N), Custody Sealed  (Y/N), Cooler  (Y/N), Samples Intact  (Y/N)

**LABORATORY NAME AND SIGNATURE:** [Signature] / [Signature]

**PRINT Name of SAMPLER:** [Signature]

**SIGNATURE of SAMPLER:** [Signature]

**DATE Signed:** 8/28/20



CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

ALL SHADED AREAS are for LAB USE ONLY

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MTRL Log-In Number Here

Company: **Arcad's/BA Power** Billing Information:

Address: **2839 Paces Ferry Rd**

Report To: **Becky Steever**

Copy To:

Customer Project Name/Number: **Yates Gypsum Landfill**

State: **GA** Country/Ctry: **USA** Time Zone Collected: **ET**

Phone: **770 426 1111** Site/Facility ID #: **Yates Gypsum Landfill** Compliance Monitoring? **Yes**

Collected By (Print): **Becky Steever** Purchase Order #: **1111** DW PWS ID #: **1111**

Collected By (Signature): **[Signature]** Turnaround Date Required: **11/13/10** DW Location Code: **1111**

Sample Disposal: **11/13/10** Rush: **11/13/10** Field Filtered (if applicable): **11/13/10**

Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SU), Oil (O), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected for Composite Start	Composite End Date	Res Cl	# of Cnts
<b>5WC-4R108/181020</b>	<b>W/T</b>	<b>Grab</b>	<b>8/28/10</b>	<b>1730</b>		

**X 3000 - F**  
**X APP IV Metals**  
**X Rads**

**PH: 5.38**  
**241311**  
**005**

Customer Remarks / Special Conditions / Possible Hazards:	Type of Ice Used:	Wet	Blue	Dry	None

Lab Tracking #:	SHORT HOURS PRESENT (<72 hours):	Y	N	N/A
<b>2421491</b>				

Lab Sample Temperature Info:	Temp Blank Received:	Y	N	NA

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **8/29/10**

Received by/Company: (Signature) **[Signature]** Date/Time: **9/19/10**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **9/19/10**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **8/29/10**

Received by/Company: (Signature) **[Signature]** Date/Time: **9/19/10**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **9/19/10**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **8/29/10**

Received by/Company: (Signature) **[Signature]** Date/Time: **9/19/10**

Relinquished by/Company: (Signature) **[Signature]** Date/Time: **9/19/10**

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: LAL  
Date: 9/11/2020  
Worklist: 55961  
Matrix: DW

Method Blank Assessment	
MB Sample ID	1994517
MB concentration:	0.056
M/B Counting Uncertainty:	0.118
MB MDC:	0.278
MB Numerical Performance Indicator:	0.92
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
		LCSD55961
Count Date:	9/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.522	
Target Conc. (pCi/L, g, F):	4.609	
Uncertainty (Calculated):	0.055	
Result (pCi/L, g, F):	4.395	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.589	
Numerical Performance Indicator:	-0.71	
Percent Recovery:	95.35%	
Status vs Numerical Indicator:	N/A	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	92492413011
Duplicate Sample I.D.:	92492413011DUP
Sample Result (pCi/L, g, F):	0.357
Sample Duplicate Result (pCi/L, g, F):	0.211
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.265
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.184
Are sample and/or duplicate results below RL?	See below ##
Duplicate Numerical Performance Indicator:	0.647
Duplicate RPD:	29.70%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

\*\*\* Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

\*\*\*Batch must be re-prepped dup to unacceptable precision: N/A  
LAM 9/14/2020

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

2020/09/14/2020  
LAM 9/14/2020

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: LAL  
Date: 9/11/2020  
Worklist: 55961  
Matrix: DW

Method Blank Assessment	
MB Sample ID	1994517
MB concentration:	0.056
M/B Counting Uncertainty:	0.118
MB MDC:	0.278
MB Numerical Performance Indicator:	0.92
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS# (Y or N)?		N
	LCS55961	LCS55961	
Count Date:	9/14/2020		
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.044		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.522		
Target Conc. (pCi/L, g, F):	4.609		
Uncertainty (Calculated):	0.055		
Result (pCi/L, g, F):	4.385		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.589		
Numerical Performance Indicator:	-0.71		
Percent Recovery:	95.35%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	92492413010
Duplicate Sample I.D.:	92492413010DUP
Sample Result (pCi/L, g, F):	0.313
Sample Result Counting Uncertainty (pCi/L, g, F):	0.192
Sample Duplicate Result (pCi/L, g, F):	0.186
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.181
Are sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	0.939
Duplicate RPD:	50.74%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail
% RPD Limit:	25%

# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

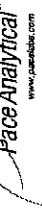
\*\*\*Spike must be re-prepped due to unacceptable precision. N/A

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

*Handwritten notes:*  
over 11/11/2020  
over 9/14/2020

# Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226  
Analyst: LAL  
Date: 9/8/2020  
Worklist: 55962  
Matrix: DW

Method Blank Assessment	
MB Sample ID	1994519
MB concentration:	0.075
M/B Counting Uncertainty:	0.085
MB MDC:	0.159
MB Numerical Performance Indicator:	1.74
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS55962	Y
Count Date:	9/9/2020	LCS55962
Spike I.D.:	19-033	9/9/2020
Decay Corrected Spike Concentration (pCi/mL):	24.045	19-033
Volume Used (mL):	0.10	24.045
Aliquot Volume (L, g, F):	0.506	0.10
Target Conc. (pCi/L, g, F):	4.757	0.506
Uncertainty (Calculated):	0.057	4.755
Result (pCi/L, g, F):	4.703	0.057
Uncertainty (pCi/L, g, F):	0.784	4.482
Percent Recovery:	98.88%	0.767
Status vs Numerical Indicator:	N/A	-0.69
Upper % Recovery Limits:	125%	94.27%
Lower % Recovery Limits:	75%	N/A
		Pass
		125%
		75%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	
Duplicate Sample I.D.:	
Sample Result (pCi/L, g, F):	
Sample Duplicate Result (pCi/L, g, F):	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	
Duplicate Numerical Performance Indicator:	
Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	
% RPD Limit:	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

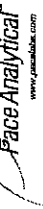
## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

LAM 9/9/2020

*[Handwritten signature]*

# Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226  
Analyst: LAL  
Date: 9/8/2020  
Worklist: 55962  
Matrix: DW

Method Blank Assessment	
MB Sample ID	1994519
MB Concentration:	0.075
M/B Counting Uncertainty:	0.085
MB MDC:	0.159
MB Numerical Performance Indicator:	1.74
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	Y	N
Count Date:	9/9/2020	LCSD:55962
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.506	
Target Conc. (pCi/L, g, F):	4.757	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.703	
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.784	
Numerical Performance Indicator:	-0.13	
Percent Recovery:	98.88%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	92491393007
Duplicate Sample I.D.:	92491393007DUP
Sample Result (pCi/L, g, F):	0.053
Sample Duplicate Result (pCi/L, g, F):	0.088
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.094
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.086
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	-0.651
Duplicate RPD:	55.49%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

\*\*\*Batch must be re-prepped due to unacceptable precision. N/A  
LAM 9/9/2020

LAM 9/9/2020

LAM 9/9/2020

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: VAL  
Date: 9/10/2020  
Worklist: 55956  
Matrix: WT

Method Blank Assessment	
MB Sample ID	1994502
MB concentration:	0.314
MB 2 Sigma CSU:	0.487
MB MDC:	1.054
MB Numerical Performance Indicator:	1.26
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	Y
Count Date:	9/16/2020
Spike I.D.:	LCSD55956
Decay Corrected Spike Concentration (pCi/mL):	20-030
Volume Used (mL):	38.382
Aliquot Volume (L, g, F):	0.10
Target Conc. (pCi/L, g, F):	0.814
Uncertainty (Calculated):	4.715
Result (pCi/L, g, F):	0.231
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	5.348
Numerical Performance Indicator:	1.293
Percent Recovery:	0.94
Status vs Numerical Indicator:	113.43%
Upper % Recovery Limits:	N/A
Lower % Recovery Limits:	Pass
	135%
	60%

Duplicate Sample Assessment	
Sample I.D.:	LCSD55956
Duplicate Sample I.D.:	LCSD55956
Sample Result (pCi/L, g, F):	5.086
Sample Duplicate Result (pCi/L, g, F):	1.251
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	5.348
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.293
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.285
Duplicate Numerical Performance Indicator:	5.11%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1
Sample I.D.:	MS/MSD 2
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MS Spike Uncertainty (calculated):	
MSD Spike Uncertainty (calculated):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	
MS/MSD Upper % Recovery Limits:	
MS/MSD Lower % Recovery Limits:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	MS/MSD Duplicate Status vs RPD:
Sample MS I.D.:	% RPD Limit:
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	

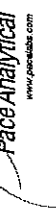
## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

9-17-20

*Signature*

# Quality Control Sample Performance Assessment



**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228  
Analyst: VAL  
Date: 9/14/2020  
Worksheet: 56010  
Matrix: WT

Method Blank Assessment	
MB Sample ID	1995813
MB Concentration:	-0.079
MB 2 Sigma CSU:	0.359
MB MDC:	0.855
MB Numerical Performance Indicator:	-0.43
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56010	Y
Count Date:	9/16/2020	LCS56010
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.384	38.384
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.810	0.804
Target Conc. (pCi/L, g, F):	4.737	4.773
Uncertainty (Calculated):	0.232	0.234
Result (pCi/L, g, F):	5.219	5.008
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.198	1.173
Numerical Performance Indicator:	0.77	0.38
Percent Recovery:	110.18%	104.92%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS56010
Duplicate Sample I.D.:	LCS56010
Sample Result (pCi/L, g, F):	5.219
Sample Duplicate Result (pCi/L, g, F):	1.198
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	5.008
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.173
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.247
Duplicate Percent Recoveries:	4.89%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Matrix-Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
Duplicate Percent Recoveries:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:
% RPD Limit:

# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

9-17-20

*Handwritten signature*

September 10, 2020

Ms. Lauren Petty  
Southern Co. Services  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Geoffrey Gay, ARCADIS - Atlanta  
Kristen Jurinko  
Kelley Sharpe, ARCADIS - Atlanta  
Alex Simpson, Arcadis  
Samantha Thomas



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
Louisiana/NELAP Certification # LA170028  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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### **Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92493137001	GWA-2 (08/26/2020)	Water	08/26/20 16:20	08/28/20 18:14
92493137002	GWC-1R (08/27/2020)	Water	08/27/20 17:10	08/28/20 18:14
92493137003	GWC-2R (08/28/2020)	Water	08/28/20 10:30	08/28/20 18:14
92493137004	GWC-3R (08/28/2020)	Water	08/28/20 12:30	08/28/20 18:14
92493137005	GWC-4R (08/28/2020)	Water	08/28/20 17:30	08/28/20 18:14
92493137006	GWC-5R (08/27/2020)	Water	08/27/20 11:15	08/28/20 18:14
92493137007	GWC-6R (08/27/2020)	Water	08/27/20 15:30	08/28/20 18:14
92493137008	DUP-1	Water	08/28/20 00:00	08/28/20 18:14
92493137009	EB-1	Water	08/28/20 16:15	08/28/20 18:14

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92493137001	GWA-2 (08/26/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137002	GWC-1R (08/27/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137003	GWC-2R (08/28/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137004	GWC-3R (08/28/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137005	GWC-4R (08/28/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137006	GWC-5R (08/27/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137007	GWC-6R (08/27/2020)	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137008	DUP-1	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493137009	EB-1	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1

PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte  
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF

Pace Project No.: 92493137

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92493137001</b>	<b>GWA-2 (08/26/2020)</b>					
	pH	5.67	Std. Units		09/10/20 09:27	
EPA 6020B	Antimony	0.00042J	mg/L	0.0030	09/02/20 16:08	B
EPA 6020B	Barium	0.044	mg/L	0.010	09/02/20 16:08	
EPA 6020B	Cobalt	0.20	mg/L	0.0050	09/02/20 16:08	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	09/02/20 16:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.068J	mg/L	0.10	09/01/20 16:13	
<b>92493137002</b>	<b>GWC-1R (08/27/2020)</b>					
	pH	5.39	Std. Units		09/10/20 09:27	
EPA 6020B	Arsenic	0.0011J	mg/L	0.0050	09/02/20 16:13	
EPA 6020B	Barium	0.072	mg/L	0.010	09/02/20 16:13	
EPA 6020B	Beryllium	0.00024J	mg/L	0.0030	09/02/20 16:13	
EPA 6020B	Cadmium	0.00012J	mg/L	0.0025	09/02/20 16:13	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	09/02/20 16:13	
EPA 6020B	Cobalt	0.00081J	mg/L	0.0050	09/02/20 16:13	
EPA 6020B	Lead	0.000067J	mg/L	0.0050	09/02/20 16:13	
EPA 6020B	Lithium	0.0017J	mg/L	0.030	09/02/20 16:13	
EPA 6020B	Selenium	0.011	mg/L	0.010	09/02/20 16:13	
<b>92493137003</b>	<b>GWC-2R (08/28/2020)</b>					
	pH	5.45	Std. Units		09/10/20 09:27	
EPA 6020B	Barium	0.044	mg/L	0.010	09/02/20 16:19	
EPA 6020B	Beryllium	0.00020J	mg/L	0.0030	09/02/20 16:19	
EPA 6020B	Cadmium	0.00015J	mg/L	0.0025	09/02/20 16:19	
EPA 6020B	Chromium	0.00057J	mg/L	0.010	09/02/20 16:19	
EPA 6020B	Cobalt	0.0072	mg/L	0.0050	09/02/20 16:19	
EPA 6020B	Lead	0.000084J	mg/L	0.0050	09/02/20 16:19	
EPA 6020B	Lithium	0.0047J	mg/L	0.030	09/02/20 16:19	
EPA 6020B	Selenium	0.0037J	mg/L	0.010	09/02/20 16:19	
<b>92493137004</b>	<b>GWC-3R (08/28/2020)</b>					
	pH	5.20	Std. Units		09/10/20 09:27	
EPA 6020B	Barium	0.014	mg/L	0.010	09/02/20 16:36	
EPA 6020B	Beryllium	0.00050J	mg/L	0.0030	09/02/20 16:36	
EPA 6020B	Cadmium	0.00014J	mg/L	0.0025	09/02/20 16:36	
EPA 6020B	Chromium	0.00088J	mg/L	0.010	09/02/20 16:36	
EPA 6020B	Cobalt	0.0041J	mg/L	0.0050	09/02/20 16:36	
EPA 6020B	Lead	0.000054J	mg/L	0.0050	09/02/20 16:36	
EPA 6020B	Selenium	0.0045J	mg/L	0.010	09/02/20 16:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.097J	mg/L	0.10	09/01/20 17:20	
<b>92493137005</b>	<b>GWC-4R (08/28/2020)</b>					
	pH	5.38	Std. Units		09/10/20 09:27	
EPA 6020B	Barium	0.026	mg/L	0.010	09/02/20 16:42	
EPA 6020B	Cobalt	0.00049J	mg/L	0.0050	09/02/20 16:42	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	09/02/20 16:42	
EPA 6020B	Selenium	0.0031J	mg/L	0.010	09/02/20 16:42	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF

Pace Project No.: 92493137

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92493137006</b>	<b>GWC-5R (08/27/2020)</b>					
	pH	5.17	Std. Units		09/10/20 09:27	
EPA 6020B	Arsenic	0.0016J	mg/L	0.0050	09/02/20 16:48	
EPA 6020B	Barium	0.013	mg/L	0.010	09/02/20 16:48	
EPA 6020B	Beryllium	0.0023J	mg/L	0.0030	09/02/20 16:48	
EPA 6020B	Cadmium	0.00091J	mg/L	0.0025	09/02/20 16:48	
EPA 6020B	Chromium	0.0022J	mg/L	0.010	09/02/20 16:48	
EPA 6020B	Lead	0.000049J	mg/L	0.0050	09/02/20 16:48	
EPA 6020B	Lithium	0.0013J	mg/L	0.030	09/02/20 16:48	
EPA 6020B	Selenium	0.021	mg/L	0.010	09/02/20 16:48	
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.10	09/01/20 17:47	
<b>92493137007</b>	<b>GWC-6R (08/27/2020)</b>					
	pH	5.77	Std. Units		09/10/20 09:27	
EPA 6020B	Arsenic	0.0011J	mg/L	0.0050	09/02/20 16:54	
EPA 6020B	Barium	0.045	mg/L	0.010	09/02/20 16:54	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	09/02/20 16:54	
EPA 6020B	Lithium	0.0083J	mg/L	0.030	09/02/20 16:54	
EPA 6020B	Selenium	0.0027J	mg/L	0.010	09/02/20 16:54	
<b>92493137008</b>	<b>DUP-1</b>					
EPA 6020B	Barium	0.014	mg/L	0.010	09/02/20 16:59	
EPA 6020B	Beryllium	0.00046J	mg/L	0.0030	09/02/20 16:59	
EPA 6020B	Cadmium	0.00014J	mg/L	0.0025	09/02/20 16:59	
EPA 6020B	Chromium	0.00092J	mg/L	0.010	09/02/20 16:59	
EPA 6020B	Cobalt	0.0039J	mg/L	0.0050	09/02/20 16:59	
EPA 6020B	Selenium	0.0043J	mg/L	0.010	09/02/20 16:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.067J	mg/L	0.10	09/01/20 18:41	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

Sample: **GWA-2 (08/26/2020)** Lab ID: **92493137001** Collected: 08/26/20 16:20 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>5.67</b>	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00042J</b>	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:08	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:08	7440-38-2	
Barium	<b>0.044</b>	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:08	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:08	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:08	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:08	7440-47-3	
Cobalt	<b>0.20</b>	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:08	7439-92-1	
Lithium	<b>0.0032J</b>	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:08	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:08	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:23	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	<b>0.068J</b>	mg/L	0.10	0.050	1		09/01/20 16:13	16984-48-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

**Sample: GWC-1R (08/27/2020)**      **Lab ID: 92493137002**      Collected: 08/27/20 17:10      Received: 08/28/20 18:14      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.39	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:13	7440-36-0	
Arsenic	0.0011J	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:13	7440-38-2	
Barium	0.072	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:13	7440-39-3	
Beryllium	0.00024J	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:13	7440-41-7	
Cadmium	0.00012J	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:13	7440-43-9	
Chromium	0.0013J	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:13	7440-47-3	
Cobalt	0.00081J	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:13	7440-48-4	
Lead	0.00067J	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:13	7439-92-1	
Lithium	0.0017J	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:13	7439-98-7	
Selenium	0.011	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:13	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:37	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 16:26	16984-48-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

**Sample: GWC-2R (08/28/2020)**      **Lab ID: 92493137003**      Collected: 08/28/20 10:30      Received: 08/28/20 18:14      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.45	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:19	7440-38-2	
Barium	0.044	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:19	7440-39-3	
Beryllium	0.00020J	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:19	7440-41-7	
Cadmium	0.00015J	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:19	7440-43-9	
Chromium	0.00057J	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:19	7440-47-3	
Cobalt	0.0072	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:19	7440-48-4	
Lead	0.00084J	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:19	7439-92-1	
Lithium	0.0047J	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:19	7439-98-7	
Selenium	0.0037J	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:19	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:40	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 16:40	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

**Sample: GWC-3R (08/28/2020)**      **Lab ID: 92493137004**      Collected: 08/28/20 12:30      Received: 08/28/20 18:14      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.20	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:36	7440-38-2	
Barium	0.014	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:36	7440-39-3	
Beryllium	0.00050J	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:36	7440-41-7	
Cadmium	0.00014J	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:36	7440-43-9	
Chromium	0.00088J	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:36	7440-47-3	
Cobalt	0.0041J	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:36	7440-48-4	
Lead	0.000054J	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:36	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:36	7439-98-7	
Selenium	0.0045J	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:36	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:42	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.097J	mg/L	0.10	0.050	1		09/01/20 17:20	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Sample: GWC-4R (08/28/2020)      Lab ID: 92493137005      Collected: 08/28/20 17:30      Received: 08/28/20 18:14      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.38	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:42	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:42	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:42	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:42	7440-47-3	
Cobalt	0.00049J	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:42	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:42	7439-98-7	
Selenium	0.0031J	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:42	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:44	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 17:34	16984-48-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

**Sample: GWC-5R (08/27/2020)**      **Lab ID: 92493137006**      Collected: 08/27/20 11:15      Received: 08/28/20 18:14      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.17	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:48	7440-36-0	
Arsenic	0.0016J	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:48	7440-38-2	
Barium	0.013	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:48	7440-39-3	
Beryllium	0.0023J	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:48	7440-41-7	
Cadmium	0.00091J	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:48	7440-43-9	
Chromium	0.0022J	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:48	7440-48-4	
Lead	0.000049J	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:48	7439-92-1	
Lithium	0.0013J	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:48	7439-98-7	
Selenium	0.021	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:48	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:47	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Fluoride	0.064J	mg/L	0.10	0.050	1		09/01/20 17:47	16984-48-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

**Sample: GWC-6R (08/27/2020)**      **Lab ID: 92493137007**      Collected: 08/27/20 15:30      Received: 08/28/20 18:14      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.77	Std. Units			1		09/10/20 09:27		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:54	7440-36-0	
Arsenic	0.0011J	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:54	7440-38-2	
Barium	0.045	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:54	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:54	7440-43-9	
Chromium	0.0012J	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:54	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:54	7439-92-1	
Lithium	0.0083J	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:54	7439-98-7	
Selenium	0.0027J	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:54	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:49	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 18:28	16984-48-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Sample: DUP-1		Lab ID: 92493137008		Collected: 08/28/20 00:00	Received: 08/28/20 18:14	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 16:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 16:59	7440-38-2	
Barium	<b>0.014</b>	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 16:59	7440-39-3	
Beryllium	<b>0.00046J</b>	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 16:59	7440-41-7	
Cadmium	<b>0.00014J</b>	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 16:59	7440-43-9	
Chromium	<b>0.00092J</b>	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 16:59	7440-47-3	
Cobalt	<b>0.0039J</b>	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 16:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 16:59	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 16:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 16:59	7439-98-7	
Selenium	<b>0.0043J</b>	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 16:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 16:59	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:51	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	<b>0.067J</b>	mg/L	0.10	0.050	1		09/01/20 18:41	16984-48-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Sample: EB-1		Lab ID: 92493137009		Collected: 08/28/20 16:15	Received: 08/28/20 18:14	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/01/20 14:06	09/02/20 17:05	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/01/20 14:06	09/02/20 17:05	7440-38-2		
Barium	ND	mg/L	0.010	0.00071	1	09/01/20 14:06	09/02/20 17:05	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000046	1	09/01/20 14:06	09/02/20 17:05	7440-41-7		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/01/20 14:06	09/02/20 17:05	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	09/01/20 14:06	09/02/20 17:05	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/01/20 14:06	09/02/20 17:05	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/01/20 14:06	09/02/20 17:05	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	09/01/20 14:06	09/02/20 17:05	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/01/20 14:06	09/02/20 17:05	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	09/01/20 14:06	09/02/20 17:05	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/01/20 14:06	09/02/20 17:05	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/08/20 11:15	09/09/20 10:54	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 18:55	16984-48-8		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

QC Batch: 563754 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92493137001, 92493137002, 92493137003, 92493137004, 92493137005, 92493137006, 92493137007, 92493137008, 92493137009

METHOD BLANK: 2988660 Matrix: Water  
Associated Lab Samples: 92493137001, 92493137002, 92493137003, 92493137004, 92493137005, 92493137006, 92493137007, 92493137008, 92493137009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00031J	0.0030	0.00028	09/02/20 15:28	
Arsenic	mg/L	ND	0.0050	0.00078	09/02/20 15:28	
Barium	mg/L	ND	0.010	0.00071	09/02/20 15:28	
Beryllium	mg/L	ND	0.0030	0.000046	09/02/20 15:28	
Cadmium	mg/L	ND	0.0025	0.00012	09/02/20 15:28	
Chromium	mg/L	ND	0.010	0.00055	09/02/20 15:28	
Cobalt	mg/L	ND	0.0050	0.00038	09/02/20 15:28	
Lead	mg/L	ND	0.0050	0.000036	09/02/20 15:28	
Lithium	mg/L	ND	0.030	0.00081	09/02/20 15:28	
Molybdenum	mg/L	ND	0.010	0.00069	09/02/20 15:28	
Selenium	mg/L	ND	0.010	0.0016	09/02/20 15:28	
Thallium	mg/L	ND	0.0010	0.00014	09/02/20 15:28	

LABORATORY CONTROL SAMPLE: 2988661

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988662 2988663

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92493129002	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.097	0.099	97	98	75-125	2	20		
Arsenic	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20		
Barium	mg/L	0.021	0.1	0.1	0.12	0.12	95	98	75-125	3	20		

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF

Pace Project No.: 92493137

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988662		2988663		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92493129002 Result	MS Spike Conc.	MSD Spike Conc.									
Beryllium	mg/L	ND	0.1	0.1	0.089	0.093	89	93	75-125	5	20		
Cadmium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	3	20		
Chromium	mg/L	0.00059J	0.1	0.1	0.099	0.10	99	100	75-125	1	20		
Cobalt	mg/L	0.0021J	0.1	0.1	0.097	0.099	94	97	75-125	2	20		
Lead	mg/L	0.000095J	0.1	0.1	0.096	0.097	96	97	75-125	1	20		
Lithium	mg/L	0.0047J	0.1	0.1	0.096	0.099	92	94	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.098	97	97	75-125	0	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20		

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

QC Batch:	564593	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92493137001, 92493137002, 92493137003, 92493137004, 92493137005, 92493137006, 92493137007, 92493137008, 92493137009

METHOD BLANK: 2992563 Matrix: Water  
Associated Lab Samples: 92493137001, 92493137002, 92493137003, 92493137004, 92493137005, 92493137006, 92493137007, 92493137008, 92493137009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/09/20 10:18	

LABORATORY CONTROL SAMPLE: 2992564

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2992565 2992566

Parameter	Units	92493137001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0023	95	94	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

QC Batch: 563652 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92493137001, 92493137002, 92493137003, 92493137004, 92493137005, 92493137006, 92493137007, 92493137008, 92493137009

METHOD BLANK: 2988345 Matrix: Water  
Associated Lab Samples: 92493137001, 92493137002, 92493137003, 92493137004, 92493137005, 92493137006, 92493137007, 92493137008, 92493137009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	09/01/20 13:04	

LABORATORY CONTROL SAMPLE: 2988346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988347 2988348

Parameter	Units	92492918001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	103	103	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988349 2988350

Parameter	Units	92493137003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	108	110	90-110	1	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: YATES GYPSUM LF

Pace Project No.: 92493137

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES GYPSUM LF  
Pace Project No.: 92493137

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92493137001	GWA-2 (08/26/2020)				
92493137002	GWC-1R (08/27/2020)				
92493137003	GWC-2R (08/28/2020)				
92493137004	GWC-3R (08/28/2020)				
92493137005	GWC-4R (08/28/2020)				
92493137006	GWC-5R (08/27/2020)				
92493137007	GWC-6R (08/27/2020)				
92493137001	GWA-2 (08/26/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137002	GWC-1R (08/27/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137003	GWC-2R (08/28/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137004	GWC-3R (08/28/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137005	GWC-4R (08/28/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137006	GWC-5R (08/27/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137007	GWC-6R (08/27/2020)	EPA 3005A	563754	EPA 6020B	563832
92493137008	DUP-1	EPA 3005A	563754	EPA 6020B	563832
92493137009	EB-1	EPA 3005A	563754	EPA 6020B	563832
92493137001	GWA-2 (08/26/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137002	GWC-1R (08/27/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137003	GWC-2R (08/28/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137004	GWC-3R (08/28/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137005	GWC-4R (08/28/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137006	GWC-5R (08/27/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137007	GWC-6R (08/27/2020)	EPA 7470A	564593	EPA 7470A	564990
92493137008	DUP-1	EPA 7470A	564593	EPA 7470A	564990
92493137009	EB-1	EPA 7470A	564593	EPA 7470A	564990
92493137001	GWA-2 (08/26/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137002	GWC-1R (08/27/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137003	GWC-2R (08/28/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137004	GWC-3R (08/28/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137005	GWC-4R (08/28/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137006	GWC-5R (08/27/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137007	GWC-6R (08/27/2020)	EPA 300.0 Rev 2.1 1993	563652		
92493137008	DUP-1	EPA 300.0 Rev 2.1 1993	563652		
92493137009	EB-1	EPA 300.0 Rev 2.1 1993	563652		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GA Power

WO#: **92493137**



92493137

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other  
Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 2/4

Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 4.1  
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/2-8/2-0104

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>collection time not listed on COC for EB-1</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>EB-1 metals pH adjusted from 7 to 4.2</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<u>EHNO3</u>
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>LOH</u> Lot # of added preservative <u>012720-2ETZ</u>
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: EB-1 collection time 16/5 per labels

Project Manager Review: \_\_\_\_\_

Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Document Name:  
Bottle Identification Form (BIF)  
Document No:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project # **W0# : 92493137**

\* Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

PM: KLH1 Due Date: 09/14/20  
CLIENT: GA-GA Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHG  
\* Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 ml Pipette Unpreserved (N/A) (C-)	BP3U-250 ml Plastic Unpreserved (N/A)	BP2U-500 ml Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 ml Plastic H2SO4 (pH < 2) (C-)	BP3N-250 ml plastic HNO3 (pH < 2)	BP4Z-125 ml Plastic ZN Acetate & NaOH (>9)	BP4C-125 ml Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 ml Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 ml Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 ml Amber NH4Cl (N/A)(C-)	DG9H-40 ml VOA HCl (N/A)	VG9T-40 ml VOA Na2S2O3 (N/A)	VG9U-40 ml VOA Unp (N/A)	DG9P-40 ml VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 ml Sterile Plastic (N/A - lab)	SP2T-250 ml Sterile Plastic (N/A - lab)	BP3A-250 ml Plastic (NH2)2SO4 (9.3-9.7)	AG9U-100 ml Amber Unpreserved vials (N/A)	VS6U-20 ml Scintillation vials (N/A)	
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lo
EB-1	HNO3	7	8/28/20	1620	2.5ml	072720-251

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHR Certification. Out of hold, incorrect preservative, out of temp, incorrect containers.



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A  
 Section B  
 Section C  
 Section D

**Client Information:**  
 Agency: Aracata (GA Power)  
 Address: 2020 Peach Ferry Rd  
 City: St. Louis, MO 63108

**Requester Information:**  
 Requester: Becky Stever  
 Copy To: \_\_\_\_\_

**Project Information:**  
 Project Name: Texas Gypsum Lavender  
 Project #: \_\_\_\_\_

**Order Information:**  
 Purchase Order #: \_\_\_\_\_  
 Order Date: \_\_\_\_\_

**Company Information:**  
 Company Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_

**Requester Information:**  
 Requester Name: Kevin Manning  
 Requester Title: Project Manager  
 Requester Email: kevin.manning@pacetest.com  
 Requester Phone: 10840

**Regulatory Agency:**  
 Agency: GA

ITEM #	SAMPLE ID (A-Z, 0-9) One Character per box. Sample IDs must be unique	DATE	TIME	DATE	TIME	SAMPLE TEMP COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test	Y/N	Requester Analysis Entered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
								H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other					
1	GM-A2 (08/26/2020) Ph: 5.67	8/26	1630				4	X											001
2	GM-C-19 (08/27/2020) Ph: 5.39	8/27	1710				4	X											002
3	GM-C-29 (08/28/2020) Ph: 5.45	8/28	1030				4	X											007
4	GM-C-39 (08/28/2020) Ph: 5.20	8/28	1230				4	X											004
5	GM-C-49 (08/27/2020) Ph: 5.17	8/27	1115																005
6	GM-C-59 (08/27/2020) Ph: 5.27	8/27	1530																006
7	GM-C-69 (08/27/2020) Ph: 5.27	8/27	1530																007
8	DUP-1	8/28																	008
9	ER-1	8/28																	009

**ADDITIONAL COMMENTS:**

RELINQUISHED BY / AFFILIATION: Mike Swanson  
 DATE: 8/28/20 TIME: \_\_\_\_\_

ACCEPTED BY / AFFILIATION: Becky Stever  
 DATE: 8/28/20 TIME: \_\_\_\_\_

RELINQUISHED BY / AFFILIATION: Becky Stever  
 DATE: 8/28/20 TIME: \_\_\_\_\_

ACCEPTED BY / AFFILIATION: Mike Swanson  
 DATE: 8/28/20 TIME: \_\_\_\_\_

**SAMPLER NAME AND SIGNATURE:**  
 PRINT NAME OF SAMPLER: \_\_\_\_\_  
 SIGNATURE OF SAMPLER: Mike Swanson  
 DATE Signed: 8/28/20

**TEMP IN C:** \_\_\_\_\_

Received on Ice  (Y/N)  
 Custody Sealed  Cooler  (Y/N)  
 Samples Intact  (Y/N)

CHAIN-OF-CUSTODY Analytical Request Document

One of our Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MATIL Log-In Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: **Arcadis/HPower**  
 Address: **2839 Paces Ferry Rd**  
 Report To: **Becky Steever**  
 Billing Information:  
 Email To:  
 Site Collection Info/Address:  
 State: / County/City: Time Zone Collected: | PT | MT | CT | ET

Customer Project Name/Number: **Yates Gypsum Landfill**  
 Phone: **Yates Gypsum Landfill**  
 Email: **Yates Gypsum Landfill**  
 State: / County/City: Time Zone Collected: | PT | MT | CT | ET

Collected By (Print):  
 Quote #:  
 Turnaround Date Required:  
 DW PWS ID #:  
 DW Location Code:  
 Compliance Monitoring?  
 Yes  No

Sample Disposal:  
 Dispose as appropriate |  Return  
 Archive:  
 Hold:  
 Rush:  Same Day  Next Day  
 2 Day  3 Day  4 Day  5 Day  
 Analysis:  Yes  No

\* Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Waste (W), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Q	# of Cans
			Date	Time	Date	Time		
6WC-4R108/18820	WT	Grab	8/28	1730				

300.0 - F  
 APP IV Metals  
 Rads

2421491

Customer Remarks / Special Conditions / Possible Hazards:  
 Raddem sample(s) screened (<500 cpm): Y N NA  
 Type of Ice Used: Wet Blue Dry None  
 Packing Material Used:  
 Relinquished by/Company: (Signature) **8/29/20**  
 Relinquished by/Company: (Signature) **8/29/20**

Received by/Company: (Signature) **Charles Smith**  
 Date/Time: **9/19/20 1054**  
 Samples received via: FEDEX UPS Client Courier Pace Courier  
 MTIL LAB USE ONLY

Temp Blank Received: Y N NA  
 Cooler 1 Temp Upon Receipt:    °C  
 Cooler 1 Therm Corr. Factor:    °C  
 Cooler 1 Corrected Temp:    °C  
 Comments:  
 Trip Blank Received: Y N NA  
 HCL MECH TSP Other  
 Non Conformance(s):  
 Page:    of:   

Container Preservative Type: \*\*  
 Lab Project Manager:  
 Lab Sample/Line:  
 Lab Sample Receipt Checklist:  
 Custody Seals Present/Intact Y N NA  
 Custody Signatures Present Y N NA  
 Collector Signature Present Y N NA  
 Bottles Intact Y N NA  
 Correct Bottles Y N NA  
 Sufficient Volume Y N NA  
 Samples Received on Ice Y N NA  
 VOA - Headspace Acceptable Y N NA  
 USDA Regulated Soils Y N NA  
 Samples in Holding Time Y N NA  
 Residual Chlorine Present Y N NA  
 Cl Strips: Y N NA  
 Sample pH Acceptable Y N NA  
 pH Strips: Y N NA  
 Sulfide Present Y N NA  
 Lead Acetate Strips: Y N NA

LAB USE ONLY:  
 Lab Sample # / Comments:  
**Ph: 5.38**  
**4240157**  
**005**



October 08, 2020

Ms. Lauren Petty  
Southern Co. Services  
42 Inverness Center Parkway  
Birmingham, AL 35242

RE: Project: YATES GYPSUM LF  
Pace Project No.: 92497151

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

This report was revised 10/8/20 to correct a sample ID error.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Herring  
kevin.herring@pacelabs.com  
1(704)875-9092  
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR  
Geoffrey Gay, ARCADIS - Atlanta  
Kristen Jurinko  
Kelley Sharpe, ARCADIS - Atlanta  
Alex Simpson, Arcadis  
Samantha Thomas  
Maribel Vital



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: YATES GYPSUM LF

Pace Project No.: 92497151

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### **Pace Analytical Services Charlotte**

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078  
Louisiana/NELAP Certification # LA170028  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001  
Florida/NELAP Certification #: E87627  
Kentucky UST Certification #: 84  
Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Asheville**

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
Massachusetts Certification #: M-NC030  
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40  
South Carolina Certification #: 99030001  
Virginia/VELAP Certification #: 460222

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### **Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092  
Florida DOH Certification #: E87315  
Georgia DW Inorganics Certification #: 812  
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381  
South Carolina Certification #: 98011001  
Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92497151001	GWC-2R (09/22/2020)	Water	09/22/20 13:25	09/23/20 17:40
92497151002	GWC-4R (09/22/2020)	Water	09/22/20 17:30	09/23/20 17:40
92497151003	GWC-5R (09/23/2020)	Water	09/23/20 10:05	09/23/20 17:40
92497151004	GWC-6R (09/23/2020)	Water	09/23/20 11:10	09/23/20 17:40
92497151005	DUP-01 (09/23/2020)	Water	09/23/20 00:00	09/23/20 17:40
92497151006	EQUIPMENT BLANK (09/23/2020)	Water	09/23/20 11:20	09/23/20 17:40
92497151007	FIELD BLANK (09/22/2020)	Water	09/22/20 11:30	09/23/20 17:40
92497151008	GWA-2 (09/22/2020)	Water	09/22/20 11:00	09/23/20 17:40
92497151009	GWC-1R (09/22/2020)	Water	09/22/20 13:20	09/23/20 17:40
92497151010	GWC-3R (09/22/2020)	Water	09/22/20 15:40	09/23/20 17:40

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92497151001	GWC-2R (09/22/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151002	GWC-4R (09/22/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151003	GWC-5R (09/23/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151004	GWC-6R (09/23/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151005	DUP-01 (09/23/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151006	EQUIPMENT BLANK (09/23/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151007	FIELD BLANK (09/22/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497151008	GWA-2 (09/22/2020)	EPA 6010D	DRB	1
		EPA 6020B	CW1	17

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: YATES GYPSUM LF

Pace Project No.: 92497151

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
<b>92497151009</b>	<b>GWC-1R (09/22/2020)</b>	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
<b>92497151010</b>	<b>GWC-3R (09/22/2020)</b>	EPA 6010D	DRB	1
		EPA 6020B	CW1	17
		EPA 7470A	VB	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF

Pace Project No.: 92497151

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92497151001</b>	<b>GWC-2R (09/22/2020)</b>					
	pH	5.34	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	40.5	mg/L	1.0	09/30/20 20:11	
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	10/01/20 10:27	
EPA 6020B	Barium	0.040	mg/L	0.010	10/01/20 10:27	
EPA 6020B	Beryllium	0.00021J	mg/L	0.0030	10/01/20 10:27	
EPA 6020B	Boron	0.046J	mg/L	0.10	10/01/20 10:27	
EPA 6020B	Cadmium	0.00016J	mg/L	0.0025	10/01/20 10:27	
EPA 6020B	Cobalt	0.0054	mg/L	0.0050	10/01/20 10:27	
EPA 6020B	Lead	0.000082J	mg/L	0.0050	10/01/20 10:27	
EPA 6020B	Lithium	0.0042J	mg/L	0.030	10/01/20 10:27	
EPA 6020B	Selenium	0.0056J	mg/L	0.010	10/01/20 10:27	
EPA 6020B	Zinc	0.0030J	mg/L	0.010	10/01/20 10:27	
SM 2450C-2011	Total Dissolved Solids	394	mg/L	20.0	09/25/20 18:01	
EPA 300.0 Rev 2.1 1993	Chloride	24.7	mg/L	1.0	09/29/20 06:22	
EPA 300.0 Rev 2.1 1993	Sulfate	216	mg/L	3.0	09/29/20 18:40	
<b>92497151002</b>	<b>GWC-4R (09/22/2020)</b>					
	pH	5.43	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	21.8	mg/L	1.0	09/30/20 20:16	
EPA 6020B	Antimony	0.00053J	mg/L	0.0030	10/01/20 10:33	
EPA 6020B	Barium	0.026	mg/L	0.010	10/01/20 10:33	
EPA 6020B	Beryllium	0.000058J	mg/L	0.0030	10/01/20 10:33	
EPA 6020B	Boron	1.0	mg/L	0.10	10/01/20 10:33	
EPA 6020B	Cobalt	0.00039J	mg/L	0.0050	10/01/20 10:33	
EPA 6020B	Lead	0.000041J	mg/L	0.0050	10/01/20 10:33	
EPA 6020B	Lithium	0.0013J	mg/L	0.030	10/01/20 10:33	
EPA 6020B	Nickel	0.00077J	mg/L	0.0050	10/01/20 10:33	
EPA 6020B	Selenium	0.0032J	mg/L	0.010	10/01/20 10:33	
SM 2450C-2011	Total Dissolved Solids	217	mg/L	10.0	09/25/20 18:02	
EPA 300.0 Rev 2.1 1993	Chloride	60.2	mg/L	1.0	09/29/20 06:37	
EPA 300.0 Rev 2.1 1993	Sulfate	72.1	mg/L	1.0	09/29/20 06:37	
<b>92497151003</b>	<b>GWC-5R (09/23/2020)</b>					
	pH	5.04	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	144	mg/L	1.0	09/30/20 20:20	
EPA 6020B	Antimony	0.00031J	mg/L	0.0030	10/01/20 10:39	
EPA 6020B	Arsenic	0.00092J	mg/L	0.0050	10/01/20 10:39	
EPA 6020B	Barium	0.012	mg/L	0.010	10/01/20 10:39	
EPA 6020B	Beryllium	0.0023J	mg/L	0.0030	10/01/20 10:39	
EPA 6020B	Boron	0.028J	mg/L	0.10	10/01/20 10:39	
EPA 6020B	Cadmium	0.00094J	mg/L	0.0025	10/01/20 10:39	
EPA 6020B	Chromium	0.0020J	mg/L	0.010	10/01/20 10:39	
EPA 6020B	Lead	0.00019J	mg/L	0.0050	10/01/20 10:39	
EPA 6020B	Lithium	0.0012J	mg/L	0.030	10/01/20 10:39	
EPA 6020B	Nickel	0.0012J	mg/L	0.0050	10/01/20 10:39	
EPA 6020B	Selenium	0.026	mg/L	0.010	10/01/20 10:39	
EPA 6020B	Zinc	0.018	mg/L	0.010	10/01/20 10:39	
SM 2450C-2011	Total Dissolved Solids	1000	mg/L	100	09/25/20 18:04	

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF

Pace Project No.: 92497151

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92497151003</b>	<b>GWC-5R (09/23/2020)</b>					
EPA 300.0 Rev 2.1 1993	Chloride	3.0	mg/L	1.0	09/29/20 06:51	
EPA 300.0 Rev 2.1 1993	Sulfate	992	mg/L	15.0	09/29/20 18:55	
<b>92497151004</b>	<b>GWC-6R (09/23/2020)</b>					
	pH	5.81	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	103	mg/L	1.0	09/30/20 20:24	
EPA 6020B	Barium	0.044	mg/L	0.010	10/01/20 10:44	
EPA 6020B	Boron	0.0055J	mg/L	0.10	10/01/20 10:44	
EPA 6020B	Chromium	0.0015J	mg/L	0.010	10/01/20 10:44	
EPA 6020B	Lithium	0.0023J	mg/L	0.030	10/01/20 10:44	
EPA 6020B	Nickel	0.0016J	mg/L	0.0050	10/01/20 10:44	
EPA 6020B	Selenium	0.0031J	mg/L	0.010	10/01/20 10:44	
SM 2450C-2011	Total Dissolved Solids	820	mg/L	50.0	09/25/20 18:04	
EPA 300.0 Rev 2.1 1993	Chloride	4.7	mg/L	1.0	09/29/20 07:05	
EPA 300.0 Rev 2.1 1993	Sulfate	518	mg/L	8.0	09/29/20 19:09	
<b>92497151005</b>	<b>DUP-01 (09/23/2020)</b>					
EPA 6010D	Calcium	152	mg/L	1.0	09/30/20 20:28	
EPA 6020B	Arsenic	0.00093J	mg/L	0.0050	10/01/20 11:12	
EPA 6020B	Barium	0.013	mg/L	0.010	10/01/20 11:12	
EPA 6020B	Beryllium	0.0021J	mg/L	0.0030	10/01/20 11:12	
EPA 6020B	Boron	0.021J	mg/L	0.10	10/01/20 11:12	
EPA 6020B	Cadmium	0.00085J	mg/L	0.0025	10/01/20 11:12	
EPA 6020B	Chromium	0.0018J	mg/L	0.010	10/01/20 11:12	
EPA 6020B	Lead	0.000038J	mg/L	0.0050	10/01/20 11:12	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	10/01/20 11:12	
EPA 6020B	Nickel	0.0012J	mg/L	0.0050	10/01/20 11:12	
EPA 6020B	Selenium	0.025	mg/L	0.010	10/01/20 11:12	
EPA 6020B	Zinc	0.016	mg/L	0.010	10/01/20 11:12	
SM 2450C-2011	Total Dissolved Solids	1350	mg/L	100	09/25/20 18:05	
EPA 300.0 Rev 2.1 1993	Chloride	2.9	mg/L	1.0	09/29/20 07:20	
EPA 300.0 Rev 2.1 1993	Sulfate	990	mg/L	14.0	09/29/20 19:23	
<b>92497151008</b>	<b>GWA-2 (09/22/2020)</b>					
	pH	5.78	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	31.0	mg/L	1.0	09/30/20 21:41	
EPA 6020B	Antimony	0.00044J	mg/L	0.0030	10/01/20 11:29	
EPA 6020B	Barium	0.045	mg/L	0.010	10/01/20 11:29	
EPA 6020B	Boron	0.0079J	mg/L	0.10	10/01/20 11:29	
EPA 6020B	Cobalt	0.16	mg/L	0.0050	10/01/20 11:29	
EPA 6020B	Copper	0.0041J	mg/L	0.0050	10/01/20 11:29	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	10/01/20 11:29	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	10/01/20 11:29	
EPA 6020B	Nickel	0.027	mg/L	0.0050	10/01/20 11:29	
EPA 6020B	Zinc	0.033	mg/L	0.010	10/01/20 11:29	
SM 2450C-2011	Total Dissolved Solids	281	mg/L	10.0	09/25/20 18:03	
EPA 300.0 Rev 2.1 1993	Chloride	4.2	mg/L	1.0	09/29/20 09:30	
EPA 300.0 Rev 2.1 1993	Fluoride	0.058J	mg/L	0.10	09/29/20 09:30	
EPA 300.0 Rev 2.1 1993	Sulfate	145	mg/L	2.0	09/29/20 20:08	

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### SUMMARY OF DETECTION

Project: YATES GYPSUM LF

Pace Project No.: 92497151

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92497151009</b>	<b>GWC-1R (09/22/2020)</b>					
	pH	5.25	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	98.8	mg/L	1.0	09/30/20 21:46	
EPA 6020B	Barium	0.068	mg/L	0.010	10/01/20 11:35	
EPA 6020B	Beryllium	0.00021J	mg/L	0.0030	10/01/20 11:35	
EPA 6020B	Boron	0.025J	mg/L	0.10	10/01/20 11:35	
EPA 6020B	Cadmium	0.00016J	mg/L	0.0025	10/01/20 11:35	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	10/01/20 11:35	
EPA 6020B	Cobalt	0.00080J	mg/L	0.0050	10/01/20 11:35	
EPA 6020B	Lithium	0.0015J	mg/L	0.030	10/01/20 11:35	
EPA 6020B	Nickel	0.0021J	mg/L	0.0050	10/01/20 11:35	
EPA 6020B	Selenium	0.012	mg/L	0.010	10/01/20 11:35	
EPA 6020B	Zinc	0.0029J	mg/L	0.010	10/01/20 11:35	
SM 2450C-2011	Total Dissolved Solids	675	mg/L	50.0	09/25/20 18:03	
EPA 300.0 Rev 2.1 1993	Chloride	5.5	mg/L	1.0	09/29/20 09:44	
EPA 300.0 Rev 2.1 1993	Sulfate	478	mg/L	7.0	09/29/20 20:22	
<b>92497151010</b>	<b>GWC-3R (09/22/2020)</b>					
	pH	5.11	Std. Units		10/08/20 08:25	
EPA 6010D	Calcium	6.2	mg/L	1.0	09/30/20 21:50	
EPA 6020B	Barium	0.014	mg/L	0.010	10/01/20 11:40	
EPA 6020B	Beryllium	0.00042J	mg/L	0.0030	10/01/20 11:40	
EPA 6020B	Boron	0.0066J	mg/L	0.10	10/01/20 11:40	
EPA 6020B	Cadmium	0.00013J	mg/L	0.0025	10/01/20 11:40	
EPA 6020B	Chromium	0.0011J	mg/L	0.010	10/01/20 11:40	
EPA 6020B	Cobalt	0.0021J	mg/L	0.0050	10/01/20 11:40	
EPA 6020B	Lead	0.000064J	mg/L	0.0050	10/01/20 11:40	
EPA 6020B	Selenium	0.0091J	mg/L	0.010	10/01/20 11:40	
EPA 6020B	Zinc	0.0036J	mg/L	0.010	10/01/20 11:40	
SM 2450C-2011	Total Dissolved Solids	110	mg/L	10.0	09/25/20 18:04	
EPA 300.0 Rev 2.1 1993	Chloride	4.2	mg/L	1.0	09/29/20 09:59	
EPA 300.0 Rev 2.1 1993	Sulfate	55.1	mg/L	1.0	09/29/20 09:59	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

Sample: **GWC-2R (09/22/2020)** Lab ID: **92497151001** Collected: 09/22/20 13:25 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>5.34</b>	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>40.5</b>	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:11	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.0017J</b>	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 10:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 10:27	7440-38-2	
Barium	<b>0.040</b>	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 10:27	7440-39-3	
Beryllium	<b>0.00021J</b>	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 10:27	7440-41-7	
Boron	<b>0.046J</b>	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 10:27	7440-42-8	
Cadmium	<b>0.00016J</b>	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 10:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 10:27	7440-47-3	
Cobalt	<b>0.0054</b>	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 10:27	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 10:27	7440-50-8	
Lead	<b>0.000082J</b>	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 10:27	7439-92-1	
Lithium	<b>0.0042J</b>	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 10:27	7439-93-2	
Nickel	ND	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 10:27	7440-02-0	
Selenium	<b>0.0056J</b>	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 10:27	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 10:27	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 10:27	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:27	7440-62-2	
Zinc	<b>0.0030J</b>	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:27	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:26	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>394</b>	mg/L	20.0	20.0	1		09/25/20 18:01		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>24.7</b>	mg/L	1.0	0.60	1		09/29/20 06:22	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 06:22	16984-48-8	
Sulfate	<b>216</b>	mg/L	3.0	1.5	3		09/29/20 18:40	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92497151

**Sample: GWC-4R (09/22/2020)**      **Lab ID: 92497151002**      Collected: 09/22/20 17:30      Received: 09/23/20 17:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.43	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	21.8	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:16	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00053J	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 10:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 10:33	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 10:33	7440-39-3	
Beryllium	0.000058J	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 10:33	7440-41-7	
Boron	1.0	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 10:33	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 10:33	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 10:33	7440-47-3	
Cobalt	0.00039J	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 10:33	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 10:33	7440-50-8	
Lead	0.000041J	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 10:33	7439-92-1	
Lithium	0.0013J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 10:33	7439-93-2	
Nickel	0.00077J	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 10:33	7440-02-0	
Selenium	0.0032J	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 10:33	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 10:33	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 10:33	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:33	7440-62-2	
Zinc	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:33	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:34	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	217	mg/L	10.0	10.0	1		09/25/20 18:02		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	60.2	mg/L	1.0	0.60	1		09/29/20 06:37	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 06:37	16984-48-8	
Sulfate	72.1	mg/L	1.0	0.50	1		09/29/20 06:37	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

**Sample: GWC-5R (09/23/2020)**      **Lab ID: 92497151003**      Collected: 09/23/20 10:05      Received: 09/23/20 17:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>5.04</b>	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>144</b>	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:20	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00031J</b>	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 10:39	7440-36-0	
Arsenic	<b>0.00092J</b>	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 10:39	7440-38-2	
Barium	<b>0.012</b>	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 10:39	7440-39-3	
Beryllium	<b>0.0023J</b>	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 10:39	7440-41-7	
Boron	<b>0.028J</b>	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 10:39	7440-42-8	
Cadmium	<b>0.00094J</b>	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 10:39	7440-43-9	
Chromium	<b>0.0020J</b>	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 10:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 10:39	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 10:39	7440-50-8	
Lead	<b>0.00019J</b>	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 10:39	7439-92-1	
Lithium	<b>0.0012J</b>	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 10:39	7439-93-2	
Nickel	<b>0.0012J</b>	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 10:39	7440-02-0	
Selenium	<b>0.026</b>	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 10:39	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 10:39	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 10:39	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:39	7440-62-2	
Zinc	<b>0.018</b>	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:39	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:36	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1000</b>	mg/L	100	100	1		09/25/20 18:04		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>3.0</b>	mg/L	1.0	0.60	1		09/29/20 06:51	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 06:51	16984-48-8	
Sulfate	<b>992</b>	mg/L	15.0	7.5	15		09/29/20 18:55	14808-79-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

**Sample: GWC-6R (09/23/2020)**      **Lab ID: 92497151004**      Collected: 09/23/20 11:10      Received: 09/23/20 17:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.81	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	103	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:24	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 10:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 10:44	7440-38-2	
Barium	0.044	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 10:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 10:44	7440-41-7	
Boron	0.0055J	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 10:44	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 10:44	7440-43-9	
Chromium	0.0015J	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 10:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 10:44	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 10:44	7440-50-8	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 10:44	7439-92-1	
Lithium	0.0023J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 10:44	7439-93-2	
Nickel	0.0016J	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 10:44	7440-02-0	
Selenium	0.0031J	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 10:44	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 10:44	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 10:44	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:44	7440-62-2	
Zinc	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 10:44	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:38	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	820	mg/L	50.0	50.0	1		09/25/20 18:04		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.7	mg/L	1.0	0.60	1		09/29/20 07:05	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 07:05	16984-48-8	
Sulfate	518	mg/L	8.0	4.0	8		09/29/20 19:09	14808-79-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92497151

**Sample: DUP-01 (09/23/2020)**      **Lab ID: 92497151005**      Collected: 09/23/20 00:00      Received: 09/23/20 17:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>152</b>	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:28	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:12	7440-36-0	
Arsenic	<b>0.00093J</b>	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:12	7440-38-2	
Barium	<b>0.013</b>	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:12	7440-39-3	
Beryllium	<b>0.0021J</b>	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:12	7440-41-7	
Boron	<b>0.021J</b>	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:12	7440-42-8	
Cadmium	<b>0.00085J</b>	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:12	7440-43-9	
Chromium	<b>0.0018J</b>	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:12	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 11:12	7440-50-8	
Lead	<b>0.000038J</b>	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 11:12	7439-92-1	
Lithium	<b>0.0011J</b>	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:12	7439-93-2	
Nickel	<b>0.0012J</b>	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 11:12	7440-02-0	
Selenium	<b>0.025</b>	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:12	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:12	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:12	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:12	7440-62-2	
Zinc	<b>0.016</b>	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:12	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:41	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1350</b>	mg/L	100	100	1		09/25/20 18:05		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>2.9</b>	mg/L	1.0	0.60	1		09/29/20 07:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 07:20	16984-48-8	
Sulfate	<b>990</b>	mg/L	14.0	7.0	14		09/29/20 19:23	14808-79-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

Sample: **EQUIPMENT BLANK** Lab ID: **92497151006** Collected: 09/23/20 11:20 Received: 09/23/20 17:40 Matrix: Water  
(09/23/2020)

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:45	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:18	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:18	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:18	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:18	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 11:18	7440-50-8	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 11:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:18	7439-93-2	
Nickel	ND	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 11:18	7440-02-0	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:18	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:18	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:18	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:18	7440-62-2	
Zinc	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:18	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:43	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/25/20 18:05		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		09/29/20 07:34	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 07:34	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/29/20 07:34	14808-79-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92497151

**Sample: FIELD BLANK (09/22/2020)**    **Lab ID: 92497151007**    Collected: 09/22/20 11:30    Received: 09/23/20 17:40    Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:23	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:23	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:23	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:23	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:23	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:23	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:23	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:23	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 11:23	7440-50-8	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 11:23	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:23	7439-93-2	
Nickel	ND	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 11:23	7440-02-0	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:23	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:23	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:23	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:23	7440-62-2	
Zinc	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:23	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:45	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/25/20 18:03		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		09/29/20 08:47	16887-00-6	M1,R1
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 08:47	16984-48-8	M1,R1
Sulfate	ND	mg/L	1.0	0.50	1		09/29/20 08:47	14808-79-8	M1,R1

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

Sample: **GWA-2 (09/22/2020)** Lab ID: **92497151008** Collected: 09/22/20 11:00 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>5.78</b>	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>31.0</b>	mg/L	1.0	0.070	1	09/28/20 15:51	09/30/20 21:41	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.00044J</b>	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:29	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:29	7440-38-2	
Barium	<b>0.045</b>	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:29	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:29	7440-41-7	
Boron	<b>0.0079J</b>	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:29	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:29	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:29	7440-47-3	
Cobalt	<b>0.16</b>	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:29	7440-48-4	
Copper	<b>0.0041J</b>	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 11:29	7440-50-8	
Lead	<b>0.00010J</b>	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 11:29	7439-92-1	
Lithium	<b>0.0029J</b>	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:29	7439-93-2	
Nickel	<b>0.027</b>	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 11:29	7440-02-0	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:29	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:29	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:29	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:29	7440-62-2	
Zinc	<b>0.033</b>	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:29	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:48	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>281</b>	mg/L	10.0	10.0	1		09/25/20 18:03		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4.2</b>	mg/L	1.0	0.60	1		09/29/20 09:30	16887-00-6	
Fluoride	<b>0.058J</b>	mg/L	0.10	0.050	1		09/29/20 09:30	16984-48-8	
Sulfate	<b>145</b>	mg/L	2.0	1.0	2		09/29/20 20:08	14808-79-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

**Sample: GWC-1R (09/22/2020)**      **Lab ID: 92497151009**      Collected: 09/22/20 13:20      Received: 09/23/20 17:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.25	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	98.8	mg/L	1.0	0.070	1	09/28/20 15:51	09/30/20 21:46	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:35	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:35	7440-38-2	
Barium	0.068	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:35	7440-39-3	
Beryllium	0.00021J	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:35	7440-41-7	
Boron	0.025J	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:35	7440-42-8	
Cadmium	0.00016J	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:35	7440-43-9	
Chromium	0.0012J	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:35	7440-47-3	
Cobalt	0.00080J	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:35	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 11:35	7440-50-8	
Lead	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:35	7439-92-1	
Lithium	0.0015J	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:35	7439-93-2	
Nickel	0.0021J	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 11:35	7440-02-0	
Selenium	0.012	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:35	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:35	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:35	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:35	7440-62-2	
Zinc	0.0029J	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:35	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:50	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	675	mg/L	50.0	50.0	1		09/25/20 18:03		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.5	mg/L	1.0	0.60	1		09/29/20 09:44	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 09:44	16984-48-8	
Sulfate	478	mg/L	7.0	3.5	7		09/29/20 20:22	14808-79-8	

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## ANALYTICAL RESULTS

Project: YATES GYPSUM LF

Pace Project No.: 92497151

**Sample: GWC-3R (09/22/2020)**      **Lab ID: 92497151010**      Collected: 09/22/20 15:40      Received: 09/23/20 17:40      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.11	Std. Units			1		10/08/20 08:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	6.2	mg/L	1.0	0.070	1	09/28/20 15:51	09/30/20 21:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 18:39	10/01/20 11:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 18:39	10/01/20 11:40	7440-38-2	
Barium	0.014	mg/L	0.010	0.00071	1	09/29/20 18:39	10/01/20 11:40	7440-39-3	
Beryllium	0.00042J	mg/L	0.0030	0.000046	1	09/29/20 18:39	10/01/20 11:40	7440-41-7	
Boron	0.0066J	mg/L	0.10	0.0052	1	09/29/20 18:39	10/01/20 11:40	7440-42-8	
Cadmium	0.00013J	mg/L	0.0025	0.00012	1	09/29/20 18:39	10/01/20 11:40	7440-43-9	
Chromium	0.0011J	mg/L	0.010	0.00055	1	09/29/20 18:39	10/01/20 11:40	7440-47-3	
Cobalt	0.0021J	mg/L	0.0050	0.00038	1	09/29/20 18:39	10/01/20 11:40	7440-48-4	
Copper	ND	mg/L	0.0050	0.0017	1	09/29/20 18:39	10/01/20 11:40	7440-50-8	
Lead	0.000064J	mg/L	0.0050	0.000036	1	09/29/20 18:39	10/01/20 11:40	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 18:39	10/01/20 11:40	7439-93-2	
Nickel	ND	mg/L	0.0050	0.00069	1	09/29/20 18:39	10/01/20 11:40	7440-02-0	
Selenium	0.0091J	mg/L	0.010	0.0016	1	09/29/20 18:39	10/01/20 11:40	7782-49-2	
Silver	ND	mg/L	0.0050	0.00036	1	09/29/20 18:39	10/01/20 11:40	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 18:39	10/01/20 11:40	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:40	7440-62-2	
Zinc	0.0036J	mg/L	0.010	0.0022	1	09/29/20 18:39	10/01/20 11:40	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/28/20 09:03	09/29/20 11:53	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	110	mg/L	10.0	10.0	1		09/25/20 18:04		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.2	mg/L	1.0	0.60	1		09/29/20 09:59	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/29/20 09:59	16984-48-8	
Sulfate	55.1	mg/L	1.0	0.50	1		09/29/20 09:59	14808-79-8	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

QC Batch: 569429 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007

METHOD BLANK: 3017011 Matrix: Water  
Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/30/20 18:37	

LABORATORY CONTROL SAMPLE: 3017012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.98J	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017068 3017069

Parameter	Units	3017068		3017069		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497141008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	0.91J	1	1	1.9	2.0	102	106	75-125	2	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

QC Batch: 569461 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92497151008, 92497151009, 92497151010

METHOD BLANK: 3017167 Matrix: Water  
Associated Lab Samples: 92497151008, 92497151009, 92497151010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/30/20 20:54	

LABORATORY CONTROL SAMPLE: 3017168

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.94J	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017169 3017170

Parameter	Units	3017169		3017170		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92497149001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	1.8	1	1	2.8	2.8	94	95	75-125	1	20

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

QC Batch: 569774 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

METHOD BLANK: 3018372 Matrix: Water  
Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/01/20 09:53	
Arsenic	mg/L	ND	0.0050	0.00078	10/01/20 09:53	
Barium	mg/L	ND	0.010	0.00071	10/01/20 09:53	
Beryllium	mg/L	ND	0.0030	0.000046	10/01/20 09:53	
Boron	mg/L	ND	0.10	0.0052	10/01/20 09:53	
Cadmium	mg/L	ND	0.0025	0.00012	10/01/20 09:53	
Chromium	mg/L	ND	0.010	0.00055	10/01/20 09:53	
Cobalt	mg/L	ND	0.0050	0.00038	10/01/20 09:53	
Copper	mg/L	ND	0.0050	0.0017	10/01/20 09:53	
Lead	mg/L	ND	0.0050	0.000036	10/01/20 09:53	
Lithium	mg/L	ND	0.030	0.00081	10/01/20 09:53	
Nickel	mg/L	ND	0.0050	0.00069	10/01/20 09:53	
Selenium	mg/L	ND	0.010	0.0016	10/01/20 09:53	
Silver	mg/L	ND	0.0050	0.00036	10/01/20 09:53	
Thallium	mg/L	ND	0.0010	0.00014	10/01/20 09:53	
Vanadium	mg/L	ND	0.010	0.0022	10/01/20 09:53	
Zinc	mg/L	ND	0.010	0.0022	10/01/20 09:53	

LABORATORY CONTROL SAMPLE: 3018373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	0.91	91	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.092	92	80-120	
Copper	mg/L	0.1	0.093	93	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.092	92	80-120	
Nickel	mg/L	0.1	0.090	90	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Silver	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	
Vanadium	mg/L	0.1	0.092	92	80-120	

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF

Pace Project No.: 92497151

LABORATORY CONTROL SAMPLE: 3018373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Zinc	mg/L	0.1	0.092	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3018374 3018375

Parameter	Units	3018374		3018375		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.10	0.10	101	102	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.099	0.099	99	99	75-125	0	20	
Barium	mg/L	0.0039J	0.1	0.10	0.10	99	100	75-125	1	20	
Beryllium	mg/L	0.000059J	0.1	0.090	0.091	90	91	75-125	1	20	
Boron	mg/L	0.0073J	1	0.88	0.90	87	89	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.097	0.096	97	96	75-125	1	20	
Chromium	mg/L	ND	0.1	0.095	0.095	94	94	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.095	0.095	95	95	75-125	0	20	
Copper	mg/L	ND	0.1	0.094	0.094	94	94	75-125	0	20	
Lead	mg/L	0.00015J	0.1	0.093	0.094	92	94	75-125	1	20	
Lithium	mg/L	0.013J	0.1	0.10	0.10	91	91	75-125	0	20	
Nickel	mg/L	ND	0.1	0.094	0.094	93	93	75-125	0	20	
Selenium	mg/L	ND	0.1	0.099	0.096	98	95	75-125	3	20	
Silver	mg/L	ND	0.1	0.093	0.094	93	94	75-125	1	20	
Thallium	mg/L	0.00016J	0.1	0.094	0.095	94	95	75-125	1	20	
Vanadium	mg/L	ND	0.1	0.098	0.097	98	97	75-125	1	20	
Zinc	mg/L	ND	0.1	0.095	0.095	94	94	75-125	1	20	

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF

Pace Project No.: 92497151

QC Batch: 569300

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

METHOD BLANK: 3016193

Matrix: Water

Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/29/20 10:36	

LABORATORY CONTROL SAMPLE: 3016194

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0027	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016195 3016196

Parameter	Units	92497141001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0026	0.0026	104	104	75-125	0	20	

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF

Pace Project No.: 92497151

QC Batch:	569139	Analysis Method:	SM 2450C-2011
QC Batch Method:	SM 2450C-2011	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

METHOD BLANK: 3015723 Matrix: Water

Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/25/20 17:57	

LABORATORY CONTROL SAMPLE: 3015724

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	411	103	84-108	

SAMPLE DUPLICATE: 3015725

Parameter	Units	92497336001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 3015726

Parameter	Units	92497151001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	394	400	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: YATES GYPSUM LF  
Pace Project No.: 92497151

QC Batch:	569512	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

METHOD BLANK: 3017392 Matrix: Water  
Associated Lab Samples: 92497151001, 92497151002, 92497151003, 92497151004, 92497151005, 92497151006, 92497151007, 92497151008, 92497151009, 92497151010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/29/20 01:37	
Fluoride	mg/L	ND	0.10	0.050	09/29/20 01:37	
Sulfate	mg/L	ND	1.0	0.50	09/29/20 01:37	

LABORATORY CONTROL SAMPLE: 3017393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.5	107	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	52.8	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017394 3017395

Parameter	Units	92497151006		3017395		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	ND	50	50	51.6	51.4	103	103	90-110	0	10
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	103	103	90-110	0	10
Sulfate	mg/L	ND	50	50	50.5	50.3	101	100	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017396 3017397

Parameter	Units	92497151007		3017397		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	ND	50	50	57.6	51.5	115	103	90-110	11	10 M1,R1
Fluoride	mg/L	ND	2.5	2.5	2.9	2.6	117	104	90-110	12	10 M1,R1
Sulfate	mg/L	ND	50	50	58.0	50.3	116	101	90-110	14	10 M1,R1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: YATES GYPSUM LF

Pace Project No.: 92497151

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES GYPSUM LF

Pace Project No.: 92497151

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497151001	GWC-2R (09/22/2020)				
92497151002	GWC-4R (09/22/2020)				
92497151003	GWC-5R (09/23/2020)				
92497151004	GWC-6R (09/23/2020)				
92497151008	GWA-2 (09/22/2020)				
92497151009	GWC-1R (09/22/2020)				
92497151010	GWC-3R (09/22/2020)				
92497151001	GWC-2R (09/22/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151002	GWC-4R (09/22/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151003	GWC-5R (09/23/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151004	GWC-6R (09/23/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151005	DUP-01 (09/23/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151006	EQUIPMENT BLANK (09/23/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151007	FIELD BLANK (09/22/2020)	EPA 3010A	569429	EPA 6010D	569491
92497151008	GWA-2 (09/22/2020)	EPA 3010A	569461	EPA 6010D	569503
92497151009	GWC-1R (09/22/2020)	EPA 3010A	569461	EPA 6010D	569503
92497151010	GWC-3R (09/22/2020)	EPA 3010A	569461	EPA 6010D	569503
92497151001	GWC-2R (09/22/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151002	GWC-4R (09/22/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151003	GWC-5R (09/23/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151004	GWC-6R (09/23/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151005	DUP-01 (09/23/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151006	EQUIPMENT BLANK (09/23/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151007	FIELD BLANK (09/22/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151008	GWA-2 (09/22/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151009	GWC-1R (09/22/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151010	GWC-3R (09/22/2020)	EPA 3005A	569774	EPA 6020B	569814
92497151001	GWC-2R (09/22/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151002	GWC-4R (09/22/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151003	GWC-5R (09/23/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151004	GWC-6R (09/23/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151005	DUP-01 (09/23/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151006	EQUIPMENT BLANK (09/23/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151007	FIELD BLANK (09/22/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151008	GWA-2 (09/22/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151009	GWC-1R (09/22/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151010	GWC-3R (09/22/2020)	EPA 7470A	569300	EPA 7470A	569457
92497151001	GWC-2R (09/22/2020)	SM 2450C-2011	569139		
92497151002	GWC-4R (09/22/2020)	SM 2450C-2011	569139		
92497151003	GWC-5R (09/23/2020)	SM 2450C-2011	569139		
92497151004	GWC-6R (09/23/2020)	SM 2450C-2011	569139		
92497151005	DUP-01 (09/23/2020)	SM 2450C-2011	569139		
92497151006	EQUIPMENT BLANK (09/23/2020)	SM 2450C-2011	569139		
92497151007	FIELD BLANK (09/22/2020)	SM 2450C-2011	569139		
92497151008	GWA-2 (09/22/2020)	SM 2450C-2011	569139		
92497151009	GWC-1R (09/22/2020)	SM 2450C-2011	569139		

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES GYPSUM LF

Pace Project No.: 92497151

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497151010	GWC-3R (09/22/2020)	SM 2450C-2011	569139		
92497151001	GWC-2R (09/22/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151002	GWC-4R (09/22/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151003	GWC-5R (09/23/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151004	GWC-6R (09/23/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151005	DUP-01 (09/23/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151006	EQUIPMENT BLANK (09/23/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151007	FIELD BLANK (09/22/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151008	GWA-2 (09/22/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151009	GWC-1R (09/22/2020)	EPA 300.0 Rev 2.1 1993	569512		
92497151010	GWC-3R (09/22/2020)	EPA 300.0 Rev 2.1 1993	569512		

### REPORT OF LABORATORY ANALYSIS

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**Sample Condition Upon Rec**

**WO#: 92497151**

Client Name: GAPower



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Oth **92497151**

Tracking #: \_\_\_\_\_

Proj. Name: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no    Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 230    Type of Ice: Wet Blue None  Samples on ice; cooling process has begun

Cooler Temperature 3.4°C    Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/23/2004

Temp should be above freezing to 6°C    Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis    Matrix: <u>W</u>		<u>GWC-BR is labeled GWC-1R</u> <u>9/22/20 1320 as collection date &amp; time</u>
All containers needing preservation have been checked	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank-Custody-Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_    Field Data Required?    Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Project Manager Review: \_\_\_\_\_    Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project #

WO#: 92497151

PM: KLH1

Due Date: 10/07/20

CLIENT: GR-GR Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

Bottom half of box is to list number of bottle

Matrix	Item#																							
	BP4U-125 mL Pipstic Unpreserved (N/A) (C-)																							
	BP3U-250 mL Plastic Unpreserved (N/A)																							
	BP2U-500 mL Plastic Unpreserved (N/A)																							
	BP1U-1 liter Plastic Unpreserved (N/A)																							
	BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)																							
	BP3N-250 mL plastic HNO3 (pH < 2)																							
	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)																							
	BP4C-125 mL Plastic NaOH (pH > 12) (C-)																							
	WGFU-Wide-mouthed Glass Jar Unpreserved																							
	AG1U-1 liter Amber Unpreserved (N/A) (C-)																							
	AG1H-1 liter Amber HCl (pH < 2)																							
	AG3U-250 mL Amber Unpreserved (N/A) (C-)																							
	AG1S-1 liter Amber H2SO4 (pH < 2)																							
	AG3S-250 mL Amber H2SO4 (pH < 2)																							
	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)																							
	DG9H-40 mL VOA HCl (N/A)																							
	VG9T-40 mL VOA Na2S2O3 (N/A)																							
	VG9U-40 mL VOA Unp (N/A)																							
	DG9P-40 mL VOA H3PO4 (N/A)																							
	VOAK (6 vials per kit)-5035 Kit (N/A)																							
	V/GK (3 vials per kit)-VPM/Gas kit (N/A)																							
	SP5T-125 mL Sterile Plastic (N/A - lab)																							
	SP2T-250 mL Sterile Plastic (N/A - lab)																							
	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)																							
	AG6U-100 mL Amber Unpreserved vials (N/A)																							
	VG6U-20 mL Sanitization vials (N/A)																							

BPIN

1  
2  
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10  
11  
12

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office. Out of hold, incorrect preservative, out of temp, incorrect containers.



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

**Section A**  
 Client Information:  
 Agency: Georgia Power  
 Project: 1070 Bridge Mill Ave  
 City: GA 30114

**Section B**  
 Requested Project Information:  
 Report To: Betty Stever  
 Copy To:  
 Purchase Order #:  
 Project Name: Yates Gypsum LF  
 Project #:

**Section C**  
 Invoice Information:  
 Address:  
 Company Name:  
 Project Manager: harrington@georgiapower.com  
 Project Profile #: 10640

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Method (Y/N)	Residual Chlorine (Y/N)
1	GWC-2R (0912/2020)		9/28	13:25			5	5	✓	TO9	✓	9.2467151
2	GWC-4R (0912/2020)		9/22	17:34			5	5	✓	Anions	✓	5.34=Ph
3	GWC-5R (0912/2020)		9/23	10:05			5	5	✓	App I, II, III, IV & Hg	✓	5.43=Ph
4	GWC-6R (0912/2020)		9/23	11:10			5	5	✓	RAD 9316/9320	✓	5.04=Ph
5	DUP-0 (0923/2020)		9/23	-			5	5	✓		✓	5.81=Ph
6	FD-01 (0911/2020)		9/22	11:30			5	5	✓		✓	-
7	FD-01 (Equipment Blank) (9/23/2020)		9/23	11:20			5	5	✓		✓	JS

APPROVED BY/AGENCY	DATE	TIME	APPROVED BY/AGENCY	DATE	TIME	JURISDICTION
Joe Swanson	9/23/20	15:11	Joe Swanson	9/23/20	15:11	
Joe Swanson	9/23/20	17:16	Joe Swanson	9/23/20	17:16	

**RECEIVED BY/AGENCY**  
 SIGNATURE OF SAMPLEL: Joe Swanson  
 DATE SIGNED: 9/23/20

**TEMP IN C**  
 Received on ice (Y/N)  
 Custody Sealed (Y/N)  
 Cooler (Y/N)  
 Samples Intact (Y/N)



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b>		<b>Section B</b>		<b>Section C</b>	
<b>Client Information:</b> Agency: Georgia Power Address: 1070 Brandy Mill Ave City: Atlanta, GA 30114		<b>Required Project Information:</b> Report To: Betty Stewart Copy To:		<b>Invoice Information:</b> Attention: Company Name: Address: City: State: Zip:	
POC: (770) 244-4326 Fax: Created Date:		Purchase Order #: Project Name: Project #:		Price Project Manager: Price Profile #:	
				<b>Regulatory Agency:</b> State / Location: Price Profile #:	

ITEM #	DESCRIPTION	WT	COLLECTED		SAMPLE TEMP AT COLLECTION		PRESERVATIVES							ANALYSES TEST				Residual Chlorine (Y/N)	
			START DATE	END DATE	TIME	TIME	UNPRESERVED	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	TDS	ANIONS	APP I, II, III, IV & Hg		RAD 6316/6320
1	DUP	WT																	
2	FIELD BLANK (092220)	WT																	
3	ACCOMMODATION BLANK	WT																	
4	GWA-2 (092220)	WT																	
5	GWC-DR (092220)	WT																	
6	GWC-DR	WT																	
7	GWC-DR	WT																	
8	GWC-DR (092220)	WT																	
9	GWA-DR	WT																	
10	GWC-DR	WT																	
11																			
12																			

ADDITIONAL COMMENTS		REQUESTED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		SAMPLE CONDITIONS	
NO MD		DATE: 9/13/10 TIME: 1730		DATE: 9/24/10 TIME: 1730		TEMP IN C	
[Signature]		DATE: 9/13/10 TIME: 1746		DATE: 9/23/10 TIME: 1511		Received on ice (Y/N)	
[Signature]		DATE: 9/13/10 TIME: 1746		DATE: 9/23/10 TIME: 1746		Custody Sealed (Y/N)	
[Signature]		DATE: 9/13/10 TIME: 1746		DATE: 9/23/10 TIME: 1746		Cooler (Y/N)	
[Signature]		DATE: 9/13/10 TIME: 1746		DATE: 9/23/10 TIME: 1746		Samples Intact (Y/N)	

<b>SAMPLER NAME AND SIGNATURE</b> PRINT NAME OF SAMPLER: Deter Higginakos SIGNATURE OF SAMPLER: [Signature] DATE SIGNED: 9/23/2010	
---	--



# APPENDIX B

Field Sampling Reports



**August 2020**

## August 2020 Daily Calibration Log

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson

### Instrument Calibration

Date: 8/26/20 Time: 1030

Parameter	Units	Standard	SmarTROLL SN 496336	SmarTROLL SN 685774
DO	% saturation	100	100	100
Conductivity	us/cm	8000	8000	8000
pH	S.U.	4.00	--	--
pH	S.U.	6.98	6.97	6.97
pH	S.U.	10.00	--	--
ORP	mV	217.0	213.0	213.0

Turbidity Standard	Units	LaMotte SN 8140- 2616	LaMotte SN 511-5210
0.0	NTU	0.00	0.00
10.0	NTU	10.00	10.00

Date: 8/27/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 463068	SmarTROLL SN 685774
DO	% saturation	100	100	100
Conductivity	us/cm	8000	80000	80000
pH	S.U.	4.00	--	--
pH	S.U.	6.98	6.97	6.98
pH	S.U.	10.00	--	--
ORP	mV	220.0	220.3	220.4

Turbidity Standard	Units	LaMotte SN 8140- 2616	LaMotte SN 511-5210
0.0	NTU	0.00	0.00
10.0	NTU	10.00	10.00

Date: 8/28/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 496336	SmarTROLL SN 685774
DO	% saturation	100	100	100
Conductivity	us/cm	8000	8000	8000
pH	S.U.	4.00	--	--
pH	S.U.	6.98	6.98	6.97
pH	S.U.	10.00	--	--
ORP	mV	224	223.3	220.2

Turbidity Standard	Units	LaMotte SN 1774-0212	LaMotte SN 1479-4011
0.0	NTU	0.00	0.00
10.0	NTU	10.00	10.00

#### Notes:

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts;  
NTU - Nephelometric Turbidity Units; NC - Not calibrated

<b>Client:</b>		Georgia Power			
<b>Project Location:</b>		Former Gypsum Stack Landfill			
<b>Date:</b>		8/26/2020			
<b>Sampler:</b>		Jake Swanson			
<b>Equipment:</b>		water probe			
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Comments
GWC-3R	8/26/2020	11:53:00	26.09	38.35	--
GWC-5R	8/26/2020	11:59:00	27.87	42.77	--
GWA-2	8/26/2020	12:04:00	34.8	52.13	--
GWC-6R	8/26/2020	12:09:00	33.69	51.87	--
GWC-1R	8/26/2020	12:17:00	21.58	36.41	--
GWC-4R	8/26/2020	12:23:00	15.34	30.2	--
GWC-2R	8/26/2020	12:29:00	27.64	44	--

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWA-2	<b>Date</b>	08/26/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	Not collected	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	42.10-52.10	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	36.19	<b>Total Depth (ft-bmp)</b>	52.13	<b>Water Column(ft)</b>	15.94
<b>MP Elevation</b>	805.62	<b>Pump Intake (ft-bmp)</b>	47	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	16:20	<b>Well Volumes Purged</b>	0.53	<b>Sample ID</b>	GWA-2(08/26/2020)
<b>Purge Start</b>	15:11	<b>Gallons Purged</b>	1.37	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	16:02			<b>Color</b>	Clear

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
15:11:39	00:00	100	35.55	6.4	134.14	42.2	1.8	24.0	232.8
15:16:39	05:00	100	35.71	6.3	147.49	62.5	1.5	25.2	230.1
15:21:39	10:00	100	35.82	6.2	579.33	113.7	2.7	23.4	191.7
15:26:39	15:00	100	35.90	5.6	554.89	0.0	2.2	23.5	209.2
15:31:39	20:00	100	35.93	5.6	572.68	0.0	1.4	22.7	203.0
15:36:51	25:12	100	35.97	5.6	569.74	0.7	1.1	22.4	211.3
15:41:51	30:12	100	36.03	5.6	571.23	2.6	1.0	22.7	213.9
15:46:51	35:12	100	36.08	5.6	573.00	6.3	0.9	22.7	212.4
15:47:32	35:53	100	36.08	5.6	574.54	6.9	0.8	22.9	208.5
15:52:32	40:53	100	36.10	5.6	572.13	13.3	0.8	22.6	203.7
15:57:32	45:53	100	36.13	5.6	571.15	21.1	0.7	22.6	198.0
16:01:21	49:42	100	36.18	5.7	576.04	26.8	0.7	22.6	191.2
16:03:33	51:54	100	36.19	5.7	572.53	26.7	0.6	22.7	190.1

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
Metals	250 mL Plastic	1	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:** Turbidity readings using the Lamotte (time=NTU) 35.12= 0.68; 40.53=0.57; 45.53=0.73; 49.42=0.46; 51.54=0.61

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04   1.5 = 0.09   2.5 = 0.26   3.5 = 0.50   6 = 1.47  
 1.25 = 0.06   2 = 0.16   3 = 0.37   4 = 0.65

**Well Information**

Well Location: \_\_\_\_\_ Well Locked at Arrival: \_\_\_\_\_  
 Condition of Well: \_\_\_\_\_ Well Locked at Departure: \_\_\_\_\_  
 Well Completion: NA Key Number To Well: NA

- ft-bmp = feet below measuring point
- in = inches
- ft = feet
- mL/min = milliliters per minute
- mS/cm = milliSiemens per centimeter
- NTU = Nephelometric Turbidity Unit
- mg/L = milligrams per liter
- µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-1R	<b>Date</b>	08/27/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	90.9 degrees F and Partly Cloudy. The wind is blowing SE at 29.0 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	26.11-36.11	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	21.55	<b>Total Depth (ft-bmp)</b>	36.41	<b>Water Column(ft)</b>	14.86
<b>MP Elevation</b>	773.27	<b>Pump Intake (ft-bmp)</b>	31	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	17:10	<b>Well Volumes Purged</b>	0.44	<b>Sample ID</b>	GWC-1R
<b>Purge Start</b>	16:23	<b>Gallons Purged</b>	1.06	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	17:03				

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
16:23:32	00:00	100	21.55	5.5	965.53	0	6.7	25.3	208.9
16:28:32	05:00	100	22.06	5.6	982.31	0	6.4	26.2	201.2
16:33:32	10:00	100	22.14	5.5	1.23	0	7.3	24.1	208.7
16:38:32	15:00	100	22.23	5.7	3.08	6	7.8	24.9	200.5
16:43:32	20:00	100	22.27	5.5	944.67	0	7.2	22.9	200.1
16:48:32	25:00	100	22.31	5.4	822.82	0	6.6	24.6	209.0
16:53:32	30:00	100	22.37	5.4	725.66	0	7.0	24.7	212.7
16:58:32	35:00	100	22.41	5.4	725.06	0	6.4	25.9	217.7
17:03:32	40:00	100	22.51	5.4	729.69	0	6.4	26.0	219.6

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:** Turbidity using Lamotte (Time=NTU) 20:00=1.41;25:00=1.37;30:00=1.14;35:00=2.14;40:00=1.98

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimete

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-6R	<b>Date</b>	08/27/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	91.2 degrees F and Mostly Cloudy. The wind is blowing S at 29.0 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	41.60-51.60	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	33.62	<b>Total Depth (ft-bmp)</b>	51.87	<b>Water Column(ft)</b>	18.25
<b>MP Elevation</b>	788.98	<b>Pump Intake (ft-bmp)</b>	46	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	15:30	<b>Well Volumes Purged</b>	0.47	<b>Sample ID</b>	GWC-6R(08/27/2020)
<b>Purge Start</b>	14:31	<b>Gallons Purged</b>	1.38	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	15:23			<b>Color</b>	Clear

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
14:31:44	00:00	100	33.62	6.8	1003.97	0.1	7.5	23.8	215.1
14:36:44	05:00	100	33.87	6.5	885.47	0.0	5.5	21.9	217.4
14:41:44	10:00	100	34.15	6.4	788.26	0.0	5.2	21.0	227.9
14:46:44	15:00	100	34.15	6.1	1137.79	0.0	5.3	20.8	226.1
14:48:36	16:52	100	34.12	6.1	0.82	0.0	7.7	22.2	222.9
14:51:49	20:05	100	34.14	6.2	1.69	0.0	8.3	24.3	220.2
15:03:02	31:18	100	34.19	6.0	108.34	0.0	5.9	22.5	239.6
15:08:02	36:18	100	34.21	5.8	1172.39	0.0	6.2	19.8	228.0
15:13:02	41:18	100	34.25	5.8	1179.76	0.0	5.3	20.1	232.2
15:18:02	46:18	100	34.25	5.8	1176.65	0.0	5.3	20.2	235.0
15:23:02	51:18	100	34.25	5.8	1181.50	0.0	5.3	20.0	236.8
15:24:02	52:18	100	34.25	5.8	1184.38	0.0	5.3	20.0	237.0

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:** Lamotte Turbidity (time=NTU) 5:00=0.98;10:00=1.87;15:00=1.23;20:05=1.03;31:18=0.76;36:18=3.47;41:18=2.03;46:18=0.52;51:18=0.73

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot  
 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimeter

# Groundwater Sampling Form



<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-5R	<b>Date</b>	08/27/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	32.0 degrees F and Fog/Mist. There is no wind.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	32.47-42.47	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	27.87	<b>Total Depth (ft-bmp)</b>	42.77	<b>Water Column(ft)</b>	14.9
<b>MP Elevation</b>	782.45	<b>Pump Intake (ft-bmp)</b>	37	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	11:15	<b>Well Volumes Purged</b>	1.31	<b>Sample ID</b>	GWC-5R(08/27/2020)
<b>Purge Start</b>	09:07	<b>Gallons Purged</b>	3.17	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	11:10			<b>Color</b>	Clear

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
09:07:10	00:00	100	27.87	6.3	1874.12	0.0	8.1	25.0	223.9
09:12:10	05:00	100	28.49	6.3	1918.98	27.6	7.7	24.9	223.2
09:17:10	10:00	100	28.61	5.3	2064.41	20.5	8.1	22.0	223.6
09:22:10	15:00	100	28.61	5.3	2087.21	6.9	8.0	22.3	222.2
09:27:10	20:00	100	28.61	5.2	2090.68	12.2	7.9	22.4	223.3
09:32:10	25:00	100	28.62	5.1	2098.3	2.1	7.9	22.1	223.7
09:37:10	30:00	100	28.62	5.1	2068.26	4.2	7.9	22.2	222.9
09:42:10	35:00	100	28.62	5.1	2047.54	9.4	7.8	22.0	218.9
09:47:10	40:00	100	28.64	5.2	2035.29	6.2	7.9	22.3	205.6
09:52:10	45:00	100	28.62	5.1	2018.05	1.7	7.8	22.6	194.2
09:57:10	50:00	100	28.61	5.1	2000.73	2.8	7.8	22.8	199.7
10:02:10	55:00	100	28.56	5.2	2001.04	3.6	7.8	23.1	193.9
10:07:10	00:00	100	28.54	5.7	1983.51	1.9	7.8	23.5	197.6
10:12:10	05:00	100	28.53	5.4	1984.01	2.1	7.8	24.1	198.2
10:17:10	10:00	100	28.51	5.4	1990.24	3.9	7.7	24.6	193.1
10:22:10	15:00	100	28.44	5.3	1974.08	5.6	7.7	24.7	194.5
10:27:10	20:00	100	28.41	5.8	1981.16	6.6	7.7	25.0	191.7
10:32:10	25:00	100	28.33	5.4	1971.92	16.1	7.6	25.6	196.1
10:37:10	30:00	100	28.3	5.7	1974.31	17.6	7.6	25.9	198.9
10:42:10	35:00	100	28.3	5.8	1944.89	23.4	7.4	26.9	196.2
10:47:10	40:00	100	28.28	5.3	1944.88	29.6	7.4	27.5	190.0
10:52:10	45:00	100	28.23	5.3	1937.67	44.4	7.3	28.1	190.0
10:57:10	50:00	100	28.21	5.2	1946.95	36.5	6.7	30.8	194.5
11:02:10	55:00	100	28.2	5.2	1951.06	50.4	6.7	31.3	193.5
11:07:10	00:00	100	28.2	5.2	1952.21	56	6.6	31.6	195.1

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:** Turbidity readings using la motte (time=NTU) 1:25:00=2.08;1:30:00=3.02;1:35:00=3.75;1:40:00=3.54;1:45:00=4.13;1:50:00=3.17;1:55:00=4.33

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimete



# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-2R	<b>Date</b>	08/28/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	77.9 degrees F and Mostly Cloudy. There is no wind.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	33.70-43.70	<b>Casing Diameter (in)</b>	2
		<b>Well Casing Material</b>	PVC		
<b>Static Water Level (ft-bmp)</b>	27.71	<b>Total Depth (ft-bmp)</b>	44	<b>Water Column(ft)</b>	16.29
		<b>Gallons in Well</b>	2.65		
<b>MP Elevation</b>	769.76	<b>Pump Intake (ft-bmp)</b>	39	<b>Purge Method</b>	Low-Flow
		<b>Sample Method</b>	Low-Flow		
<b>Sample Time</b>	10:30	<b>Well Volumes Purged</b>	1.00	<b>Sample ID</b>	GWC-2R(08/28/2020)
		<b>Sampled by</b>	Jake Swanson		
<b>Purge Start</b>	08:45	<b>Gallons Purged</b>	2.64	<b>Replicate/ Code No.</b>	NA
		<b>Color</b>	Clear		
<b>Purge End</b>	10:25				

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
08:45:44	00:00	100	27.71	5.9	712.97	62.1	5.4	24.5	178.3
08:50:44	05:00	100	27.75	5.8	676.42	9.6	4.0	24.5	164.3
08:55:44	10:00	100	27.73	5.6	639.37	10.5	3.3	24.6	172.6
09:00:44	15:00	100	27.76	5.6	533.89	11.4	2.9	24.4	178.9
09:05:44	20:00	100	27.78	5.7	486.25	13.1	2.6	24.1	179.4
09:10:44	25:00	100	27.79	5.6	622.2	8.1	2.6	23.8	179.6
09:15:44	30:00	100	27.8	5.4	562.2	7.8	2.7	23.7	178.9
09:20:44	35:00	100	27.81	5.5	247.8	4.1	2.7	23.8	179.3
09:25:44	40:00	100	27.81	5.5	126.15	2.0	2.8	23.8	180.7
09:30:44	45:00	100	27.81	5.5	107.16	12.1	2.8	23.8	186.1
09:35:44	50:00	100	27.81	5.4	85.47	3.5	2.9	23.7	184.3
09:40:44	55:00	100	27.81	5.5	0.26	6.3	2.9	23.9	177.8
09:45:44	00:00	100	27.81	5.4	622.31	7.1	2.9	23.6	174.1
09:50:44	05:00	100	27.81	5.5	175.15	18.9	3.0	23.6	167.3
09:55:44	10:00	100	27.81	5.5	609.57	6.7	3.9	24.2	150.7
10:00:44	15:00	100	27.81	5.7	601.21	3.0	4.3	24.3	140.5
10:05:44	20:00	100	27.81	5.5	625.35	4.2	2.9	24.1	148.4
10:10:44	25:00	100	27.8	5.5	627.85	6.1	2.8	24.1	150.9
10:15:44	30:00	100	27.8	5.5	622.11	2.7	2.8	24.3	159.5
10:20:44	35:00	100	27.78	5.5	623.14	2.5	2.8	24.3	136.2
10:25:44	40:00	100	27.78	5.5	626.28	2.8	2.7	24.6	153.2

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA	Key Number To Well: NA

- ft-bmp = feet below measuring point
- in = inches
- ft = feet
- mL/min = milliliters per minute
- mS/cm = milliSiemens per centimeter
- NTU = Nephelometric Turbidity Unit
- mg/L = milligrams per liter
- µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-3R	<b>Date</b>	08/28/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	81.0 degrees F and Cloudy. The wind is blowing S/SW at 12.1 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	28.05-38.05	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	27.14	<b>Total Depth (ft-bmp)</b>	38.35	<b>Water Column(ft)</b>	11.21
<b>MP Elevation</b>	775.25	<b>Pump Intake (ft-bmp)</b>	33	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	12:30	<b>Well Volumes Purged</b>	0.48	<b>Sample ID</b>	GWC-3R(08/28/2020)
<b>Purge Start</b>	11:52	<b>Gallons Purged</b>	0.87	<b>Replicate/ Code No.</b>	Dup-1
<b>Purge End</b>	12:25			<b>Color</b>	Clear

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
11:52:15	00:00	100	27.14	5.6	246.53	126.2	7.0	26.1	227.2
11:57:15	05:00	100	27.31	5.1	281.27	0.3	7.1	22.7	252.9
12:02:15	10:00	100	27.46	5.1	231.3	2.1	7.1	22.1	251.7
12:07:15	15:00	100	27.46	5.1	205.14	1.7	7.1	21.6	254.6
12:12:15	20:00	100	27.46	5.2	192.55	0.5	7.2	21.8	250
12:17:15	25:00	100	27.46	5.2	192.31	0.8	7.2	21.8	248.9
12:20:00	27:45	100	27.46	5.2	191.25	1.1	7.2	21.9	250
12:20:21	28:06	100	27.47	5.2	191.96	0.3	7.3	21.6	249.4
12:25:21	33:06	100	27.47	5.2	190.13	0.5	7.2	22.0	249.6

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot     1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimete

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-4R	<b>Date</b>	08/28/2020		
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	87.1 degrees F and Partly Cloudy. The wind is blowing W/SW at 20.9 mph.			
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	19.90-29.90	<b>Casing Diameter (in)</b>	2	<b>Well Casing Material</b>	PVC
<b>Static Water Level (ft-bmp)</b>	15.4	<b>Total Depth (ft-bmp)</b>	30.2	<b>Water Column(ft)</b>	14.8	<b>Gallons in Well</b>	2.4
<b>MP Elevation</b>	757.48	<b>Pump Intake (ft-bmp)</b>	25	<b>Purge Method</b>	Low-Flow	<b>Sample Method</b>	Low-Flow
<b>Sample Time</b>	17:30	<b>Well Volumes Purged</b>	1.83	<b>Sample ID</b>	GWC-4R(08/28/2020)	<b>Sampled by</b>	Jake Swanson
<b>Purge Start</b>	14:38	<b>Gallons Purged</b>	4.4	<b>Replicate/ Code No.</b>	NA	<b>Color</b>	Clear
<b>Purge End</b>	17:25						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
14:38:22	00:00	100	15.39	5.8	1254.07	0.1	2.5	24.3	171.3
14:43:22	05:00	100	15.46	5.7	1.91	366.8	7.4	25	211.6
14:48:22	10:00	100	15.51	5.6	1496.92	0.0	0.7	22.4	234.7
14:53:22	15:00	100	15.59	5.6	1528.91	0.0	0.9	23.7	206.1
14:58:22	20:00	100	15.72	5.6	1499.73	0.0	1.0	24.6	199.5
15:03:22	25:00	100	15.8	5.6	1483.72	0.3	0.7	26.6	198.0
15:08:22	30:00	100	15.8	5.6	1441.16	4.0	0.4	26.8	195.0
15:13:22	35:00	100	15.8	5.6	1412.21	10.3	0.3	26.2	195.1
15:18:22	40:00	100	15.8	5.5	1364.08	21.1	0.4	26.3	193.2
15:19:25	41:03	100	15.74	5.5	1353.91	20.4	0.4	26.2	193.6
15:20:21	41:59	100	15.68	5.5	1326.88	16.7	0.4	26.1	194.0
15:25:21	46:59	100	15.68	5.5	1268.29	28.3	0.4	25.7	196.8
15:30:21	51:59	100	15.68	5.5	1222.68	39.5	0.5	25.6	199.5
15:36:03	57:41	100	15.68	5.5	1175.54	46.7	0.6	25.4	202.7
15:41:03	02:41	100	15.68	5.5	1134.95	17.9	0.7	25.3	203.5
15:46:03	07:41	100	15.68	5.5	1109.61	26.7	0.8	25.2	205.0
15:51:03	12:41	100	15.68	5.5	1068.18	33.0	0.9	25.4	205.9
15:56:03	17:41	100	15.7	5.9	3.09	24.8	3.5	25.5	202.0
16:01:03	22:41	100	15.76	5.5	953.23	30.8	2.1	23.8	207.9
16:06:03	27:41	100	15.76	5.5	909.12	39.7	1.9	24.0	208.9
16:11:03	32:41	100	15.76	5.5	860.13	55.7	2.0	24.3	209.4
16:16:03	37:41	100	15.76	5.5	818.76	71.9	2.0	24.0	210.3
16:21:03	42:41	100	15.76	5.5	772.92	127.4	2.1	24.0	208.9
16:26:03	47:41	100	15.77	5.5	750.94	146.9	2.3	23.8	207.1
16:31:03	52:41	100	15.77	5.5	744.74	162.2	2.4	23.2	209.4
16:36:03	57:41	100	15.77	5.5	687.13	176.7	2.4	23.5	211.6
16:41:03	02:41	100	15.77	5.5	467.21	365.3	7.5	24.2	212.7
16:46:03	07:41	100	15.77	5.5	618.94	1.2	3.0	23.9	213.1
16:51:03	12:41	100	15.77	5.5	610.47	0.0	2.9	23.4	213.1
16:56:03	17:41	100	15.77	5.5	578.38	0.0	3.0	23.5	214.7
17:01:03	22:41	100	15.77	5.5	561.84	0.6	3.0	23.7	214.4
17:06:03	27:41	100	15.78	5.5	541.11	4.8	3.0	23.4	215.6
17:10:46	32:24	100	15.8	5.2	500.49	0.0	5.9	24.7	242.8

ft-bmp = feet below measuring point  
in = inches  
ft = feet  
mL/min = milliliters per minute  
mS/cm = milliSiemens per centimeter  
NTU = Nephelometric Turbidity Unit  
mg/L = milligrams per liter  
µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-4R	<b>Date</b>	08/28/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	87.1 degrees F and Partly Cloudy. The wind is blowing W/SW at 20.9 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	19.90-29.90	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	15.4	<b>Total Depth (ft-bmp)</b>	30.2	<b>Water Column(ft)</b>	14.8
<b>MP Elevation</b>	757.48	<b>Pump Intake (ft-bmp)</b>	25	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	17:30	<b>Well Volumes Purged</b>	1.83	<b>Sample ID</b>	GWC-4R(08/28/2020)
<b>Purge Start</b>	14:38	<b>Gallons Purged</b>	4.4	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	17:25			<b>Color</b>	Clear

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
17:15:46	37:24	100	15.82	5.2	517.14	0.0	3.5	24.2	228.9
17:20:46	42:24	100	15.82	5.3	509.88	0.0	3.3	23.9	222.8
17:25:46	47:24	100	15.82	5.4	493.13	0.0	3.3	23.6	216.4

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA	Key Number To Well: NA

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimeter

**September 2020**

**September 2020 Daily Calibration Log**

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson/ Michael Guy/Katie Pupkiewicz/Peter Argyrakis

**Instrument Calibration**

**Date: 9/22/20 Time: 1030**

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	100	100	100
Conductivity	us/cm	8000	8000	8000	8000	8000
pH	S.U.	4.00	--	--	--	--
pH	S.U.	6.98	7.02	7.02	7.02	7.02
pH	S.U.	10.00	--	--	--	--
ORP	mV	232.0	232.1	233.2	233.1	232.8

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	0.00	0.00	0.00
10.0	NTU	10.00	10.00	10.00	10.00

**: 9/23/20 Time: 7:00**

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	100	100	100
Conductivity	us/cm	8000	8000	8000	8000	8000
pH	S.U.	4.00	--	--	--	--
pH	S.U.	6.98	7.02	7.02	7.02	7.02
pH	S.U.	10.00	--	--	--	--
ORP	mV	233.0	233.2	229.9	234.2	232.80

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	0.00	0.00	0.00
10.0	NTU	10.00	10.00	10.00	10.00

**September 2020 Daily Calibration Log**

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson/ Michael Guy/Katie Pupkiewicz/Peter Argyrakis

**Instrument Calibration**

**Date: 9/24/20 Time: 7:00**

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	99.9	99.9	100
Conductivity	us/cm	8000	8000	8000	8000	8000
pH	S.U.	4.00	--	--	--	--
pH	S.U.	7.00	7.02	7.00	7.00	7.00
pH	S.U.	10.00	--	--	--	--
ORP	mV	229	232.1	228.3	230.5	228.4

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	0.00	0.00	0.00
10.0	NTU	10.00	10.00	10.00	10.00

**Date: 9/25/20 Time: 7:00**

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	NA	100	NA
Conductivity	us/cm	8000	8000	NA	8000	NA
pH	S.U.	4.00	--	NA	--	NA
pH	S.U.	7.00	7.00	NA	7.00	NA
pH	S.U.	10.00	--	NA	--	NA
ORP	mV	228	226.0	NA	229.1	NA

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	NA	0.00	NA
10.0	NTU	10.00	NA	10.00	NA

**Notes:**

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Quick Cal solution standard is dependant on temperature and will fluctuate

NA = not used that day

<b>Client:</b>		Georgia Power			
<b>Project Location:</b>		Gypsum Landfill			
<b>Date:</b>		9/21/2020			
<b>Sampler:</b>		Katie Pupkiewicz			
<b>Equipment:</b>		water probe			
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Comments
GWC-3R	9/21/2020	10:14:00	27.04	38.35	--
GWC-5R	9/21/2020	10:18:00	28.25	42.77	--
GWA-2	9/21/2020	10:24:00	34.98	52.13	--
GWC-6R	9/21/2020	10:28:00	34.04	51.87	--
GWC-1R	9/21/2020	10:30:00	21.91	36.41	Ants present near well
GWC-4R	9/21/2020	10:33:00	15.56	30.2	--
GWC-2R	9/21/2020	10:37:00	27.96	44	--



# Groundwater Sampling Form

<b>Project Number</b>	30053438	<b>Well ID</b>	GWC-1R	<b>Date</b>	09/22/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	68.9 degrees F and Clear. The wind is blowing NE at 20.9 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	26.11-36.11	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	22.38	<b>Total Depth (ft-bmp)</b>	36.41	<b>Water Column(ft)</b>	14.03
<b>MP Elevation</b>	773.27	<b>Pump Intake (ft-bmp)</b>	31	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	13:20	<b>Well Volumes Purged</b>	1.25	<b>Sample ID</b>	GWC-1R
<b>Purge Start</b>	12:01	<b>Gallons Purged</b>	2.85	<b>Replicate/ Code No.</b>	NA
				<b>Well Casing Material</b>	PVC
				<b>Gallons in Well</b>	2.28
				<b>Sample Method</b>	Low-Flow
				<b>Sampled by</b>	Peter Argyakis
				<b>Color</b>	Clear

**Purge End**

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
12:01:41	00:00	150	22.38	6.1	0.06	0.8	8.3	21.7	9.7
12:06:41	05:00	150	22.4	6.1	548.22	0.0	7.8	19.3	74.6
12:11:41	10:00	150	22.4	5.8	586.8	0.0	7.6	19.2	100.1
12:16:41	15:00	150	22.4	5.4	672.17	0.0	7.0	19.2	139.4
12:21:41	20:00	150	22.4	5.4	743.84	0.1	6.5	21.2	158.4
12:26:41	25:00	150	22.4	5.3	763.49	0.1	6.4	22.8	171.6
12:31:41	30:00	150	22.4	5.3	770.32	0.1	6.3	23.6	181.3
12:36:41	35:00	150	22.4	5.3	808.32	0.2	6.3	23.8	189.4
12:41:41	40:00	150	22.4	5.3	867.13	0.2	6.1	23.3	198.7
12:46:41	45:00	150	22.4	5.3	877.14	0.3	6.0	23.6	205.2
12:51:41	50:00	150	22.4	5.3	905.44	0.3	6.1	23.8	210.9
12:56:41	55:00	150	22.4	5.3	923.64	0.4	6.1	23.6	215.9
13:01:41	00:00	150	22.4	5.3	936.85	0.6	6.1	23.4	220.8
13:06:41	05:00	150	22.4	5.3	950.84	0.7	6.0	23.4	224.7
13:11:41	10:00	150	22.4	5.2	962.98	1.2	6.0	23.7	228.3

Constituent Sampled	Container	Number	Preservative
TDS	500 mL Plastic	1	None
Anions	250 mL Plastic	1	None
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3

**Comments:** Lamotte turbidities: 00:00 - 0.39, 05:00 - 0.34, 10:00 - 0.29, 15:00 - 0.44, 20:00 - 0.13, 25:00 - 0.37, 30:00 - 0.03, 35:00 - 0.14, 40:00 - 0.28, 45:00 - 0.27, 50:00 - 0.22, 55:00 - 0.31, 60:00 - 0.40, 65:00 - 0.15, 70:00 - 0.18

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: \_\_\_\_\_ Well Locked at Arrival: \_\_\_\_\_  
 Condition of Well: \_\_\_\_\_ Well Locked at Departure: \_\_\_\_\_  
 Well Completion: NA Key Number To Well: NA

- ft-bmp = feet below measuring point
- in = inches
- ft = feet
- mL/min = milliliters per minute
- mS/cm = milliSiemens per centimeter
- NTU = Nephelometric Turbidity Unit
- mg/L = milligrams per liter
- µS/cm = microSiemens per centimete

# Groundwater Sampling Form

<b>Project Number</b>	30053438	<b>Well ID</b>	GWA-2	<b>Date</b>	09/22/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	55.8 degrees F and Clear. The wind is blowing E at 25.0 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	42.10-52.10	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	34.95	<b>Total Depth (ft-bmp)</b>	52.13	<b>Water Column(ft)</b>	17.18
<b>MP Elevation</b>	805.62	<b>Pump Intake (ft-bmp)</b>	47.1	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	11:00	<b>Well Volumes Purged</b>	0.84	<b>Sample ID</b>	GWA-2
<b>Purge Start</b>	10:02	<b>Gallons Purged</b>	2.34	<b>Replicate/ Code No.</b>	FB(092220)
				<b>Well Casing Material</b>	PVC
				<b>Gallons in Well</b>	2.79
				<b>Sample Method</b>	Low-Flow
				<b>Sampled by</b>	Peter Argyakis
				<b>Color</b>	Clear

**Purge End**

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
10:02:06	00:00	250	34.95	5.7	120.77	0.0	3.2	17.8	198.9
10:07:06	05:00	250	35.4	5.7	240.61	0.4	2.0	17.7	192.3
10:12:06	10:00	250	35.93	5.6	148.37	0.3	0.9	17.6	178.3
10:17:06	15:00	150	36.5	5.6	68.75	0.4	1.2	17.4	181.9
10:22:06	20:00	150	36.56	5.7	466.83	0.3	1.5	17.6	136.8
10:27:06	25:00	150	36.58	5.6	465.16	0.0	1.5	17.7	128.0
10:32:06	30:00	150	36.58	5.7	466.23	0.0	1.4	17.7	120.6
10:36:02	33:56	150	36.58	5.7	468.81	0.0	1.2	17.9	114.3
10:41:02	38:56	150	36.58	5.8	469.66	0.0	0.8	17.9	108.5
10:46:02	43:56	150	36.58	5.8	469.74	0.0	0.7	17.8	105.0
10:51:02	48:56	150	36.58	5.8	469.55	0.0	0.7	17.8	102.6

Constituent Sampled	Container	Number	Preservative
TDS	500 mL Plastic	1	None
Anions Suite	250 mL Plastic	1	None
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3

**Comments:** Lamotte Turbidity; 05:00 - 1.08, 10:00 - 0.70, 15:00 - 0.25, 20:00 - 0.22, 25:00 - 0.19, 30:00 - 0.20, 33:56 - 0.18, 38:56 - 0.13, 43:56 - 0.11, 48:56 - 0.11

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

<b>Project Number</b>	30053438	<b>Well ID</b>	GWC-3R	<b>Date</b>	09/22/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	68.9 degrees F and Clear. The wind is blowing NE at 12.1 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	28.05-38.05	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	27.4	<b>Total Depth (ft-bmp)</b>	38.35	<b>Water Column(ft)</b>	10.95
<b>MP Elevation</b>	775.25	<b>Pump Intake (ft-bmp)</b>	33	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	15:40	<b>Well Volumes Purged</b>	1.67	<b>Sample ID</b>	GWC-3R
<b>Purge Start</b>	14:18	<b>Gallons Purged</b>	2.97	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	16:20				

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
14:18:08	00:00	150	27.83	5.2	198.39	2.3	7.2	22.8	226.4
14:23:08	05:00	150	28.16	5.0	187.11	2.7	6.9	22.3	241.6
14:28:08	10:00	150	28.18	5.0	183.08	5.0	6.8	22.6	249.3
14:33:08	15:00	150	28.33	5.0	151.00	6.3	6.6	23.3	257.1
14:38:08	20:00	150	28.42	5.0	153.22	5.3	6.7	23.2	260.4
14:43:08	25:00	150	28.42	5.0	151.23	6.5	6.7	23.1	264.7
14:48:08	30:00	150	28.42	5.0	136.32	6.1	6.9	22.5	268.1
14:53:08	35:00	150	28.42	5.0	166.40	2.8	6.9	22.2	268.7
14:58:08	40:00	150	28.42	5.0	135.54	2.6	6.8	23.1	270.8
15:03:08	45:00	150	28.42	5.1	132.70	2.7	6.7	24.1	267.8
15:08:08	50:00	150	28.42	5.1	129.17	4.0	7.0	22.2	267.2
15:13:08	55:00	150	28.42	5.1	127.47	2.2	6.8	22.9	269.8
15:18:08	00:00	150	28.42	5.0	159.58	1.3	7.0	22.2	273.1
15:23:08	05:00	150	28.42	5.1	127.86	1.2	7.0	22.0	273.3
15:28:08	10:00	150	28.42	5.1	125.55	2.0	7.0	22.2	274.4
15:33:08	15:00	150	28.42	5.1	125.61	1.5	7.0	22.2	272.2

Constituent Sampled	Container	Number	Preservative
TDS	500 mL Plastic	1	None
Anions	250 mL Plastic	1	None
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3

**Comments:** Lamotte turbidities: 00:00 - 2.44, 05:00 - 2.10, 10:00 - 4.80, 15:00 - 6.02, 20:00 - 5.51, 25:00 - 5.54, 30:00 - 5.23, 35:00 - 4.20, 40:00 - 3.76, 45:00 - 4.05, 50:00 - 4.19, 55:00 - 1.83, 60:00 - 1.17, 65:00 - 0.84, 70:00 - 1.42, 75:00 - 1.27

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04   1.5 = 0.09   2.5 = 0.26   3.5 = 0.50   6 = 1.47  
 1.25 = 0.06   2 = 0.16   3 = 0.37   4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA	Key Number To Well: NA

- ft-bmp = feet below measuring point
- in = inches
- ft = feet
- mL/min = milliliters per minute
- mS/cm = milliSiemens per centimeter
- NTU = Nephelometric Turbidity Unit
- mg/L = milligrams per liter
- µS/cm = microSiemens per centimete

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-2R	<b>Date</b>	09/22/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	64.8 degrees F and Clear. The wind is blowing E/SE at 29.0 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	33.70-43.70	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	27.95	<b>Total Depth (ft-bmp)</b>	44	<b>Water Column(ft)</b>	16.05
<b>MP Elevation</b>	769.76	<b>Pump Intake (ft-bmp)</b>	39	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	13:25	<b>Well Volumes Purged</b>	0.30	<b>Sample ID</b>	GWC-2R
<b>Purge Start</b>	12:52	<b>Gallons Purged</b>	0.79	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	13:12				

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
12:52:35	00:00	150	27.95	5.8	700.6	1.4	5.3	19.7	216.1
12:57:35	05:00	150	28.13	5.5	640.75	1.5	4.6	19.2	214.6
13:02:35	10:00	150	28.14	5.4	616.71	1.2	4.4	18.9	214.8
13:07:35	15:00	150	28.14	5.4	615.07	1.3	4.4	18.6	222.7
13:12:35	20:00	150	28.15	5.3	616.11	1.3	4.4	18.7	219.2

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
300.0-F	250 mL Plastic	1	None

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot     1 = 0.04   1.5 = 0.09   2.5 = 0.26   3.5 = 0.50   6 = 1.47  
 1.25 = 0.06   2 = 0.16   3 = 0.37   4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-4R	<b>Date</b>	09/22/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	69.6 degrees F and Clear. The wind is blowing undefined at 0.0 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	19.90-29.90	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	15.54	<b>Total Depth (ft-bmp)</b>	30.2	<b>Water Column(ft)</b>	14.66
<b>MP Elevation</b>	757.48	<b>Pump Intake (ft-bmp)</b>	25	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	16:40	<b>Well Volumes Purged</b>	2.04	<b>Sample ID</b>	GWC-4R
<b>Purge Start</b>	14:25	<b>Gallons Purged</b>	4.85	<b>Replicate/ Code No.</b>	NA
<b>Purge End</b>	16:30			<b>Color</b>	Clear

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
14:25:56	00:00	150	15.54	5.5	1099.71	3.2	2.0	22.1	219.3
14:30:56	05:00	150	15.89	5.5	1145.4	2.1	0.7	23.7	192.3
14:33:19	07:23	150	15.91	5.5	1195.94	2.5	0.4	23.4	185.9
14:38:19	12:23	150	15.92	5.5	1265.07	3.1	0.2	23.4	178.9
14:43:19	17:23	150	15.92	5.5	1280.54	2.6	0.2	23.3	181.0
14:48:19	22:23	150	15.93	5.5	1257.61	5.7	0.2	23.0	186.5
14:53:19	27:23	150	15.93	5.5	1212.65	5.8	0.3	21.5	188.5
14:58:19	32:23	150	15.93	5.5	1147.98	6.1	0.4	21.8	189.1
15:03:19	37:23	150	15.93	5.4	1098.64	5.7	0.5	22.2	191.0
15:08:19	42:23	150	15.93	5.4	1022.47	7.0	0.6	22.1	194.1
15:13:19	47:23	150	15.93	5.4	971.59	7.1	0.8	21.8	197.3
15:18:19	52:23	150	15.93	5.4	899.99	10.0	0.9	21.2	199.6
15:23:19	57:23	150	15.93	5.4	849.65	4.8	1.5	20.7	204.3
15:28:19	02:23	150	15.93	5.4	805.8	6.4	1.9	20.9	204.8
15:33:19	07:23	150	15.93	5.4	760.88	8.1	1.9	20.8	205.9
15:38:19	12:23	150	15.93	5.4	711.01	9.6	2.2	20.5	204.6
15:43:19	17:23	150	15.94	5.4	664.49	11.7	2.3	20.6	207.6
15:48:19	22:23	150	15.94	5.4	616.45	13.8	2.5	20.5	214.8
15:53:19	27:23	150	15.94	5.4	598.61	17.1	2.7	20.1	214.1
15:58:19	32:23	150	15.94	5.5	548.27	21.3	2.8	20.1	213.1
16:03:19	37:23	150	15.94	5.5	533.47	1.5	3.9	20.1	217.5
16:08:19	42:23	150	15.95	5.4	503.77	1.4	3.8	19.6	230.0
16:13:19	47:23	150	15.95	5.4	486.42	1.4	3.5	19.3	237.1
16:18:19	52:23	150	15.96	5.4	474.56	1.3	3.5	19.3	240.9
16:23:19	57:23	150	15.96	5.4	458.49	1.5	3.6	19.2	243.2
16:28:19	02:23	150	15.96	5.4	456.17	1.6	3.6	19.1	242.1

Constituent Sampled	Container	Number	Preservative
TDS	500 mL Plastic	1	None
RAD Chem	1L Plastic	2	HNO3
App 1,2,3,4,Mercury	250 mL Plastic	1	HNO3
Anions	250 mL Plastic	1	None

ft-bmp = feet below measuring point  
in = inches  
ft = feet  
mL/min = milliliters per minute  
mS/cm = milliSiemens per centimeter  
NTU = Nephelometric Turbidity Unit  
mg/L = milligrams per liter  
µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

**Comments:**

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**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04   1.5 = 0.09   2.5 = 0.26   3.5 = 0.50   6 = 1.47  
1.25 = 0.06   2 = 0.16   3 = 0.37   4 = 0.65

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**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point  
in = inches  
ft = feet  
mL/min = milliliters per minute  
mS/cm = milliSiemens per centimeter  
NTU = Nephelometric Turbidity Unit  
mg/L = milligrams per liter  
µS/cm = microSiemens per centimete

# Groundwater Sampling Form

<b>Project Number</b>	30052922	<b>Well ID</b>	GWC-5R	<b>Date</b>	09/23/2020
<b>Project Location</b>	Gypsum Landfill		<b>Weather(°F)</b>	63.3 degrees F and Cloudy. The wind is blowing undefined at 0.0 mph.	
<b>Measuring Pt. Description</b>	Top of Inner Casing	<b>Screen Setting (ft-bmp)</b>	32.47-42.47	<b>Casing Diameter (in)</b>	2
<b>Static Water Level (ft-bmp)</b>	29.23	<b>Total Depth (ft-bmp)</b>	42.77	<b>Water Column(ft)</b>	13.54
<b>MP Elevation</b>	782.45	<b>Pump Intake (ft-bmp)</b>	37	<b>Purge Method</b>	Low-Flow
<b>Sample Time</b>	10:05	<b>Well Volumes Purged</b>	0.60	<b>Sample ID</b>	GWC-5R
<b>Purge Start</b>	09:31	<b>Gallons Purged</b>	1.32	<b>Replicate/ Code No.</b>	Dup - 01
<b>Purge End</b>	09:56				

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
09:31:19	00:00	200	29.21	5.3	2132.86	2.5	8.4	18.6	240.2
09:36:19	05:00	200	29.60	5.0	2194.71	1.4	8.0	18.5	235.7
09:41:19	10:00	200	29.69	5.0	2205.22	1.4	7.9	18.4	234.6
09:46:19	15:00	200	29.76	5.0	2073.26	1.4	7.8	18.5	232.4
09:51:19	20:00	200	29.90	5.0	2036.39	1.4	7.9	18.6	231.5
09:56:19	25:00	200	29.94	5.0	2010.41	1.4	7.9	18.5	230.3

Constituent Sampled	Container	Number	Preservative
Mercury, Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot    1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: _____	Well Locked at Arrival: _____
Condition of Well: _____	Well Locked at Departure: _____
Well Completion: NA _____	Key Number To Well: NA _____

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimeter

# Groundwater Sampling Form

**Project Number** 30052922      **Well ID** GWC-6R      **Date** 09/23/2020

**Project Location** Gypsum Landfill      **Weather(°F)** 70.5 degrees F and Clear. The wind is blowing undefined at 0.0 mph.

**Measuring Pt. Description** Top of Inner Casing      **Screen Setting (ft-bmp)** 41.60-51.60      **Casing Diameter (in)** 2      **Well Casing Material** PVC

**Static Water Level (ft-bmp)** 34.01      **Total Depth (ft-bmp)** 51.87      **Water Column(ft)** 17.86      **Gallons in Well** 2.9

**MP Elevation** 788.98      **Pump Intake (ft-bmp)** 46      **Purge Method** Low-Flow      **Sample Method** Low-Flow

**Sample Time** 11:10      **Well Volumes Purged** 0.27      **Sample ID** GWC-6R      **Sampled by** Jake Swanson

**Purge Start** 10:52      **Gallons Purged** 0.79      **Replicate/Code No.** NA      **Color** Clear

**Purge End** 11:07

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
10:52:03	00:00	200	34.01	6.4	1472.4	1.6	8.4	20.4	214.6
10:57:03	05:00	200	34.75	5.9	1334.49	1.5	6.2	18.4	219.1
11:02:03	10:00	200	34.76	5.8	1323.37	1.5	5.3	18.1	220.7
11:07:03	15:00	200	34.76	5.8	1328.67	1.5	5.2	18	217.5

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot      1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47  
 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

**Well Information**

Well Location: \_\_\_\_\_ Well Locked at Arrival: \_\_\_\_\_  
 Condition of Well: \_\_\_\_\_ Well Locked at Departure: \_\_\_\_\_  
 Well Completion: NA Key Number To Well: NA

ft-bmp = feet below measuring point  
 in = inches  
 ft = feet  
 mL/min = milliliters per minute  
 mS/cm = milliSiemens per centimeter  
 NTU = Nephelometric Turbidity Unit  
 mg/L = milligrams per liter  
 µS/cm = microSiemens per centimete



## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill			Yes	No	N/A
<b>Permit Number:</b>					
<b>Well ID:</b> GWC-1R					
<b>Person Gauging:</b> Katie Pupkiewicz					
<b>Date:</b> 9/21/2020					
<b>Time:</b> 10:30:00					
1	Location Identification:				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Protective Casing:				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Based on your professional judgement, is the well construction / location:				
	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill			Yes	No	N/A
<b>Permit Number:</b>					
<b>Well ID:</b> GWA-2					
<b>Person Gauging:</b> Katie Pupkiewicz					
<b>Date:</b> 9/21/2020					
<b>Time:</b> 10:24:00					
1	Location Identification:				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	Protective Casing:				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6	Based on your professional judgement, is the well construction / location:				
	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill			Yes	No	N/A
<b>Permit Number:</b>					
<b>Well ID:</b> GWC-2R					
<b>Person Gauging:</b> Katie Pupkiewicz					
<b>Date:</b> 9/21/2020					
<b>Time:</b> 10:37:00					
1 Location Identification:					
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 Protective Casing:					
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 Surface Pad					
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Internal Casing					
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5 Sampling: Groundwater Wells Only:					
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6 Based on your professional judgement, is the well construction / location:					
appropriate to 1) achieve the objectives of the Groundwater Monitoring Program		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
and 2) comply with the applicable regulatory requirements?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7 Corrective actions as needed, by date:					
8 Date by when corrective actions are needed:					

## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill				
<b>Permit Number:</b>				
<b>Well ID:</b> GWC-3R				
<b>Person Gauging:</b> Katie Pupkiewicz				
<b>Date:</b> 9/21/2020				
<b>Time:</b> 10:14:00				
		Yes	No	N/A
1	Location Identification:			
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Protective Casing:			
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Surface Pad			
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Internal Casing			
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Based on your professional judgement, is the well construction / location:			
	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Corrective actions as needed, by date:			
8	Date by when corrective actions are needed:			

## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill			Yes	No	N/A
<b>Permit Number:</b>					
<b>Well ID:</b> GWC-4R					
<b>Person Gauging:</b> Katie Pupkiewicz					
<b>Date:</b> 9/21/2020					
<b>Time:</b> 10:33:00					
1 Location Identification:					
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 Protective Casing:					
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 Surface Pad					
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Internal Casing					
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5 Sampling: Groundwater Wells Only:					
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6 Based on your professional judgement, is the well construction / location:					
	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7 Corrective actions as needed, by date:					
8 Date by when corrective actions are needed:					

## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill				
<b>Permit Number:</b>				
<b>Well ID:</b> GWC-5R				
<b>Person Gauging:</b> Katie Pupkiewicz				
<b>Date:</b> 9/21/2020				
<b>Time:</b> 10:18:00				
		Yes	No	N/A
1	Location Identification:			
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Protective Casing:			
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Surface Pad			
a	Is the well pad in good condition (not cracked or broken)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Internal Casing			
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Based on your professional judgement, is the well construction / location:			
	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Corrective actions as needed, by date:			
8	Date by when corrective actions are needed:			

## Groundwater Gauging Well Inspection

<b>Project Location:</b> Gypsum Landfill				
<b>Permit Number:</b>				
<b>Well ID:</b> GWC-6R				
<b>Person Gauging:</b> Katie Pupkiewicz				
<b>Date:</b> 9/21/2020				
<b>Time:</b> 10:28:00				
		Yes	No	N/A
1	Location Identification:			
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Protective Casing:			
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Surface Pad			
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Internal Casing			
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Sampling: Groundwater Wells Only:			
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Based on your professional judgement, is the well construction / location:			
	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	and 2) comply with the applicable regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Corrective actions as needed, by date:			
8	Date by when corrective actions are needed:			

# APPENDIX C

## Historical Groundwater Analytical Data





Analyte	Units	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2
		GWA-2 (050107)	GWA-2 (091107)	GWA-2 (032008)	GWA-2 (082708)	GWA-2 (030309)	GWA-2 (111809)	GWA-2 (030310)	GWA-2 (090810)	GWA-2 (031011)
		5/1/2007	9/11/2007	3/20/2008	8/27/2008	3/3/2009	11/18/2009	3/3/2010	9/8/2010	3/10/2011
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0061</b>	<b>0.021</b>	< 0.0025	< 0.0025	<b>0.005</b>	<b>0.0052</b>	<b>0.011</b>	<b>0.012</b>	<b>0.0032</b>
Silver	mg/l	< 0.0025	< 0.0013	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Vanadium	mg/l	<b>0.0055</b>	<b>0.004</b>	< 0.0025	<b>0.0029</b>	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Zinc	mg/l	<b>0.0081</b>	<b>0.0049</b>	<b>0.004</b>	<b>0.0042</b>	<b>0.0058</b>	<b>0.0038</b>	<b>0.0085</b>	<b>0.0065</b>	<b>0.0029</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	SU	NA	NA	NA	6.53	6.35	6.47	6.53	NA	5.83
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.032</b>	<b>0.017</b>	<b>0.025</b>	<b>0.041</b>	<b>0.053</b>	<b>0.05</b>	<b>0.061</b>	<b>0.071</b>	<b>0.057</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	<b>0.0029</b>	<b>0.0084</b>	<b>0.0027</b>	<b>0.0026</b>	<b>0.0022</b>	<b>0.0036</b>	< 0.0013	< 0.0013	< 0.0013
Cobalt	mg/l	<b>0.0067</b>	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	<b>0.0027</b>	<b>0.007</b>	< 0.0025
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.000254	< 0.000254	< 0.000145	< 0.000145	< 0.00025	< 0.00025	< 0.000591	< 0.000591	< 0.000299
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Thallium	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.001

Analyte	Units	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2
		GWA-2 (090811)	GWA-2 (030512)	GWA-2 (091012)	GWA-2 (020613)	GWA-2 (081213)	GWA-2 (020514)	GWA-2 (080514)	GWA-2 (020415)	GWA-2 (080315)
		9/8/2011	3/5/2012	9/10/2012	2/6/2013	8/12/2013	2/5/2014	8/5/2014	2/4/2015	8/3/2015
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0046</b>	<b>0.0053</b>	<b>0.0074</b>	<b>0.0077</b>	<b>0.016</b>	<b>0.019</b>	<b>0.0057</b>	<b>0.0055</b>	<b>0.0055</b>
Silver	mg/l	< 0.0025	< 0.005	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Vanadium	mg/l	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0013 J</b>
Zinc	mg/l	<b>0.004</b>	<b>0.0059</b>	<b>0.0052</b>	<b>0.0038</b>	<b>0.0075</b>	<b>0.018 o</b>	<b>0.0037</b>	<b>0.0057</b>	<b>0.0043</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	SU	5.69	6.27	6.23	7.56	6.68	6.32	NA	NA	6.13
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.057</b>	<b>0.061</b>	<b>0.055</b>	<b>0.061</b>	<b>0.055</b>	<b>0.063</b>	<b>0.038</b>	<b>0.039</b>	<b>0.031</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	< 0.0013	< 0.005	< 0.0013	< 0.0013	< 0.0013	<b>0.0059</b>	< 0.0013	< 0.0013	<b>0.0011 J</b>
Cobalt	mg/l	< 0.0025	<b>0.0032</b>	< 0.0013	< 0.0013	<b>0.0045</b>	< 0.0013	<b>0.0027</b>	<b>0.0016</b>	<b>0.002</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.000168	< 0.000123	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.000213	< 0.0001	< 0.0002
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	< 0.013	< 0.013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	NA

Analyte	Units	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2
		GWA-2 (021616)	GWA-2 (083116)	GWA-2 (112816)	GWA-2 (022217)	GWA-2 (050817)	GWA-2 (071717)	GWA-2 (101617)	GWA-2 (021918)	GWA-2 (080618)
		2/16/2016	8/31/2016	11/28/2016	2/22/2017	5/8/2017	7/17/2017	10/16/2017	2/19/2018	8/6/2018
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0039</b>	NA	NA	<b>0.0051 J</b>	NA	NA	NA	< 0.005	<b>0.003 J</b>
Silver	mg/l	< 0.0025	NA	NA	< 0.01	NA	NA	NA	< 0.005	< 0.01
Vanadium	mg/l	< 0.005	NA	NA	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
Zinc	mg/l	<b>0.0024 J</b>	NA	NA	<b>0.0042 J</b>	<b>0.0025 J</b>	<b>0.0032 J</b>	NA	< 0.01	<b>0.0037 J</b>
<b>Appendix III</b>										
Boron	mg/l	NA	<b>0.0315 J</b>	<b>0.0095 J</b>	< 0.04	<b>0.0084 J</b>	<b>0.0092 J</b>	< 0.04	< 0.04	< 0.2
Calcium	mg/l	NA	<b>9.31</b>	<b>9.47 B</b>	<b>10.4</b>	<b>14.2</b>	<b>14.1</b>	<b>13.6</b>	< 25	<b>11.4 J</b>
Chloride	mg/l	NA	<b>4</b>	<b>4.2</b>	<b>3.7</b>	<b>4.2</b>	<b>3.8</b>	<b>4.2</b>	<b>4.3</b>	<b>3.8</b>
Fluoride	mg/l	NA	<b>0.14 J</b>	<b>0.12 J</b>	<b>0.09 J</b>	<b>0.05 J</b>	<b>0.14 J</b>	<b>0.12 J</b>	<b>0.17</b>	<b>0.087 J</b>
Sulfate	mg/l	NA	<b>29</b>	<b>36</b>	<b>43</b>	<b>60</b>	<b>63</b>	<b>62</b>	<b>64.6</b>	<b>42.1</b>
Total Dissolved Solids	mg/l	NA	<b>209</b>	<b>102</b>	<b>164</b>	<b>145</b>	<b>185</b>	<b>218</b>	<b>173</b>	<b>158</b>
pH	SU	5.64	NA	6.23	6.21	6.12	6.03	6.12	6.13	6.01
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.003	<b>0.0014 J</b>	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.045</b>	<b>0.0542</b>	<b>0.0529</b>	<b>0.0607</b>	<b>0.065</b>	<b>0.06</b>	<b>0.0542</b>	<b>0.0533</b>	<b>0.044</b>
Beryllium	mg/l	< 0.0013	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.015 o
Cadmium	mg/l	< 0.0013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cobalt	mg/l	<b>0.0027</b>	<b>0.0053 J</b>	<b>0.0036 J</b>	<b>0.0049 J</b>	<b>0.0059 J</b>	<b>0.0046 J</b>	<b>0.0034 J</b>	< 0.01	<b>0.003 J</b>
Fluoride	mg/l	NA	<b>0.14 J</b>	<b>0.12 J</b>	<b>0.09 J</b>	<b>0.05 J</b>	<b>0.14 J</b>	<b>0.12 J</b>	<b>0.17</b>	<b>0.087 J</b>
Lead	mg/l	< 0.013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Lithium	mg/l	NA	< 0.05	< 0.05	< 0.05	<b>0.0014 J</b>	< 0.05	<b>0.0016 J</b>	< 0.05	< 0.25
Mercury	mg/l	<b>0.0000136 J</b>	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0005
Molybdenum	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Combined Radium - 226/228	pCi/l	NA	<b>1.2</b>	0.264 U	1.06 U	0.187 U	<b>1.42</b>	<b>1.17</b>	<b>1.58</b>	0.196 U
Selenium	mg/l	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	<b>0.00006 J</b>	<b>0.00006 J</b>	<b>0.00007 J</b>	< 0.001	< 0.001

Analyte	Units	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWC-1R
		GWA-2 (022519)	GWA-2 (061219)	GWA-2 (081919)	GWA-2 (100819)	GWA-2 (031720)	GWA-2 (050620)	GWA-2 (08/26/2020)	GWA-2 (09/22/2020)	GWC-1R (090811)
		2/25/2019	6/12/2019	8/19/2019	10/8/2019	3/17/2020	5/6/2020	8/26/2020	9/22/2020	9/8/2011
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0026 J</b>	<b>0.0038 J</b>	NA	<b>0.0051 J</b>	<b>0.0066</b>	NA	NA	<b>0.027</b>	<b>0.009</b>
Silver	mg/l	< 0.01	ND	NA	ND	< 0.00028	NA	NA	< 0.00036	< 0.0025
Vanadium	mg/l	< 0.01	<b>0.0032 J</b>	NA	ND	< 0.00071	NA	NA	< 0.0022	< 0.0025
Zinc	mg/l	<b>0.013</b>	ND	NA	<b>0.0078 J</b>	< 0.018	NA	NA	<b>0.033</b>	<b>0.0048</b>
<b>Appendix III</b>										
Boron	mg/l	< 0.04	ND	NA	ND	<b>0.0051 J</b>	NA	NA	<b>0.0079 J</b>	NA
Calcium	mg/l	<b>12.7 J</b>	<b>18.9</b>	NA	<b>28.3</b>	<b>24.3</b>	NA	NA	<b>31.0</b>	NA
Chloride	mg/l	<b>4.1</b>	<b>4.7</b>	NA	<b>5.1</b>	<b>4.8</b>	NA	NA	<b>4.2</b>	NA
Fluoride	mg/l	<b>0.14 J</b>	<b>0.12 J</b>	ND	<b>0.052 J</b>	<b>0.053 J</b>	NA	<b>0.068 J</b>	<b>0.058 J</b>	NA
Sulfate	mg/l	<b>42.1</b>	<b>83.4</b>	NA	<b>128</b>	<b>98.60</b>	NA	NA	<b>145</b>	NA
Total Dissolved Solids	mg/l	<b>92</b>	<b>226</b>	NA	<b>276</b>	NA	NA	NA	<b>281</b>	NA
pH	SU	6.51	6.3	6.23	6.28	6.14	6.24	<b>5.67</b>	<b>5.78</b>	4.49
<b>Appendix IV</b>										
Antimony	mg/l	< 0.003	ND	ND	ND	< 0.00027	NA	<b>0.00042 JB</b>	<b>0.00044 J</b>	< 0.005
Arsenic	mg/l	< 0.005	<b>0.00038 J</b>	<b>0.00095 J</b>	ND	< 0.00035	NA	< 0.00078	< 0.00078	< 0.005
Barium	mg/l	<b>0.045</b>	<b>0.063</b>	<b>0.065</b>	<b>0.058</b>	<b>0.047</b>	NA	<b>0.044</b>	<b>0.045</b>	<b>0.086</b>
Beryllium	mg/l	< 0.003	ND	ND	ND	< 0.000074	NA	< 0.000046	< 0.000046	< 0.0013
Cadmium	mg/l	< 0.001	ND	ND	ND	< 0.00011	NA	< 0.00012	< 0.00012	< 0.0013
Chromium	mg/l	< 0.01	ND	ND	ND	< 0.00039	1.00	< 0.00055	< 0.00055	< 0.0013
Cobalt	mg/l	<b>0.001 J</b>	<b>0.003 J</b>	<b>0.0035 J</b>	<b>0.0039 J</b>	<b>0.0030 J</b>	NA	<b>0.20</b>	<b>0.16</b>	<b>0.015 o</b>
Fluoride	mg/l	<b>0.14 J</b>	<b>0.12 J</b>	ND	<b>0.052 J</b>	<b>0.053 J</b>	NA	<b>0.068 J</b>	<b>0.058 J</b>	NA
Lead	mg/l	< 0.005	ND	ND	ND	< 0.000046	NA	< 0.000036	<b>0.00010 J</b>	< 0.013
Lithium	mg/l	NA	NA	<b>0.0019 J</b>	<b>0.0015 J</b>	<b>0.0017 J</b>	NA	<b>0.0032 J</b>	<b>0.0029 J</b>	NA
Mercury	mg/l	<b>0.000074 J</b>	ND	ND	ND	NA	< 0.00014	< 0.000078	< 0.000078	< 0.000168
Molybdenum	mg/l	NA	NA	ND	NA	NA	NA	< 0.00069	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	<b>1.39</b>	1.32 U	1.00 U	NA	<b>1.75</b>	0.688 U	NA
Selenium	mg/l	< 0.01	ND	ND	ND	< 0.0013	NA	< 0.0016	< 0.0016	< 0.013
Thallium	mg/l	< 0.001	ND	<b>0.000055 J</b>	ND	< 0.000052	NA	< 0.00014	< 0.00014	< 0.001

Analyte	Units	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R
		GWC-1R (030512)	GWC-1R (090512)	GWC-1R (020513)	GWC-1R (081313)	GWC-1R (020414)	GWC-1R (080514)	GWC-1R (020215)	GWC-1R (080415)
		3/5/2012	9/5/2012	2/5/2013	8/13/2013	2/4/2014	8/5/2014	2/2/2015	8/4/2015
<b>Appendix I &amp; II Metals (State Permit)</b>									
Nickel	mg/l	<b>0.0035</b>	<b>0.0027</b>	<b>0.0026</b>	< 0.0025	< 0.0025	<b>0.0013 J</b>	<b>0.0023 J</b>	< 0.0025
Silver	mg/l	< 0.005	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Vanadium	mg/l	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0011 J</b>	<b>0.0051</b>	< 0.005
Zinc	mg/l	<b>0.0038</b>	<b>0.0051</b>	< 0.0025	< 0.0025	<b>0.0037</b>	<b>0.0019 J</b>	<b>0.0051</b>	<b>0.0017 J</b>
<b>Appendix III</b>									
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
pH	SU	NA	NA	NA	NA	NA	NA	NA	NA
<b>Appendix IV</b>									
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.044</b>	<b>0.034</b>	<b>0.03</b>	<b>0.027</b>	<b>0.037</b>	<b>0.048</b>	<b>0.069</b>	<b>0.023</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.000075 J</b>	<b>0.00023 J</b>	< 0.0013
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	< 0.005	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.0028</b>	< 0.0013
Cobalt	mg/l	< 0.0025	<b>0.0018</b>	<b>0.0013</b>	< 0.0013	< 0.0013	< 0.0013	<b>0.0015</b>	< 0.0013
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.000123	< 0.0002	< 0.0001	< 0.0002	< 0.0002	< 0.000213	< 0.0001	< 0.0002
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	< 0.013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	NA

Analyte	Units	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R
		GWC-1R (021616)	GWC-1R (083116)	GWC-1R (112916)	GWC-1R (022317)	GWC-1R (050917)	GWC-1R (071817)	GWC-1R (101717)	GWC-1R (022118)	GWC-1R (080718)
		2/16/2016	8/31/2016	11/29/2016	2/23/2017	5/9/2017	7/18/2017	10/17/2017	2/21/2018	8/7/2018
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	< 0.0025	NA	NA	<b>0.0026 J</b>	NA	NA	NA	<b>0.001 J</b>	< 0.01
Silver	mg/l	< 0.0025	NA	NA	< 0.01	NA	NA	NA	< 0.005	< 0.01
Vanadium	mg/l	<b>0.00075 J</b>	NA	NA	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
Zinc	mg/l	<b>0.0015 J</b>	NA	NA	<b>0.0024 J</b>	<b>0.0016 J</b>	<b>0.0015 J</b>	NA	< 0.01	<b>0.0044 J</b>
<b>Appendix III</b>										
Boron	mg/l	NA	<b>0.0553 J</b>	<b>0.0149 J</b>	<b>0.0082 J</b>	<b>0.0097 J</b>	<b>0.0123 J</b>	<b>0.0513</b>	<b>0.0378 J</b>	<b>0.043</b>
Calcium	mg/l	NA	<b>69.4</b>	<b>70.6 B</b>	<b>62.4</b>	<b>47.4</b>	<b>33.2</b>	<b>38.7</b>	<b>34.3</b>	<b>26.2</b>
Chloride	mg/l	NA	<b>7.6</b>	<b>5.8</b>	<b>6.2</b>	<b>16</b>	<b>18</b>	<b>31</b>	<b>27</b>	<b>35.4</b>
Fluoride	mg/l	NA	<b>0.05 J</b>	<b>0.04 J</b>	<b>0.06 J</b>	<b>0.06 J</b>	< 0.3	< 0.3	< 0.1	< 0.3
Sulfate	mg/l	NA	<b>410</b>	<b>450</b>	<b>390</b>	<b>280</b>	<b>200</b>	<b>180</b>	<b>146</b>	<b>100</b>
Total Dissolved Solids	mg/l	NA	<b>616</b>	<b>594</b>	<b>581</b>	<b>410</b>	<b>322</b>	<b>381</b>	<b>285</b>	<b>242</b>
pH	SU	NA	NA	5.37	5.5	5.41	5.5	5.42	5.39	5.14
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0005 J</b>	< 0.005	<b>0.0009 J</b>	< 0.005	< 0.005
Barium	mg/l	<b>0.044</b>	<b>0.0711</b>	<b>0.0754</b>	<b>0.0646</b>	<b>0.0463</b>	<b>0.039</b>	<b>0.0349</b>	<b>0.0322</b>	<b>0.025</b>
Beryllium	mg/l	< 0.0013	<b>0.0001 J</b>	< 0.003	< 0.003	<b>0.00008 J</b>	< 0.003	<b>0.0001 J</b>	< 0.003	<b>0.000074 J</b>
Cadmium	mg/l	< 0.0013	< 0.001	<b>0.00008 J</b>	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	mg/l	< 0.0013	<b>0.0012 J</b>	<b>0.0009 J</b>	<b>0.001 J</b>	<b>0.0011 J</b>	<b>0.0008 J</b>	<b>0.001 J</b>	< 0.01	< 0.01
Cobalt	mg/l	< 0.0013	<b>0.0006 J</b>	< 0.01	<b>0.0009 J</b>	<b>0.0008 J</b>	<b>0.0032 J</b>	<b>0.0007 J</b>	< 0.01	< 0.01
Fluoride	mg/l	NA	<b>0.05 J</b>	<b>0.04 J</b>	<b>0.06 J</b>	<b>0.06 J</b>	< 0.3	< 0.3	< 0.1	< 0.3
Lead	mg/l	< 0.013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Lithium	mg/l	NA	<b>0.0024 J</b>	< 0.05	< 0.05	<b>0.002 J</b>	< 0.05	<b>0.0016 J</b>	<b>0.0014 J</b>	<b>0.001 J</b>
Mercury	mg/l	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0005
Molybdenum	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Combined Radium - 226/228	pCi/l	NA	NA	0.551 U	0.504 U	0.434 U	<b>1.37</b>	0.937 U	0.817 U	0.578 U
Selenium	mg/l	< 0.005	<b>0.0039 J</b>	<b>0.0033 J</b>	<b>0.0097 J</b>	<b>0.0066 J</b>	<b>0.0021 J</b>	<b>0.003 J</b>	< 0.01	< 0.01
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-2R
		GWC-1R (022619)	GWC-1R (061319)	GWC-1R (082019)	GWC-1R (100919)	GWC-1R (031720)	GWC-1R (050620)	GWC-1R (08/27/2020)	GWC-1R (09/22/2020)	GWC-2R (112210)
		2/26/2019	6/13/2019	8/20/2019	10/9/2019	3/17/2020	5/6/2020	8/27/2020	9/22/2020	11/22/2010
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	< 0.01	<b>0.00072 J</b>	NA	<b>0.0015 J</b>	<b>0.00087 J</b>	NA	NA	<b>0.0021 J</b>	<b>0.0096</b>
Silver	mg/l	< 0.01	ND	NA	ND	< 0.00028	NA	NA	< 0.00036	< 0.0025
Vanadium	mg/l	< 0.01	ND	NA	ND	< 0.00071	NA	NA	< 0.0022	< 0.0025
Zinc	mg/l	<b>0.0022 J</b>	ND	NA	<b>0.0078 J</b>	< 0.018	NA	NA	<b>0.0029 J</b>	<b>0.0047</b>
<b>Appendix III</b>										
Boron	mg/l	<b>0.062</b>	<b>0.057</b>	NA	<b>0.029 J</b>	<b>0.092 J</b>	NA	NA	<b>0.025 J</b>	NA
Calcium	mg/l	<b>24.7 J</b>	<b>33.8</b>	NA	<b>59.1</b>	<b>36.7</b>	NA	NA	<b>98.8</b>	NA
Chloride	mg/l	<b>20</b>	<b>16.4</b>	NA	<b>6.9</b>	<b>15.5</b>	NA	NA	<b>5.5</b>	NA
Fluoride	mg/l	< 0.3	ND	ND	ND	< 0.050	NA	< 0.050	< 0.050	NA
Sulfate	mg/l	<b>118</b>	<b>163</b>	NA	<b>318</b>	<b>145</b>	NA	NA	<b>478</b>	NA
Total Dissolved Solids	mg/l	<b>69</b>	<b>301</b>	NA	<b>526</b>	<b>306</b>	NA	NA	<b>675</b>	NA
pH	SU	5.52	5.55	5.33	5.37	5.70	6.80	<b>5.39</b>	<b>5.25</b>	NA
<b>Appendix IV</b>										
Antimony	mg/l	< 0.003	ND	ND	ND	< 0.00027	NA	< 0.00028	< 0.00028	< 0.005
Arsenic	mg/l	< 0.005	ND	<b>0.00044 J</b>	ND	< 0.00035	NA	<b>0.0011 J</b>	< 0.00078	< 0.005
Barium	mg/l	<b>0.028</b>	<b>0.033</b>	<b>0.07</b>	<b>0.054</b>	<b>0.031</b>	NA	<b>0.072</b>	<b>0.068</b>	<b>0.12</b>
Beryllium	mg/l	<b>0.000075 J</b>	ND	<b>0.0001 J</b>	<b>0.00013 J</b>	<b>0.000076 J</b>	NA	<b>0.00024 J</b>	<b>0.00021 J</b>	< 0.0013
Cadmium	mg/l	< 0.001	ND	ND	ND	< 0.00011	NA	<b>0.00012 J</b>	<b>0.00016 J</b>	< 0.0013
Chromium	mg/l	< 0.01	<b>0.0009 J</b>	<b>0.0011 J</b>	<b>0.0012 J</b>	<b>0.0010 J</b>	NA	<b>0.0013 J</b>	<b>0.0012 J</b>	< 0.0013
Cobalt	mg/l	< 0.01	<b>0.00033 J</b>	<b>0.00079 J</b>	<b>0.00064 J</b>	<b>0.00054 J</b>	NA	<b>0.00081 J</b>	<b>0.00080 J</b>	<b>0.038</b>
Fluoride	mg/l	< 0.3	ND	ND	ND	< 0.050	NA	< 0.050	< 0.050	NA
Lead	mg/l	< 0.005	ND	ND	<b>0.000052 J</b>	< 0.000046	NA	<b>0.000067 J</b>	< 0.000036	< 0.013
Lithium	mg/l	NA	NA	<b>0.0012 J</b>	<b>0.0013 J</b>	<b>0.00094 J</b>	NA	<b>0.0017 J</b>	<b>0.0015 J</b>	NA
Mercury	mg/l	<b>0.000059 J</b>	ND	ND	ND	NA	< 0.00014	< 0.000078	< 0.000078	< 0.000299
Molybdenum	mg/l	NA	NA	ND	NA	NA	NA	< 0.00069	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	1.25 U	0.482 U	<b>1.40</b>	NA	0.413 U	0.700 U	NA
Selenium	mg/l	<b>0.0014 J</b>	ND	<b>0.0022 J</b>	<b>0.0023 J</b>	<b>0.0017 J</b>	NA	<b>0.011</b>	<b>0.012</b>	< 0.013
Thallium	mg/l	< 0.001	ND	ND	ND	< 0.000052	NA	< 0.00014	< 0.00014	< 0.001

Analyte	Units	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R
		GWC-2R (010411)	GWC-2R (021711)	GWC-2R (031111)	GWC-2R (032811)	GWC-2R (090711)	GWC-2R (030612)	GWC-2R (091112)	GWC-2R (020613)	GWC-2R (081313)
		1/4/2011	2/17/2011	3/11/2011	3/28/2011	9/7/2011	3/6/2012	9/11/2012	2/6/2013	8/13/2013
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0084</b>	<b>0.0088</b>	<b>0.0058</b>	<b>0.0058</b>	<b>0.005</b>	< 0.0025	< 0.0025	< 0.0025	<b>0.003</b>
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.005	< 0.0025	< 0.0025	< 0.0025
Vanadium	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.005
Zinc	mg/l	<b>0.0038</b>	<b>0.0074</b>	<b>0.0038</b>	< 0.0025	<b>0.0059</b>	<b>0.0032</b>	<b>0.0029</b>	<b>0.0036</b>	<b>0.0066</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	SU	NA	NA	5.52	NA	4.35	6.37	5.69	6.8	5.51
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.1</b>	<b>0.1</b>	<b>0.05</b>	<b>0.087</b>	<b>0.065</b>	<b>0.049</b>	<b>0.045</b>	<b>0.05</b>	<b>0.13</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.005	< 0.0013	< 0.0013	<b>0.0017</b>
Cobalt	mg/l	<b>0.049</b>	<b>0.044</b>	<b>0.038</b>	<b>0.029</b>	<b>0.031</b>	<b>0.021</b>	<b>0.017</b>	<b>0.025</b>	<b>0.023</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.000299	< 0.000299	< 0.000299	< 0.000299	< 0.000168	< 0.000123	< 0.0002	< 0.0001	< 0.0002
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.005	< 0.005	< 0.005
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001



Analyte	Units	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R
		GWC-2R (020414)	GWC-2R (080514)	GWC-2R (020215)	GWC-2R (080415)	GWC-2R (021716)	GWC-2R (083116)	GWC-2R (112816)	GWC-2R (022217)	GWC-2R (051017)
		2/4/2014	8/5/2014	2/2/2015	8/4/2015	2/17/2016	8/31/2016	11/28/2016	2/22/2017	5/10/2017
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0026</b>	<b>0.0015 J</b>	< 0.0025	< 0.0025	< 0.0025	NA	NA	<b>0.0009 J</b>	NA
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA	NA	< 0.01	NA
Vanadium	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 0.01	< 0.01
Zinc	mg/l	<b>0.011</b>	<b>0.0032</b>	<b>0.0031</b>	<b>0.0017 J</b>	<b>0.0034</b>	NA	NA	<b>0.0024 J</b>	<b>0.0022 J</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	<b>0.0305 J</b>	<b>0.0206 J</b>	<b>0.0192 J</b>	<b>0.0179 J</b>
Calcium	mg/l	NA	NA	NA	NA	NA	<b>19.9</b>	<b>17.7 B</b>	<b>16.2</b>	<b>11.8</b>
Chloride	mg/l	NA	NA	NA	NA	NA	<b>6.3</b>	<b>6.7</b>	<b>5.7</b>	<b>7.1</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	<b>0.08 J</b>	<b>0.03 J</b>	<b>0.04 J</b>	<b>0.05 J</b>
Sulfate	mg/l	NA	NA	NA	NA	NA	<b>140</b>	<b>120</b>	<b>100</b>	<b>80</b>
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	<b>257</b>	<b>177</b>	<b>240</b>	<b>149</b>
pH	SU	5.74	NA	NA	NA	5.59	NA	5.47	5.48	5.6
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	< 0.003
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.08</b>	<b>0.068</b>	<b>0.066</b>	<b>0.053</b>	<b>0.059</b>	<b>0.0601</b>	<b>0.0562</b>	<b>0.0481</b>	<b>0.0563</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.003	< 0.003	< 0.003	< 0.003
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.0001 J</b>	<b>0.0001 J</b>	< 0.001	< 0.001
Chromium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01	< 0.01	<b>0.0008 J</b>
Cobalt	mg/l	<b>0.019</b>	<b>0.023</b>	<b>0.022</b>	<b>0.021</b>	<b>0.024</b>	<b>0.0239</b>	<b>0.0189</b>	<b>0.0184</b>	<b>0.0213</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	<b>0.08 J</b>	<b>0.03 J</b>	<b>0.04 J</b>	<b>0.05 J</b>
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.005	< 0.005	< 0.005	<b>0.0001 J</b>
Lithium	mg/l	NA	NA	NA	NA	NA	< 0.05	< 0.05	<b>0.0036 J</b>	<b>0.0035 J</b>
Mercury	mg/l	< 0.0002	< 0.000213	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Molybdenum	mg/l	NA	NA	NA	NA	NA	< 0.01	< 0.01	< 0.01	< 0.01
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	0.387 U	0.739 U	0.458 U
Selenium	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0029 J</b>	<b>0.0019 J</b>	<b>0.0015 J</b>	<b>0.0016 J</b>
Thallium	mg/l	< 0.002	NA	< 0.001	NA	<b>0.00007 J</b>	< 0.001	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R
		GWC-2R (071817)	GWC-2R (101717)	GWC-2R (022018)	GWC-2R (080818)	GWC-2R (022619)	GWC-2R (061219)	GWC-2R (082019)	GWC-2R (100919)	GWC-2R (031820)
		7/18/2017	10/17/2017	2/20/2018	8/8/2018	2/26/2019	6/12/2019	8/20/2019	10/9/2019	3/18/2020
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	NA	NA	< 0.005	< 0.01	<b>0.0068 J</b>	<b>0.00043 J</b>	NA	<b>0.00058 J</b>	<b>0.00063 J</b>
Silver	mg/l	NA	NA	< 0.005	< 0.01	< 0.01	ND	NA	ND	< 0.00028
Vanadium	mg/l	< 0.01	NA	< 0.01	< 0.01	< 0.01	<b>0.00079 J</b>	NA	ND	< 0.00071
Zinc	mg/l	<b>0.0017 J</b>	NA	< 0.01	<b>0.0021 J</b>	<b>0.003 J</b>	<b>0.0019 J</b>	NA	<b>0.0069 J</b>	< 0.018 U
<b>Appendix III</b>										
Boron	mg/l	<b>0.0169 J</b>	<b>0.0168 J</b>	< 0.04	<b>0.017 J</b>	<b>0.017 J</b>	<b>0.013 J</b>	NA	<b>0.018 J</b>	<b>0.026 J</b>
Calcium	mg/l	<b>8.69</b>	<b>9.77</b>	< 25	<b>13.4 J</b>	<b>20.9 J</b>	<b>26.6</b>	NA	<b>27.8</b>	<b>34.5</b>
Chloride	mg/l	<b>6</b>	<b>6.1</b>	<b>5.8</b>	<b>4.7</b>	<b>5.7</b>	<b>9.1</b>	NA	<b>9.8</b>	<b>11.7</b>
Fluoride	mg/l	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3	<b>0.58</b>	ND	ND	< 0.050
Sulfate	mg/l	<b>57</b>	<b>59</b>	<b>55.9</b>	<b>81.1</b>	<b>129</b>	<b>180</b>	NA	<b>91.2</b>	<b>200</b>
Total Dissolved Solids	mg/l	<b>122</b>	<b>214</b>	<b>131</b>	<b>166</b>	<b>293</b>	<b>391</b>	NA	<b>372</b>	<b>351</b>
pH	SU	5.49	5.45	5.52	5.15	5.4	5.38	5.33	5.39	5.38
<b>Appendix IV</b>										
Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	ND	ND	ND	< 0.00027
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND	<b>0.00075 J</b>	ND	< 0.00035
Barium	mg/l	<b>0.049</b>	<b>0.047</b>	<b>0.0467</b>	<b>0.049</b>	<b>0.056</b>	<b>0.046</b>	<b>0.05</b>	<b>0.045</b>	<b>0.040</b>
Beryllium	mg/l	< 0.003	< 0.003	< 0.003	<b>0.00007 J</b>	<b>0.000053 J</b>	ND	<b>0.00017 J</b>	<b>0.00014 J</b>	<b>0.00012 J</b>
Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND	ND	ND	< 0.00011
Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	ND	ND	<b>0.00059 J</b>	<b>0.00040 J</b>
Cobalt	mg/l	<b>0.0261</b>	<b>0.0182</b>	< 0.01	<b>0.014</b>	<b>0.029</b>	<b>0.013</b>	<b>0.014</b>	<b>0.024</b>	<b>0.019</b>
Fluoride	mg/l	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3	<b>0.58</b>	ND	ND	< 0.050
Lead	mg/l	<b>0.00007 J</b>	< 0.005	< 0.005	< 0.005	< 0.005	ND	<b>0.000061 J</b>	<b>0.000057 J</b>	< 0.000046
Lithium	mg/l	<b>0.0035 J</b>	<b>0.0035 J</b>	< 0.05	<b>0.0031 J</b>	NA	NA	<b>0.0043 J</b>	<b>0.0047 J</b>	<b>0.0053 J</b>
Mercury	mg/l	< 0.0005	< 0.0005	< 0.0002	< 0.0005	<b>0.000071 J</b>	ND	ND	ND	NA
Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	NA	NA	ND	NA	NA
Combined Radium - 226/228	pCi/l	0.708 U	0.402 U	<b>1.64</b>	<b>2.01</b>	NA	NA	<b>1.22</b>	0.71 U	<b>1.30</b>
Selenium	mg/l	<b>0.0024 J</b>	<b>0.0028 J</b>	< 0.01	<b>0.0025 J</b>	<b>0.003 J</b>	<b>0.0034 J</b>	<b>0.0032 J</b>	<b>0.0026 J</b>	<b>0.0032 J</b>
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND	ND	ND	< 0.000052

Analyte	Units	GWC-2R	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R
		GWC-2R (050720)	GWC-2R (08/28/2020)	GWC-2R (09/22/2020)	GWC-3R (090711)	GWC-3R (030512)	GWC-3R (090512)	GWC-3R (020613)	GWC-3R (081313)	GWC-3R (020514)
		5/7/2020	8/28/2020	9/22/2020	9/7/2011	3/5/2012	9/5/2012	2/6/2013	8/13/2013	2/5/2014
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	NA	NA	< 0.00069	<b>0.0054</b>	< 0.0025	< 0.0025	< 0.0025	<b>0.0032</b>	<b>0.0039</b>
Silver	mg/l	NA	NA	< 0.00036	< 0.0025	< 0.005	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Vanadium	mg/l	NA	NA	< 0.0022	< 0.0025	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005
Zinc	mg/l	NA	NA	<b>0.0030 J</b>	<b>0.0064</b>	<b>0.0043</b>	<b>0.0069</b>	< 0.0025	<b>0.011</b>	<b>0.026 o</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	<b>0.046 J</b>	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	NA	<b>40.5</b>	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	<b>24.7</b>	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	<b>216</b>	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	NA	<b>394</b>	NA	NA	NA	NA	NA	NA
pH	SU	5.43	<b>5.45</b>	<b>5.34</b>	4.31	NA	NA	NA	NA	NA
<b>Appendix IV</b>										
Antimony	mg/l	NA	< 0.00028	<b>0.0017 J</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	NA	< 0.00078	< 0.00078	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	NA	<b>0.044</b>	<b>0.040</b>	<b>0.025</b>	<b>0.014</b>	<b>0.0095</b>	<b>0.0094</b>	<b>0.13</b>	<b>0.066</b>
Beryllium	mg/l	NA	<b>0.00020 J</b>	<b>0.00021 J</b>	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	NA	<b>0.00015 J</b>	<b>0.00016 J</b>	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	NA	<b>0.00057 J</b>	< 0.00055	< 0.0013	< 0.005	< 0.0013	< 0.0013	<b>0.0019</b>	<b>0.0023</b>
Cobalt	mg/l	NA	<b>0.0072</b>	<b>0.0054</b>	< 0.0025	< 0.0025	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Fluoride	mg/l	NA	< 0.050	< 0.050	NA	NA	NA	NA	NA	NA
Lead	mg/l	NA	<b>0.000084 J</b>	<b>0.000082 J</b>	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	NA	<b>0.0047 J</b>	<b>0.0042 J</b>	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.00014	< 0.000078	< 0.000078	< 0.000168	< 0.000123	< 0.0002	< 0.0001	< 0.0002	< 0.0002
Molybdenum	mg/l	NA	< 0.00069	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	NA	<b>1.52</b>	<b>2.09</b>	NA	NA	NA	NA	NA	NA
Selenium	mg/l	NA	<b>0.0037 J</b>	<b>0.0056 J</b>	< 0.013	< 0.013	< 0.005	< 0.005	<b>0.0057</b>	< 0.005
Thallium	mg/l	NA	< 0.00014	< 0.00014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002

Analyte	Units	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R
		GWC-3R (080414)	GWC-3R (020315)	GWC-3R (080315)	GWC-3R (021616)	GWC-3R (083116)	GWC-3R (113016)	GWC-3R (022317)	GWC-3R (050917)	GWC-3R (071817)
		8/4/2014	2/3/2015	8/3/2015	2/16/2016	8/31/2016	11/30/2016	2/23/2017	5/9/2017	7/18/2017
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	<b>0.0024 J</b>	< 0.0025	< 0.0025	< 0.0025	NA	NA	< 0.01	NA	NA
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA	NA	< 0.01	NA	NA
Vanadium	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	NA	NA	< 0.01	< 0.01	< 0.01
Zinc	mg/l	<b>0.012</b>	<b>0.0061</b>	<b>0.0037</b>	<b>0.0093</b>	NA	NA	<b>0.0031 J</b>	<b>0.0025 J</b>	<b>0.0028 J</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	<b>0.0315 J</b>	<b>0.0089 J</b>	< 0.04	<b>0.0077 J</b>	<b>0.0073 J</b>
Calcium	mg/l	NA	NA	NA	NA	<b>7.23</b>	<b>6.43 B</b>	<b>4.25</b>	<b>3.56</b>	<b>4.16</b>
Chloride	mg/l	NA	NA	NA	NA	<b>6.7</b>	<b>7.8</b>	<b>6.5</b>	<b>7.2</b>	<b>7.7</b>
Fluoride	mg/l	NA	NA	NA	NA	<b>0.07 J</b>	<b>0.03 J</b>	<b>0.04 J</b>	< 0.3	< 0.3
Sulfate	mg/l	NA	NA	NA	NA	<b>87</b>	<b>76</b>	<b>47</b>	<b>41</b>	<b>44</b>
Total Dissolved Solids	mg/l	NA	NA	NA	NA	<b>216</b>	<b>177 B</b>	<b>105</b>	<b>77</b>	<b>89</b>
pH	SU	NA	NA	NA	NA	NA	5.13	5.28	5.12	5.21
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.043</b>	<b>0.031</b>	<b>0.039</b>	<b>0.038</b>	<b>0.0286</b>	<b>0.0258</b>	<b>0.0278</b>	<b>0.0308</b>	<b>0.0407</b>
Beryllium	mg/l	<b>0.0011 J</b>	<b>0.00061 J</b>	<b>0.00051 J</b>	<b>0.00084 J</b>	<b>0.0003 J</b>	<b>0.0004 J</b>	<b>0.0003 J</b>	<b>0.0002 J</b>	<b>0.0002 J</b>
Cadmium	mg/l	<b>0.00034 J</b>	< 0.0013	< 0.0013	<b>0.00025 J</b>	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Chromium	mg/l	<b>0.002</b>	<b>0.0014</b>	<b>0.0012 J</b>	<b>0.0017</b>	<b>0.0013 J</b>	<b>0.001 J</b>	<b>0.0012 J</b>	<b>0.0016 J</b>	<b>0.0009 J</b>
Cobalt	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoride	mg/l	NA	NA	NA	NA	<b>0.07 J</b>	<b>0.03 J</b>	<b>0.04 J</b>	< 0.3	< 0.3
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	<b>0.0001 J</b>	< 0.005	< 0.005	< 0.005	< 0.005
Lithium	mg/l	NA	NA	NA	NA	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Mercury	mg/l	< 0.000213	< 0.0001	< 0.0002	<b>0.0000134 J</b>	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Molybdenum	mg/l	NA	NA	NA	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	0.0236 U	0.728 U	0.0367 U	0.237 U
Selenium	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0038 J</b>	<b>0.0054 J</b>	<b>0.002 J</b>	< 0.01	<b>0.0027 J</b>
Thallium	mg/l	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R
		GWC-3R (101817)	GWC-3R (022118)	GWC-3R (080718)	GWC-3R (022619)	GWC-3R (061319)	GWC-3R (082119)	GWC-3R (101019)	GWC-3R (031720)	GWC-3R (050720)
		10/18/2017	2/21/2018	8/7/2018	2/26/2019	6/13/2019	8/21/2019	10/10/2019	3/17/2020	5/7/2020
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	NA	< 0.005	< 0.01	< 0.01	ND	NA	ND	<b>0.00056 J</b>	NA
Silver	mg/l	NA	< 0.005	< 0.01	< 0.01	ND	NA	ND	< 0.00028	NA
Vanadium	mg/l	NA	< 0.01	< 0.01	< 0.01	<b>0.0021 J</b>	NA	<b>0.0011 J</b>	< 0.00071	NA
Zinc	mg/l	NA	<b>0.003 J</b>	<b>0.0036 J</b>	<b>0.0033 J</b>	<b>0.0069 J</b>	NA	<b>0.0079 J</b>	< 0.018	NA
<b>Appendix III</b>										
Boron	mg/l	< 0.04	<b>0.0399 J</b>	<b>0.0049 J</b>	<b>0.0053 J</b>	ND	NA	<b>0.0061 J</b>	<b>0.0099 J</b>	NA
Calcium	mg/l	<b>5.67</b>	<b>4.76</b>	<b>4.7</b>	<b>7.1</b>	<b>15.7</b>	NA	<b>4.3</b>	<b>20.3</b>	NA
Chloride	mg/l	<b>6.5</b>	<b>6.7</b>	<b>6.3</b>	<b>5.7</b>	<b>5</b>	NA	<b>5.3</b>	<b>5.2</b>	NA
Fluoride	mg/l	<b>0.22 J</b>	< 0.1	< 0.3	< 0.3	<b>0.58</b>	<b>0.037 J</b>	ND	<b>0.10 J</b>	NA
Sulfate	mg/l	<b>53</b>	<b>46.7</b>	<b>38.8</b>	<b>49.3</b>	<b>77.1</b>	NA	<b>48</b>	<b>95.2</b>	NA
Total Dissolved Solids	mg/l	<b>166</b>	<b>105</b>	<b>99</b>	<b>109</b>	<b>136</b>	NA	<b>109</b>	<b>175</b>	NA
pH	SU	5.17	5.15	4.95	5.22	5.08	5.32	5.4	5.03	5.05
<b>Appendix IV</b>										
Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	ND	ND	ND	< 0.00027	NA
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0016 J</b>	<b>0.00061 J</b>	ND	<b>0.0016 J</b>	NA
Barium	mg/l	<b>0.049</b>	<b>0.0285</b>	<b>0.029</b>	<b>0.026</b>	<b>0.021</b>	<b>0.02</b>	<b>0.018</b>	<b>0.024</b>	NA
Beryllium	mg/l	<b>0.0004 J</b>	< 0.003	<b>0.00026 J</b>	<b>0.00038 J</b>	<b>0.00051 J</b>	<b>0.00046 J</b>	<b>0.00039 J</b>	<b>0.00095 J</b>	NA
Cadmium	mg/l	< 0.001	< 0.001	< 0.001	<b>0.00011 J</b>	<b>0.00021 J</b>	ND	<b>0.00018 J</b>	<b>0.00037 J</b>	NA
Chromium	mg/l	<b>0.001 J</b>	< 0.01	< 0.01	< 0.01	<b>0.00073 J</b>	<b>0.001 J</b>	<b>0.0014 J</b>	<b>0.0013 J</b>	NA
Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.01</b>	<b>0.0016 J</b>	ND	<b>0.011</b>	NA
Fluoride	mg/l	<b>0.22 J</b>	< 0.1	< 0.3	< 0.3	<b>0.58</b>	<b>0.037 J</b>	ND	<b>0.10 J</b>	NA
Lead	mg/l	<b>0.00008 J</b>	< 0.005	< 0.005	< 0.005	ND	<b>0.000082 J</b>	ND	<b>0.00015 J</b>	NA
Lithium	mg/l	< 0.05	< 0.05	< 0.05	NA	NA	ND	ND	<b>0.0012 J</b>	NA
Mercury	mg/l	< 0.0005	< 0.0002	< 0.0005	<b>0.000064 J</b>	ND	ND	<b>0.00043 J</b>	NA	< 0.00014
Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	NA	ND	NA	NA	NA
Combined Radium - 226/228	pCi/l	0.706 U	0.526 U	0.376 U	NA	NA	0.774 U	0.433 U	<b>2.84</b>	NA
Selenium	mg/l	<b>0.0047 J</b>	< 0.01	<b>0.0016 J</b>	<b>0.002 J</b>	<b>0.0089 J</b>	<b>0.004 J</b>	<b>0.0021 J</b>	<b>0.0096 J</b>	NA
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	ND	ND	ND	< 0.000052	NA

Analyte	Units	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R
		GWC-3R (08/28/2020)	GWC-3R (09/22/2020)	GWC-4R (112210)	GWC-4R (010411)	GWC-4R (021711)	GWC-4R (031111)	GWC-4R (032811)	GWC-4R (090711)	GWC-4R (030412)
		8/28/2020	9/22/2020	11/22/2010	1/4/2011	2/17/2011	3/11/2011	3/28/2011	9/7/2011	3/4/2012
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	NA	< 0.00069	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Silver	mg/l	NA	< 0.00036	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.005
Vanadium	mg/l	NA	< 0.0022	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.01
Zinc	mg/l	NA	<b>0.0036 J</b>	< 0.0025	< 0.0025	< 0.0025	<b>0.025 o</b>	< 0.0025	< 0.0025	< 0.0025
<b>Appendix III</b>										
Boron	mg/l	NA	<b>0.0066 J</b>	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	<b>6.2</b>	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	<b>4.2</b>	NA	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	<b>0.097 J</b>	< 0.050	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	<b>55.1</b>	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	<b>110</b>	NA	NA	NA	NA	NA	NA	NA
pH	SU	<b>5.20</b>	<b>5.11</b>	NA	NA	NA	6.16	NA	5.07	NA
<b>Appendix IV</b>										
Antimony	mg/l	< 0.00028	< 0.00028	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	< 0.00078	< 0.00078	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.014</b>	<b>0.014</b>	<b>0.03 o</b>	<b>0.065 o</b>	<b>0.061 o</b>	<b>0.066 o</b>	<b>0.04</b>	<b>0.041</b>	<b>0.046</b>
Beryllium	mg/l	<b>0.00050 J</b>	<b>0.00042 J</b>	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	<b>0.00014 J</b>	<b>0.00013 J</b>	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	<b>0.00088 J</b>	<b>0.0011 J</b>	< 0.0013	<b>0.0062</b>	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.005
Cobalt	mg/l	<b>0.0041 J</b>	<b>0.0021 J</b>	< 0.0025	<b>0.0036</b>	<b>0.0035</b>	<b>0.0053</b>	< 0.0025	<b>0.0033</b>	<b>0.0032</b>
Fluoride	mg/l	<b>0.097 J</b>	< 0.050	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	<b>0.000054 J</b>	<b>0.000064 J</b>	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	< 0.00081	< 0.00081	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.000078	< 0.000078	< 0.000299	< 0.000299	< 0.000299	< 0.000299	< 0.000299	< 0.000168	< 0.000123
Molybdenum	mg/l	< 0.00069	NA	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	0.494 U	1.24 U	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	<b>0.0045 J</b>	<b>0.0091 J</b>	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Thallium	mg/l	< 0.00014	< 0.00014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R
		GWC-4R (091012)	GWC-4R (020613)	GWC-4R (081413)	GWC-4R (020414)	GWC-4R (080414)	GWC-4R (020215)	GWC-4R (080315)	GWC-4R (021616)	GWC-4R (090116)
		9/10/2012	2/6/2013	8/14/2013	2/4/2014	8/4/2014	2/2/2015	8/3/2015	2/16/2016	9/1/2016
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	< 0.0025	< 0.0025	< 0.0025	<b>0.0033</b>	<b>0.0015 J</b>	< 0.0025	< 0.0025	< 0.0025	NA
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA
Vanadium	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
Zinc	mg/l	< 0.0025	< 0.0025	< 0.0025	<b>0.0034</b>	<b>0.0013 J</b>	< 0.0025	< 0.0025	<b>0.0017 J</b>	NA
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>3.25</b>
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>37.1</b>
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>190</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.15 J</b>
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>150</b>
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>553</b>
pH	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0014 J</b>
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.084</b>	<b>0.042</b>	<b>0.042</b>	<b>0.046</b>	<b>0.027</b>	<b>0.02</b>	<b>0.017</b>	<b>0.032</b>	<b>0.0377</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.003
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.0001 J</b>
Chromium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.01
Cobalt	mg/l	<b>0.0067</b>	<b>0.0024</b>	<b>0.0014</b>	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.0082</b>	<b>0.0023 J</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.15 J</b>
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.005
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	< 0.05
Mercury	mg/l	< 0.0002	<b>0.00014</b>	< 0.0002	< 0.0002	< 0.000213	< 0.0001	< 0.0002	< 0.0002	< 0.0005
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	< 0.01
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	<b>0.011</b>	<b>0.011</b>	<b>0.013</b>	<b>0.017</b>	<b>0.0085</b>	<b>0.0089</b>	<b>0.0067</b>	<b>0.0047 J</b>	<b>0.0132</b>
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	NA	< 0.001	< 0.001

Analyte	Units	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R
		GWC-4R (113016)	GWC-4R (022417)	GWC-4R (051017)	GWC-4R (071817)	GWC-4R (101717)	GWC-4R (022018)	GWC-4R (080818)	GWC-4R (022619)	GWC-4R (061219)
		11/30/2016	2/24/2017	5/10/2017	7/18/2017	10/17/2017	2/20/2018	8/8/2018	2/26/2019	6/12/2019
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	NA	<b>0.0021 J</b>	NA	NA	NA	< 0.005	<b>0.0012 J</b>	< 0.01	<b>0.00082 J</b>
Silver	mg/l	NA	< 0.01	NA	NA	NA	< 0.005	< 0.01	< 0.01	ND
Vanadium	mg/l	NA	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	<b>0.00088 J</b>
Zinc	mg/l	NA	<b>0.0028 J</b>	<b>0.0014 J</b>	<b>0.0015 J</b>	NA	< 0.01	<b>0.0033 J</b>	< 0.01	ND
<b>Appendix III</b>										
Boron	mg/l	<b>0.813</b>	<b>2.53</b>	<b>1.22</b>	<b>0.97</b>	<b>0.804</b>	<b>1.01</b>	<b>1.3</b>	<b>0.75</b>	<b>1.5</b>
Calcium	mg/l	<b>13.4 B</b>	<b>29.5</b>	<b>17</b>	<b>16.8</b>	<b>14.3</b>	< 25	<b>22.1 J</b>	<b>15.1 J</b>	<b>24.2</b>
Chloride	mg/l	<b>48</b>	<b>130</b>	<b>71</b>	<b>46</b>	<b>50</b>	<b>53.1</b>	<b>69.3</b>	<b>42.2</b>	<b>69.5</b>
Fluoride	mg/l	<b>0.11 J</b>	<b>0.08 J</b>	<b>0.04 J</b>	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3	ND
Sulfate	mg/l	<b>50</b>	<b>110</b>	<b>70</b>	<b>50</b>	<b>58</b>	<b>64.6</b>	<b>79.5</b>	<b>55.8</b>	<b>92.8</b>
Total Dissolved Solids	mg/l	<b>247 B</b>	<b>414</b>	<b>251</b>	<b>179</b>	<b>256</b>	<b>233</b>	<b>292</b>	<b>226</b>	<b>298</b>
pH	SU	5.61	5.47	5.68	5.59	5.52	5.51	5.33	5.42	5.54
<b>Appendix IV</b>										
Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	<b>0.00028 J</b>
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.00037 J</b>
Barium	mg/l	<b>0.0148</b>	<b>0.029</b>	<b>0.0182</b>	<b>0.0187</b>	<b>0.0157</b>	<b>0.0151</b>	<b>0.019</b>	<b>0.017</b>	<b>0.017</b>
Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	ND
Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND
Chromium	mg/l	<b>0.0013 J</b>	< 0.01	<b>0.0007 J</b>	<b>0.0011 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	ND
Cobalt	mg/l	<b>0.0008 J</b>	<b>0.0025 J</b>	< 0.01	<b>0.0005 J</b>	<b>0.0006 J</b>	< 0.01	<b>0.001 J</b>	< 0.01	<b>0.00078 J</b>
Fluoride	mg/l	<b>0.11 J</b>	<b>0.08 J</b>	<b>0.04 J</b>	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3	ND
Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND
Lithium	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA	NA
Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0005	<b>0.000058 J</b>	ND
Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	NA
Combined Radium - 226/228	pCi/l	0.477 U	0.305 U	0.0659 U	0.199 U	0.294 U	1.03 U	0.0378 U	NA	NA
Selenium	mg/l	<b>0.0046 J</b>	<b>0.0108</b>	<b>0.0054 J</b>	<b>0.0047 J</b>	<b>0.004 J</b>	< 0.01	<b>0.0041 J</b>	<b>0.0027 J</b>	<b>0.0029 J</b>
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND



Analyte	Units	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-5R
		GWC-4R (081919)	GWC-4R (101019)	GWC-4R (031820)	GWC-4R (050720)	GWC-4R (08/28/2020)	GWC-4R (09/22/2020)	GWC-5R (090711)	GWC-5R (030512)	GWC-5R (090512)
		8/19/2019	10/10/2019	3/18/2020	5/7/2020	8/28/2020	9/22/2020	9/7/2011	3/5/2012	9/5/2012
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	NA	<b>0.00084 J</b>	<b>0.0026 J</b>	NA	NA	<b>0.00077 J</b>	< 0.0025	< 0.0025	< 0.0025
Silver	mg/l	NA	ND	< 0.00028	NA	NA	< 0.00036	< 0.0025	< 0.005	< 0.0025
Vanadium	mg/l	NA	ND	< 0.00071	NA	NA	< 0.0022	< 0.0025	< 0.01	< 0.005
Zinc	mg/l	NA	<b>0.006 J</b>	< 0.018	NA	NA	< 0.0022	<b>0.0064</b>	<b>0.0034</b>	<b>0.0035</b>
<b>Appendix III</b>										
Boron	mg/l	NA	<b>0.78</b>	<b>5.4</b>	NA	NA	<b>1.0</b>	NA	NA	NA
Calcium	mg/l	NA	<b>18</b>	<b>76.6</b>	NA	NA	<b>21.8</b>	NA	NA	NA
Chloride	mg/l	NA	<b>42.8</b>	<b>233</b>	NA	NA	<b>60.2</b>	NA	NA	NA
Fluoride	mg/l	ND	ND	< 0.050	NA	< 0.050	< 0.050	NA	NA	NA
Sulfate	mg/l	NA	<b>68.7</b>	<b>199</b>	NA	NA	<b>72.1</b>	NA	NA	NA
Total Dissolved Solids	mg/l	NA	<b>247</b>	<b>703</b>	NA	NA	<b>217</b>	NA	NA	NA
pH	SU	5.56	5.55	5.58	5.52	<b>5.38</b>	<b>5.43</b>	5.64	NA	NA
<b>Appendix IV</b>										
Antimony	mg/l	ND	ND	< 0.00027	NA	< 0.00028	<b>0.00053 J</b>	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	<b>0.00059 J</b>	ND	< 0.00035	NA	< 0.00078	< 0.00078	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.02</b>	<b>0.018</b>	<b>0.038</b>	NA	<b>0.026</b>	<b>0.026</b>	<b>0.02 o</b>	<b>0.048 o</b>	<b>0.07 o</b>
Beryllium	mg/l	ND	ND	< 0.000074	NA	< 0.000046	<b>0.000058 J</b>	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	ND	ND	< 0.00011	NA	< 0.00012	< 0.00012	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	<b>0.00051 J</b>	<b>0.00057 J</b>	< 0.00039	NA	< 0.00055	< 0.00055	< 0.0013	< 0.005	< 0.0013
Cobalt	mg/l	<b>0.001 J</b>	<b>0.00099 J</b>	<b>0.0031 J</b>	NA	<b>0.00049 J</b>	<b>0.00039 J</b>	< 0.0025	< 0.0025	< 0.0013
Fluoride	mg/l	ND	ND	< 0.050	NA	< 0.050	< 0.050	NA	NA	NA
Lead	mg/l	ND	ND	< 0.000046	NA	< 0.000036	<b>0.000041 J</b>	< 0.013	< 0.013	< 0.013
Lithium	mg/l	<b>0.00094 J</b>	<b>0.0013 J</b>	< 0.00078	NA	<b>0.0011 J</b>	<b>0.0013 J</b>	NA	NA	NA
Mercury	mg/l	ND	ND	NA	< 0.00014	< 0.000078	< 0.000078	< 0.000168	< 0.000123	< 0.0002
Molybdenum	mg/l	ND	NA	NA	NA	< 0.00069	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	0.637 U	0.525 U	0.87	NA	0.336 U	0.509 U	NA	NA	NA
Selenium	mg/l	<b>0.003 J</b>	<b>0.0024 J</b>	<b>0.0046 J</b>	NA	<b>0.0031 J</b>	<b>0.0032 J</b>	< 0.013	<b>0.014</b>	<b>0.012</b>
Thallium	mg/l	ND	ND	< 0.000052	NA	< 0.00014	< 0.00014	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R
		GWC-5R (020513)	GWC-5R (081413)	GWC-5R (020514)	GWC-5R (080414)	GWC-5R (020315)	GWC-5R (080315)	GWC-5R (021616)	GWC-5R (090116)	GWC-5R (120116)
		2/5/2013	8/14/2013	2/5/2014	8/4/2014	2/3/2015	8/3/2015	2/16/2016	9/1/2016	12/1/2016
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	< 0.0025	<b>0.0032</b>	<b>0.0032</b>	<b>0.0059</b>	<b>0.0013 J</b>	<b>0.0039</b>	<b>0.0036</b>	NA	NA
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA	NA
Vanadium	mg/l	< 0.005	< 0.005	< 0.005	<b>0.0022 J</b>	< 0.005	<b>0.0019 J</b>	<b>0.0011 J</b>	NA	NA
Zinc	mg/l	<b>0.0027</b>	<b>0.0041</b>	<b>0.011</b>	<b>0.011</b>	<b>0.0044</b>	<b>0.011</b>	<b>0.014</b>	NA	NA
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>0.0191 J</b>	<b>0.0088 J</b>
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>113</b>	<b>141 B</b>
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>6.6</b>	<b>6</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>0.03 J</b>	< 0.3
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>990</b>	<b>1100</b>
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>1400</b>	<b>1610 B</b>
pH	SU	NA	NA	NA	NA	NA	NA	NA	NA	5.24
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.068 o</b>	<b>0.036</b>	<b>0.044</b>	<b>0.058</b>	<b>0.033</b>	<b>0.037</b>	<b>0.04</b>	<b>0.0345</b>	<b>0.0342</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	<b>0.00026 J</b>	<b>0.00023 J</b>	<b>0.00046 J</b>	<b>0.00048 J</b>	<b>0.0005 J</b>	<b>0.0003 J</b>
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	<b>0.00045 J</b>	< 0.0013	<b>0.00046 J</b>	<b>0.00097 J</b>	<b>0.0005 J</b>	<b>0.0004 J</b>
Chromium	mg/l	< 0.0013	<b>0.0016</b>	<b>0.0018</b>	<b>0.0029</b>	<b>0.0017</b>	<b>0.0028</b>	<b>0.0028</b>	<b>0.0021 J</b>	<b>0.0017 J</b>
Cobalt	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	<b>0.03 J</b>	< 0.3
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.005	< 0.005
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.05	< 0.05
Mercury	mg/l	< 0.0001	< 0.0002	< 0.0002	< 0.000213	< 0.0001	< 0.0002	< 0.0002	< 0.0005	< 0.0005
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	< 0.01	< 0.01
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA	0.0588 U
Selenium	mg/l	<b>0.011</b>	<b>0.025</b>	<b>0.02</b>	<b>0.032</b>	<b>0.011</b>	<b>0.046</b>	<b>0.022</b>	<b>0.0212</b>	<b>0.0234</b>
Thallium	mg/l	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R
		GWC-5R (022417)	GWC-5R (051017)	GWC-5R (071717)	GWC-5R (101617)	GWC-5R (022118)	GWC-5R (080718)	GWC-5R (022619)	GWC-5R (061319)	GWC-5R (082119)
		2/24/2017	5/10/2017	7/17/2017	10/16/2017	2/21/2018	8/7/2018	2/26/2019	6/13/2019	8/21/2019
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	0.0019 J	NA	NA	NA	0.0013 J	0.0019 J	0.0023 J	0.0019 J	NA
Silver	mg/l	< 0.01	NA	NA	NA	< 0.005	< 0.01	< 0.01	ND	NA
Vanadium	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	ND	NA
Zinc	mg/l	0.0043 J	0.0042 J	0.0055 J	NA	0.0102	0.015	0.015	0.015	NA
<b>Appendix III</b>										
Boron	mg/l	0.0067 J	0.0068 J	0.0102 J	0.0066 J	0.0268 J	0.012 J	0.033 J	0.03 J	NA
Calcium	mg/l	118	136	125	78.2	64	83	94.4	127	NA
Chloride	mg/l	3.4	4.5	3.2	9	5.6	4.7	4.2	5.5	NA
Fluoride	mg/l	0.03 J	< 0.3	0.37	< 0.3	< 0.1	< 0.3	0.035 J	ND	ND
Sulfate	mg/l	850	1000	830	720	533	784	742	976	NA
Total Dissolved Solids	mg/l	1200	1360	1340	1080	830	1180	1010	1410	NA
pH	SU	5.37	5.2	5.21	5.16	5.18	5.06	5.08	5.01	4.88
<b>Appendix IV</b>										
Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	ND	0.00054 J
Arsenic	mg/l	< 0.005	0.0011 J	0.0013 J	0.0011 J	0.00091 J	0.0021 J	0.00069 J	0.0012 J	0.00094 J
Barium	mg/l	0.0347	0.0363	0.0274	0.0151	0.0174	0.015	0.014	0.014	0.014
Beryllium	mg/l	0.0002 J	0.0003 J	0.0004 J	0.0006 J	< 0.003	0.00096 J	0.0015 J	0.0015 J	0.0028 J
Cadmium	mg/l	0.0003 J	0.0003 J	0.0004 J	0.0006 J	< 0.001	0.00083 J	0.00081 J	0.00073 J	0.0012 J
Chromium	mg/l	0.0018 J	0.0024 J	0.0017 J	0.0023 J	< 0.01	0.0024 J	0.0019 J	0.0018 J	0.0024 J
Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	ND	0.00034 J
Fluoride	mg/l	0.03 J	< 0.3	0.37	< 0.3	< 0.1	< 0.3	0.035 J	ND	ND
Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND	0.00007 J
Lithium	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA	NA	0.0015 J
Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0005	0.00006 J	ND	ND
Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	NA	ND
Combined Radium - 226/228	pCi/l	0.487 U	0.289 U	0.528 U	0.558 U	1.13 U	0.51 U	NA	NA	1.82
Selenium	mg/l	0.0154	0.0152	0.0136	0.0242	0.0127	0.021	0.024	0.027	0.037
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND	0.000053 J

Analyte	Units	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-6R
		GWC-5R (100919)	GWC-5R (012120)	GWC-5R (031820)	GWC-5R (050720)	GWC-5R (08/27/2020)	GWC-5R (09/23/2020)	DUP-01 (09/23/2020)	GWC-5R (09/23/2020)	GWC-6R (090909)
		10/9/2019	1/21/2020	3/18/2020	5/7/2020	8/27/2020	9/23/2020	9/23/2020	9/23/2020	9/9/2009
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	0.0019 J	NA	0.0020 J	NA	NA	0.0012 J	0.0012 J	0.0012 J	< 0.0025
Silver	mg/l	ND	NA	< 0.00028	NA	NA	< 0.00036	< 0.00036	< 0.00036	< 0.0025
Vanadium	mg/l	ND	NA	< 0.00071	NA	NA	< 0.0022	< 0.0022	< 0.0022	< 0.0025
Zinc	mg/l	0.025	0.015	0.023	NA	NA	0.018	0.016	0.018	0.003
<b>Appendix III</b>										
Boron	mg/l	0.013 J	NA	0.034 J	NA	NA	0.028 J	0.021 J	0.028 J	NA
Calcium	mg/l	128	NA	149	NA	NA	144	152	144	NA
Chloride	mg/l	4.5	NA	3.8	NA	NA	3.0	2.9	3.0	NA
Fluoride	mg/l	0.35	NA	< 0.050	NA	0.064 J	< 0.050	< 0.050	< 0.050	NA
Sulfate	mg/l	1180	NA	960	NA	NA	992	990	992	NA
Total Dissolved Solids	mg/l	1680	NA	1520	NA	NA	1000	1350	1000	NA
pH	SU	4.89	4.99	4.88	5.20	5.17	5.04	NA	5.04	NA
<b>Appendix IV</b>										
Antimony	mg/l	ND	NA	< 0.00027	NA	< 0.00028	0.00031 J	< 0.00028	0.00031 J	< 0.005
Arsenic	mg/l	0.0012 J	NA	0.00080 J	NA	0.0016 J	0.00092 J	0.00093 J	0.00092 J	< 0.005
Barium	mg/l	0.015	NA	0.015	NA	0.013	0.012	0.013	0.012	0.025
Beryllium	mg/l	0.0022 J	NA	0.0028 J	NA	0.0023 J	0.0023 J	0.0021 J	0.0023 J	< 0.0013
Cadmium	mg/l	0.0011 J	NA	0.0012 J	NA	0.00091 J	0.00094 J	0.00085 J	0.00094 J	< 0.0013
Chromium	mg/l	0.0024 J	NA	0.0023 J	NA	0.0022 J	0.0020 J	0.0018 J	0.0020 J	< 0.0013
Cobalt	mg/l	0.00031 J	NA	0.00044 J	NA	< 0.00038	< 0.00038	< 0.00038	< 0.00038	< 0.0025
Fluoride	mg/l	0.35	NA	< 0.050	NA	0.064 J	< 0.050	< 0.050	< 0.050	NA
Lead	mg/l	0.000059 J	NA	0.000079 J	NA	0.000049 J	0.00019 J	0.000038 J	0.00019 J	< 0.013
Lithium	mg/l	0.0014 J	NA	0.0017 J	NA	0.0013 J	0.0012 J	0.0011 J	0.0012 J	NA
Mercury	mg/l	ND	NA	NA	<0.00014	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.00025
Molybdenum	mg/l	NA	NA	NA	NA	< 0.00069	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	0.498 U	NA	0.79	NA	0.691 U	0 U	0.579 U	0 U	NA
Selenium	mg/l	0.034	NA	0.028	NA	0.021	0.026	0.025	0.026	< 0.013
Thallium	mg/l	ND	NA	< 0.000052	NA	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.002

Analyte	Units	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R
		GWC-6R (111809)	GWC-6R (010510)	GWC-6R (030310)	GWC-6R (090710)	GWC-6R (031011)	GWC-6R (090811)	GWC-6R (030512)	GWC-6R (090512)	GWC-6R (020513)
		11/18/2009	1/5/2010	3/3/2010	9/7/2010	3/10/2011	9/8/2011	3/5/2012	9/5/2012	2/5/2013
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.005	< 0.0025	< 0.0025
Vanadium	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.01	< 0.005	< 0.005
Zinc	mg/l	< 0.0025	<b>0.0027</b>	< 0.0025	< 0.0025	< 0.0025	< 0.0025	<b>0.0053</b>	<b>0.0033</b>	< 0.0025
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	SU	5.82	5.8	6.15	NA	6.05	5.31	6.23	5.83	6.79
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.025</b>	<b>0.018</b>	<b>0.022</b>	<b>0.019</b>	<b>0.017</b>	<b>0.019</b>	<b>0.027</b>	<b>0.04</b>	<b>0.056</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
Chromium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.0018</b>	< 0.005	<b>0.0013</b>	< 0.0013
Cobalt	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0013	< 0.0013
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013
Lithium	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/l	< 0.00025	< 0.00025	< 0.000591	< 0.000591	< 0.000299	< 0.000168	< 0.000123	< 0.0002	< 0.0001
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.005	< 0.005
Thallium	mg/l	< 0.002	< 0.002	< 0.002	< 0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R
		GWC-6R (081313)	GWC-6R (020414)	GWC-6R (080514)	GWC-6R (020315)	GWC-6R (080415)	GWC-6R (021616)	GWC-6R (090116)	GWC-6R (112916)	GWC-6R (022317)
		8/13/2013	2/4/2014	8/5/2014	2/3/2015	8/4/2015	2/16/2016	9/1/2016	11/29/2016	2/23/2017
<b>Appendix I &amp; II Metals (State Permit)</b>										
Nickel	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA	NA	<b>0.0015 J</b>
Silver	mg/l	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	NA	NA	< 0.01
Vanadium	mg/l	< 0.005	< 0.005	<b>0.0015 J</b>	<b>0.00093 J</b>	<b>0.0036 J</b>	<b>0.0011 J</b>	NA	NA	< 0.01
Zinc	mg/l	<b>0.0038</b>	<b>0.0046</b>	<b>0.0019 J</b>	<b>0.0026</b>	<b>0.0035</b>	<b>0.002 J</b>	NA	NA	<b>0.0038 J</b>
<b>Appendix III</b>										
Boron	mg/l	NA	NA	NA	NA	NA	NA	<b>0.0108 J</b>	< 0.04	< 0.04
Calcium	mg/l	NA	NA	NA	NA	NA	NA	<b>56.8</b>	<b>50.7 B</b>	<b>63.5</b>
Chloride	mg/l	NA	NA	NA	NA	NA	NA	<b>4.4</b>	<b>4.8</b>	<b>4.4</b>
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	<b>0.28 J</b>	<b>0.05 J</b>	<b>0.07 J</b>
Sulfate	mg/l	NA	NA	NA	NA	NA	NA	<b>360</b>	<b>320</b>	<b>380</b>
Total Dissolved Solids	mg/l	NA	NA	NA	NA	NA	NA	<b>578</b>	<b>455</b>	<b>614</b>
pH	SU	6.48	6.14	NA	NA	NA	5.2	NA	5.92	5.97
<b>Appendix IV</b>										
Antimony	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.003	< 0.003
Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Barium	mg/l	<b>0.07</b>	<b>0.051</b>	<b>0.041</b>	<b>0.04</b>	<b>0.042</b>	<b>0.068</b>	<b>0.0536</b>	<b>0.0459</b>	<b>0.0581</b>
Beryllium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.003	< 0.003	< 0.003
Cadmium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.001	< 0.001	< 0.001
Chromium	mg/l	<b>0.0025</b>	<b>0.0013</b>	<b>0.0018</b>	<b>0.0015</b>	<b>0.0028</b>	<b>0.001 J</b>	<b>0.0015 J</b>	<b>0.0014 J</b>	<b>0.0017 J</b>
Cobalt	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.0013	<b>0.0014</b>	< 0.0013	< 0.01	< 0.01	< 0.01
Fluoride	mg/l	NA	NA	NA	NA	NA	NA	<b>0.28 J</b>	<b>0.05 J</b>	<b>0.07 J</b>
Lead	mg/l	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.013	< 0.005	< 0.005	< 0.005
Lithium	mg/l	NA	NA	NA	NA	NA	NA	< 0.05	< 0.05	<b>0.0028 J</b>
Mercury	mg/l	< 0.0002	< 0.0002	< 0.000213	< 0.0001	< 0.0002	<b>0.0000113 J</b>	< 0.0005	< 0.0005	< 0.0005
Molybdenum	mg/l	NA	NA	NA	NA	NA	NA	< 0.01	< 0.01	< 0.01
Combined Radium - 226/228	pCi/l	NA	NA	NA	NA	NA	NA	NA	0.232 U	1.18 U
Selenium	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.002 J</b>	<b>0.0017 J</b>	<b>0.0018 J</b>
Thallium	mg/l	< 0.001	< 0.002	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001

Analyte	Units	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R
		GWC-6R (051017)	GWC-6R (071817)	GWC-6R (101817)	GWC-6R (021918)	GWC-6R (080618)	GWC-6R (022519)	GWC-6R (061319)	GWC-6R (082019)
		5/10/2017	7/18/2017	10/18/2017	2/19/2018	8/6/2018	2/25/2019	6/13/2019	8/20/2019
<b>Appendix I &amp; II Metals (State Permit)</b>									
Nickel	mg/l	NA	NA	NA	< 0.005	<b>0.0026 J</b>	<b>0.0023 J</b>	<b>0.0037 J</b>	NA
Silver	mg/l	NA	NA	NA	< 0.005	< 0.01	< 0.01	ND	NA
Vanadium	mg/l	< 0.01	< 0.01	NA	< 0.01	<b>0.0029 J</b>	< 0.01	ND	NA
Zinc	mg/l	<b>0.0027 J</b>	<b>0.0024 J</b>	NA	< 0.01	<b>0.004 J</b>	<b>0.0028 J</b>	ND	NA
<b>Appendix III</b>									
Boron	mg/l	< 0.04	<b>0.0061 J</b>	< 0.04	< 0.04	< 0.2	< 0.04	ND	NA
Calcium	mg/l	<b>105</b>	<b>157</b>	<b>118</b>	<b>124</b>	<b>173</b>	<b>143</b>	<b>146</b>	NA
Chloride	mg/l	<b>3.9</b>	<b>4</b>	<b>4.1</b>	<b>4.4</b>	<b>3.9</b>	<b>4.4</b>	<b>6.2</b>	NA
Fluoride	mg/l	<b>0.02 J</b>	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3	ND	ND
Sulfate	mg/l	<b>660</b>	<b>880</b>	<b>760</b>	<b>718</b>	<b>797</b>	<b>763</b>	<b>918</b>	NA
Total Dissolved Solids	mg/l	<b>955</b>	<b>1270</b>	<b>1150</b>	<b>1070</b>	<b>1260</b>	<b>1160</b>	<b>1310</b>	NA
pH	SU	5.82	5.76	5.76	5.86	5.84	5.91	5.84	5.85
<b>Appendix IV</b>									
Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	ND	ND
Arsenic	mg/l	<b>0.0007 J</b>	<b>0.001 J</b>	<b>0.0011 J</b>	< 0.005	<b>0.0023 J</b>	<b>0.00073 J</b>	<b>0.00068 J</b>	<b>0.00072 J</b>
Barium	mg/l	<b>0.0873</b>	<b>0.0994</b>	<b>0.0757</b>	<b>0.0703</b>	<b>0.076</b>	<b>0.045</b>	<b>0.062</b>	<b>0.06</b>
Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.015	< 0.003	ND	ND
Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND	ND
Chromium	mg/l	<b>0.0015 J</b>	<b>0.0012 J</b>	<b>0.0012 J</b>	< 0.01	< 0.01	< 0.01	<b>0.00089 J</b>	<b>0.0017 J</b>
Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	ND	ND
Fluoride	mg/l	<b>0.02 J</b>	< 0.3	< 0.3	< 0.1	< 0.3	< 0.3	ND	ND
Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	ND	ND
Lithium	mg/l	<b>0.0054 J</b>	<b>0.002 J</b>	<b>0.0026 J</b>	< 0.05	< 0.25	NA	NA	<b>0.002 J</b>
Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0002	< 0.0005	<b>0.000067 J</b>	ND	ND
Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	NA	ND
Combined Radium - 226/228	pCi/l	0.658 U	0.797 U	0.239 U	<b>0.973</b>	0.866 U	NA	NA	0.409 U
Selenium	mg/l	<b>0.0023 J</b>	<b>0.0046 J</b>	<b>0.0037 J</b>	< 0.01	<b>0.0047 J</b>	<b>0.0051 J</b>	<b>0.0048 J</b>	<b>0.0039 J</b>
Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND	ND

Appendix C  
Historical Groundwater Analytical Data  
2020 Semiannual Groundwater Monitoring and Corrective Action Report  
Georgia Power Company  
Plant Yates - Gypsum Landfill



Analyte	Units	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R
		GWC-6R (100819)	GWC-6R (031720)	GWC-6R (050620)	GWC-6R (08/27/2020)	GWC-6R (09/23/2020)
		10/8/2019	3/17/2020	5/6/2020	8/27/2020	9/23/2020
<b>Appendix I &amp; II Metals (State Permit)</b>						
Nickel	mg/l	<b>0.0021 J</b>	<b>0.0011 J</b>	NA	NA	<b>0.0016 J</b>
Silver	mg/l	ND	< 0.00028	NA	NA	< 0.00036
Vanadium	mg/l	ND	<b>#REF!</b>	NA	NA	< 0.0022
Zinc	mg/l	<b>0.006 J</b>	< 0.018	NA	NA	< 0.0022
<b>Appendix III</b>						
Boron	mg/l	ND	< 0.0049	NA	NA	<b>0.0055 J</b>
Calcium	mg/l	<b>115</b>	<b>66.8</b>	NA	NA	<b>103</b>
Chloride	mg/l	<b>4.9</b>	<b>4.4</b>	NA	NA	<b>4.7</b>
Fluoride	mg/l	ND	< 0.050	NA	< 0.050	< 0.050
Sulfate	mg/l	<b>664</b>	<b>303</b>	NA	NA	<b>518</b>
Total Dissolved Solids	mg/l	<b>1050</b>	<b>588</b>	NA	NA	<b>820</b>
pH	SU	5.91	5.97	5.99	<b>5.77</b>	<b>5.81</b>
<b>Appendix IV</b>						
Antimony	mg/l	ND	< 0.00027	NA	< 0.00028	< 0.00028
Arsenic	mg/l	<b>0.00056 J</b>	< 0.00035	NA	<b>0.0011 J</b>	< 0.00078
Barium	mg/l	<b>0.054</b>	<b>0.031</b>	NA	<b>0.045</b>	<b>0.044</b>
Beryllium	mg/l	ND	< 0.000074	NA	< 0.000046	< 0.000046
Cadmium	mg/l	ND	< 0.00011	NA	< 0.00012	< 0.00012
Chromium	mg/l	<b>0.0014 J</b>	<b>0.0013 J</b>	NA	<b>0.0012 J</b>	<b>0.0015 J</b>
Cobalt	mg/l	ND	< 0.00030	NA	< 0.00038	< 0.00038
Fluoride	mg/l	ND	< 0.050	NA	< 0.050	< 0.050
Lead	mg/l	ND	< 0.000046	NA	< 0.000036	< 0.000036
Lithium	mg/l	<b>0.0021 J</b>	<b>0.0018 J</b>	NA	<b>0.0083 J</b>	<b>0.0023 J</b>
Mercury	mg/l	ND	NA	< 0.00014	< 0.000078	< 0.000078
Molybdenum	mg/l	NA	NA	NA	< 0.00069	NA
Combined Radium - 226/228	pCi/l	0.91 U	<b>2.50</b>	NA	0.514 U	0.960 U
Selenium	mg/l	<b>0.0031 J</b>	<b>0.0026 J</b>	NA	<b>0.0027 J</b>	<b>0.0031 J</b>
Thallium	mg/l	ND	< 0.000052	NA	< 0.00014	< 0.00014



**Notes:**

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.
2. Appendix III = Indicator parameters evaluated during Detection Monitoring.
3. Appendix IV = Parameters evaluated during Assessment Monitoring.
4. < Analyte was not detected above the laboratory reporting limit (RL) or method detection limit (MDL). Prior to 2020, the value reported is the RL.
5. NA = Not analyzed.
6. Detections are **bold**.

**Laboratory Qualifiers:**

J = Estimated concentration above the method detection limit and below the reporting limit.

U - 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 D

Statistical Analysis Results



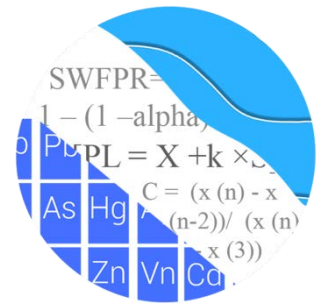
### Appendix III Statistically Significant Increase Summary (September 2020)

Appendix III Parameter	Monitoring Wells
Boron	GWC-4R
Calcium	GWC-1R, GWC-2R, GWC-5R, GWC-6R
Chloride	GWC-2R, GWC-4R
Sulfate	GWC-1R, GWC-2R, GWC-5R, GWC-6R
Total Dissolved Solids	GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R

## GROUNDWATER STATS CONSULTING

February 23, 2021

Southern Company Services  
Attn: Mr. Joju Abraham  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308-3374



Re: Plant Yates CCR Landfill Gypsum Stack  
Statistical Analysis September 2020 1<sup>st</sup> Semi-Annual Sample Event

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2020 1<sup>st</sup> Semi-Annual Groundwater statistical analysis of groundwater data for Georgia Power Company's Plant Yates. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III parameters began 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 for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. A list of all wells is provided below.

- **Upgradient wells:**
  - **AP-1:** YGWA-47
  - **AP-2:** YGWA-1D, YGWA-1I, YGWA-2I, YGWA-3D, YGWA-3I, YGWA-14S and, YGWA-30I
  - **Gypsum Landfill:** GWA-2
  - **AMA-R6:** YGWA-17S, YGWA-18I, YGWA-18S, YGWA-20S, YGWA-21I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D, and YGWA-5I

- **Downgradient wells:** GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R

Upgradient well data from wells across Plant Yates are utilized to construct interwell background limits for state Appendix I and II constituents as well as for Federal Appendix III and IV constituents. When intrawell prediction limits or trend tests are constructed, upgradient well GWA-2 (which is directly upgradient of the Landfill) is included for a point of reference. Note that in addition to the wells listed above, well GWA-1, which has not been sampled since 2004, provides historical upgradient data for a handful of Georgia EPD constituents. When interwell prediction limits are constructed, all upgradient well data are used to establish a statistical limit. However, since intrawell methods are used to analyze Georgia EPD parameters and each well uses its historical data to establish a limit, well GWA-1 is only plotted on time series graphs and box plots as reference data, and no formal statistics are included in this report.

All data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting. The analysis was prepared according to the recommended statistical methodology provided in the Fall 2017 by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting and primary author of the USEPA Unified Guidance.

The CCR and Georgia EPD programs consist of the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **CCR Appendix III:** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **CCR Appendix IV:** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lithium, lead, mercury, molybdenum, selenium, and thallium
- **Georgia EPD:** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, 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 with 100% nondetects follows this letter. Additionally, when Appendix IV constituents are not detected during a scheduled Scan event, no statistical analyses are required during the semi-annual sample event. During the annual Scan event conducted in August 2020, molybdenum was not detected and, therefore, was not required to be sampled during the September 2020 event. Since all units at Plant Yates utilize combined upgradient well data from individual units, in some cases upgradient wells at a given unit were not

sampled for all constituents if no detections were present at downgradient wells for that particular unit. The following constituents were not detected during their respective Scan event; therefore, upgradient wells at the units listed below were not sampled for that constituent:

- Yates AP-1: cadmium, mercury, selenium, and thallium
- Yates AP-2: mercury
- Yates AMA-R6: mercury

Time series plots for all well/constituent pairs are provided and are particularly useful for screening parameters detected in downgradient wells which require statistical analyses (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

For all constituents, a substitution of the most recent reporting limit is used for nondetect data. This generally gives the most conservative limit in each case and in the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. In the case of cobalt, due to varying detection limits in individual wells, the most recent reporting limit of 0.005 mg/L was substituted across all wells. For zinc, the most recent reporting limit increased compared to historical data, and therefore, the historical reporting limit was substituted for nondetects to maintain more conservative limits for zinc with a reporting limit of 0.01 mg/L instead of 0.02 mg/L.

Based on the previous screenings, data at all wells for constituents detected in downgradient wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided in the previous screening to demonstrate that the selected statistical methods for the parameters listed above comply with the USEPA Unified Guidance and the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves were based on the following statistical methods:

### **Georgia EPD Constituents:**

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan (all parameters)
- # Constituents: 15 (Silver is nondetect in all wells)
- # Downgradient wells: 6

### **CCR Appendix III Constituents:**

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan – (fluoride and pH)
- Interwell Prediction Limits with 1-of-2 resample plan – (boron, calcium, chloride, sulfate, and TDS)
- # Constituents: 7
- # Downgradient wells: 6

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals, as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling nondetects (USEPA, 2009).

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion of data are deselected prior to construction of limits 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.

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## **Background Screening Summaries – State and Federal**

### Georgia EPD Constituents – Conducted in August 2019

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 box plot method, one outlier was identified. Although there were no cases of this present in the datasets, when the most recent value is identified as an outlier, values are not flagged in the database at this time 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.

Tukey's test method did not identify outliers for the highest measurements of zinc in wells GWA-2, GWC-3R and GWC-4R; however, these values were flagged in the database so that resulting statistical limits will be lower and able to identify if a subtle increase in concentrations occurs. A list of all flagged outliers is presented in the Outlier Summary (Appendix C).



Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

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.

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

Statistically significant decreasing trends were noted for a few constituents, and one statistically significant increasing trend was identified for barium in well GWC-6R. The data sets are still relatively small, and the magnitudes of these trends were low relative to the average concentrations. Therefore, no adjustments were required to any of the records except for barium in wells GWC-4R and GWC-5R. Earlier measurements for barium in these wells were considerably higher than currently reported measurements. In order to construct prediction limits that are lower and more conservative from a regulatory perspective, only the more recent portion of these records were used for the statistical limits. All background data will be re-evaluated during the next background update. A summary of these background data ranges follows this letter.

#### CCR Appendix III Constituents – Conducted in April 2019

Using the Tukey box plot method, one outlier was identified. The outlier identified by Tukey's method was not flagged in the database as it was similar to remaining

measurements within the same well and neighboring wells. 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 will display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

No 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.

The results of the trend analyses were included in the previous screening and showed a few statistically significant decreasing trends. Most of the trends noted were relatively low in magnitude when compared to average concentrations, and the background time period is short; therefore, no adjustments were made to the data sets. However, when decreasing trends persist over a longer time frame for intrawell parameters in downgradient wells or interwell parameters in upgradient wells, some records may need to be truncated in order to maintain conservative limits

### **Evaluation of Georgia EPD Constituents – September 2020**

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are representative of the background data population, and that will rapidly identify a change in more recent compliance data from within a given well. The most recent sample from the same well is compared to its respective background. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility.

In cases where downgradient average concentrations are higher than observed upgradient concentrations for a given constituent where intrawell analyses are recommended, the current assumption is that this is due to natural spatial variation rather than a result of practices at the landfill. Validation of this assumption requires a separate analysis or investigation that is beyond the scope of this data screening study. However, for this site, the pre-waste data support the assumption of natural variation rather than impacts of the landfill.

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed using all available data through August 2018, except for the cases mentioned above (Figure D). Compliance data are compared to these intrawell background limits during each subsequent semi-annual sampling event. Since there were no detections during the September 2020 sampling event above the reporting limit for arsenic, beryllium,

cadmium, chromium, copper, lead, mercury, thallium, and vanadium in any of the wells, no prediction limits were required. Additionally, no statistical analyses were included for well/constituent pairs with 100% nondetects, which includes silver for all well/constituent pairs.

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 any resample falls within the statistical limit, the initial exceedance is considered to be a false positive result, and no further action is necessary. Statistical exceedances were identified in the following wells (Figure D):

- Nickel: GWA-2 (upgradient)
- Selenium: GWC-1R
- Zinc: GWA-2 (upgradient) and GWC-5R

Note that the exceedance in well GWC-5R for zinc resulted from the number of significant figures included in the limit. Additionally, note that the reported selenium observation 0.012 slightly exceeded its prediction limit of 0.01 and the reported measurement is well below the established Maximum Contaminant Level (MCL) of 0.05 mg/L.

When prediction limit exceedances occur in any of the 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. Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. Upgradient well GWA-2 is the only well directly upgradient of the Plant Yates Gypsum Landfill, and therefore, was included in the trend analyses for these parameters. A summary and graphical presentation of the trend test results follows this letter (Figure E). The following statistically significant trend was noted:

Increasing:

- Zinc: GWC-5R

### **Evaluation of Appendix III Parameters – September 2020**

For fluoride and pH, intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical data through February 2019 (Figure F). The most

recent sample from each downgradient well is compared to the background limit to determine whether there are exceedances over background. Because no exceedances were identified in downgradient wells, no further action was necessary.

For Appendix III parameters that are analyzed using interwell prediction limits (boron, calcium, chloride, sulfate, and TDS), background (upgradient) well data from all the Yates units were re-assessed for potential outliers during this analysis. 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).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data from each of the Yates units through September 2020 (Figure G). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are exceedances over background. Exceedances were noted for the following downgradient well/constituent pairs:

- Boron: GWC-4R
- Calcium: GWC-1R, GWC-2R, GWC-5R, and GWC-6R
- Chloride: GWC-2R and GWC-4R
- Sulfate: GWC-1R, GWC-2R, GWC-5R, and GWC-6R
- TDS: GWC-1R, GWC-2R, GWC-4R, GWC-5R, and GWC-6R

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen's Slope/Mann Kendall trend test along with upgradient well GWA-2 for the same constituents (Figure H). There were no statistically significant trends in downgradient wells. Statistically significant increasing trends were identified for calcium and sulfate in upgradient well GWA-2, as shown in the trend test summary and graphical results following this letter . When trends are noted upgradient of the facility, it is an indication that groundwater concentrations are naturally changing over time.

### **Statistical Analysis of Appendix IV Parameters – September 2020**

For analysis of Appendix IV parameters, confidence intervals for each downgradient well/constituent were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that have 100% ND or trace values below the reporting limits do not require analysis. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis.

High values for cobalt at upgradient well GWA-2, 0.20 mg/L and 0.16 mg/L from the August and September 2020 sample events, were two orders of magnitude higher than the other values for that well and, therefore, were flagged as outliers in order to maintain limits that were conservative (lower) from a regulatory perspective. However, since two observations were reported at this level, if further studies beyond the scope of this analysis indicate that these values are representative of natural groundwater quality, the values will be unflagged and included in the statistical analyses. A summary of flagged outliers follows this report (Figure C).

First, interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data from all the Yates units for Appendix IV constituents (Figure I). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under Georgia EPD Rule 391-3-4-.10(6)(a). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the September 2020 sample event for the state rule (Figure J). To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in accordance with the state requirements in each downgradient well (Figure K). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). 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. For state confidence intervals, no exceedances were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Yates CCR Landfill Gypsum Stack. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew Collins  
Project Manager



Kristina Rayner  
Groundwater Statistician

# Date Ranges

Date: 11/23/2020 8:19 PM

Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill

Barium (mg/L)

GWC-4R background:3/28/2011-8/8/2018

GWC-5R background:8/14/2013-8/7/2018

# State Parameter 100% Non-Detects

Analysis Run 11/23/2020 8:30 PM View: State Parameters  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

**Antimony (mg/L)**

GWC-1R, GWC-3R, GWC-6R, YGWA-17S, YGWA-18S, YGWA-20S, YGWA-30I, YGWA-3I, YGWA-40, YGWA-5D, YGWA-5I

**Arsenic (mg/L)**

YGWA-14S, YGWA-20S

**Beryllium (mg/L)**

GWA-2, GWC-6R, YGWA-18I, YGWA-1D, YGWA-1I, YGWA-21I, YGWA-2I, YGWA-39, YGWA-3D, YGWA-4I, YGWA-5D, YGWA-5I

**Cadmium (mg/L)**

GWA-2, GWC-6R, YGWA-18I, YGWA-1I, YGWA-20S, YGWA-2I, YGWA-30I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D

**Chromium (mg/L)**

YGWA-14S, YGWA-21I, YGWA-39

**Cobalt (mg/L)**

YGWA-14S, YGWA-17S, YGWA-18I, YGWA-1D, YGWA-20S, YGWA-2I, YGWA-3D, YGWA-3I, YGWA-40, YGWA-5I

**Lead (mg/L)**

GWC-6R, YGWA-30I, YGWA-47, YGWA-4I

**Mercury (mg/L)**

YGWA-18I, YGWA-18S, YGWA-2I, YGWA-4I, YGWA-5D, YGWA-5I

**Selenium (mg/L)**

GWA-2, YGWA-18I, YGWA-18S, YGWA-1D, YGWA-1I, YGWA-20S, YGWA-2I, YGWA-30I, YGWA-3D, YGWA-3I, YGWA-5D

**Silver (mg/L)**

GWA-2, GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R

**Thallium (mg/L)**

GWC-1R, GWC-3R, GWC-4R, GWC-6R, YGWA-17S, YGWA-18I, YGWA-18S, YGWA-1D, YGWA-20S, YGWA-21I, YGWA-2I, YGWA-30I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D, YGWA-5I



## Appendix IV 100% Non-Detects

Analysis Run 11/23/2020 9:07 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

**Antimony (mg/L)**

GWC-1R, GWC-3R, GWC-6R, YGWA-17S, YGWA-18S, YGWA-20S, YGWA-30I, YGWA-3I, YGWA-40, YGWA-5D, YGWA-5I

**Arsenic (mg/L)**

YGWA-14S, YGWA-20S

**Beryllium (mg/L)**

GWA-2, GWC-6R, YGWA-18I, YGWA-1D, YGWA-1I, YGWA-21I, YGWA-2I, YGWA-39, YGWA-3D, YGWA-4I, YGWA-5D, YGWA-5I

**Cadmium (mg/L)**

GWA-2, GWC-6R, YGWA-18I, YGWA-1I, YGWA-20S, YGWA-2I, YGWA-30I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D

**Chromium (mg/L)**

GWA-2, YGWA-14S, YGWA-21I, YGWA-39

**Cobalt (mg/L)**

GWC-6R, YGWA-14S, YGWA-17S, YGWA-18I, YGWA-1D, YGWA-20S, YGWA-2I, YGWA-3D, YGWA-3I, YGWA-40, YGWA-5I

**Fluoride (mg/L)**

YGWA-17S, YGWA-18I, YGWA-18S, YGWA-20S, YGWA-40, YGWA-4I, YGWA-5I

**Lead (mg/L)**

GWC-6R, YGWA-30I, YGWA-47, YGWA-4I

**Lithium (mg/L)**

YGWA-14S, YGWA-20S, YGWA-40

**Mercury (mg/L)**

YGWA-18I, YGWA-18S, YGWA-2I, YGWA-4I, YGWA-5D, YGWA-5I

**Molybdenum (mg/L)**

GWA-2, GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R, YGWA-14S, YGWA-17S, YGWA-18I, YGWA-18S, YGWA-20S, YGWA-30I, YGWA-40, YGWA-47, YGWA-4I, YGWA-5I

**Selenium (mg/L)**

GWA-2, YGWA-18I, YGWA-18S, YGWA-1D, YGWA-1I, YGWA-20S, YGWA-2I, YGWA-30I, YGWA-3D, YGWA-3I, YGWA-5D

**Thallium (mg/L)**

GWC-1R, GWC-3R, GWC-4R, GWC-6R, YGWA-17S, YGWA-18I, YGWA-18S, YGWA-1D, YGWA-20S, YGWA-21I, YGWA-2I, YGWA-30I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D, YGWA-5I

# State Parameters - Intrawell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:26 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Nickel (mg/L)	GWA-2	0.021	n/a	9/22/2020	0.027	Yes	22	n/a	n/a	13.64	n/a	n/a	0.003707	NP Intra (normality) 1 of 2
Selenium (mg/L)	GWC-1R	0.01	n/a	9/22/2020	0.012	Yes	18	n/a	n/a	66.67	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Zinc (mg/L)	GWA-2	0.009584	n/a	9/22/2020	0.033	Yes	23	0.004991	0.002	4.348	None	No	0.0005852	Param Intra 1 of 2
Zinc (mg/L)	GWC-5R	0.01798	n/a	9/23/2020	0.018	Yes	15	0.00738	0.004189	0	None	No	0.0005852	Param Intra 1 of 2

# State Parameters - Intrawell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:26 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)	GWA-2	0.003	n/a	9/22/2020	0.00044J	No 27	n/a	n/a	96.3	n/a	n/a	n/a	0.002502	NP Intra (NDs) 1 of 2
Antimony (mg/L)	GWC-2R	0.003	n/a	9/22/2020	0.0017J	No 23	n/a	n/a	100	n/a	n/a	n/a	0.003415	NP Intra (NDs) 1 of 2
Antimony (mg/L)	GWC-4R	0.003	n/a	9/22/2020	0.00053J	No 23	n/a	n/a	95.65	n/a	n/a	n/a	0.003415	NP Intra (NDs) 1 of 2
Antimony (mg/L)	GWC-5R	0.003	n/a	9/23/2020	0.00031J	No 18	n/a	n/a	100	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Barium (mg/L)	GWA-2	0.07943	n/a	9/22/2020	0.045	No 27	0.05023	0.01305	0	None	No	No	0.0005852	Param Intra 1 of 2
Barium (mg/L)	GWC-1R	0.09203	n/a	9/22/2020	0.068	No 18	0.04614	0.01903	0	None	No	No	0.0005852	Param Intra 1 of 2
Barium (mg/L)	GWC-2R	0.13	n/a	9/22/2020	0.04	No 23	n/a	n/a	0	n/a	n/a	n/a	0.003415	NP Intra (normality) 1 of 2
Barium (mg/L)	GWC-3R	0.1072	n/a	9/22/2020	0.014	No 18	0.1832	0.05976	0	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Barium (mg/L)	GWC-4R	0.0778	n/a	9/22/2020	0.026	No 19	0.1732	0.04443	0	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Barium (mg/L)	GWC-5R	0.06311	n/a	9/23/2020	0.012	No 14	0.03304	0.01162	0	None	No	No	0.0005852	Param Intra 1 of 2
Barium (mg/L)	GWC-6R	0.1025	n/a	9/23/2020	0.044	No 24	0.04776	0.02401	0	None	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWA-2	0.006994	n/a	3/17/2020	0.003J	No 27	0.003566	0.001537	40.74	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWC-1R	0.008717	n/a	9/22/2020	0.0008J	No 18	-6.613	0.7756	50	Kaplan-Meier	ln(x)	0.0005852	Param Intra 1 of 2	
Cobalt (mg/L)	GWC-2R	0.04742	n/a	9/22/2020	0.0054	No 23	0.02477	0.009863	4.348	None	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWC-3R	0.005	n/a	9/22/2020	0.0021J	No 18	n/a	n/a	100	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	GWC-4R	0.007137	n/a	9/22/2020	0.00039J	No 23	0.002697	0.001934	34.78	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWC-5R	0.005	n/a	9/23/2020	0.005ND	No 18	n/a	n/a	100	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	GWC-6R	0.005	n/a	9/23/2020	0.005ND	No 24	n/a	n/a	95.83	n/a	n/a	n/a	0.003124	NP Intra (NDs) 1 of 2
<b>Nickel (mg/L)</b>	<b>GWA-2</b>	<b>0.021</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.027</b>	<b>Yes 22</b>	<b>n/a</b>	<b>n/a</b>	<b>13.64</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003707</b>	<b>NP intra (normality) 1 of 2</b>
Nickel (mg/L)	GWC-1R	0.01331	n/a	9/22/2020	0.0021J	No 13	-6.05	0.655	38.46	Kaplan-Meier	ln(x)	0.0005852	Param Intra 1 of 2	
Nickel (mg/L)	GWC-2R	0.01015	n/a	9/22/2020	0.005ND	No 18	0.003546	0.00274	44.44	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Nickel (mg/L)	GWC-3R	0.0054	n/a	9/22/2020	0.005ND	No 13	n/a	n/a	69.23	n/a	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Nickel (mg/L)	GWC-4R	0.01	n/a	9/22/2020	0.00077J	No 18	n/a	n/a	77.78	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Nickel (mg/L)	GWC-5R	0.005956	n/a	9/23/2020	0.0012J	No 13	0.002281	0.00139	30.77	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Nickel (mg/L)	GWC-6R	0.005	n/a	9/23/2020	0.0016J	No 19	n/a	n/a	89.47	n/a	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
<b>Selenium (mg/L)</b>	<b>GWC-1R</b>	<b>0.01</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.012</b>	<b>Yes 18</b>	<b>n/a</b>	<b>n/a</b>	<b>66.67</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.005373</b>	<b>NP Intra (NDs) 1 of 2</b>
Selenium (mg/L)	GWC-2R	0.01	n/a	9/22/2020	0.0056J	No 23	n/a	n/a	69.57	n/a	n/a	n/a	0.003415	NP Intra (NDs) 1 of 2
Selenium (mg/L)	GWC-3R	0.01	n/a	9/22/2020	0.0091J	No 18	n/a	n/a	61.11	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Selenium (mg/L)	GWC-4R	0.01548	n/a	9/22/2020	0.0032J	No 23	0.007285	0.003569	34.78	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Selenium (mg/L)	GWC-5R	0.04273	n/a	9/23/2020	0.026	No 18	0.1371	0.02884	5.556	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Selenium (mg/L)	GWC-6R	0.01	n/a	9/23/2020	0.0031J	No 24	n/a	n/a	70.83	n/a	n/a	n/a	0.003124	NP Intra (NDs) 1 of 2
<b>Zinc (mg/L)</b>	<b>GWA-2</b>	<b>0.009584</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.033</b>	<b>Yes 23</b>	<b>0.004991</b>	<b>0.002</b>	<b>4.348</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>0.0005852</b>	<b>Param Intra 1 of 2</b>
Zinc (mg/L)	GWC-1R	0.007102	n/a	9/22/2020	0.0029J	No 15	0.05264	0.0125	20	Kaplan-Meier	sqrt(x)	0.0005852	Param Intra 1 of 2	
Zinc (mg/L)	GWC-2R	0.01249	n/a	9/22/2020	0.003J	No 20	0.0653	0.01977	10	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Zinc (mg/L)	GWC-3R	0.01462	n/a	9/22/2020	0.0036J	No 14	0.00605	0.003313	7.143	None	No	No	0.0005852	Param Intra 1 of 2
Zinc (mg/L)	GWC-4R	0.01	n/a	9/22/2020	0.01ND	No 19	n/a	n/a	63.16	n/a	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
<b>Zinc (mg/L)</b>	<b>GWC-5R</b>	<b>0.01798</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>0.018</b>	<b>Yes 15</b>	<b>0.00738</b>	<b>0.004189</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>0.0005852</b>	<b>Param Intra 1 of 2</b>
Zinc (mg/L)	GWC-6R	0.01	n/a	9/23/2020	0.01ND	No 21	n/a	n/a	33.33	n/a	n/a	n/a	0.003999	NP Intra (normality) 1 of 2

# State Parameters Trend Tests - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:35 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	GWC-5R	0.001708	131	87	Yes	21	0	n/a	n/a	0.01	NP

# State Parameters Trend Tests - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:35 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Nickel (mg/L)	GWA-2 (bg)	-0.00003012	-14	-124	No	27	11.11	n/a	n/a	0.01	NP
Selenium (mg/L)	GWA-2 (bg)	0	0	176	No	34	100	n/a	n/a	0.01	NP
Selenium (mg/L)	GWC-1R	0	-68	-111	No	25	52	n/a	n/a	0.01	NP
Zinc (mg/L)	GWA-2 (bg)	0	3	131	No	28	10.71	n/a	n/a	0.01	NP
<b>Zinc (mg/L)</b>	<b>GWC-5R</b>	<b>0.001708</b>	<b>131</b>	<b>87</b>	<b>Yes</b>	<b>21</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Appendix III - Intrawell Prediction Limits - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:38 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)	GWA-2	0.2151	n/a	9/22/2020	0.058J	No	9	0.1174	0.03628	0	None	No	0.001254	Param Intra 1 of 2
Fluoride (mg/L)	GWC-1R	0.1	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-2R	0.1	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-3R	0.22	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-4R	0.15	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-5R	0.37	n/a	9/23/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-6R	0.28	n/a	9/23/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
pH (S.U.)	GWA-2	7.106	5.427	9/22/2020	5.78	No	21	6.266	0.401	0	None	No	0.0006268	Param Intra 1 of 2
pH (S.U.)	GWC-1R	5.52	4.49	9/22/2020	5.25	No	9	n/a	n/a	0	n/a	n/a	0.03619	NP Intra (normality) 1 of 2
pH (S.U.)	GWC-2R	6.8	4.35	9/22/2020	5.34	No	16	n/a	n/a	0	n/a	n/a	0.01291	NP Intra (normality) 1 of 2
pH (S.U.)	GWC-3R	5.28	4.31	9/22/2020	5.11	No	9	n/a	n/a	0	n/a	n/a	0.03619	NP Intra (normality) 1 of 2
pH (S.U.)	GWC-4R	6.245	4.827	9/22/2020	5.43	No	10	5.536	0.2783	0	None	No	0.0006268	Param Intra 1 of 2
pH (S.U.)	GWC-5R	5.711	4.765	9/23/2020	5.04	No	9	5.238	0.1758	0	None	No	0.0006268	Param Intra 1 of 2
pH (S.U.)	GWC-6R	6.687	5.169	9/23/2020	5.81	No	19	5.928	0.3559	0	None	No	0.0006268	Param Intra 1 of 2

# Appendix III - Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 11/23/2020, 8:11 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-4R	0.16	n/a	9/22/2020	1	Yes	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1R	37	n/a	9/22/2020	98.8	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2R	37	n/a	9/22/2020	40.5	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-5R	37	n/a	9/23/2020	144	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-6R	37	n/a	9/23/2020	103	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2R	7.9	n/a	9/22/2020	24.7	Yes	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-4R	7.9	n/a	9/22/2020	60.2	Yes	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1R	160	n/a	9/22/2020	478	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2R	160	n/a	9/22/2020	216	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-5R	160	n/a	9/23/2020	992	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-6R	160	n/a	9/23/2020	518	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
TDS (mg/L)	GWC-1R	216	n/a	9/22/2020	675	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-2R	216	n/a	9/22/2020	394	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-4R	216	n/a	9/22/2020	217	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-5R	216	n/a	9/23/2020	1000	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-6R	216	n/a	9/23/2020	820	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2

# Appendix III - Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 11/23/2020, 8:11 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1R	0.16	n/a	9/22/2020	0.025J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2R	0.16	n/a	9/22/2020	0.046J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-3R	0.16	n/a	9/22/2020	0.0066J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Boron (mg/L)</b>	<b>GWC-4R</b>	<b>0.16</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>1</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>45.62</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Boron (mg/L)	GWC-5R	0.16	n/a	9/23/2020	0.028J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-6R	0.16	n/a	9/23/2020	0.0055J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-1R</b>	<b>37</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>98.8</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-2R</b>	<b>37</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>40.5</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-3R	37	n/a	9/22/2020	6.2	No	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-4R	37	n/a	9/22/2020	21.8	No	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-5R</b>	<b>37</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>144</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-6R</b>	<b>37</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>103</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-1R	7.9	n/a	9/22/2020	5.5	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-2R</b>	<b>7.9</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>24.7</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-3R	7.9	n/a	9/22/2020	4.2	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-4R</b>	<b>7.9</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>60.2</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-5R	7.9	n/a	9/23/2020	3	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-6R	7.9	n/a	9/23/2020	4.7	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-1R</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>478</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-2R</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>216</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-3R	160	n/a	9/22/2020	55.1	No	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-4R	160	n/a	9/22/2020	72.1	No	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-5R</b>	<b>160</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>992</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-6R</b>	<b>160</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>518</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-1R</b>	<b>216</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>675</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-2R</b>	<b>216</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>394</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	GWC-3R	216	n/a	9/22/2020	110	No	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>GWC-4R</b>	<b>216</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>217</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-5R</b>	<b>216</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>1000</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-6R</b>	<b>216</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>820</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>



# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:51 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	GWA-2 (bg)	4.326	50	43	Yes	13	7.692	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-2 (bg)	22.54	53	43	Yes	13	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:51 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GWA-2 (bg)	0	-1	-43	No	13	53.85	n/a	n/a	0.01	NP
Boron (mg/L)	GWC-4R	-0.02011	-8	-43	No	13	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWA-2 (bg)</b>	<b>4.326</b>	<b>50</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>7.692</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-1R	-5.883	-18	-43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-2R	5.077	38	43	No	13	7.692	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-5R	4.691	18	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-6R	15.99	20	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-2 (bg)	0.1924	33	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-2R	1.318	25	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-4R	-2.088	-8	-43	No	13	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWA-2 (bg)</b>	<b>22.54</b>	<b>53</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-1R	-49.07	-26	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-2R	17.81	20	43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-5R	-3.702	-2	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-6R	45.26	14	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWA-2 (bg)	21.56	27	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-1R	-69.17	-24	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-2R	52.15	32	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-4R	-6.533	-9	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-5R	-53.58	-10	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-6R	81.82	18	43	No	13	0	n/a	n/a	0.01	NP

# Upper Tolerance Limit Summary Table

Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill    Printed 12/1/2020, 12:41 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.0047	n/a	n/a	280	n/a	n/a	86.43	n/a	n/a	NaN	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	328	n/a	n/a	77.13	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.071	n/a	n/a	328	n/a	n/a	3.354	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.003	n/a	n/a	312	n/a	n/a	83.01	n/a	n/a	NaN	NP Inter(NDs)
Cadmium (mg/L)	0.0025	n/a	n/a	313	n/a	n/a	96.17	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	280	n/a	n/a	77.14	n/a	n/a	NaN	NP Inter(NDs)
Cobalt (mg/L)	0.035	n/a	n/a	326	n/a	n/a	69.63	n/a	n/a	NaN	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	6.92	n/a	n/a	306	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Fluoride (mg/L)	0.68	n/a	n/a	327	n/a	n/a	68.5	n/a	n/a	NaN	NP Inter(NDs)
Lead (mg/L)	0.005	n/a	n/a	282	n/a	n/a	85.82	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	307	n/a	n/a	28.34	n/a	n/a	NaN	NP Inter(normality)
Mercury (mg/L)	0.0005	n/a	n/a	251	n/a	n/a	92.43	n/a	n/a	NaN	NP Inter(NDs)
Molybdenum (mg/L)	0.014	n/a	n/a	272	n/a	n/a	59.56	n/a	n/a	NaN	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	n/a	311	n/a	n/a	91	n/a	n/a	NaN	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	281	n/a	n/a	96.44	n/a	n/a	NaN	NP Inter(NDs)

<b>YATES LANDFILL GYPSUM STACK GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.0047	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.071	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.0025	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)		0.035	0.035
Combined Radium, Total (pCi/L)	5	6.9	6.9
Fluoride, Total (mg/L)	4	0.68	4
Lead, Total (mg/L)		0.005	0.005
Lithium, Total (mg/L)		0.03	0.03
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)		0.014	0.014
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

*\*Grey cell indicates Background Limit is higher than MCL*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

# State Confidence Intervals Summary - All Results (No Significant)

Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill    Printed 12/2/2020, 9:05 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWC-2R	0.003	0.0017	0.006	No	16	0.002919	0.000325	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-4R	0.003	0.0014	0.006	No	16	0.002576	0.0009373	81.25	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-5R	0.003	0.00054	0.006	No	16	0.002678	0.0008805	87.5	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-1R	0.005	0.0009	0.01	No	16	0.003934	0.001913	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-2R	0.005	0.00075	0.01	No	16	0.004734	0.001062	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-3R	0.005	0.0016	0.01	No	16	0.004301	0.001518	81.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-4R	0.005	0.00059	0.01	No	16	0.004435	0.001544	87.5	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-5R	0.005	0.00091	0.01	No	16	0.002116	0.001751	25	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-6R	0.005	0.0007	0.01	No	16	0.002743	0.002092	43.75	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1R	0.06018	0.03661	2	No	16	0.04928	0.01825	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2R	0.05363	0.04542	2	No	16	0.04953	0.006304	0	None	No	0.01	Param.
Barium (mg/L)	GWC-3R	0.03333	0.02107	2	No	16	0.0272	0.009421	0	None	No	0.01	Param.
Barium (mg/L)	GWC-4R	0.032	0.0157	2	No	16	0.02264	0.007834	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-5R	0.0347	0.014	2	No	16	0.02198	0.01037	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-6R	0.07258	0.04933	2	No	16	0.06096	0.01786	0	None	No	0.01	Param.
Beryllium (mg/L)	GWC-1R	0.003	0.000076	0.004	No	16	0.001199	0.001441	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-2R	0.003	0.00012	0.004	No	16	0.001748	0.001467	56.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-3R	0.00084	0.00026	0.004	No	16	0.0005944	0.0006732	6.25	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-4R	0.003	0.000058	0.004	No	16	0.002816	0.0007355	93.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-5R	0.001885	0.0005811	0.004	No	16	0.001384	0.001036	6.25	None	x^(1/3)	0.01	Param.
Cadmium (mg/L)	GWC-1R	0.0025	0.00016	0.005	No	16	0.002054	0.0009595	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-2R	0.0025	0.00015	0.005	No	16	0.001907	0.001061	75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-3R	0.0025	0.00014	0.005	No	16	0.001493	0.001181	56.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-4R	0.0025	0.0001	0.005	No	16	0.00235	0.0006	93.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-5R	0.001123	0.0005183	0.005	No	16	0.0008556	0.0005334	6.25	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	GWC-1R	0.01	0.0009	0.1	No	16	0.003294	0.004001	25	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2R	0.01	0.00059	0.1	No	16	0.007647	0.004209	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-3R	0.0017	0.0009	0.1	No	16	0.002819	0.003572	18.75	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-4R	0.01	0.0007	0.1	No	16	0.007136	0.004391	68.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-5R	0.0024	0.0018	0.1	No	16	0.002637	0.001988	6.25	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-6R	0.0017	0.0012	0.1	No	16	0.002968	0.003496	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-1R	0.005	0.0006	0.035	No	16	0.002194	0.002053	31.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-2R	0.02235	0.01282	0.035	No	16	0.01759	0.007326	6.25	None	No	0.01	Param.
Cobalt (mg/L)	GWC-3R	0.01	0.0041	0.035	No	16	0.005237	0.002322	68.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-4R	0.002103	0.0006031	0.035	No	16	0.002353	0.00231	18.75	Kaplan-Meier	x^(1/3)	0.01	Param.
Cobalt (mg/L)	GWC-5R	0.005	0.00044	0.035	No	16	0.004131	0.001869	81.25	Kaplan-Meier	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GWC-1R	1.047	0.5017	6.9	No	12	0.7863	0.369	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2R	1.582	0.6153	6.9	No	12	1.099	0.616	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-3R	1.124	0.1796	6.9	No	12	0.7012	0.7531	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-4R	0.6758	0.2045	6.9	No	12	0.4401	0.3003	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-5R	0.9945	0.2318	6.9	No	12	0.6132	0.486	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-6R	1.235	0.4183	6.9	No	12	0.8532	0.6004	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GWC-1R	0.1	0.06	4	No	15	0.08733	0.02219	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-2R	0.58	0.05	4	No	15	0.1187	0.13	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-3R	0.22	0.04	4	No	15	0.1249	0.1333	46.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-4R	0.11	0.08	4	No	15	0.09867	0.02167	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-5R	0.35	0.035	4	No	15	0.1186	0.102	60	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-6R	0.28	0.07	4	No	15	0.1013	0.05489	73.33	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-1R	0.005	0.000067	0.005	No	16	0.004382	0.001688	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-2R	0.005	0.00007	0.005	No	16	0.003153	0.002462	62.5	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-3R	0.005	0.00008	0.005	No	16	0.003158	0.002456	62.5	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-4R	0.005	0.000041	0.005	No	16	0.00469	0.00124	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-5R	0.005	0.00007	0.005	No	16	0.003465	0.002351	68.75	None	No	0.01	NP (NDs)

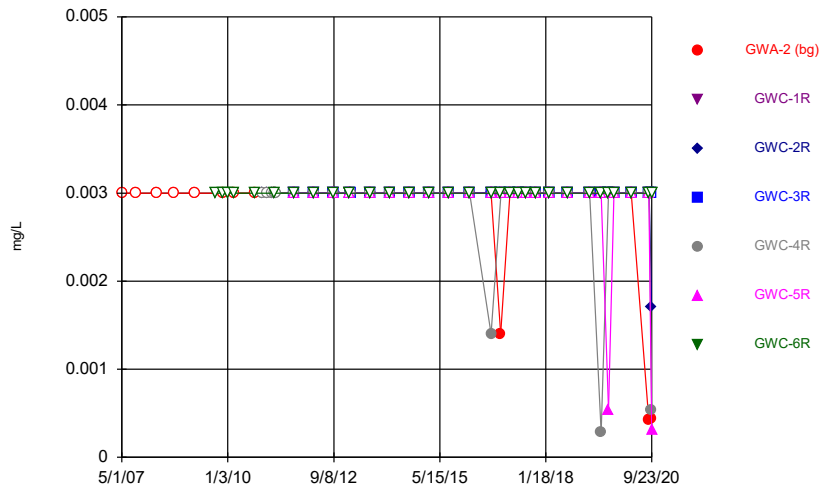
# State Confidence Intervals Summary - All Results (No Significant) <sup>Page 2</sup>

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 12/2/2020, 9:05 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	GWC-1R	0.03	0.001	0.03	No	13	0.00808	0.0125	23.08	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-2R	0.03	0.0035	0.03	No	13	0.01003	0.0114	23.08	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-3R	0.03	0.0012	0.03	No	13	0.02778	0.007988	92.31	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-4R	0.03	0.0011	0.03	No	13	0.02113	0.01385	69.23	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-5R	0.03	0.0013	0.03	No	13	0.01901	0.01447	61.54	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-6R	0.03	0.002	0.03	No	13	0.01148	0.01297	30.77	None	No	0.01	NP (normality)
Mercury (mg/L)	GWC-1R	0.0005	0.000059	0.002	No	16	0.0004724	0.0001103	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2R	0.0005	0.000071	0.002	No	16	0.0004732	0.0001073	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-3R	0.0005	0.00043	0.002	No	16	0.000438	0.0001571	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-4R	0.0005	0.000058	0.002	No	16	0.0004724	0.0001105	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-5R	0.0005	0.00006	0.002	No	16	0.0004725	0.00011	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-6R	0.0005	0.000067	0.002	No	16	0.0004424	0.0001577	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-1R	0.006121	0.002273	0.05	No	16	0.00495	0.003318	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-2R	0.003921	0.002367	0.05	No	16	0.003144	0.001194	12.5	None	No	0.01	Param.
Selenium (mg/L)	GWC-3R	0.005918	0.002636	0.05	No	16	0.004712	0.002557	18.75	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-4R	0.0054	0.0029	0.05	No	16	0.0049	0.00295	6.25	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-5R	0.02728	0.01843	0.05	No	16	0.02286	0.006805	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-6R	0.004315	0.002697	0.05	No	16	0.003506	0.001243	12.5	None	No	0.01	Param.
Thallium (mg/L)	GWC-2R	0.001	0.00007	0.002	No	16	0.0009419	0.0002325	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-5R	0.001	0.000053	0.002	No	16	0.0009408	0.0002368	93.75	None	No	0.01	NP (NDs)

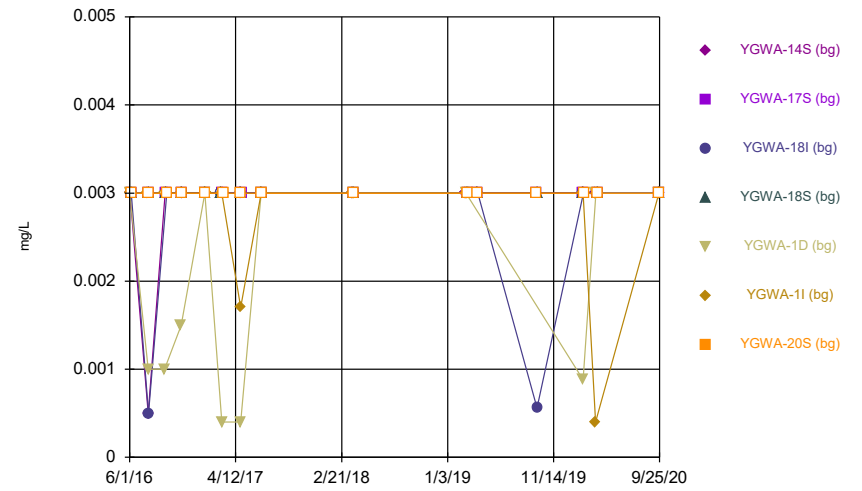
FIGURE A.

Time Series



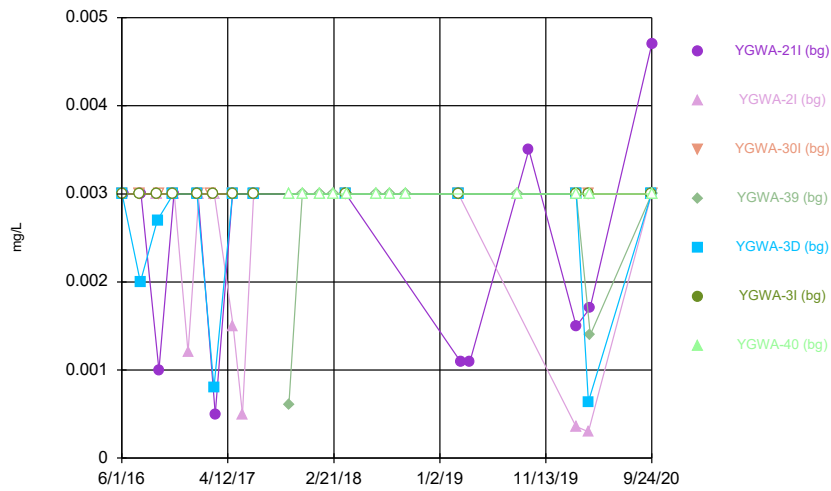
Constituent: Antimony Analysis Run 12/2/2020 9:20 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



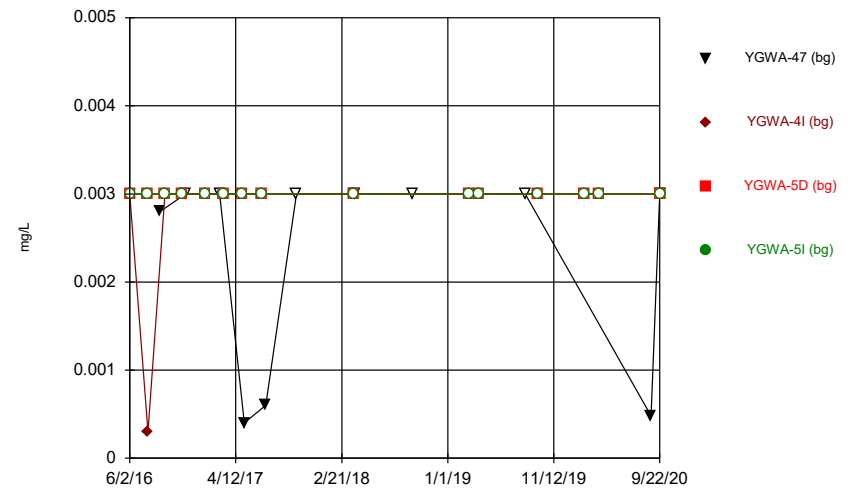
Constituent: Antimony Analysis Run 12/2/2020 9:20 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



Constituent: Antimony Analysis Run 12/2/2020 9:20 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

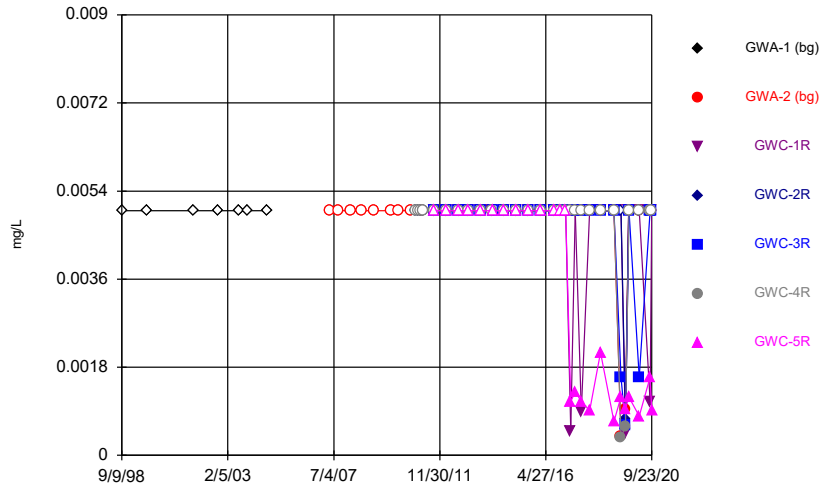
Time Series



Constituent: Antimony Analysis Run 12/2/2020 9:20 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

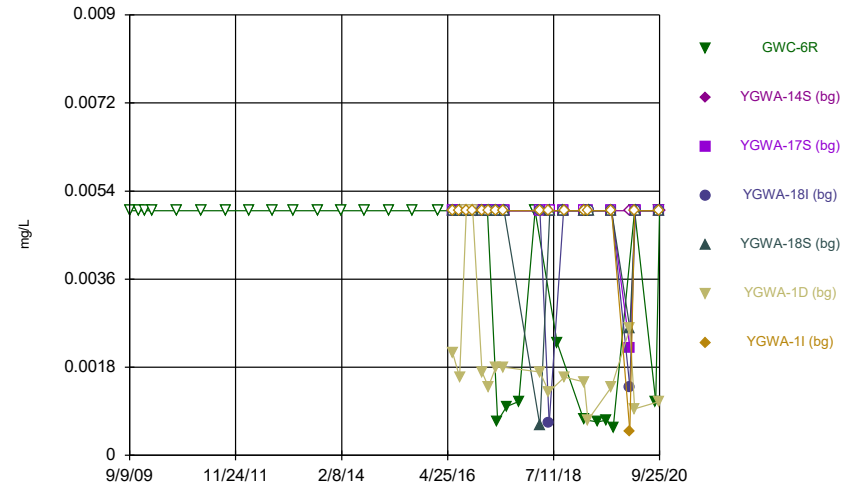


### Time Series



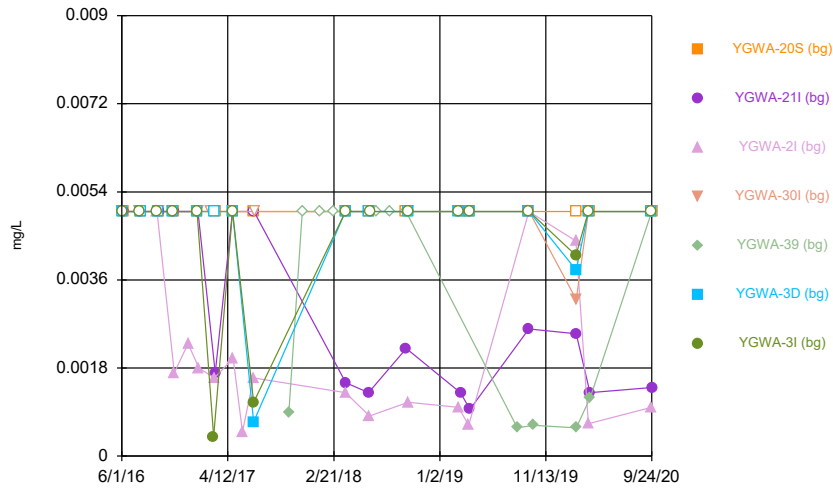
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



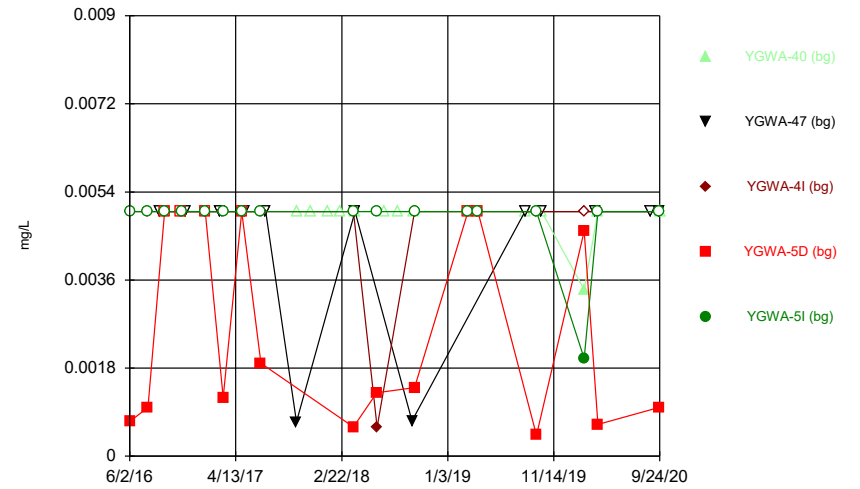
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



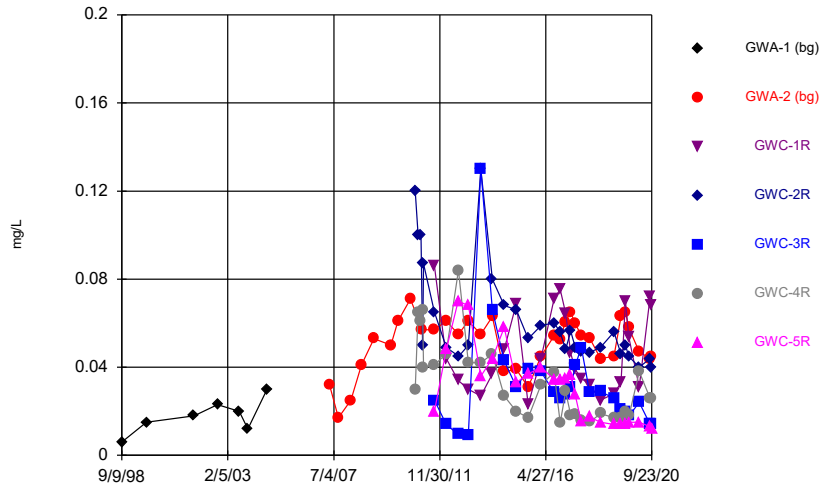
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



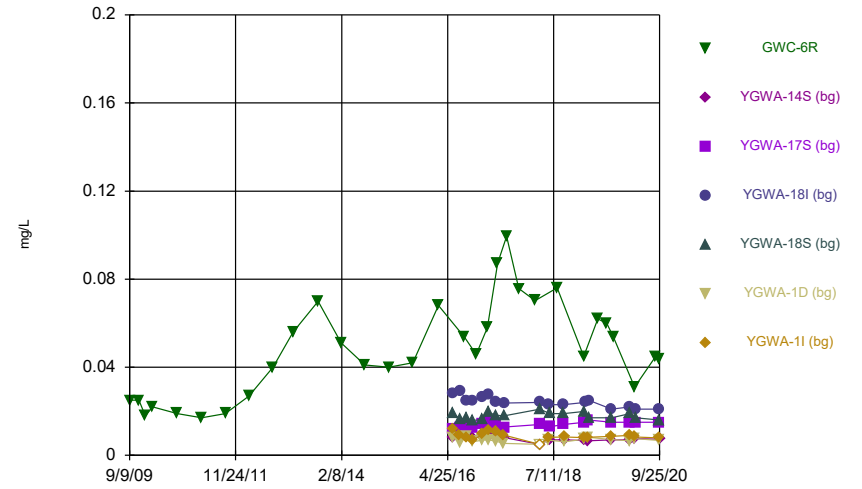
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



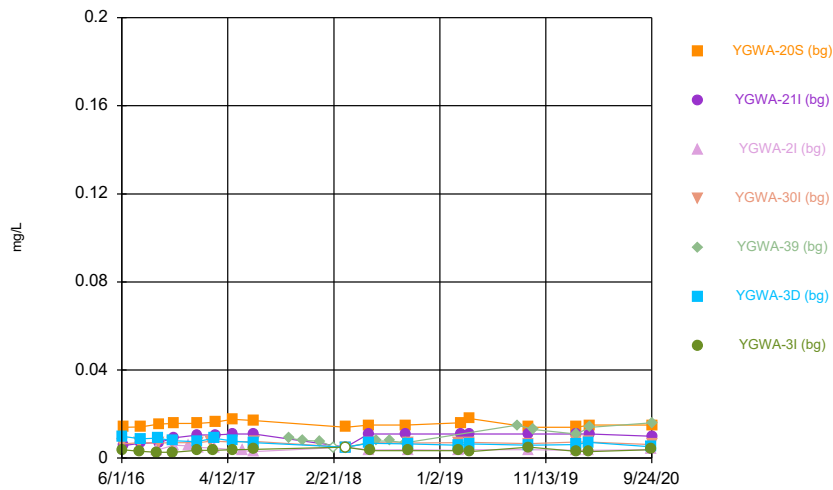
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



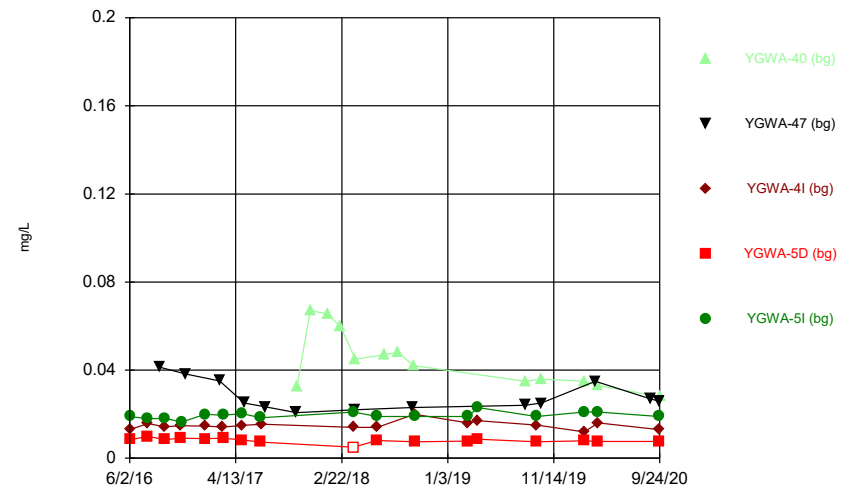
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



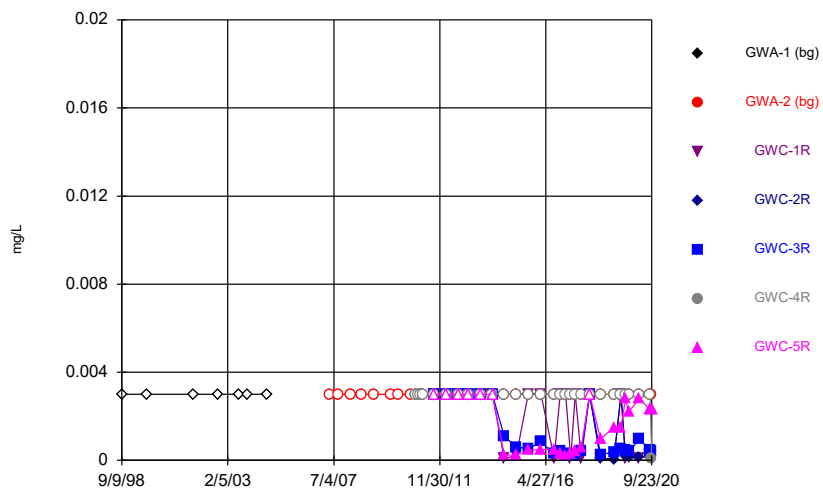
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



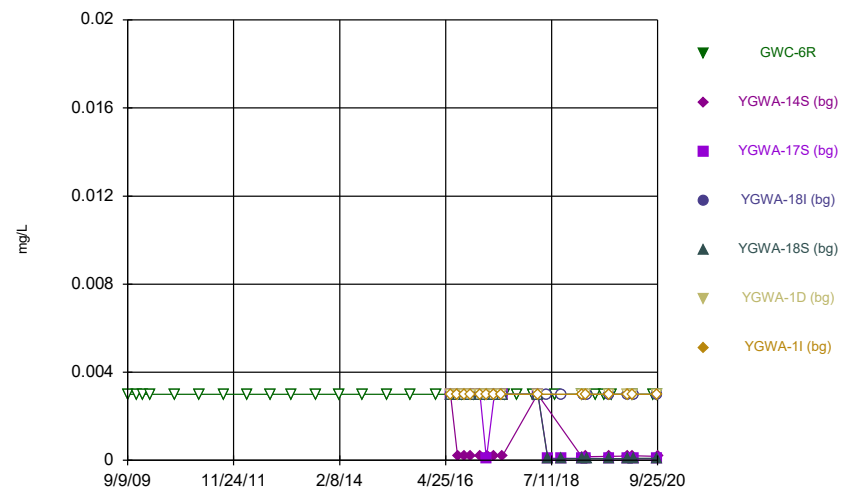
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



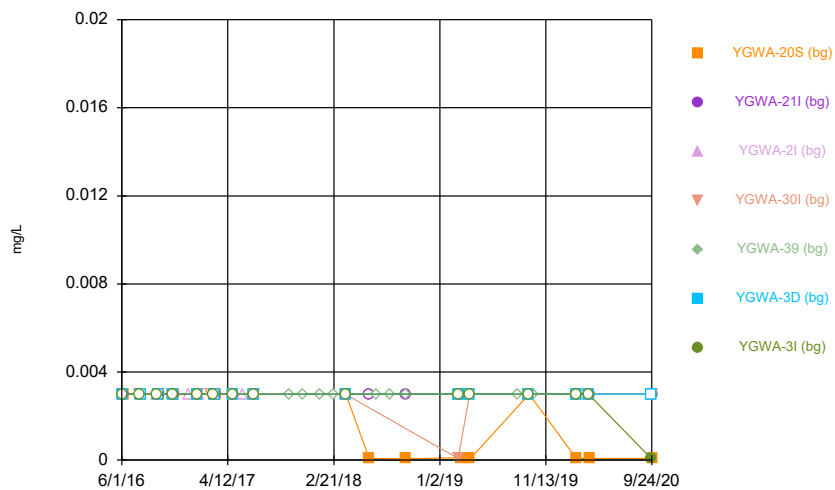
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



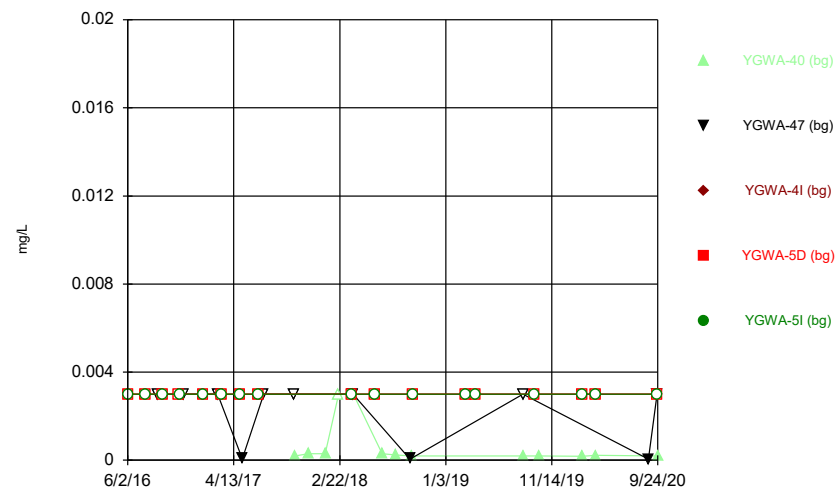
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



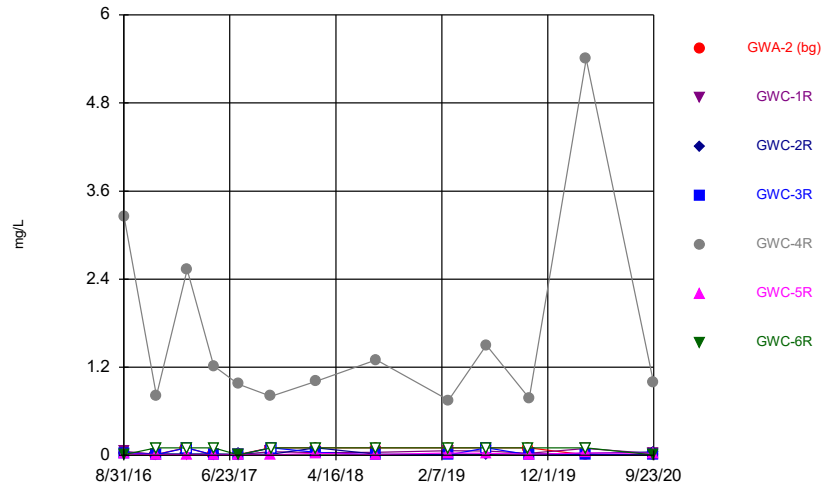
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series

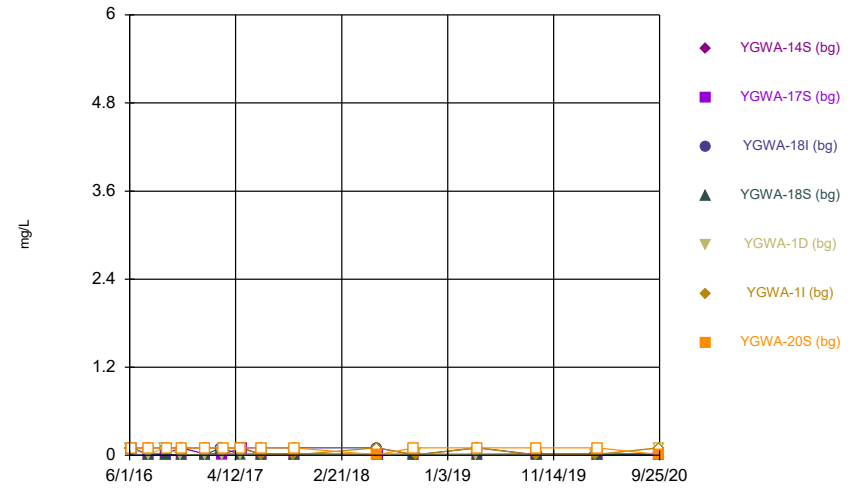


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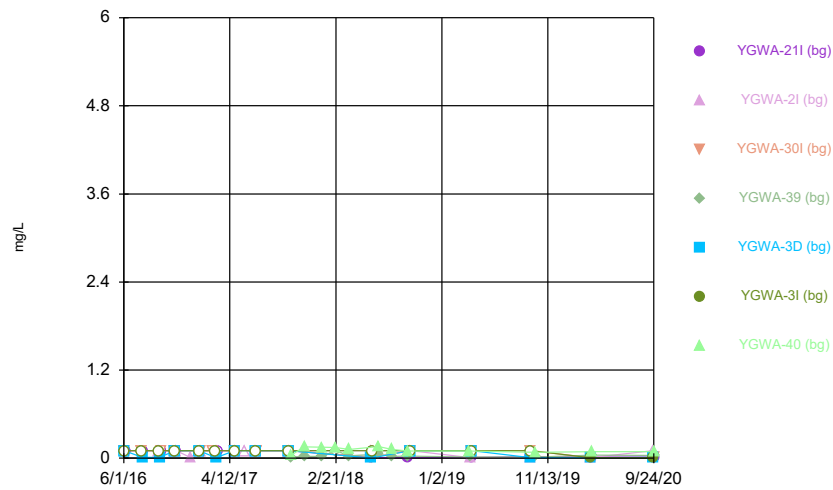
Time Series



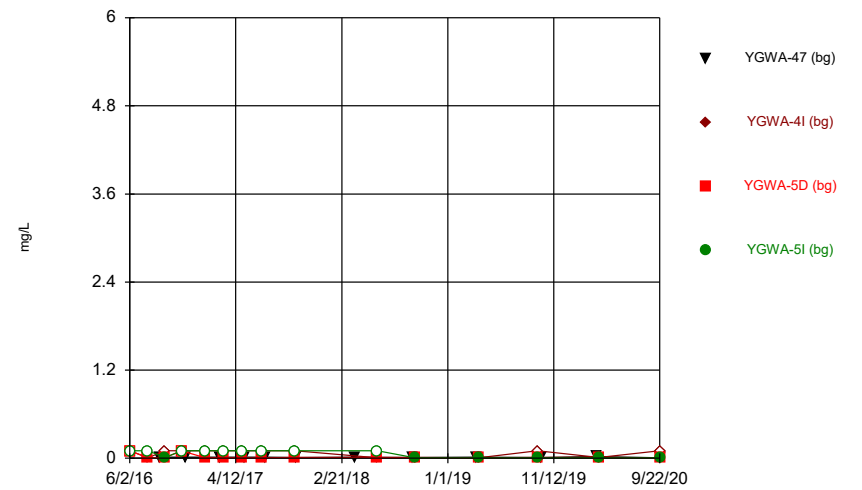
Time Series



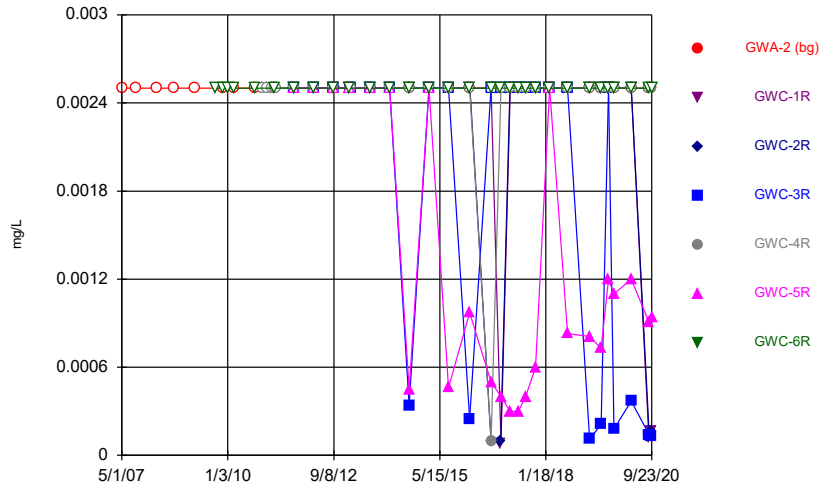
Time Series



Time Series

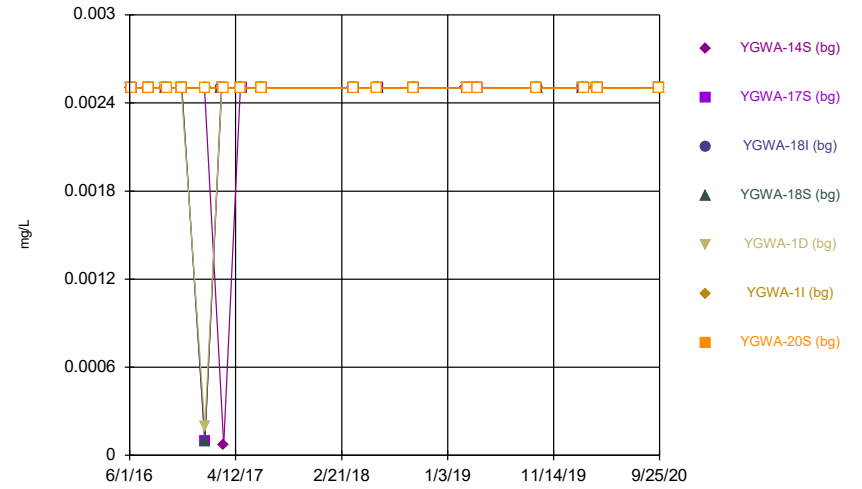


### Time Series



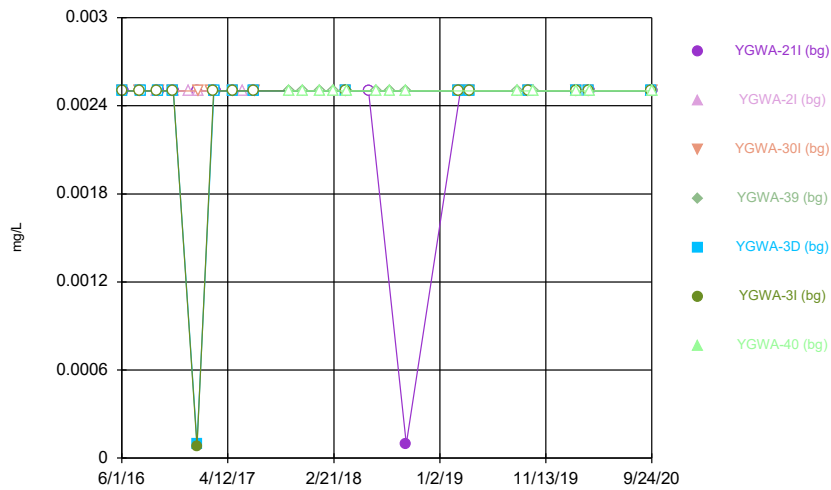
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



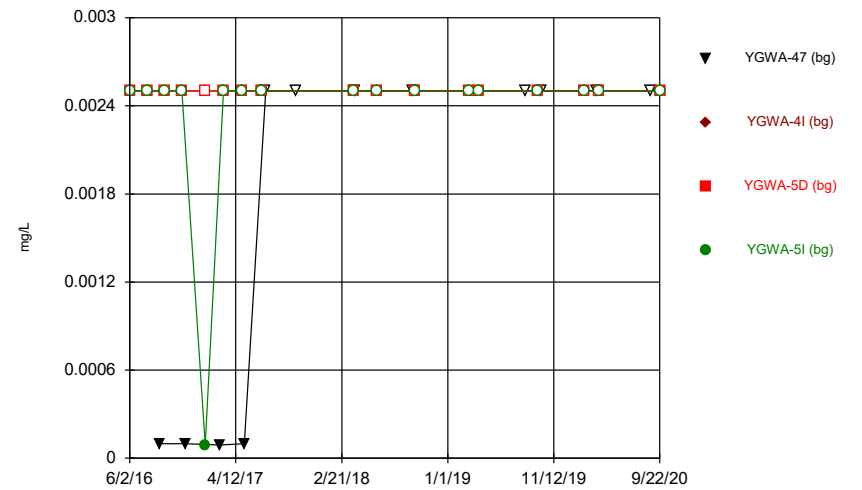
Constituent: Cadmium Analysis Run 12/2/2020 9:20 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



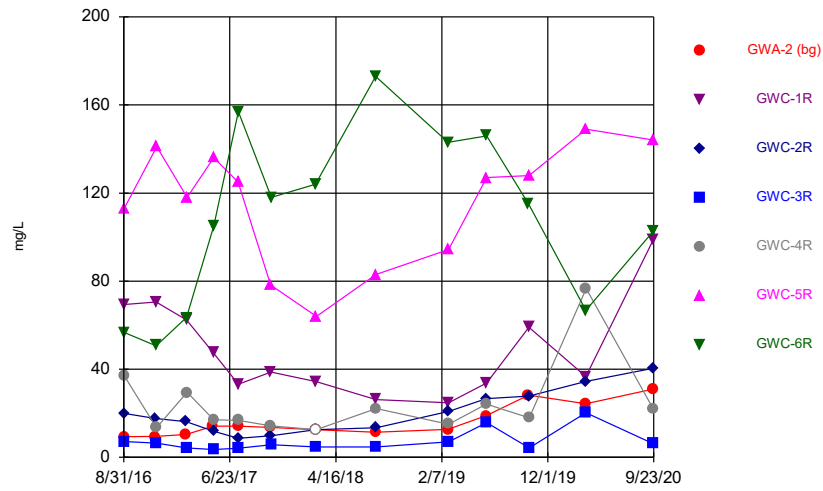
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



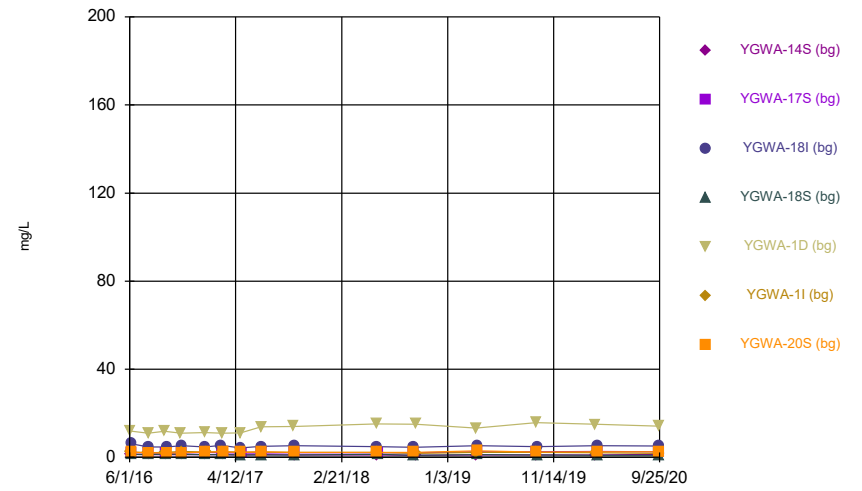
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



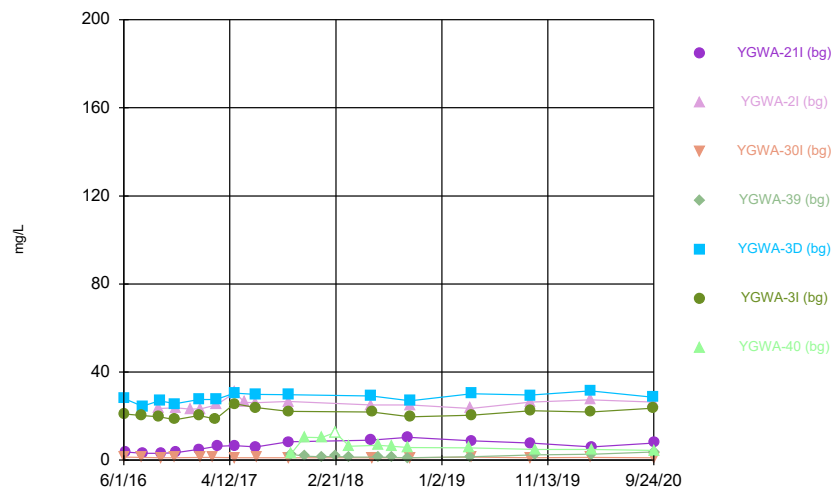
Constituent: Calcium Analysis Run 12/2/2020 9:20 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



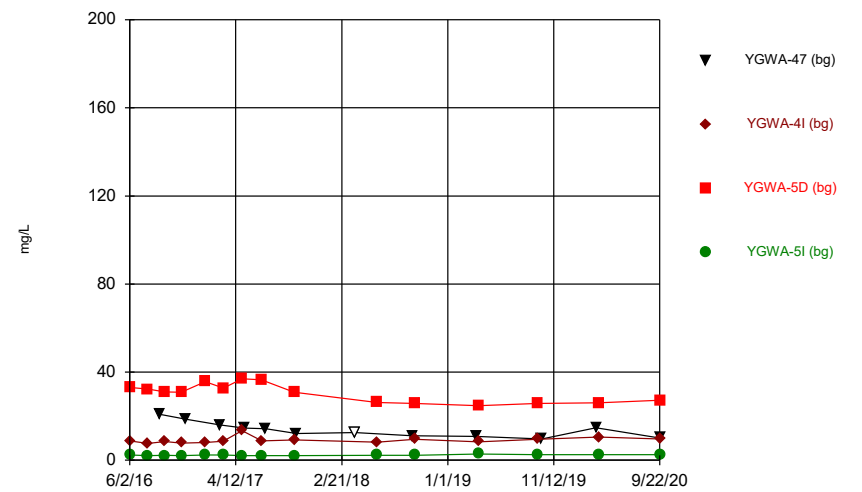
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



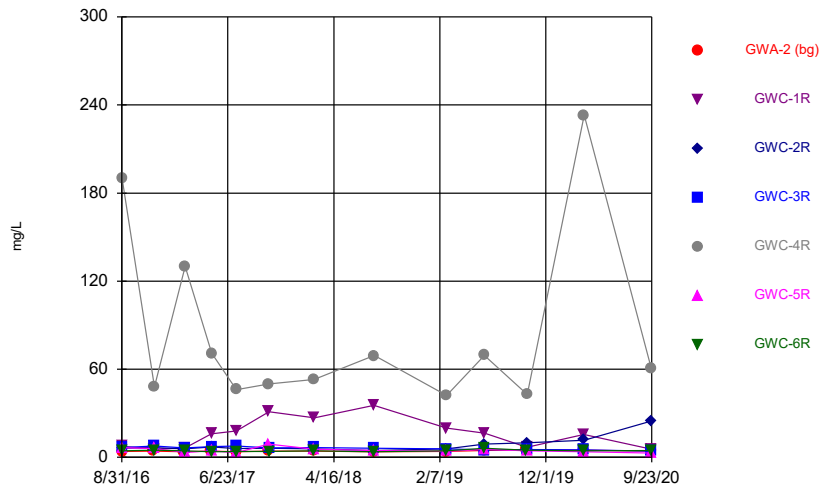
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



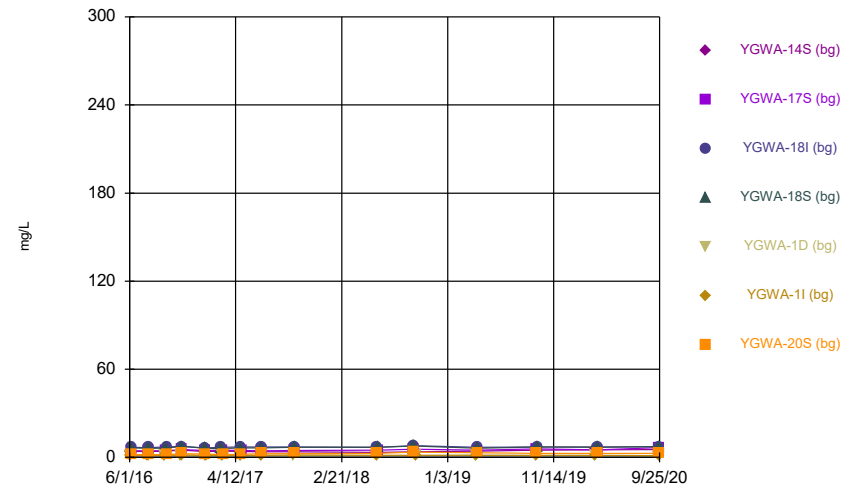
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



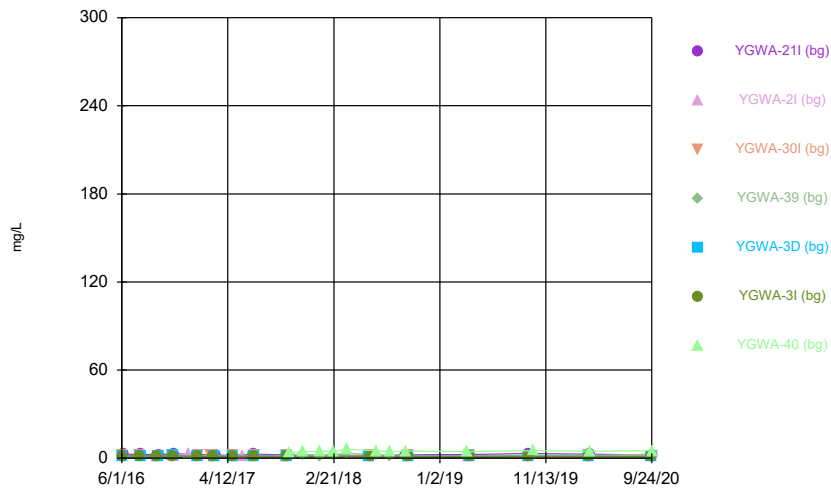
Constituent: Chloride Analysis Run 12/2/2020 9:20 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



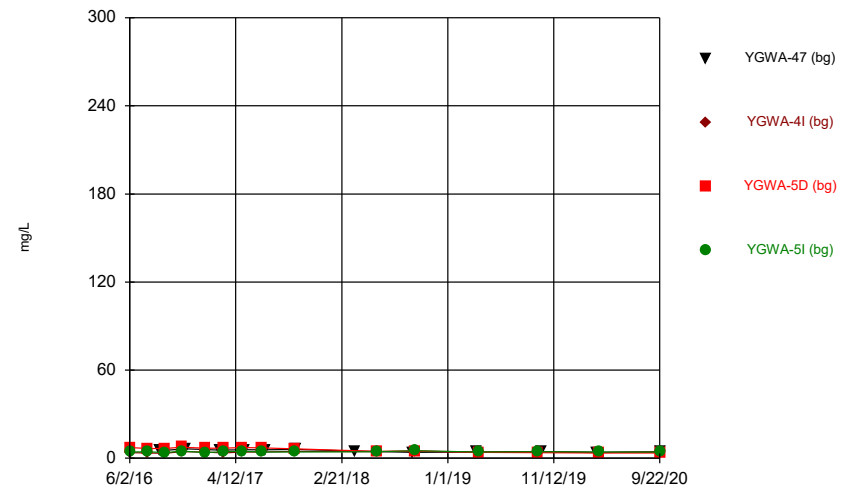
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



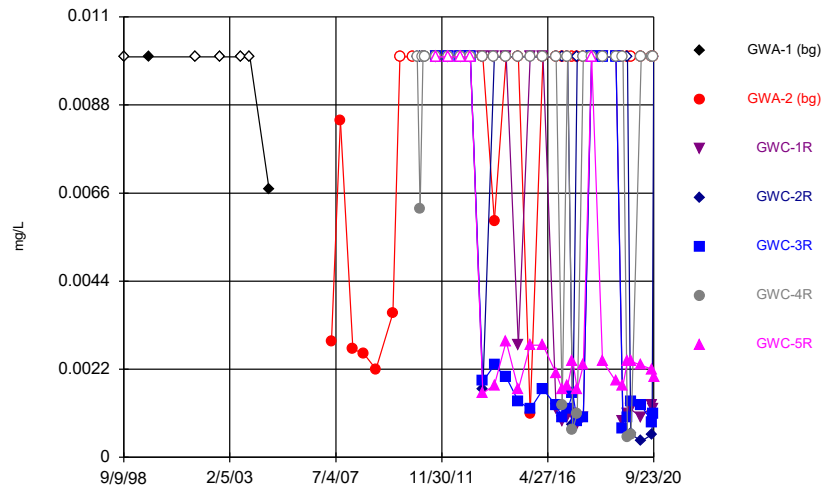
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



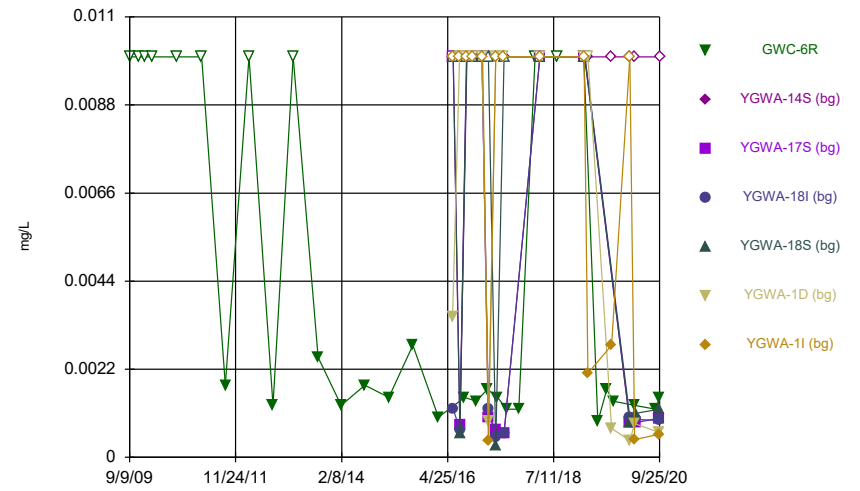
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



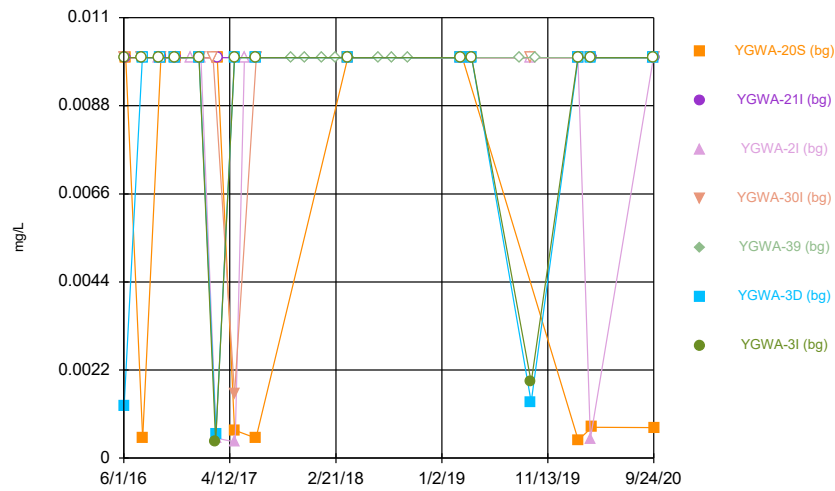
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



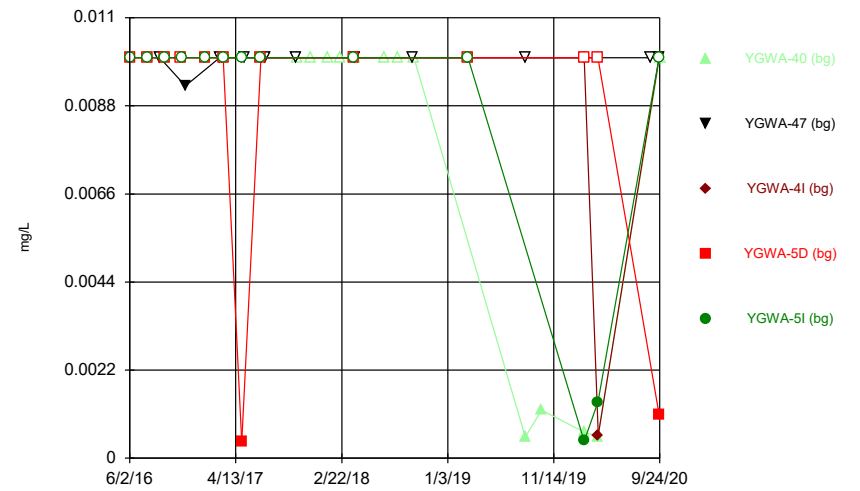
Constituent: Chromium Analysis Run 12/2/2020 9:20 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



Constituent: Chromium Analysis Run 12/2/2020 9:20 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

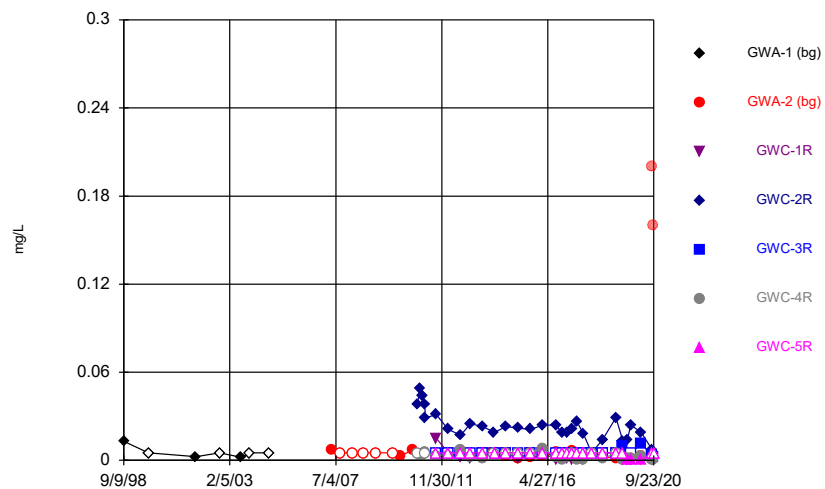
### Time Series



Constituent: Chromium Analysis Run 12/2/2020 9:20 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

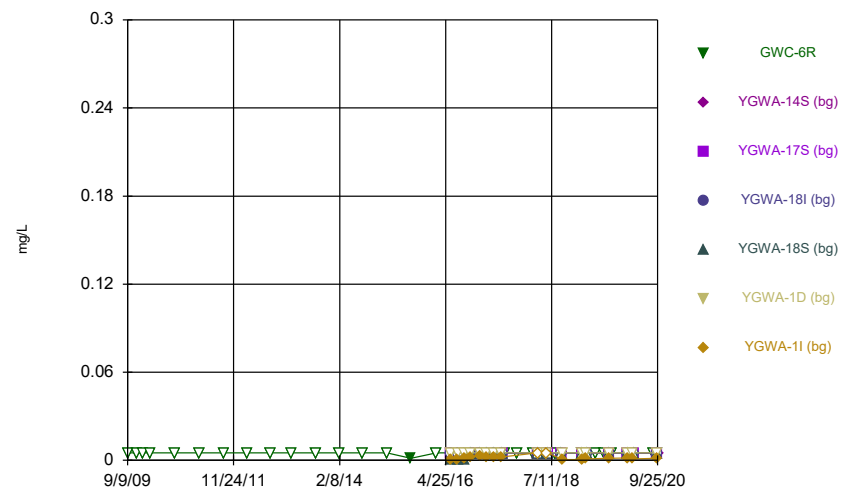


### Time Series



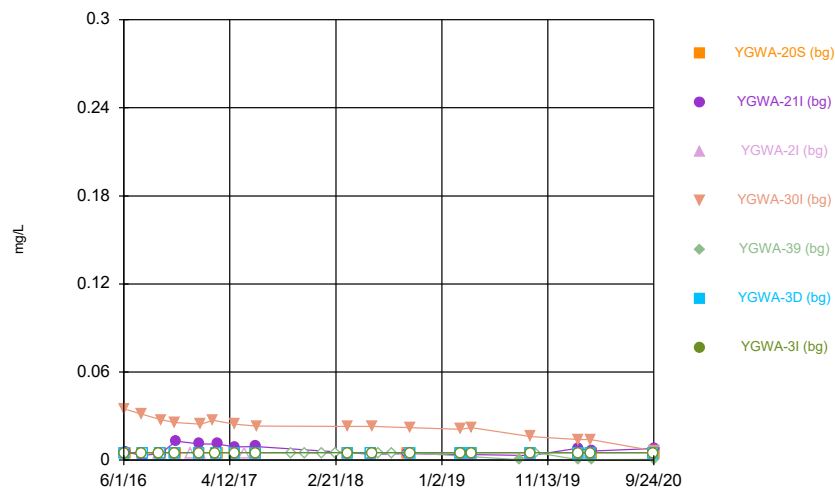
Constituent: Cobalt Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



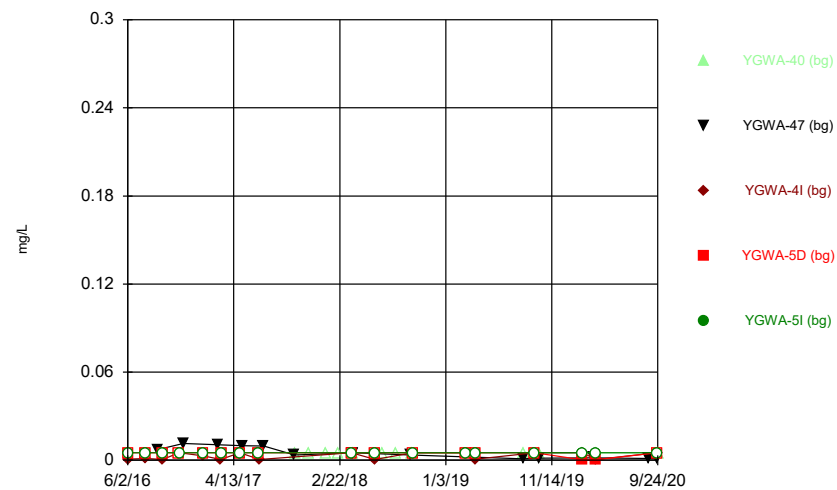
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



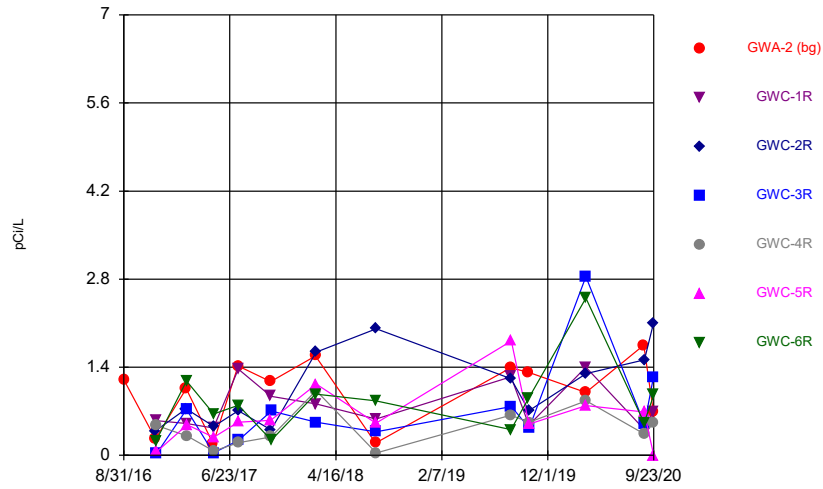
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



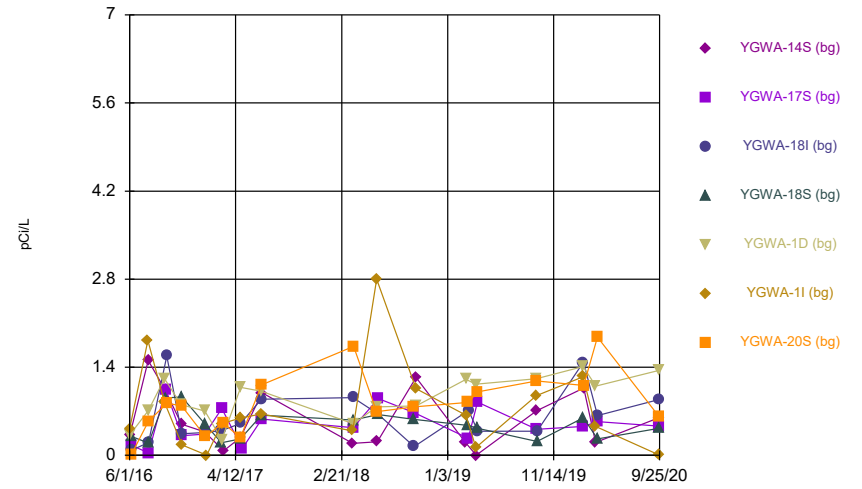
Constituent: Cobalt Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



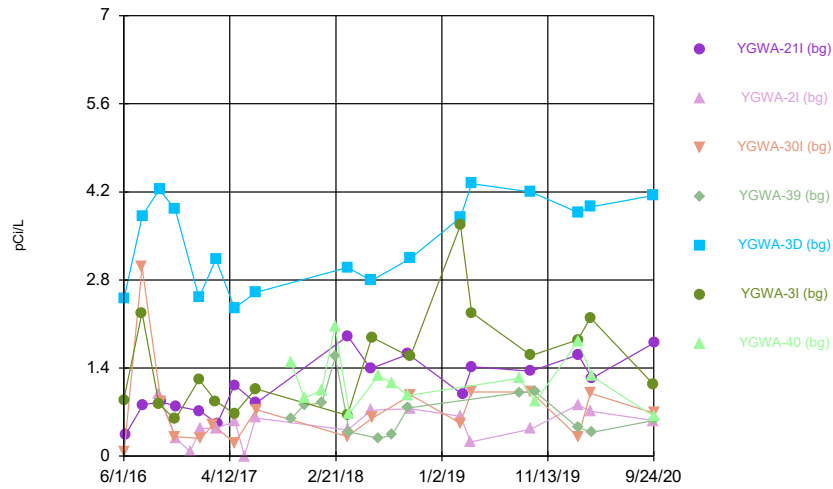
Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



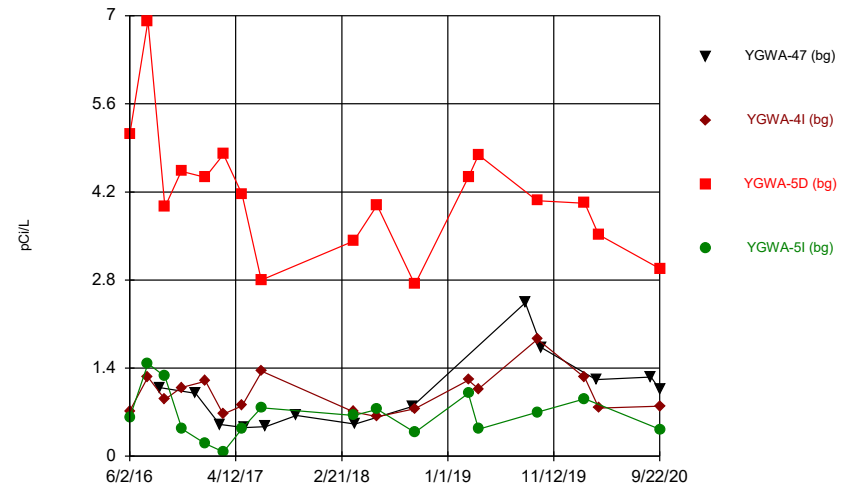
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



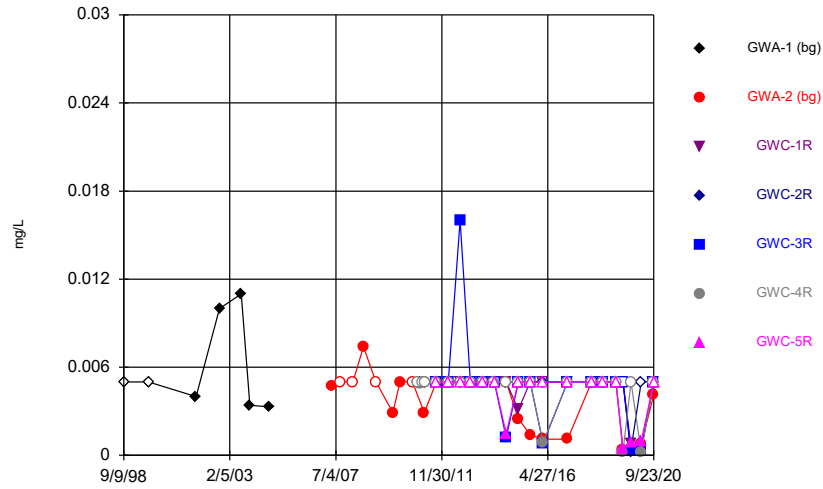
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



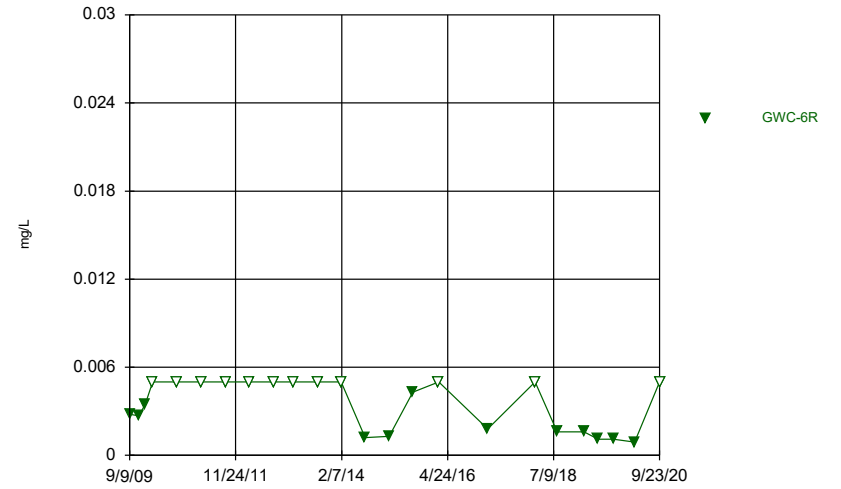
Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



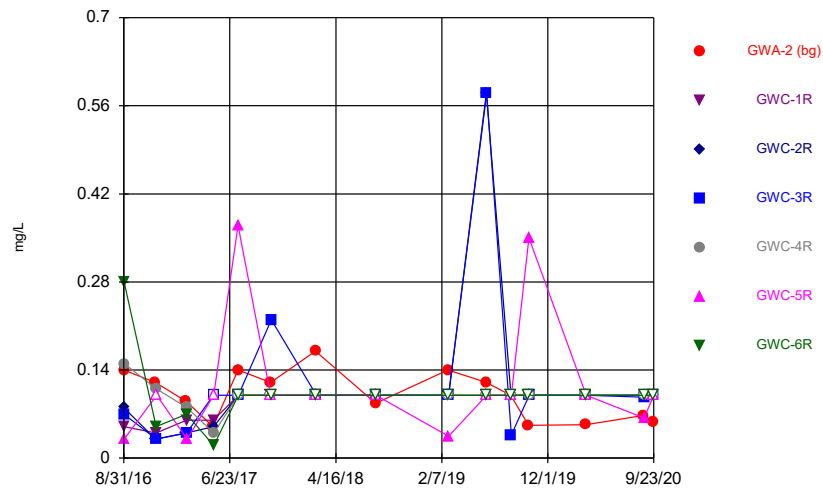
Constituent: Copper Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



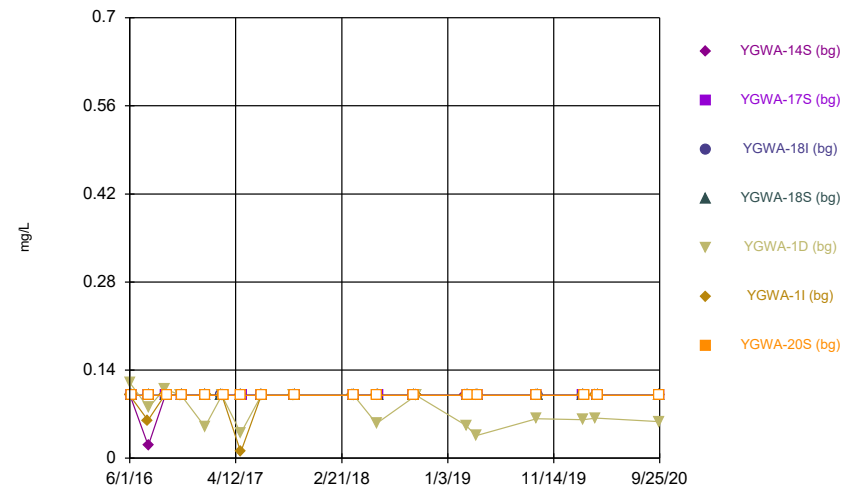
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



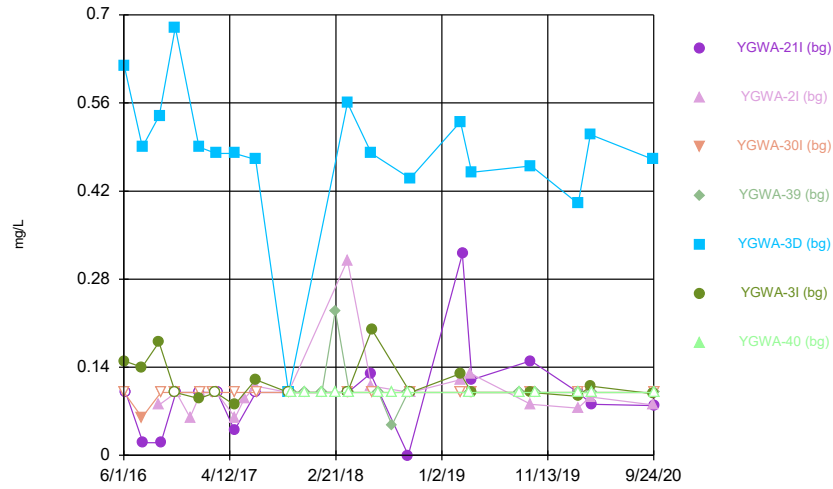
Constituent: Fluoride Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



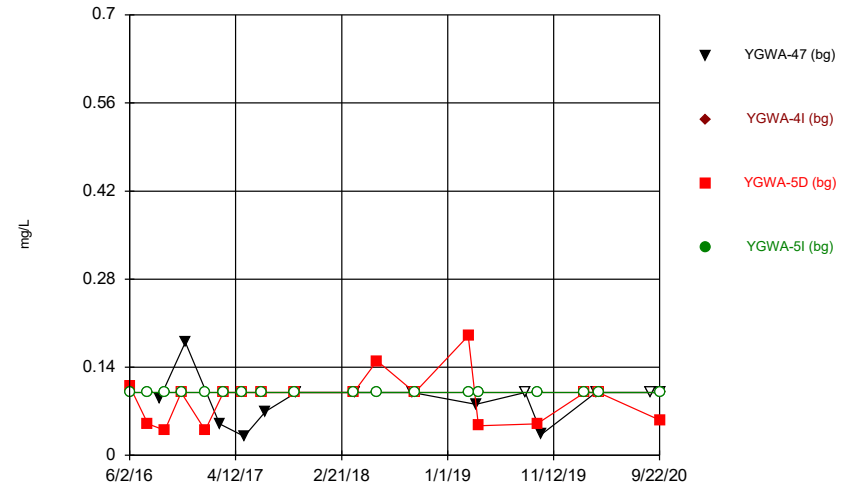
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



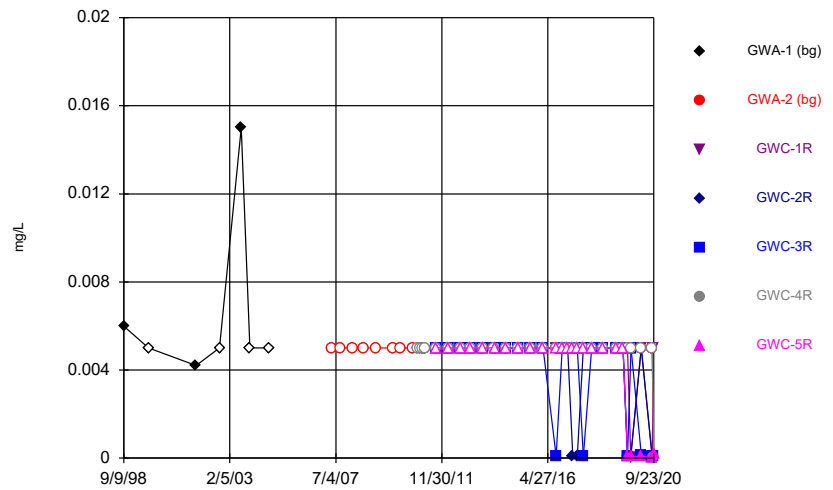
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



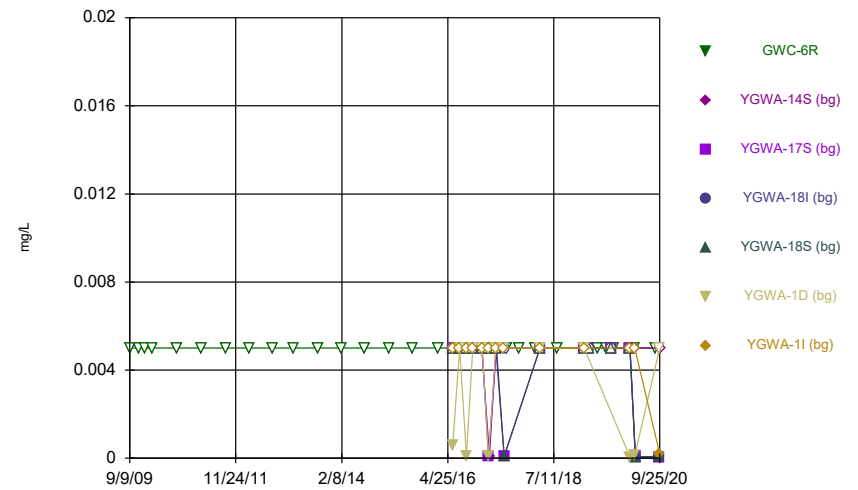
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



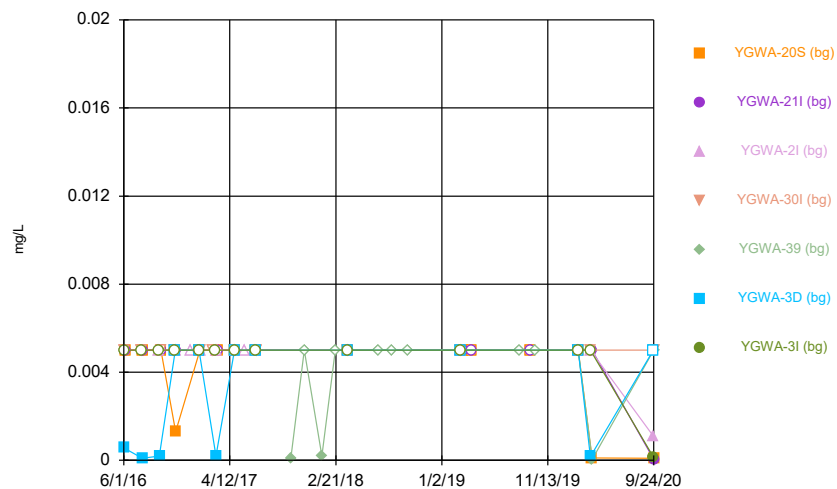
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



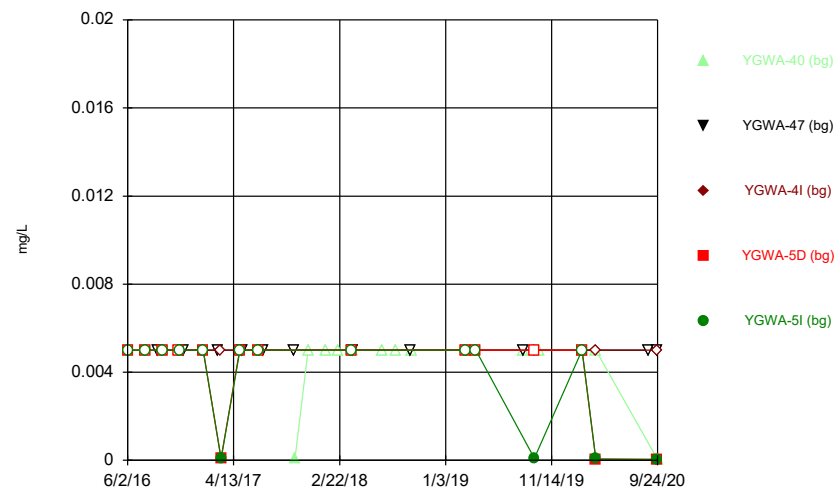
Constituent: Lead Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



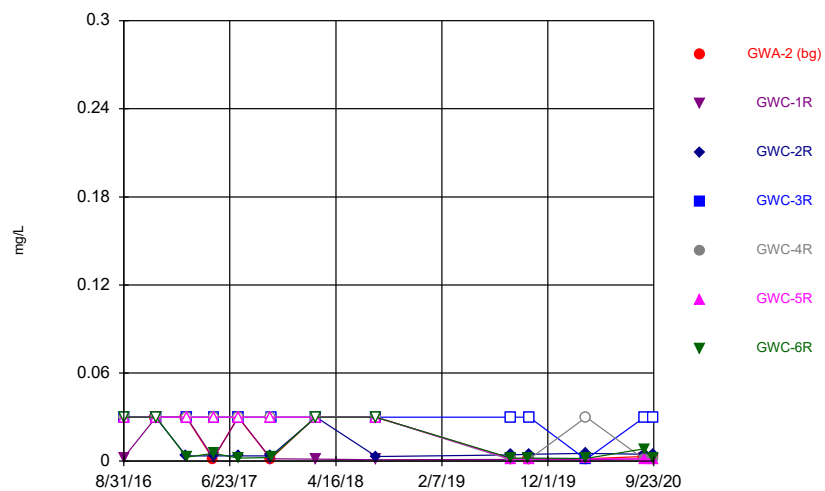
Constituent: Lead Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



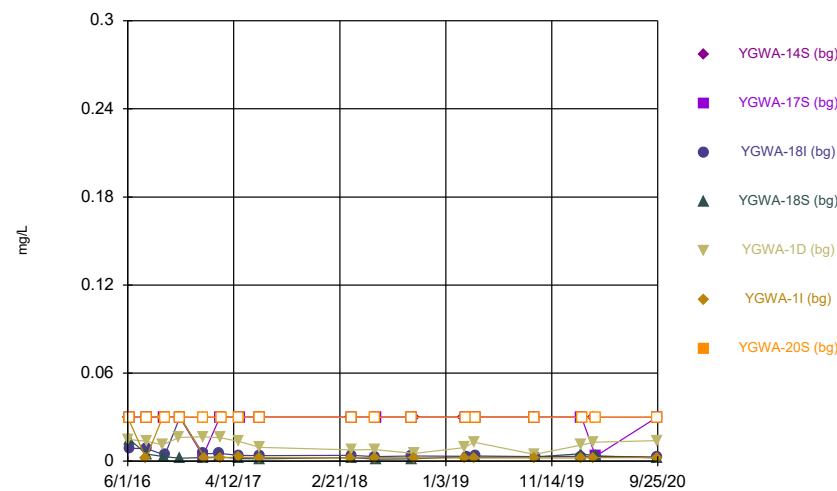
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



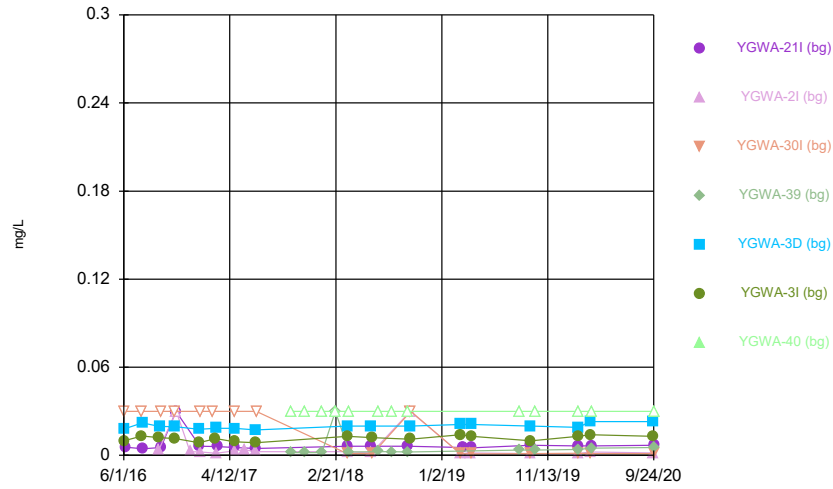
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



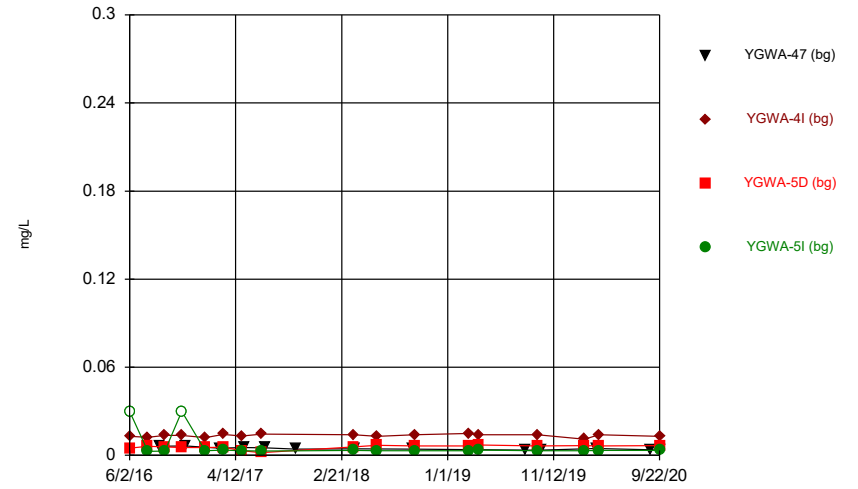
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



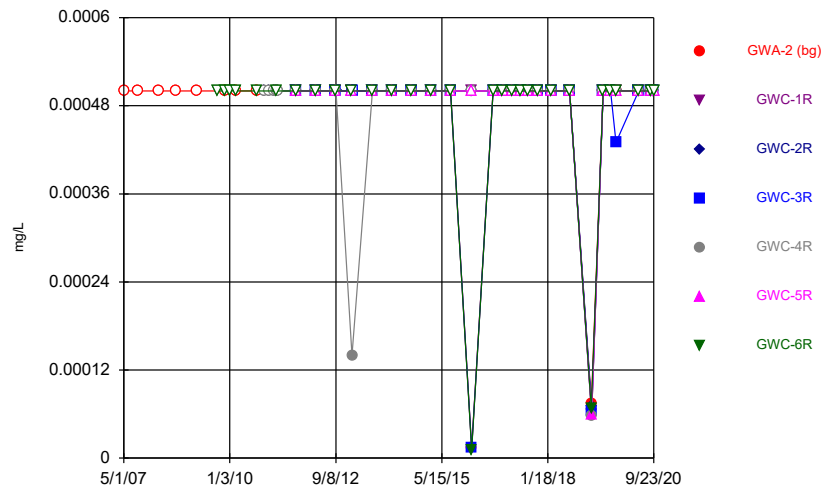
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



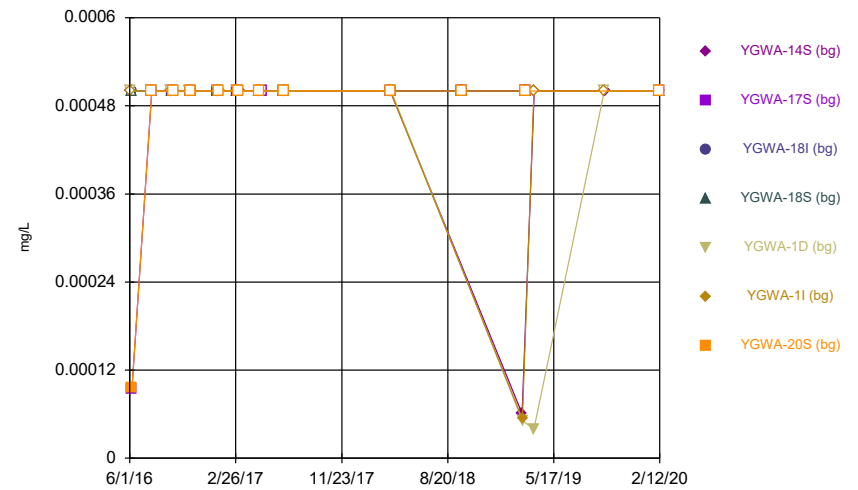
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



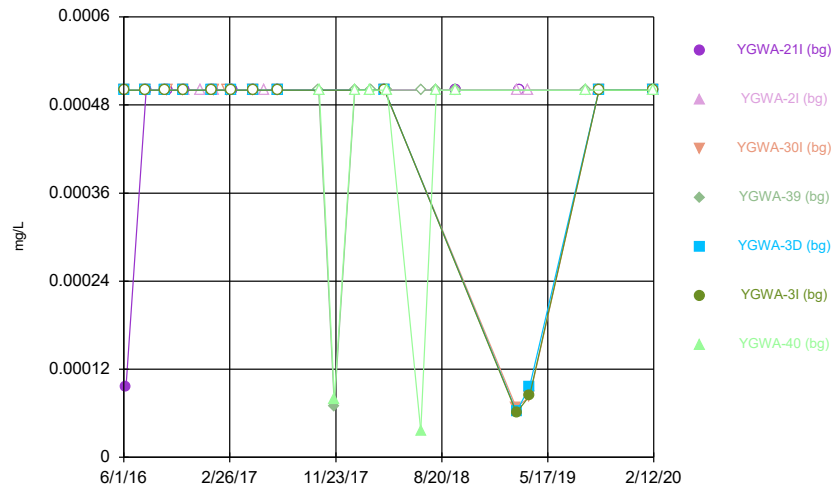
Constituent: Mercury Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



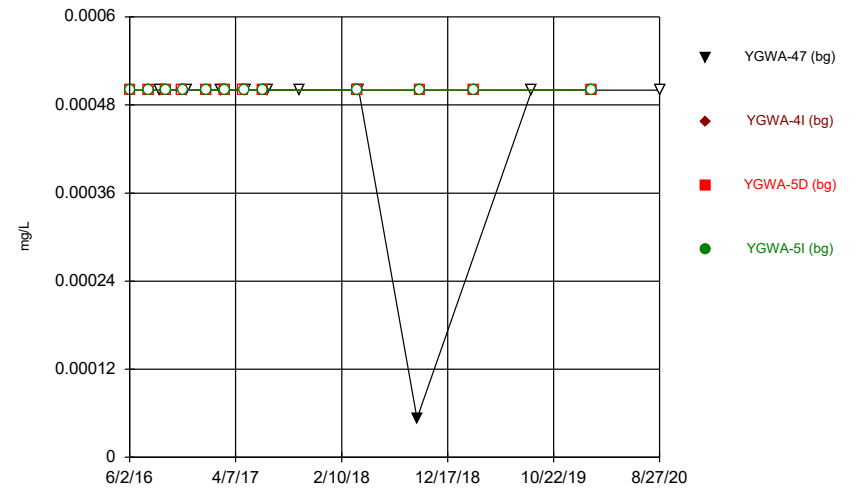
Constituent: Mercury Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



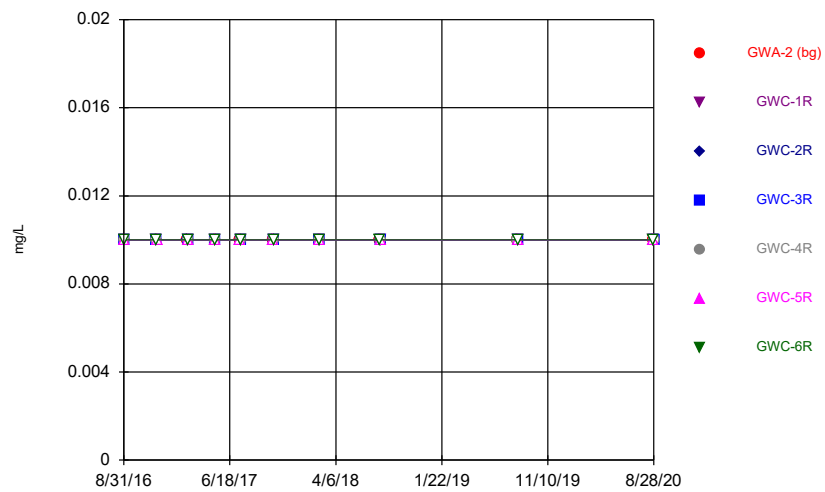
Constituent: Mercury Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



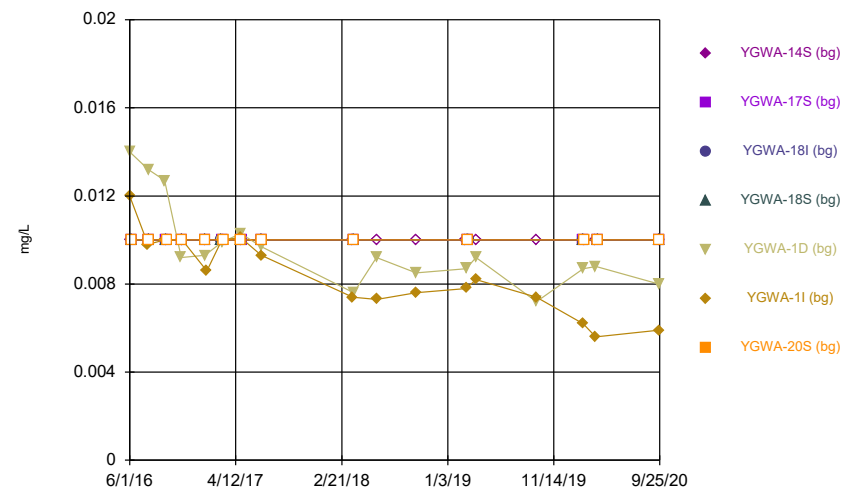
Constituent: Mercury Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



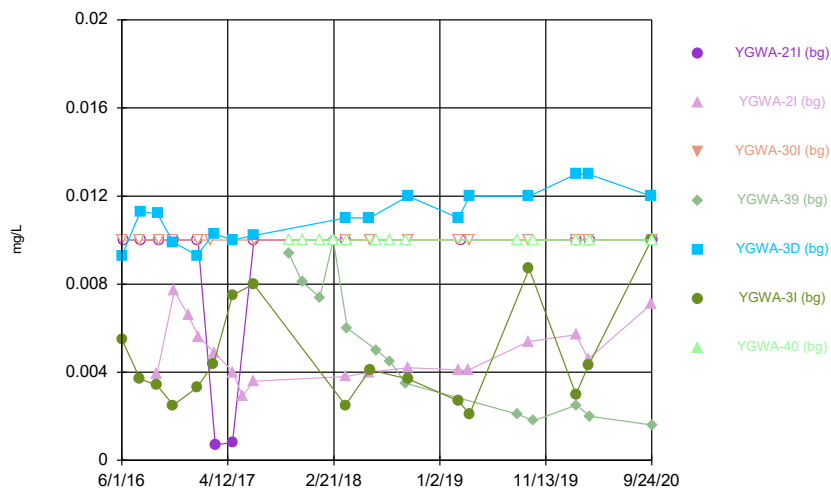
Constituent: Molybdenum Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



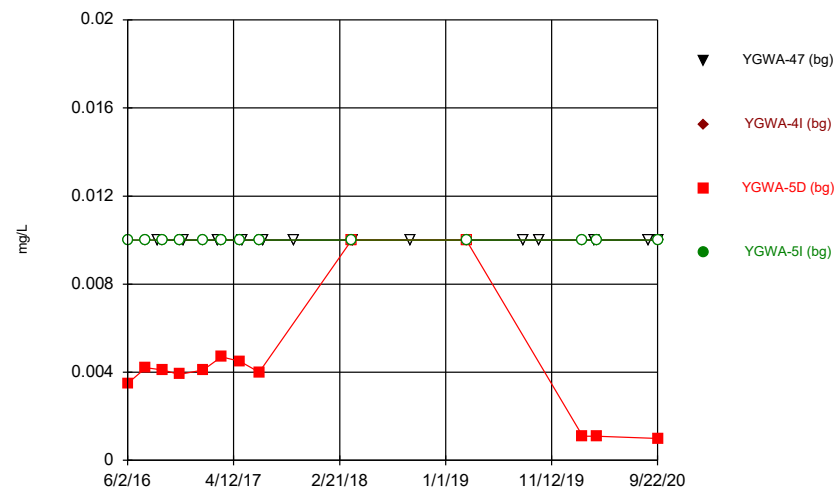
Constituent: Molybdenum Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



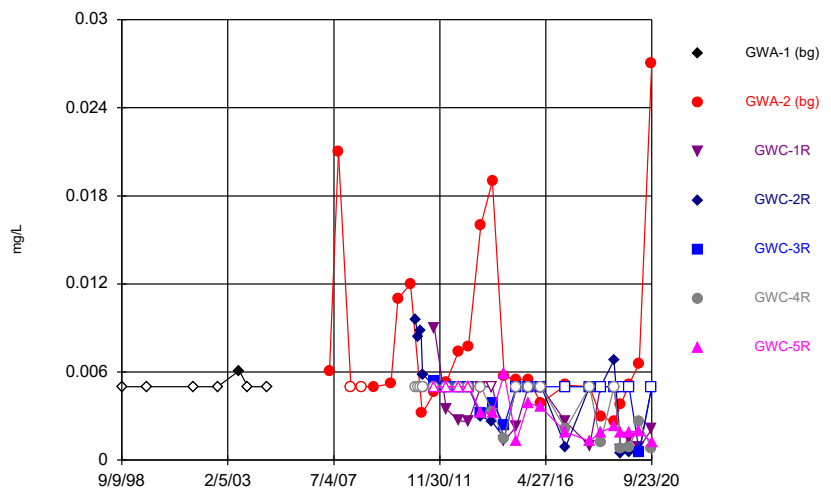
Constituent: Molybdenum Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



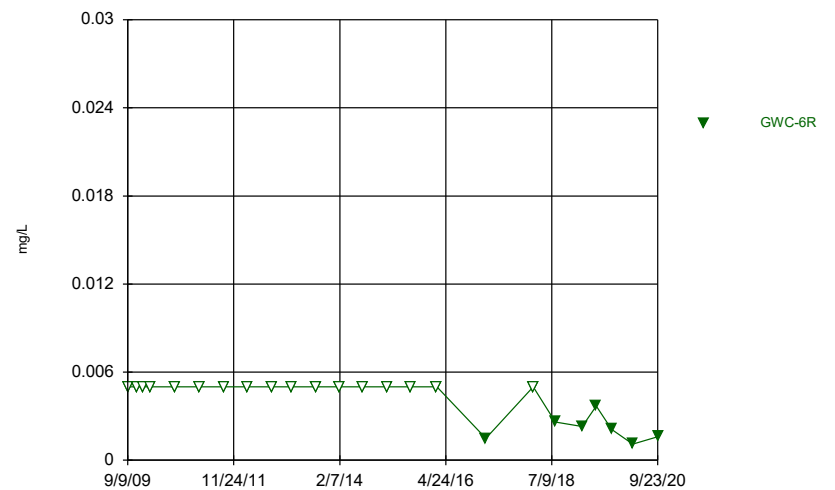
Constituent: Molybdenum Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



Constituent: Nickel Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

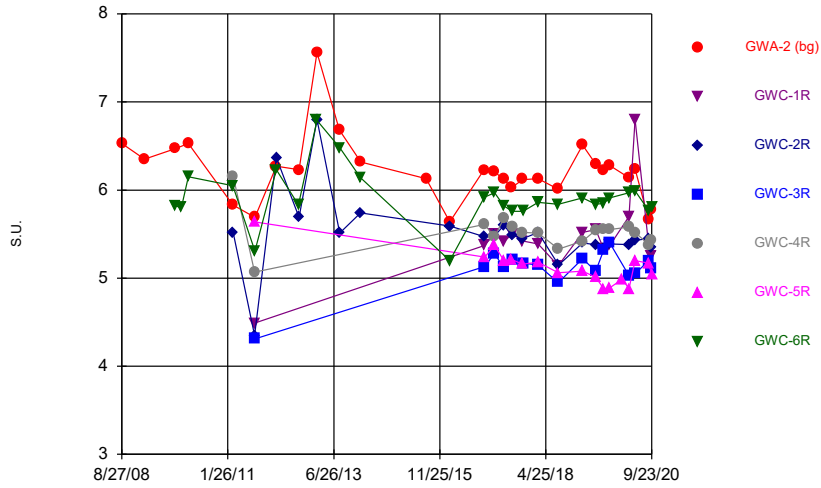
### Time Series



Constituent: Nickel Analysis Run 12/2/2020 9:21 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

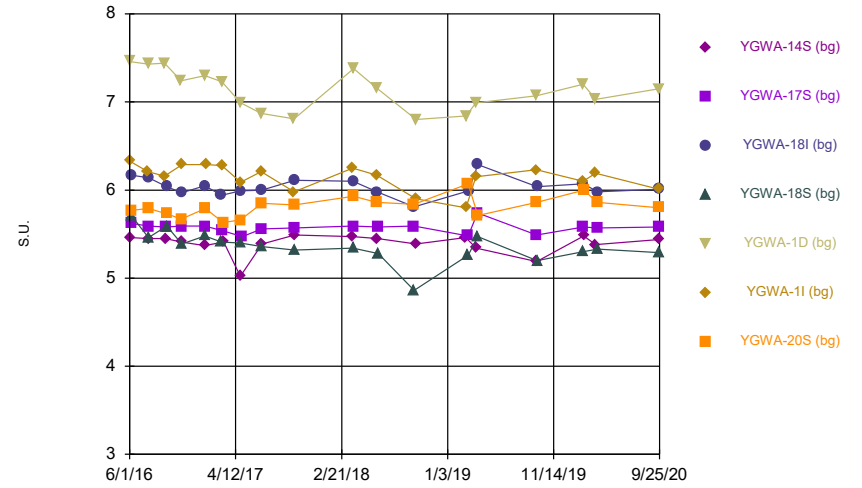


### Time Series



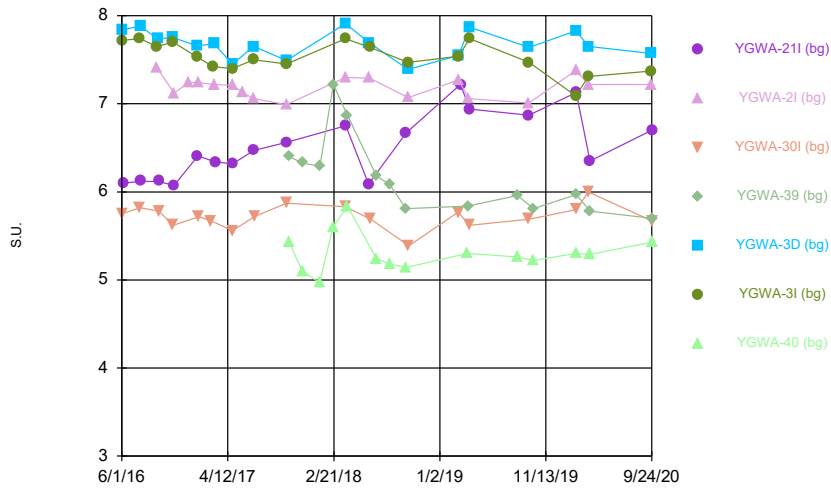
Constituent: pH Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



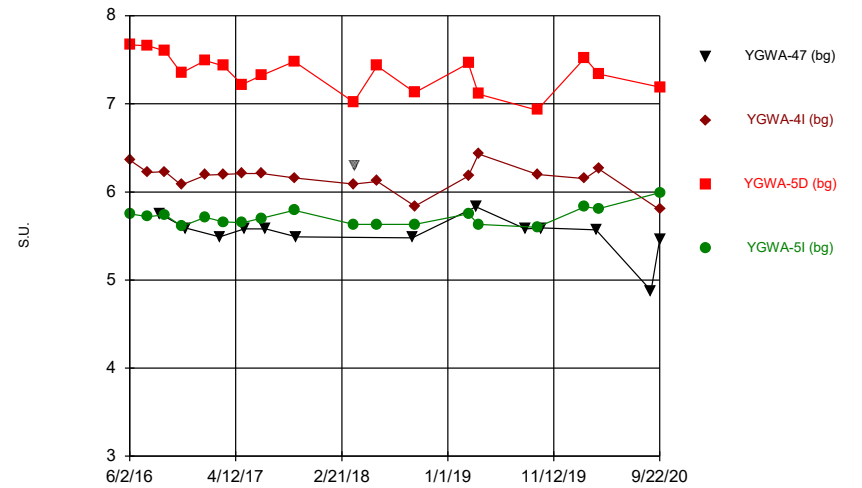
Constituent: pH Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



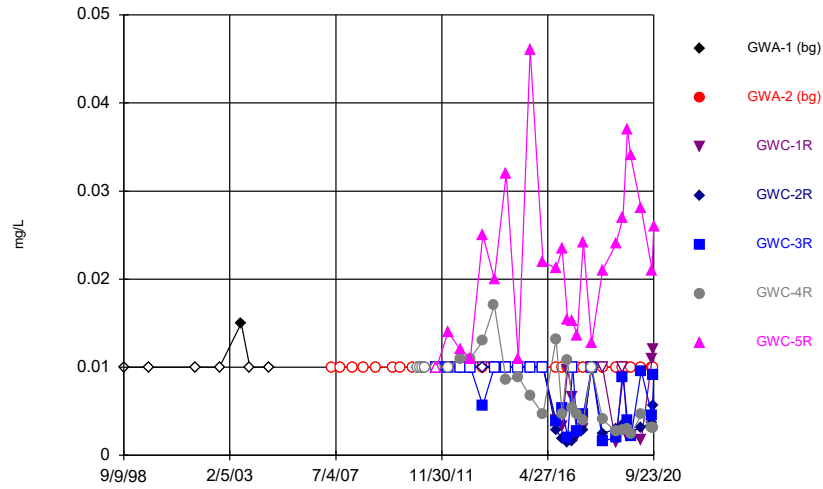
Constituent: pH Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Time Series



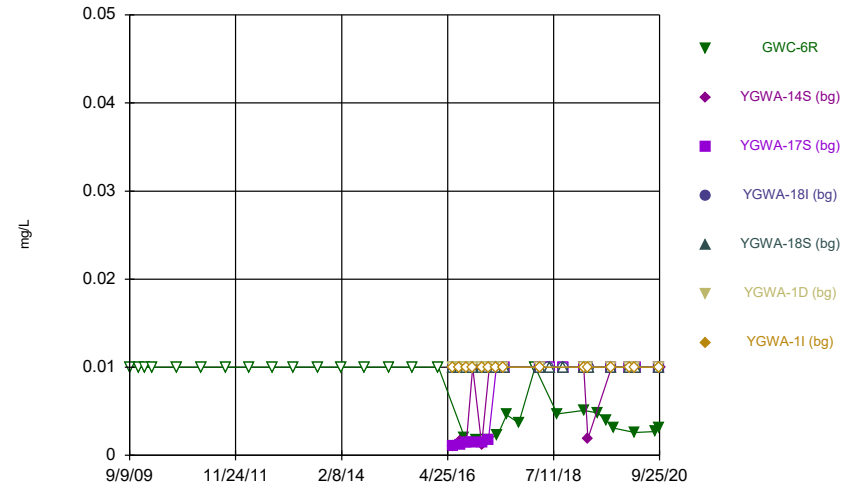
Constituent: pH Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



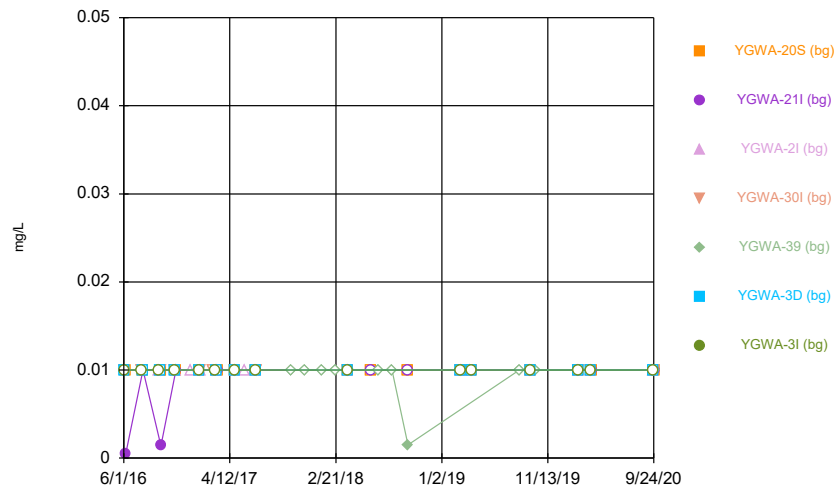
Constituent: Seleniun Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



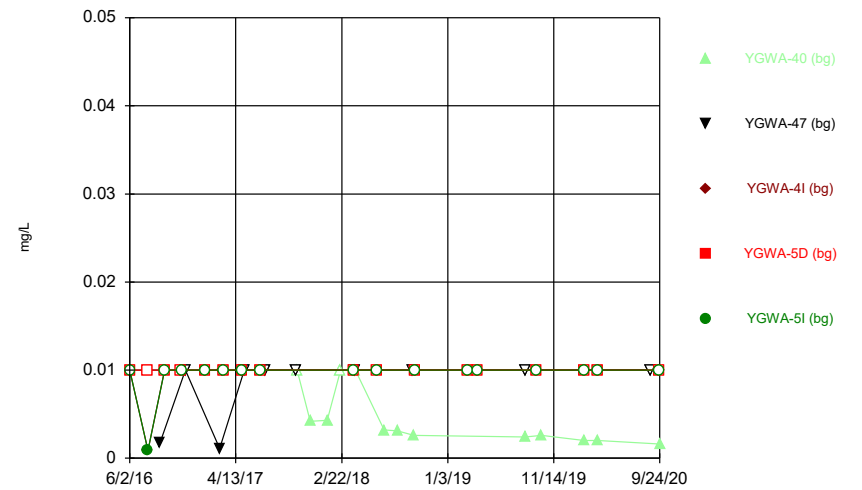
Constituent: Seleniun Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



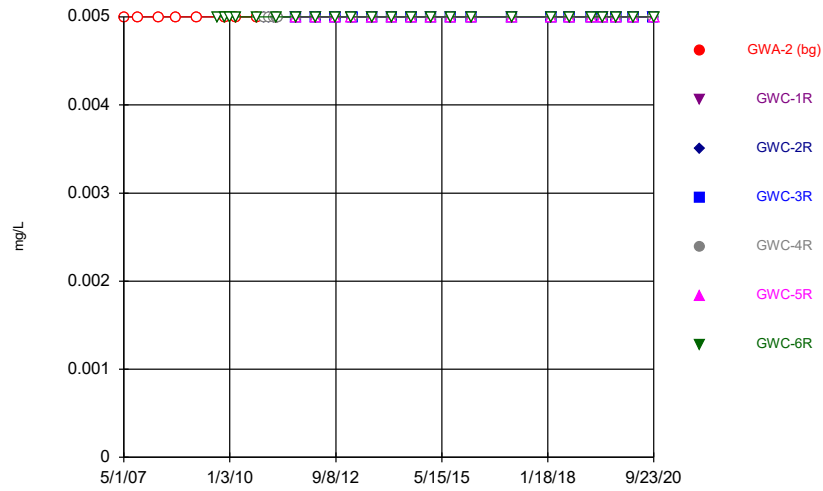
Constituent: Seleniun Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



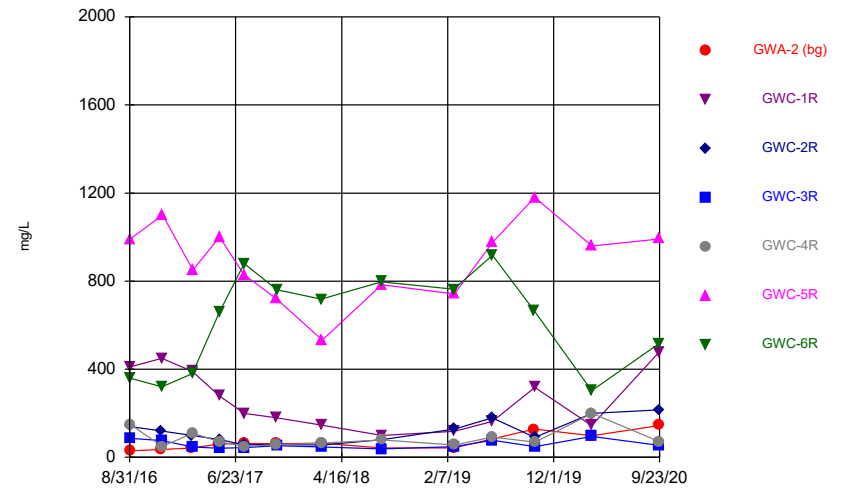
Constituent: Seleniun Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



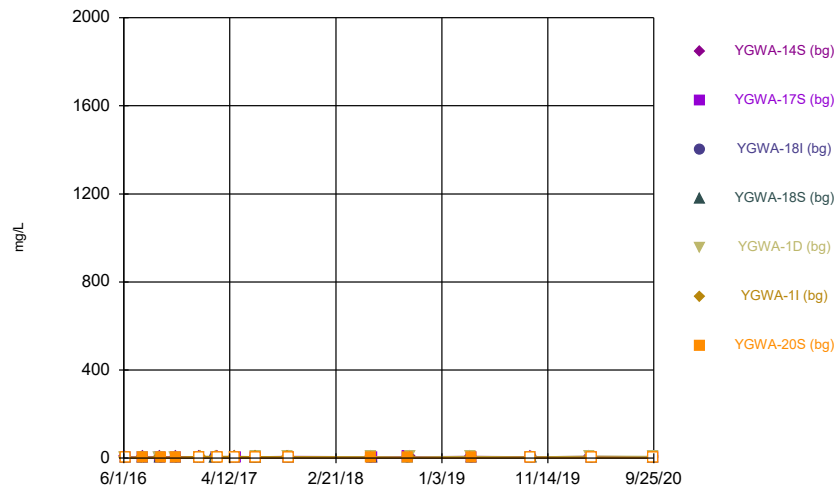
Constituent: Silver Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



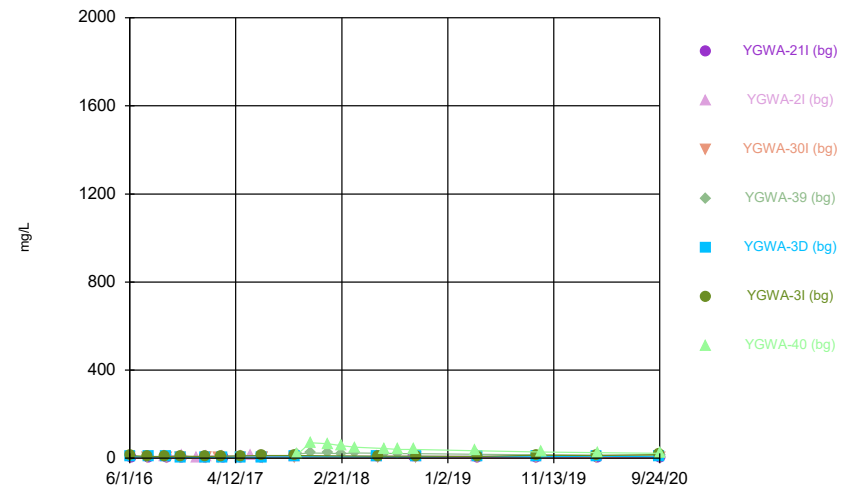
Constituent: Sulfate Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



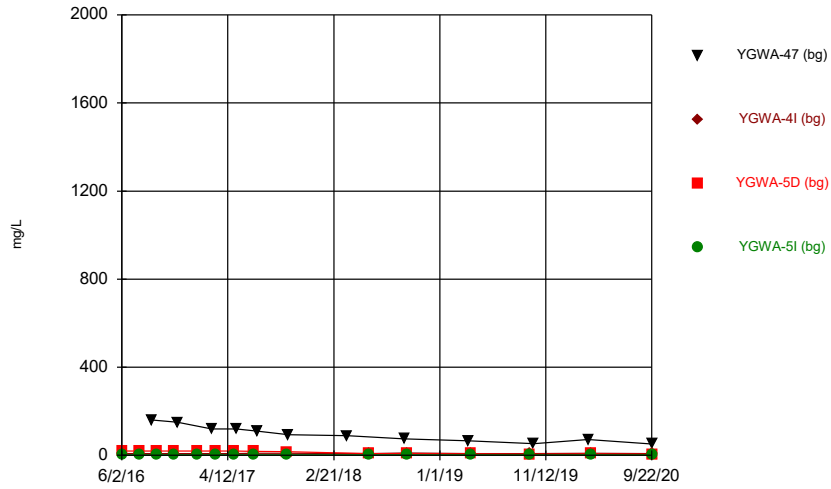
Constituent: Sulfate Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



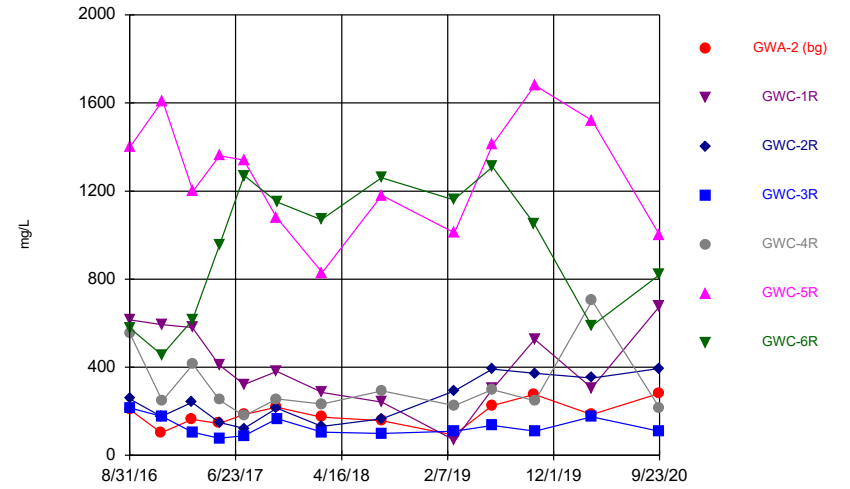
Constituent: Sulfate Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



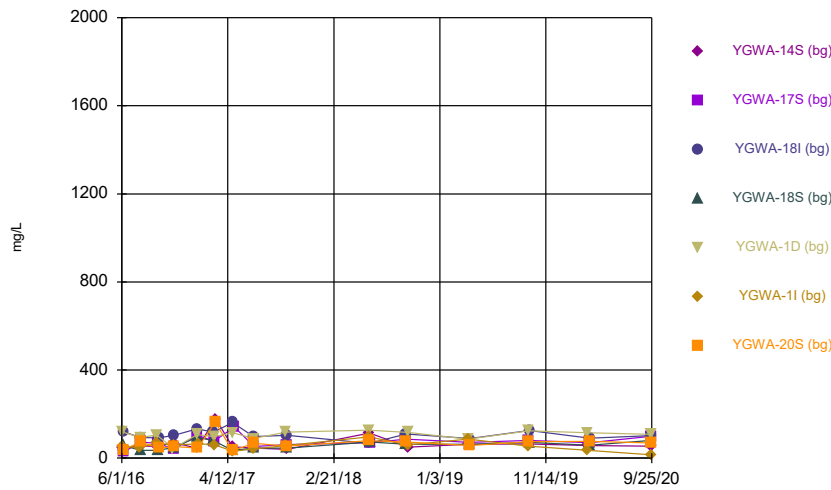
Constituent: Sulfate Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



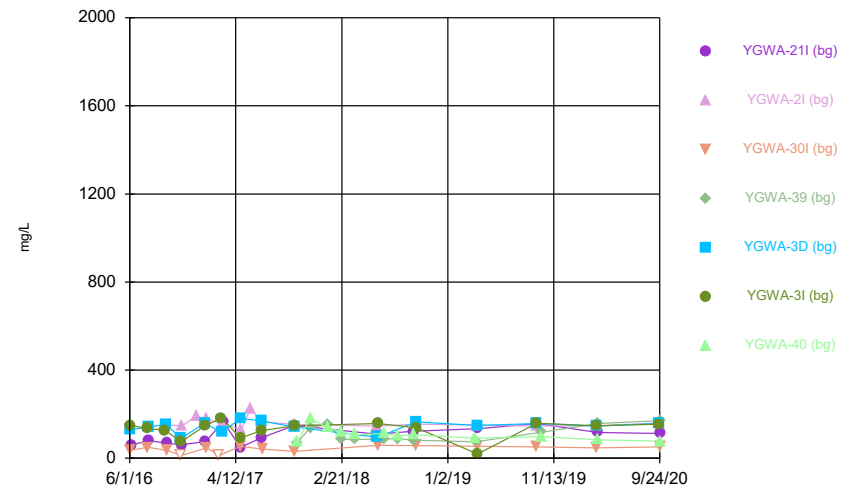
Constituent: TDS Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



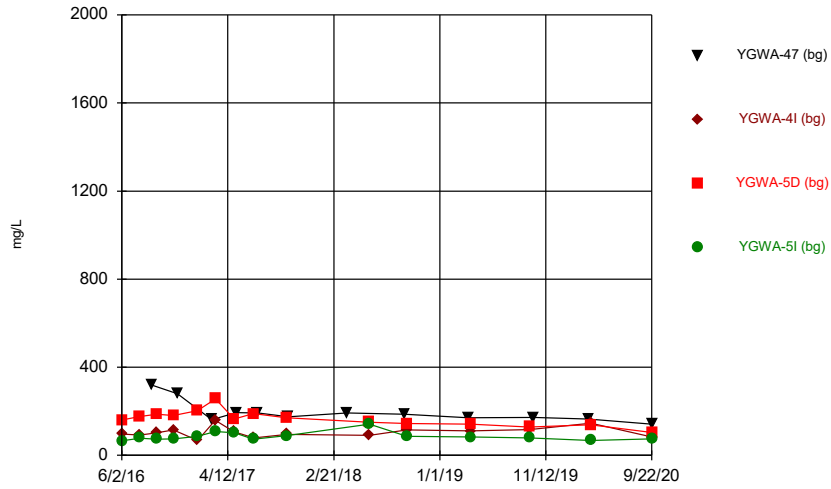
Constituent: TDS Analysis Run 12/2/2020 9:21 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



Constituent: TDS Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

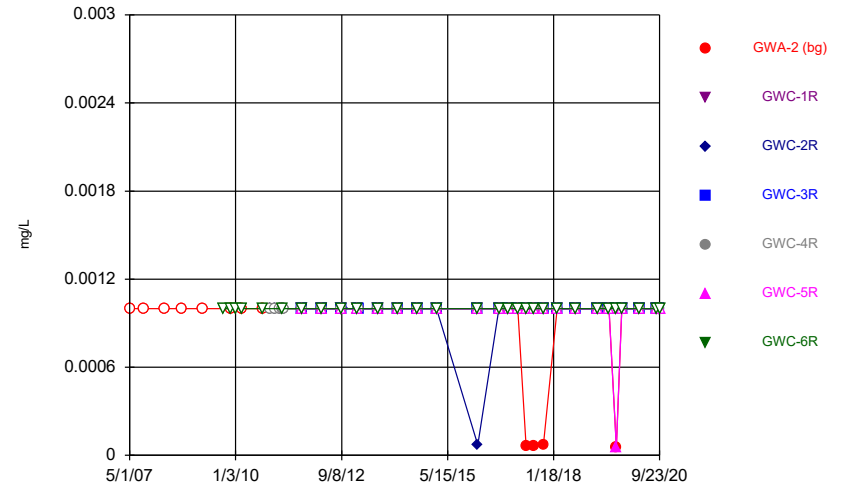
Time Series



Constituent: TDS Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

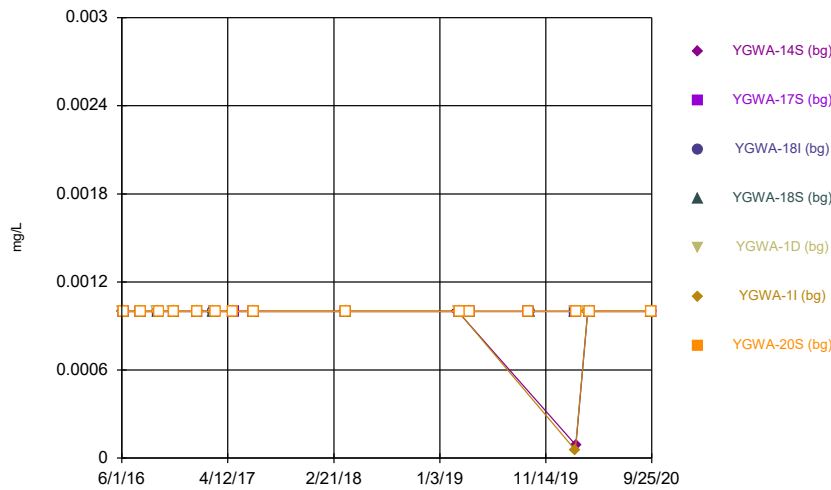
Time Series



Constituent: Thallium Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

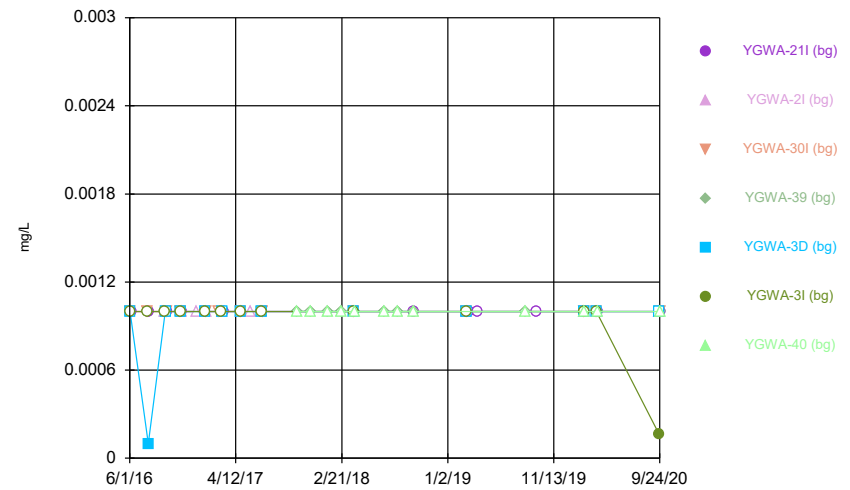
Time Series



Constituent: Thallium Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

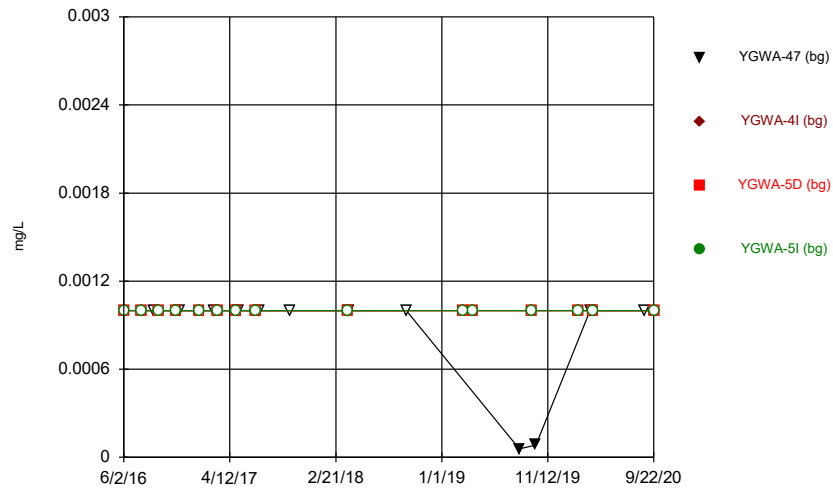
Hollow symbols indicate censored values.

Time Series



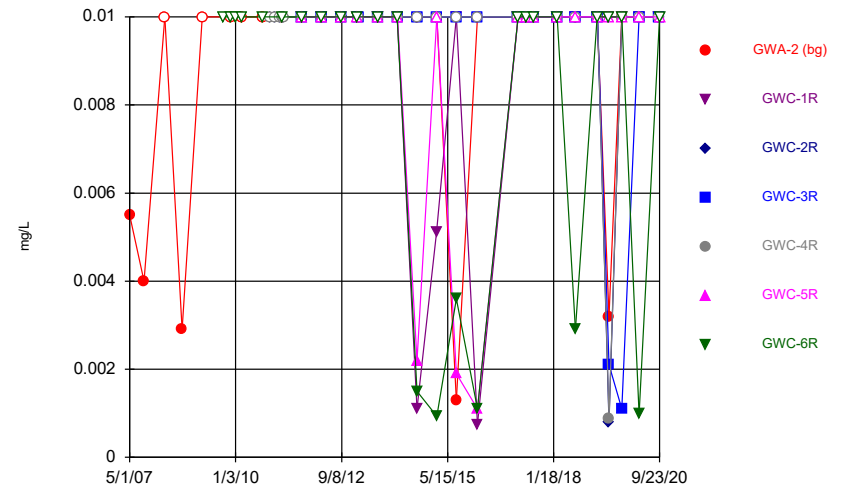
Constituent: Thallium Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



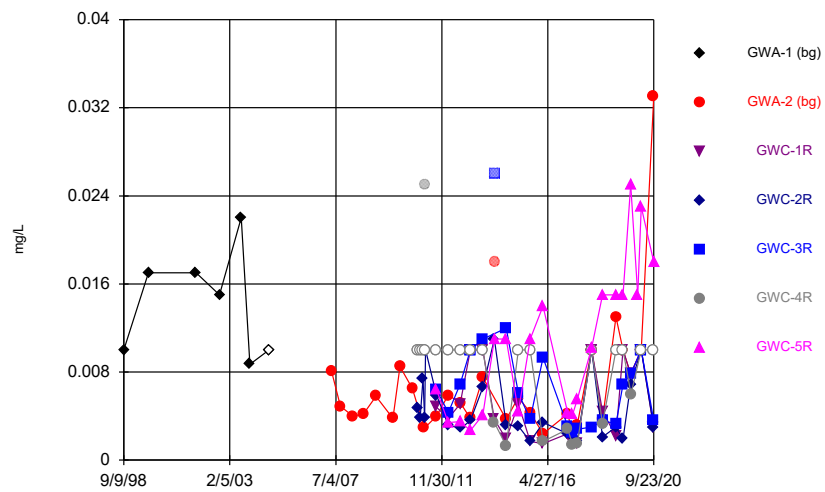
Constituent: Thallium Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



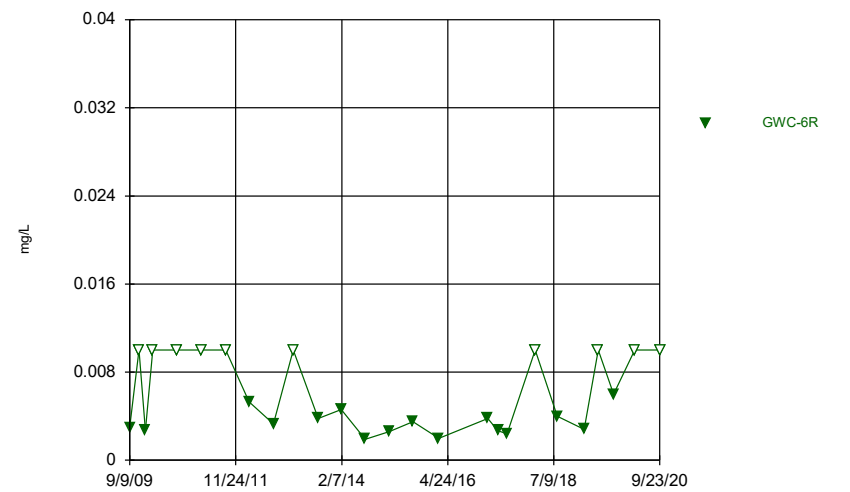
Constituent: Vanadium Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



Constituent: Zinc Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Time Series



Constituent: Zinc Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/1/2007	<0.003						
9/11/2007	<0.003						
3/20/2008	<0.003						
8/27/2008	<0.003						
3/3/2009	<0.003						
9/9/2009							<0.003
11/18/2009	<0.003						<0.003
1/5/2010							<0.003
3/3/2010	<0.003						<0.003
9/7/2010							<0.003
9/8/2010	<0.003						
11/22/2010			<0.003		<0.003		
1/4/2011			<0.003		<0.003		
2/17/2011			<0.003		<0.003		
3/10/2011	<0.003						<0.003
3/11/2011			<0.003		<0.003		
3/28/2011			<0.003		<0.003		
9/7/2011			<0.003	<0.003	<0.003	<0.003	
9/8/2011	<0.003	<0.003					<0.003
3/4/2012					<0.003		
3/5/2012	<0.003	<0.003		<0.003		<0.003	<0.003
3/6/2012			<0.003				
9/5/2012		<0.003		<0.003		<0.003	<0.003
9/10/2012	<0.003				<0.003		
9/11/2012			<0.003				
2/5/2013		<0.003				<0.003	<0.003
2/6/2013	<0.003		<0.003	<0.003	<0.003		
8/12/2013	<0.003						
8/13/2013		<0.003	<0.003	<0.003			<0.003
8/14/2013					<0.003	<0.003	
2/4/2014		<0.003	<0.003		<0.003		<0.003
2/5/2014	<0.003			<0.003		<0.003	
8/4/2014				<0.003	<0.003	<0.003	
8/5/2014	<0.003	<0.003	<0.003				<0.003
2/2/2015		<0.003	<0.003		<0.003		
2/3/2015				<0.003		<0.003	<0.003
2/4/2015	<0.003						
8/3/2015	<0.003			<0.003 (D)	<0.003 (D)	<0.003 (D)	
8/4/2015		<0.003 (D)	<0.003				<0.003
2/16/2016	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
2/17/2016			<0.003				
8/31/2016	<0.003	<0.003	<0.003	<0.003			
9/1/2016					0.0014 (J)	<0.003	<0.003
11/28/2016	0.0014 (J)		<0.003				
11/29/2016		<0.003					<0.003
11/30/2016				<0.003	<0.003		
12/1/2016						<0.003	
2/22/2017	<0.003		<0.003				
2/23/2017		<0.003		<0.003			<0.003
2/24/2017					<0.003	<0.003	
5/8/2017	<0.003						
5/9/2017		<0.003		<0.003			

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/10/2017			<0.003		<0.003	<0.003	<0.003
7/17/2017	<0.003					<0.003	
7/18/2017		<0.003	<0.003	<0.003	<0.003		<0.003
10/16/2017	<0.003					<0.003	
10/17/2017		<0.003	<0.003		<0.003		
10/18/2017				<0.003			<0.003
2/19/2018	<0.003						<0.003
2/20/2018			<0.003		<0.003		
2/21/2018		<0.003		<0.003		<0.003	
8/6/2018	<0.003						<0.003
8/7/2018		<0.003		<0.003		<0.003	
8/8/2018			<0.003		<0.003		
2/25/2019	<0.003						<0.003
2/26/2019		<0.003	<0.003	<0.003	<0.003	<0.003	
6/12/2019	<0.003		<0.003		0.00028 (J)		
6/13/2019		<0.003		<0.003		<0.003	<0.003
8/19/2019	<0.003				<0.003		
8/20/2019		<0.003	<0.003				<0.003
8/21/2019				<0.003		0.00054 (J)	
10/8/2019	<0.003						<0.003
10/9/2019		<0.003	<0.003			<0.003	
10/10/2019				<0.003	<0.003		
3/17/2020	<0.003	<0.003		<0.003			<0.003
3/18/2020			<0.003		<0.003	<0.003	
8/26/2020	0.00042 (J)						
8/27/2020		<0.003				<0.003	<0.003
8/28/2020			<0.003	<0.003	<0.003		
9/22/2020	0.00044 (J)	<0.003	0.0017 (J)	<0.003	0.00053 (J)		
9/23/2020						0.00031 (J)	<0.003



# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					<0.003	<0.003	
6/2/2016	<0.003						
6/6/2016			<0.003	<0.003			
6/7/2016		<0.003					<0.003
7/25/2016						<0.003	
7/26/2016	0.0005 (J)				0.001 (J)		
7/27/2016		<0.003	0.0005 (J)	<0.003			<0.003
9/13/2016					0.001 (J)	<0.003	
9/15/2016	<0.003						
9/16/2016		<0.003		<0.003			
9/19/2016			<0.003				<0.003
11/1/2016					0.0015 (J)		
11/2/2016	<0.003						<0.003
11/3/2016		<0.003	<0.003	<0.003			
11/4/2016						<0.003	
1/10/2017	<0.003						
1/11/2017		<0.003	<0.003	<0.003	<0.003		
1/13/2017							<0.003
1/16/2017						<0.003	
3/1/2017			<0.003	<0.003			
3/2/2017		<0.003			0.0004 (J)	<0.003	
3/6/2017							<0.003
3/8/2017	<0.003						
4/26/2017	<0.003		<0.003	<0.003			<0.003
4/27/2017					0.0004 (J)	0.0017 (J)	
5/2/2017		<0.003					
6/27/2017					<0.003	<0.003	
6/28/2017			<0.003	<0.003			
6/29/2017		<0.003					<0.003
6/30/2017	<0.003						
3/27/2018	<0.003					<0.003	
3/28/2018		<0.003	<0.003	<0.003			
3/29/2018					<0.003		<0.003
2/26/2019	<0.003						
2/27/2019					<0.003	<0.003	
3/5/2019		<0.003		<0.003			<0.003
3/6/2019			<0.003				
4/2/2019		<0.003					
4/3/2019			<0.003	<0.003			<0.003
9/25/2019		<0.003					<0.003
9/26/2019			0.00056 (J)	<0.003			
2/10/2020					0.00088 (J)	<0.003	
2/11/2020		<0.003	<0.003	<0.003			
2/12/2020	<0.003						<0.003
3/18/2020	<0.003					0.0004 (J)	
3/19/2020					<0.003		
3/24/2020		<0.003	<0.003	<0.003			<0.003
9/23/2020		<0.003	<0.003	<0.003	<0.003	<0.003	
9/24/2020							<0.003
9/25/2020	<0.003						

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						<0.003	
6/2/2016			<0.003		<0.003		
6/7/2016	<0.003						
7/25/2016			<0.003			<0.003	
7/26/2016					0.002 (J)		
7/28/2016	<0.003						
9/14/2016		<0.003				<0.003	
9/15/2016					0.0027 (J)		
9/19/2016	0.001 (J)		<0.003				
11/1/2016			<0.003		<0.003	<0.003	
11/3/2016	<0.003						
11/4/2016		<0.003					
12/15/2016		0.0012 (J)					
1/11/2017					<0.003	<0.003	
1/13/2017	<0.003						
1/16/2017		<0.003	<0.003				
2/21/2017			<0.003				
3/1/2017						<0.003	
3/2/2017					0.0008 (J)		
3/3/2017		<0.003					
3/6/2017	0.0005 (J)						
4/26/2017	<0.003		<0.003		<0.003	<0.003	
4/28/2017		0.0015 (J)					
5/26/2017		0.0005 (J)					
6/28/2017		<0.003			<0.003	<0.003	
6/29/2017	<0.003						
6/30/2017			<0.003				
10/11/2017				0.0006 (J)			
10/12/2017							<0.003
11/20/2017				<0.003			<0.003
1/10/2018							<0.003
1/11/2018				<0.003			
2/19/2018							<0.003
2/20/2018				<0.003			
3/27/2018			<0.003				
3/28/2018		<0.003			<0.003	<0.003	
3/29/2018	<0.003						
4/3/2018				<0.003			<0.003
6/28/2018				<0.003			<0.003
8/7/2018				<0.003			<0.003
9/24/2018				<0.003			<0.003
2/26/2019			<0.003				
2/27/2019		<0.003			<0.003	<0.003	
3/5/2019	0.0011 (J)						
4/2/2019	0.0011 (J)						
8/21/2019				<0.003			<0.003
9/24/2019	0.0035						
2/11/2020		0.00036 (J)				<0.003	
2/12/2020	0.0015 (J)		<0.003	<0.003	<0.003		<0.003
3/19/2020		0.0003 (J)	<0.003		0.00064 (J)	<0.003	
3/24/2020	0.0017 (J)						<0.003
3/25/2020				0.0014 (J)			

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/23/2020		<0.003			<0.003	<0.003	
9/24/2020	0.0047		<0.003	<0.003			<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.003	<0.003	<0.003
7/26/2016		0.0003 (J)	<0.003	<0.003
8/30/2016	0.0028 (J)			
9/14/2016		<0.003	<0.003	<0.003
11/2/2016		<0.003	<0.003	
11/4/2016				<0.003
11/14/2016	<0.003			
1/12/2017			<0.003	<0.003
1/13/2017		<0.003		
2/24/2017	<0.003			
3/6/2017		<0.003		
3/7/2017			<0.003	<0.003
5/1/2017		<0.003	<0.003	
5/2/2017				<0.003
5/8/2017	0.0004 (J)			
6/27/2017			<0.003	<0.003
6/29/2017		<0.003		
7/11/2017	0.0006 (J)			
10/10/2017	<0.003			
3/29/2018		<0.003	<0.003	<0.003
4/2/2018	<0.003			
9/19/2018	<0.003			
3/4/2019		<0.003	<0.003	<0.003
4/3/2019		<0.003	<0.003	<0.003
8/20/2019	<0.003			
9/24/2019			<0.003	<0.003
9/25/2019		<0.003		
2/12/2020		<0.003	<0.003	<0.003
3/24/2020			<0.003	<0.003
3/25/2020		<0.003		
8/27/2020	0.00048 (J)			
9/22/2020	<0.003	<0.003	<0.003	<0.003

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	<0.005						
9/20/1999	<0.005						
9/12/2001	<0.005						
9/3/2002	<0.005						
7/29/2003	<0.005						
12/5/2003	<0.005						
9/22/2004	<0.005						
5/1/2007		<0.005					
9/11/2007		<0.005					
3/20/2008		<0.005					
8/27/2008		<0.005					
3/3/2009		<0.005					
11/18/2009		<0.005					
3/3/2010		<0.005					
9/8/2010		<0.005					
11/22/2010				<0.005		<0.005	
1/4/2011				<0.005		<0.005	
2/17/2011				<0.005		<0.005	
3/10/2011		<0.005					
3/11/2011				<0.005		<0.005	
3/28/2011				<0.005		<0.005	
9/7/2011				<0.005	<0.005	<0.005	<0.005
9/8/2011		<0.005	<0.005				
3/4/2012						<0.005	
3/5/2012		<0.005	<0.005		<0.005		<0.005
3/6/2012				<0.005			
9/5/2012			<0.005		<0.005		<0.005
9/10/2012		<0.005				<0.005	
9/11/2012				<0.005			
2/5/2013			<0.005				<0.005
2/6/2013		<0.005		<0.005	<0.005	<0.005	
8/12/2013		<0.005					
8/13/2013			<0.005	<0.005	<0.005		
8/14/2013						<0.005	<0.005
2/4/2014			<0.005	<0.005		<0.005	
2/5/2014		<0.005			<0.005		<0.005
8/4/2014					<0.005	<0.005	<0.005
8/5/2014		<0.005	<0.005	<0.005			
2/2/2015			<0.005	<0.005		<0.005	
2/3/2015					<0.005		<0.005
2/4/2015		<0.005					
8/3/2015		<0.005			<0.005 (D)	<0.005 (D)	<0.005 (D)
8/4/2015			<0.005 (D)	<0.005			
2/16/2016		<0.005	<0.005		<0.005	<0.005	<0.005
2/17/2016				<0.005			
8/31/2016		<0.005	<0.005	<0.005	<0.005		
9/1/2016						<0.005	<0.005
11/28/2016		<0.005		<0.005			
11/29/2016			<0.005				
11/30/2016					<0.005	<0.005	
12/1/2016							<0.005
2/22/2017		<0.005		<0.005			



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	<0.005						
11/18/2009	<0.005						
1/5/2010	<0.005						
3/3/2010	<0.005						
9/7/2010	<0.005						
3/10/2011	<0.005						
9/8/2011	<0.005						
3/5/2012	<0.005						
9/5/2012	<0.005						
2/5/2013	<0.005						
8/13/2013	<0.005						
2/4/2014	<0.005						
8/5/2014	<0.005						
2/3/2015	<0.005						
8/4/2015	<0.005						
2/16/2016	<0.005						
6/1/2016						0.0021	<0.005
6/2/2016		<0.005					
6/6/2016				<0.005	<0.005		
6/7/2016			<0.005				
7/25/2016							<0.005
7/26/2016		<0.005				0.0016 (J)	
7/27/2016			<0.005	<0.005	<0.005		
9/1/2016	<0.005						
9/13/2016						<0.005	<0.005
9/15/2016		<0.005					
9/16/2016			<0.005		<0.005		
9/19/2016				<0.005			
11/1/2016						<0.005	
11/2/2016		<0.005					
11/3/2016			<0.005	<0.005	<0.005		
11/4/2016							<0.005
11/29/2016	<0.005						
1/10/2017		<0.005					
1/11/2017			<0.005	<0.005	<0.005	0.0017 (J)	
1/16/2017							<0.005
2/23/2017	<0.005						
3/1/2017				<0.005	<0.005		
3/2/2017			<0.005			0.0014 (J)	<0.005
3/8/2017		<0.005					
4/26/2017		<0.005		<0.005	<0.005		
4/27/2017						0.0018 (J)	<0.005
5/2/2017			<0.005				
5/10/2017	0.0007 (J)						
6/27/2017						0.0018 (J)	<0.005
6/28/2017				<0.005	<0.005		
6/29/2017			<0.005				
6/30/2017		<0.005					
7/18/2017	0.001 (J)						
10/18/2017	0.0011 (J)						
2/19/2018	<0.005						
3/27/2018		<0.005					<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			<0.005	<0.005	0.00061 (J)		
3/29/2018						0.0017 (J)	
6/5/2018						0.0013 (J)	
6/6/2018							<0.005
6/7/2018				0.00066 (J)			
6/8/2018		<0.005					
6/11/2018			<0.005		<0.005		
8/6/2018	0.0023 (J)						
9/25/2018			<0.005	<0.005	<0.005		
10/1/2018		<0.005				0.0016 (J)	<0.005
2/25/2019	0.00073 (J)						
2/26/2019		<0.005					
2/27/2019						0.0015 (J)	<0.005
3/5/2019			<0.005		<0.005		
3/6/2019				<0.005			
3/28/2019						0.00072 (J)	<0.005
3/29/2019		<0.005					
4/2/2019			<0.005				
4/3/2019				<0.005	<0.005		
6/13/2019	0.00068 (J)						
8/20/2019	0.00072 (J)						
9/24/2019						0.0014 (J)	<0.005
9/25/2019		<0.005	<0.005				
9/26/2019				<0.005	<0.005		
10/8/2019	0.00056 (J)						
2/10/2020						0.0026 (J)	0.0005 (J)
2/11/2020			0.0022 (J)	0.0014 (J)	0.0026 (J)		
2/12/2020		<0.005					
3/17/2020	<0.005						
3/18/2020		<0.005					<0.005
3/19/2020						0.00095 (J)	
3/24/2020			<0.005	<0.005	<0.005		
8/27/2020	0.0011 (J)						
9/23/2020	<0.005		<0.005	<0.005	<0.005	0.0011 (J)	<0.005
9/25/2020		<0.005					



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							<0.005
6/2/2016				<0.005		<0.005	
6/7/2016	<0.005	<0.005					
7/25/2016				<0.005			<0.005
7/26/2016						<0.005	
7/27/2016	<0.005						
7/28/2016		<0.005					
9/14/2016			<0.005				<0.005
9/15/2016						<0.005	
9/19/2016	<0.005	<0.005		<0.005			
11/1/2016				<0.005		<0.005	<0.005
11/2/2016	<0.005						
11/3/2016		<0.005					
11/4/2016			0.0017 (J)				
12/15/2016			0.0023 (J)				
1/11/2017						<0.005	<0.005
1/13/2017	<0.005	<0.005					
1/16/2017			0.0018 (J)	<0.005			
2/21/2017				<0.005			
3/1/2017							0.0004 (J)
3/2/2017						<0.005	
3/3/2017			0.0016 (J)				
3/6/2017	<0.005	0.0017 (J)					
4/26/2017	<0.005	<0.005		<0.005		<0.005	<0.005
4/28/2017			0.002 (J)				
5/26/2017			0.0005 (J)				
6/28/2017			0.0016 (J)			0.0007 (J)	0.0011 (J)
6/29/2017	<0.005	<0.005					
6/30/2017				<0.005			
10/11/2017					0.0009 (J)		
11/20/2017					<0.005		
1/11/2018					<0.005		
2/20/2018					<0.005		
3/27/2018				<0.005			
3/28/2018			0.0013 (J)			<0.005	<0.005
3/29/2018	<0.005	0.0015 (J)					
4/3/2018					<0.005		
6/5/2018		0.0013 (J)					
6/6/2018	<0.005						
6/7/2018			0.00082 (J)			<0.005	
6/8/2018							<0.005
6/11/2018				<0.005			
6/28/2018					<0.005		
8/7/2018					<0.005		
9/24/2018					<0.005		
9/25/2018	<0.005	0.0022 (J)					
10/1/2018			0.0011 (J)			<0.005	<0.005
10/2/2018				<0.005			
2/26/2019				<0.005			
2/27/2019			0.001 (J)			<0.005	<0.005
3/5/2019	<0.005	0.0013 (J)					
3/29/2019			0.00063 (J)				

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
4/1/2019				<0.005		<0.005	<0.005
4/2/2019		0.00096 (J)					
4/3/2019	<0.005						
8/21/2019					0.00058 (J)		
9/24/2019		0.0026 (J)	<0.005				
9/25/2019	<0.005			<0.005		<0.005	<0.005
10/9/2019					0.00063 (J)		
2/11/2020			0.0044 (J)				0.0041 (J)
2/12/2020	<0.005	0.0025 (J)		0.0032 (J)	0.00058 (J)	0.0038 (J)	
3/19/2020			0.00066 (J)	<0.005		<0.005	<0.005
3/24/2020	<0.005	0.0013 (J)					
3/25/2020					0.0012 (J)		
9/23/2020			0.001 (J)			<0.005	<0.005
9/24/2020	<0.005	0.0014 (J)		<0.005	<0.005		

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			<0.005	0.00071 (J)	<0.005
7/26/2016			<0.005	0.001 (J)	<0.005
8/30/2016		<0.005			
9/14/2016			<0.005	<0.005	<0.005
11/2/2016			<0.005	<0.005	
11/4/2016					<0.005
11/14/2016		<0.005			
1/12/2017				<0.005	<0.005
1/13/2017			<0.005		
2/24/2017		<0.005			
3/6/2017			<0.005		
3/7/2017				0.0012 (J)	<0.005
5/1/2017			<0.005	<0.005	
5/2/2017					<0.005
5/8/2017		<0.005			
6/27/2017				0.0019 (J)	<0.005
6/29/2017			<0.005		
7/11/2017		<0.005			
10/10/2017		0.0007 (J)			
10/12/2017	<0.005				
11/20/2017	<0.005				
1/10/2018	<0.005				
2/19/2018	<0.005				
3/29/2018			<0.005	0.0006 (J)	<0.005
4/2/2018		<0.005			
4/3/2018	<0.005				
6/6/2018				0.0013 (J)	
6/7/2018			0.00059 (J)		<0.005
6/28/2018	<0.005				
8/7/2018	<0.005				
9/19/2018		0.00072 (J)			
9/24/2018	<0.005				
9/26/2018			<0.005	0.0014 (J)	<0.005
3/4/2019			<0.005	<0.005	<0.005
4/3/2019			<0.005	<0.005	<0.005
8/20/2019		<0.005			
8/21/2019	<0.005				
9/24/2019				0.00043 (J)	<0.005
9/25/2019			<0.005		
10/8/2019		<0.005			
10/9/2019	<0.005				
2/12/2020	0.0034 (J)		<0.005	0.0046 (J)	0.002 (J)
3/17/2020		<0.005			
3/24/2020	<0.005			0.00065 (J)	<0.005
3/25/2020			<0.005		
8/27/2020		<0.005			
9/22/2020		<0.005	<0.005	0.001 (J)	<0.005
9/24/2020	<0.005				

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	0.006						
9/20/1999	0.015						
9/12/2001	0.018						
9/3/2002	0.023						
7/29/2003	0.02						
12/5/2003	0.012						
9/22/2004	0.03						
5/1/2007		0.032					
9/11/2007		0.017					
3/20/2008		0.025					
8/27/2008		0.041					
3/3/2009		0.053					
11/18/2009		0.05					
3/3/2010		0.061					
9/8/2010		0.071					
11/22/2010				0.12		0.03	
1/4/2011				0.1		0.065	
2/17/2011				0.1		0.061	
3/10/2011		0.057					
3/11/2011				0.05		0.066	
3/28/2011				0.087		0.04	
9/7/2011				0.065	0.025	0.041	0.02
9/8/2011		0.057	0.086				
3/4/2012						0.046	
3/5/2012		0.061	0.044		0.014		0.048
3/6/2012				0.049			
9/5/2012			0.034		0.0095		0.07
9/10/2012		0.055				0.084	
9/11/2012				0.045			
2/5/2013			0.03				0.068
2/6/2013		0.061		0.05	0.0094	0.042	
8/12/2013		0.055					
8/13/2013			0.027	0.13	0.13		
8/14/2013						0.042	0.036
2/4/2014			0.037	0.08		0.046	
2/5/2014		0.063			0.066		0.044
8/4/2014					0.043	0.027	0.058
8/5/2014		0.038	0.048	0.068			
2/2/2015			0.069	0.066		0.02	
2/3/2015					0.031		0.033
2/4/2015		0.039					
8/3/2015		0.031			0.039 (D)	0.017 (D)	0.037 (D)
8/4/2015			0.023 (D)	0.053			
2/16/2016		0.045	0.044		0.038	0.032	0.04
2/17/2016				0.059			
8/31/2016		0.0542	0.0711	0.0601	0.0286		
9/1/2016						0.0377	0.0345
11/28/2016		0.0529		0.0562			
11/29/2016			0.0754				
11/30/2016					0.0258	0.0148	
12/1/2016							0.0342
2/22/2017		0.0607		0.0481			



# Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	0.025						
11/18/2009	0.025						
1/5/2010	0.018						
3/3/2010	0.022						
9/7/2010	0.019						
3/10/2011	0.017						
9/8/2011	0.019						
3/5/2012	0.027						
9/5/2012	0.04						
2/5/2013	0.056						
8/13/2013	0.07						
2/4/2014	0.051						
8/5/2014	0.041						
2/3/2015	0.04						
8/4/2015	0.042						
2/16/2016	0.068						
6/1/2016						0.008	0.012
6/2/2016		0.0081					
6/6/2016				0.028	0.019		
6/7/2016			0.012				
7/25/2016							0.0091 (J)
7/26/2016		0.0082 (J)				0.006 (J)	
7/27/2016			0.0126	0.0294	0.0167		
9/1/2016	0.0536						
9/13/2016						0.0084 (J)	0.008 (J)
9/15/2016		0.0087 (J)					
9/16/2016			0.0127		0.0168		
9/19/2016				0.0247			
11/1/2016						0.0062 (J)	
11/2/2016		0.0082 (J)					
11/3/2016			0.0128	0.0248	0.0159		
11/4/2016							0.0067 (J)
11/29/2016	0.0459						
1/10/2017		0.0086 (J)					
1/11/2017			0.0142	0.0266	0.0162	0.0069 (J)	
1/16/2017							0.0096 (J)
2/23/2017	0.0581						
3/1/2017				0.0275	0.0195		
3/2/2017			0.0155			0.0071 (J)	0.0112
3/8/2017		0.0088 (J)					
4/26/2017		0.0085 (J)		0.024	0.0182		
4/27/2017						0.0064 (J)	0.0106
5/2/2017			0.0138				
5/10/2017	0.0873						
6/27/2017						0.0054 (J)	0.0092 (J)
6/28/2017				0.0237	0.018		
6/29/2017			0.0128				
6/30/2017		0.0081 (J)					
7/18/2017	0.0994						
10/18/2017	0.0757						
2/19/2018	0.0703						
3/27/2018		<0.01					<0.01

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			0.014	0.024	0.021		
3/29/2018						<0.01	
6/5/2018						0.0069 (J)	
6/6/2018							0.0082 (J)
6/7/2018				0.023			
6/8/2018		0.007 (J)					
6/11/2018			0.013		0.019		
8/6/2018	0.076						
9/25/2018			0.014	0.023	0.019		
10/1/2018		0.007 (J)				0.0062 (J)	0.0084 (J)
2/25/2019	0.045						
2/26/2019		0.0067 (J)					
2/27/2019						0.0074 (J)	0.008 (J)
3/5/2019			0.015		0.02		
3/6/2019				0.024			
3/28/2019						0.0082 (J)	0.0082 (J)
3/29/2019		0.0066 (J)					
4/2/2019			0.016				
4/3/2019				0.025	0.017		
6/13/2019	0.062						
8/20/2019	0.06						
9/24/2019						0.0072 (J)	0.0086 (J)
9/25/2019		0.0071 (J)	0.015				
9/26/2019				0.021	0.017		
10/8/2019	0.054						
2/10/2020						0.0066 (J)	0.0091 (J)
2/11/2020			0.015	0.022	0.019		
2/12/2020		0.007 (J)					
3/17/2020	0.031						
3/18/2020		0.0076 (J)					0.0084 (J)
3/19/2020						0.0076 (J)	
3/24/2020			0.015	0.021	0.017		
8/27/2020	0.045						
9/23/2020	0.044		0.015	0.021	0.016	0.0068 (J)	0.0079 (J)
9/25/2020		0.0073 (J)					

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							0.0038
6/2/2016				0.0064		0.01	
6/7/2016	0.014	0.0058					
7/25/2016				0.0071 (J)			0.0031 (J)
7/26/2016						0.0088 (J)	
7/27/2016	0.0141						
7/28/2016		0.0068 (J)					
9/14/2016			0.0037 (J)				0.0027 (J)
9/15/2016						0.009 (J)	
9/19/2016	0.0155	0.0071 (J)		0.0069 (J)			
11/1/2016				0.007 (J)		0.0079 (J)	0.0027 (J)
11/2/2016	0.0157						
11/3/2016		0.0092 (J)					
11/4/2016			0.0059 (J)				
12/15/2016			0.0056 (J)				
1/11/2017						0.0075 (J)	0.0036 (J)
1/13/2017	0.0158	0.0105					
1/16/2017			0.0049 (J)	0.0071 (J)			
2/21/2017				0.0077 (J)			
3/1/2017							0.0036 (J)
3/2/2017						0.009 (J)	
3/3/2017			0.0046 (J)				
3/6/2017	0.0163	0.0105					
4/26/2017	0.0177	0.011		0.0074 (J)		0.0078 (J)	0.0038 (J)
4/28/2017			0.0039 (J)				
5/26/2017			0.0034 (J)				
6/28/2017			0.003 (J)			0.0071 (J)	0.004 (J)
6/29/2017	0.017	0.0109					
6/30/2017				0.0076 (J)			
10/11/2017					0.0092 (J)		
11/20/2017					0.0081 (J)		
1/11/2018					0.0077 (J)		
2/20/2018					<0.01		
3/27/2018				<0.01			
3/28/2018			<0.01			<0.01	<0.01
3/29/2018	0.014	<0.01					
4/3/2018					<0.01		
6/5/2018		0.011					
6/6/2018	0.015						
6/7/2018			0.0037 (J)			0.0068 (J)	
6/8/2018							0.0034 (J)
6/11/2018				0.007 (J)			
6/28/2018					0.0078 (J)		
8/7/2018					0.0078 (J)		
9/24/2018					0.0071 (J)		
9/25/2018	0.015	0.011					
10/1/2018			0.0038 (J)			0.0065 (J)	0.0034 (J)
10/2/2018				0.0069 (J)			
2/26/2019				0.007 (J)			
2/27/2019			0.0035 (J)			0.0059 (J)	0.0034 (J)
3/5/2019	0.016	0.011					
3/29/2019			0.0039 (J)				



# Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
4/1/2019				0.0072 (J)		0.0064 (J)	0.003 (J)
4/2/2019		0.011					
4/3/2019	0.018						
8/21/2019					0.015		
9/24/2019		0.011	0.0038 (J)				
9/25/2019	0.014			0.0066 (J)		0.0059 (J)	0.005 (J)
10/9/2019					0.013		
2/11/2020			0.0036 (J)				0.0031 (J)
2/12/2020	0.014	0.011		0.0073 (J)	0.011	0.0062 (J)	
3/19/2020			0.0036 (J)	0.0074 (J)		0.0072 (J)	0.0029 (J)
3/24/2020	0.015	0.011					
3/25/2020					0.014		
9/23/2020			0.0039 (J)			0.0051 (J)	0.0039 (J)
9/24/2020	0.015	0.01		0.0062 (J)	0.016		

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			0.013	0.0084	0.019
7/26/2016			0.0158	0.01	0.0179
8/30/2016		0.0413			
9/14/2016			0.0143	0.0085 (J)	0.0181
11/2/2016			0.0148	0.0091 (J)	
11/4/2016					0.0165
11/14/2016		0.0383			
1/12/2017				0.0089 (J)	0.0199
1/13/2017			0.0146		
2/24/2017		0.0351			
3/6/2017			0.0141		
3/7/2017				0.009 (J)	0.0196
5/1/2017			0.0149	0.0083 (J)	
5/2/2017					0.0202
5/8/2017		0.0251			
6/27/2017				0.0074 (J)	0.0184
6/29/2017			0.0154		
7/11/2017		0.0233			
10/10/2017		0.0207			
10/12/2017	0.0328				
11/20/2017	0.0671				
1/10/2018	0.0656				
2/19/2018	0.0598				
3/29/2018			0.014	<0.01	0.021
4/2/2018		0.022			
4/3/2018	0.045				
6/6/2018				0.008 (J)	
6/7/2018			0.014		0.019
6/28/2018	0.047				
8/7/2018	0.048				
9/19/2018		0.023			
9/24/2018	0.042				
9/26/2018			0.02	0.0075 (J)	0.019
3/4/2019			0.016	0.0077 (J)	0.019
4/3/2019			0.017	0.0087 (J)	0.023
8/20/2019		0.024			
8/21/2019	0.035				
9/24/2019				0.0075 (J)	0.019
9/25/2019			0.015		
10/8/2019		0.025			
10/9/2019	0.036				
2/12/2020	0.035		0.012	0.0079 (J)	0.021
3/17/2020		0.035			
3/24/2020	0.033			0.0076 (J)	0.021
3/25/2020			0.016		
8/27/2020		0.027			
9/22/2020		0.026	0.013	0.0076 (J)	0.019
9/24/2020	0.028				

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	<0.003						
9/20/1999	<0.003						
9/12/2001	<0.003						
9/3/2002	<0.003						
7/29/2003	<0.003						
12/5/2003	<0.003						
9/22/2004	<0.003						
5/1/2007		<0.003					
9/11/2007		<0.003					
3/20/2008		<0.003					
8/27/2008		<0.003					
3/3/2009		<0.003					
11/18/2009		<0.003					
3/3/2010		<0.003					
9/8/2010		<0.003					
11/22/2010				<0.003		<0.003	
1/4/2011				<0.003		<0.003	
2/17/2011				<0.003		<0.003	
3/10/2011		<0.003					
3/11/2011				<0.003		<0.003	
3/28/2011				<0.003		<0.003	
9/7/2011				<0.003	<0.003	<0.003	<0.003
9/8/2011		<0.003	<0.003				
3/4/2012						<0.003	
3/5/2012		<0.003	<0.003		<0.003		<0.003
3/6/2012				<0.003			
9/5/2012			<0.003		<0.003		<0.003
9/10/2012		<0.003				<0.003	
9/11/2012				<0.003			
2/5/2013			<0.003				<0.003
2/6/2013		<0.003		<0.003	<0.003	<0.003	
8/12/2013		<0.003					
8/13/2013			<0.003	<0.003	<0.003		
8/14/2013						<0.003	<0.003
2/4/2014			<0.003	<0.003		<0.003	
2/5/2014		<0.003			<0.003		<0.003
8/4/2014					0.0011 (J)	<0.003	0.00026 (J)
8/5/2014		<0.003	7.5E-05 (J)	<0.003			
2/2/2015			0.00023 (J)	<0.003		<0.003	
2/3/2015					0.00061 (J)		0.00023 (J)
2/4/2015		<0.003					
8/3/2015		<0.003			0.00051 (JD)	<0.003 (D)	0.00046 (JD)
8/4/2015			<0.003 (D)	<0.003			
2/16/2016		<0.003	<0.003		0.00084 (J)	<0.003	0.00048 (J)
2/17/2016				<0.003			
8/31/2016		<0.003	0.0001 (J)	<0.003	0.0003 (J)		
9/1/2016						<0.003	0.0005 (J)
11/28/2016		<0.003		<0.003			
11/29/2016			<0.003				
11/30/2016					0.0004 (J)	<0.003	
12/1/2016							0.0003 (J)
2/22/2017		<0.003		<0.003			



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	<0.003						
11/18/2009	<0.003						
1/5/2010	<0.003						
3/3/2010	<0.003						
9/7/2010	<0.003						
3/10/2011	<0.003						
9/8/2011	<0.003						
3/5/2012	<0.003						
9/5/2012	<0.003						
2/5/2013	<0.003						
8/13/2013	<0.003						
2/4/2014	<0.003						
8/5/2014	<0.003						
2/3/2015	<0.003						
8/4/2015	<0.003						
2/16/2016	<0.003						
6/1/2016						<0.003	<0.003
6/2/2016		<0.003					
6/6/2016				<0.003	<0.003		
6/7/2016			<0.003				
7/25/2016							<0.003
7/26/2016		0.0002 (J)				<0.003	
7/27/2016			<0.003	<0.003	<0.003		
9/1/2016	<0.003						
9/13/2016						<0.003	<0.003
9/15/2016		0.0002 (J)					
9/16/2016			<0.003		<0.003		
9/19/2016				<0.003			
11/1/2016						<0.003	
11/2/2016		0.0002 (J)					
11/3/2016			<0.003	<0.003	<0.003		
11/4/2016							<0.003
11/29/2016	<0.003						
1/10/2017		0.0002 (J)					
1/11/2017			<0.003	<0.003	<0.003	<0.003	
1/16/2017							<0.003
2/23/2017	<0.003						
3/1/2017				<0.003	<0.003		
3/2/2017			8E-05 (J)			<0.003	<0.003
3/8/2017		0.0002 (J)					
4/26/2017		0.0002 (J)		<0.003	<0.003		
4/27/2017						<0.003	<0.003
5/2/2017			<0.003				
5/10/2017	<0.003						
6/27/2017						<0.003	<0.003
6/28/2017				<0.003	<0.003		
6/29/2017			<0.003				
6/30/2017		0.0002 (J)					
7/18/2017	<0.003						
10/18/2017	<0.003						
2/19/2018	<0.003						
3/27/2018		<0.003					<0.003

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			<0.003	<0.003	<0.003		
3/29/2018						<0.003	
6/7/2018				<0.003			
6/11/2018			9E-05 (J)		5.7E-05 (J)		
8/6/2018	<0.003						
9/25/2018			8.9E-05 (J)	<0.003	8.2E-05 (J)		
2/25/2019	<0.003						
2/26/2019		0.00016 (J)					
2/27/2019						<0.003	<0.003
3/5/2019			9.1E-05 (J)		7.9E-05 (J)		
3/6/2019				<0.003			
3/28/2019						<0.003	<0.003
3/29/2019		0.00017 (J)					
4/2/2019			9E-05 (J)				
4/3/2019				<0.003	7.5E-05 (J)		
6/13/2019	<0.003						
8/20/2019	<0.003						
9/24/2019						<0.003	<0.003
9/25/2019		0.00018 (J)	8.1E-05 (J)				
9/26/2019				<0.003	8.4E-05 (J)		
10/8/2019	<0.003						
2/10/2020						<0.003	<0.003
2/11/2020			7.8E-05 (J)	<0.003	7.6E-05 (J)		
2/12/2020		0.00019 (J)					
3/17/2020	<0.003						
3/18/2020		0.00021 (J)					<0.003
3/19/2020						<0.003	
3/24/2020			8E-05 (J)	<0.003	8.9E-05 (J)		
8/27/2020	<0.003						
9/23/2020	<0.003		8.1E-05 (J)	<0.003	8.8E-05 (J)	<0.003	<0.003
9/25/2020		0.00018 (J)					

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							<0.003
6/2/2016				<0.003		<0.003	
6/7/2016	<0.003	<0.003					
7/25/2016				<0.003			<0.003
7/26/2016						<0.003	
7/27/2016	<0.003						
7/28/2016		<0.003					
9/14/2016			<0.003				<0.003
9/15/2016						<0.003	
9/19/2016	<0.003	<0.003		<0.003			
11/1/2016				<0.003		<0.003	<0.003
11/2/2016	<0.003						
11/3/2016		<0.003					
11/4/2016			<0.003				
12/15/2016			<0.003				
1/11/2017						<0.003	<0.003
1/13/2017	<0.003	<0.003					
1/16/2017			<0.003	<0.003			
2/21/2017				<0.003			
3/1/2017							<0.003
3/2/2017						<0.003	
3/3/2017			<0.003				
3/6/2017	<0.003	<0.003					
4/26/2017	<0.003	<0.003		<0.003		<0.003	<0.003
4/28/2017			<0.003				
5/26/2017			<0.003				
6/28/2017			<0.003			<0.003	<0.003
6/29/2017	<0.003	<0.003					
6/30/2017				<0.003			
10/11/2017					<0.003		
11/20/2017					<0.003		
1/11/2018					<0.003		
2/20/2018					<0.003		
3/27/2018				<0.003			
3/28/2018			<0.003			<0.003	<0.003
3/29/2018	<0.003	<0.003					
4/3/2018					<0.003		
6/5/2018		<0.003					
6/6/2018	8E-05 (J)						
6/28/2018					<0.003		
8/7/2018					<0.003		
9/24/2018					<0.003		
9/25/2018	6.1E-05 (J)	<0.003					
2/26/2019				7.2E-05 (J)			
2/27/2019			<0.003			<0.003	<0.003
3/5/2019	0.00011 (J)	<0.003					
3/29/2019			<0.003				
4/1/2019				<0.003		<0.003	<0.003
4/2/2019		<0.003					
4/3/2019	6.4E-05 (J)						
8/21/2019					<0.003		
9/24/2019		<0.003	<0.003				

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
9/25/2019	<0.003			<0.003		<0.003	<0.003
10/9/2019					<0.003		
2/11/2020			<0.003				<0.003
2/12/2020	7.8E-05 (J)	<0.003		<0.003	<0.003	<0.003	
3/19/2020			<0.003	<0.003		<0.003	<0.003
3/24/2020	7.6E-05 (J)	<0.003					
3/25/2020					<0.003		
9/23/2020			<0.003			<0.003	5.9E-05 (J)
9/24/2020	8.3E-05 (J)	<0.003		<0.003	<0.003		



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			<0.003	<0.003	<0.003
7/26/2016			<0.003	<0.003	<0.003
8/30/2016		<0.003			
9/14/2016			<0.003	<0.003	<0.003
11/2/2016			<0.003	<0.003	
11/4/2016					<0.003
11/14/2016		<0.003			
1/12/2017				<0.003	<0.003
1/13/2017			<0.003		
2/24/2017		<0.003			
3/6/2017			<0.003		
3/7/2017				<0.003	<0.003
5/1/2017			<0.003	<0.003	
5/2/2017					<0.003
5/8/2017		7E-05 (J)			
6/27/2017				<0.003	<0.003
6/29/2017			<0.003		
7/11/2017		<0.003			
10/10/2017		<0.003			
10/12/2017	0.0002 (J)				
11/20/2017	0.0003 (J)				
1/10/2018	0.0003 (J)				
2/19/2018	<0.003				
3/29/2018			<0.003	<0.003	<0.003
4/2/2018		<0.003			
4/3/2018	<0.003				
6/6/2018				<0.003	
6/7/2018			<0.003		<0.003
6/28/2018	0.00029 (J)				
8/7/2018	0.00024 (J)				
9/19/2018		5.7E-05 (J)			
9/24/2018	0.00019 (J)				
9/26/2018			<0.003	<0.003	<0.003
3/4/2019			<0.003	<0.003	<0.003
4/3/2019			<0.003	<0.003	<0.003
8/20/2019		<0.003			
8/21/2019	0.0002 (J)				
9/24/2019				<0.003	<0.003
9/25/2019			<0.003		
10/9/2019	0.0002 (J)				
2/12/2020	0.00018 (J)		<0.003	<0.003	<0.003
3/24/2020	0.00022 (J)			<0.003	<0.003
3/25/2020			<0.003		
8/27/2020		4.7E-05 (J)			
9/22/2020		<0.003	<0.003	<0.003	<0.003
9/24/2020	0.0002 (J)				

# Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	0.0315 (J)	0.0553 (J)	0.0305 (J)	0.0315 (J)			
9/1/2016					3.25	0.0191 (J)	0.0108 (J)
11/28/2016	0.0095 (J)		0.0206 (J)				
11/29/2016		0.0149 (J)					<0.1
11/30/2016				0.0089 (J)	0.813		
12/1/2016						0.0088 (J)	
2/22/2017	<0.1		0.0192 (J)				
2/23/2017		0.0082 (J)		<0.1			<0.1
2/24/2017					2.53	0.0067 (J)	
5/8/2017	0.0084 (J)						
5/9/2017		0.0097 (J)		0.0077 (J)			
5/10/2017			0.0179 (J)		1.22	0.0068 (J)	<0.1
7/17/2017	0.0092 (J)					0.0102 (J)	
7/18/2017		0.0123 (J)	0.0169 (J)	0.0073 (J)	0.97		0.0061 (J)
10/16/2017	<0.1					0.0066 (J)	
10/17/2017		0.0513	0.0168 (J)		0.804		
10/18/2017				<0.1			<0.1
2/19/2018	<0.1						<0.1
2/20/2018			<0.1		1.01		
2/21/2018		0.0378 (J)		0.0399 (J)		0.0268 (J)	
8/6/2018	<0.1						<0.1
8/7/2018		0.043		0.0049 (J)		0.012 (J)	
8/8/2018			0.017 (J)		1.3		
2/25/2019	<0.1						<0.1
2/26/2019		0.062	0.017 (J)	0.0053 (J)	0.75	0.033 (J)	
6/12/2019	<0.1		0.013 (J)		1.5		
6/13/2019		0.057		<0.1		0.03 (J)	<0.1
10/8/2019	<0.1						<0.1
10/9/2019		0.029 (J)	0.018 (J)			0.013 (J)	
10/10/2019				0.0061 (J)	0.78		
3/17/2020	0.0051 (J)	0.092 (J)		0.0099 (J)			<0.1
3/18/2020			0.026 (J)		5.4	0.034 (J)	
9/22/2020	0.0079 (J)	0.025 (J)	0.046 (J)	0.0066 (J)	1		
9/23/2020						0.028 (J)	0.0055 (J)



# Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2020	0.02 (J)						

# Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						<0.1	
6/2/2016			<0.1		<0.1		
6/7/2016	<0.1						
7/25/2016			<0.1			<0.1	
7/26/2016					0.0097 (J)		
7/28/2016	<0.1						
9/14/2016		<0.1				<0.1	
9/15/2016					0.0102 (J)		
9/19/2016	<0.1		<0.1				
11/1/2016			<0.1		<0.1	<0.1	
11/3/2016	<0.1						
11/4/2016		<0.1					
12/15/2016		0.0107 (J)					
1/11/2017					<0.1	<0.1	
1/13/2017	<0.1						
1/16/2017		<0.1	<0.1				
2/21/2017			<0.1				
3/1/2017						<0.1	
3/2/2017					0.0084 (J)		
3/3/2017		<0.1					
3/6/2017	<0.1						
4/26/2017	<0.1		<0.1		<0.1	<0.1	
4/28/2017		<0.1					
5/26/2017		<0.1					
6/28/2017		<0.1			<0.1	<0.1	
6/29/2017	<0.1						
6/30/2017			<0.1				
10/3/2017	<0.1	<0.1					
10/4/2017			<0.1		<0.1	<0.1	
10/11/2017				0.0135 (J)			
10/12/2017							0.0401
11/20/2017				0.0251 (J)			0.156
1/10/2018							0.15
1/11/2018				0.0255 (J)			
2/19/2018							0.146
2/20/2018				<0.1			
4/3/2018				0.033 (J)			0.12
6/5/2018	0.0092 (J)						
6/7/2018		<0.1			0.004 (J)		
6/8/2018						<0.1	
6/11/2018			0.014 (J)				
6/28/2018				0.053			0.16
8/7/2018				0.024 (J)			0.12
9/24/2018				0.028 (J)			0.099
9/25/2018	0.0054 (J)						
10/1/2018		<0.1			<0.1	<0.1	
10/2/2018			<0.1				
3/26/2019							0.096
3/27/2019				0.017 (J)			
3/29/2019		0.0065 (J)					
4/1/2019			<0.1		<0.1	<0.1	
4/2/2019	0.011 (J)						

# Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/24/2019	0.018 (J)	0.0076 (J)					
9/25/2019			<0.1		0.0054 (J)	<0.1	
10/9/2019				0.017 (J)			0.079
3/19/2020		0.0073 (J)	0.0052 (J)		0.0073 (J)	0.0053 (J)	
3/24/2020	0.016 (J)						0.088 (J)
3/25/2020				0.043 (J)			
9/23/2020		<0.1			0.012 (J)	0.0073 (J)	
9/24/2020	0.013 (J)		0.0075 (J)	0.037 (J)			0.087 (J)

# Time Series

Constituent: Boron (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.1	<0.1	<0.1
7/26/2016		0.0047 (J)	0.0052 (J)	<0.1
8/30/2016	0.0166 (J)			
9/14/2016		<0.1	0.0071 (J)	0.01 (J)
11/2/2016		<0.1	<0.1	
11/4/2016				<0.1
11/14/2016	0.0166 (J)			
1/12/2017			0.0076 (J)	<0.1
1/13/2017		<0.1		
2/24/2017	0.0145 (J)			
3/6/2017		<0.1		
3/7/2017			0.0089 (J)	<0.1
5/1/2017		<0.1	0.0061 (J)	
5/2/2017				<0.1
5/8/2017	0.0141 (J)			
6/27/2017			0.0079 (J)	<0.1
6/29/2017		<0.1		
7/11/2017	0.0131 (J)			
10/3/2017			0.0094 (J)	<0.1
10/5/2017		<0.1		
10/10/2017	0.0124 (J)			
4/2/2018	0.013 (J)			
6/6/2018			0.0098 (J)	
6/7/2018		0.0045 (J)		<0.1
9/19/2018	0.012 (J)			
9/26/2018		0.005 (J)	0.01 (J)	0.0057 (J)
3/27/2019	0.013 (J)			
4/3/2019		0.0055 (J)	0.0076 (J)	0.0044 (J)
9/24/2019			0.01 (J)	0.0049 (J)
9/25/2019		<0.1		
10/8/2019	0.012 (J)			
3/17/2020	0.023 (J)			
3/24/2020			0.011 (J)	0.0068 (J)
3/25/2020		0.011 (J)		
9/22/2020	0.0076 (J)	<0.1	0.0079 (J)	0.0053 (J)

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/1/2007	<0.0025						
9/11/2007	<0.0025						
3/20/2008	<0.0025						
8/27/2008	<0.0025						
3/3/2009	<0.0025						
9/9/2009							<0.0025
11/18/2009	<0.0025						<0.0025
1/5/2010							<0.0025
3/3/2010	<0.0025						<0.0025
9/7/2010							<0.0025
9/8/2010	<0.0025						
11/22/2010			<0.0025		<0.0025		
1/4/2011			<0.0025		<0.0025		
2/17/2011			<0.0025		<0.0025		
3/10/2011	<0.0025						<0.0025
3/11/2011			<0.0025		<0.0025		
3/28/2011			<0.0025		<0.0025		
9/7/2011			<0.0025	<0.0025	<0.0025	<0.0025	
9/8/2011	<0.0025	<0.0025					<0.0025
3/4/2012					<0.0025		
3/5/2012	<0.0025	<0.0025		<0.0025		<0.0025	<0.0025
3/6/2012			<0.0025				
9/5/2012		<0.0025		<0.0025		<0.0025	<0.0025
9/10/2012	<0.0025				<0.0025		
9/11/2012			<0.0025				
2/5/2013		<0.0025				<0.0025	<0.0025
2/6/2013	<0.0025		<0.0025	<0.0025	<0.0025		
8/12/2013	<0.0025						
8/13/2013		<0.0025	<0.0025	<0.0025			<0.0025
8/14/2013					<0.0025	<0.0025	
2/4/2014		<0.0025	<0.0025		<0.0025		<0.0025
2/5/2014	<0.0025			<0.0025		<0.0025	
8/4/2014				0.00034 (J)	<0.0025	0.00045 (J)	
8/5/2014	<0.0025	<0.0025	<0.0025				<0.0025
2/2/2015		<0.0025	<0.0025		<0.0025		
2/3/2015				<0.0025		<0.0025	<0.0025
2/4/2015	<0.0025						
8/3/2015	<0.0025			<0.0025 (D)	<0.0025 (D)	0.00046 (JD)	
8/4/2015		<0.0025 (D)	<0.0025				<0.0025
2/16/2016	<0.0025	<0.0025		0.00025 (J)	<0.0025	0.00097 (J)	<0.0025
2/17/2016			<0.0025				
8/31/2016	<0.0025	<0.0025	0.0001 (J)	<0.0025			
9/1/2016					0.0001 (J)	0.0005 (J)	<0.0025
11/28/2016	<0.0025		0.0001 (J)				
11/29/2016		8E-05 (J)					<0.0025
11/30/2016				<0.0025	<0.0025		
12/1/2016						0.0004 (J)	
2/22/2017	<0.0025		<0.0025				
2/23/2017		<0.0025		<0.0025			<0.0025
2/24/2017					<0.0025	0.0003 (J)	
5/8/2017	<0.0025						
5/9/2017		<0.0025		<0.0025			



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/10/2017			<0.0025		<0.0025	0.0003 (J)	<0.0025
7/17/2017	<0.0025					0.0004 (J)	
7/18/2017		<0.0025	<0.0025	<0.0025	<0.0025		<0.0025
10/16/2017	<0.0025					0.0006 (J)	
10/17/2017		<0.0025	<0.0025		<0.0025		
10/18/2017				<0.0025			<0.0025
2/19/2018	<0.0025						<0.0025
2/20/2018			<0.0025		<0.0025		
2/21/2018		<0.0025		<0.0025		<0.0025	
8/6/2018	<0.0025						<0.0025
8/7/2018		<0.0025		<0.0025		0.00083 (J)	
8/8/2018			<0.0025		<0.0025		
2/25/2019	<0.0025						<0.0025
2/26/2019		<0.0025	<0.0025	0.00011 (J)	<0.0025	0.00081 (J)	
6/12/2019	<0.0025		<0.0025		<0.0025		
6/13/2019		<0.0025		0.00021 (J)		0.00073 (J)	<0.0025
8/19/2019	<0.0025				<0.0025		
8/20/2019		<0.0025	<0.0025				<0.0025
8/21/2019				<0.0025		0.0012 (J)	
10/8/2019	<0.0025						<0.0025
10/9/2019		<0.0025	<0.0025			0.0011 (J)	
10/10/2019				0.00018 (J)	<0.0025		
3/17/2020	<0.0025	<0.0025		0.00037 (J)			<0.0025
3/18/2020			<0.0025		<0.0025	0.0012 (J)	
8/26/2020	<0.0025						
8/27/2020		0.00012 (J)				0.00091 (J)	<0.0025
8/28/2020			0.00015 (J)	0.00014 (J)	<0.0025		
9/22/2020	<0.0025	0.00016 (J)	0.00016 (J)	0.00013 (J)	<0.0025		
9/23/2020						0.00094 (J)	<0.0025

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					<0.0025	<0.0025	
6/2/2016	<0.0025						
6/6/2016			<0.0025	<0.0025			
6/7/2016		<0.0025					<0.0025
7/25/2016						<0.0025	
7/26/2016	<0.0025				<0.0025		
7/27/2016		<0.0025	<0.0025	<0.0025			<0.0025
9/13/2016					<0.0025	<0.0025	
9/15/2016	<0.0025						
9/16/2016		<0.0025		<0.0025			
9/19/2016			<0.0025				<0.0025
11/1/2016					<0.0025		
11/2/2016	<0.0025						<0.0025
11/3/2016		<0.0025	<0.0025	<0.0025			
11/4/2016						<0.0025	
1/10/2017	<0.0025						
1/11/2017		0.0001 (J)	<0.0025	0.0001 (J)	0.0002 (J)		
1/13/2017							<0.0025
1/16/2017						<0.0025	
3/1/2017			<0.0025	<0.0025			
3/2/2017		<0.0025			<0.0025	<0.0025	
3/6/2017							<0.0025
3/8/2017	7E-05 (J)						
4/26/2017	<0.0025		<0.0025	<0.0025			<0.0025
4/27/2017					<0.0025	<0.0025	
5/2/2017		<0.0025					
6/27/2017					<0.0025	<0.0025	
6/28/2017			<0.0025	<0.0025			
6/29/2017		<0.0025					<0.0025
6/30/2017	<0.0025						
3/27/2018	<0.0025					<0.0025	
3/28/2018		<0.0025	<0.0025	<0.0025			
3/29/2018					<0.0025		<0.0025
6/6/2018							<0.0025
6/7/2018			<0.0025				
6/11/2018		<0.0025		<0.0025			
9/25/2018		<0.0025	<0.0025	<0.0025			<0.0025
2/26/2019	<0.0025						
2/27/2019					<0.0025	<0.0025	
3/5/2019		<0.0025		<0.0025			<0.0025
3/6/2019			<0.0025				
3/28/2019					<0.0025	<0.0025	
3/29/2019	<0.0025						
4/2/2019		<0.0025					
4/3/2019			<0.0025	<0.0025			<0.0025
9/24/2019					<0.0025	<0.0025	
9/25/2019	<0.0025	<0.0025					<0.0025
9/26/2019			<0.0025	<0.0025			
2/10/2020					<0.0025	<0.0025	
2/11/2020		<0.0025	<0.0025	<0.0025			
2/12/2020	<0.0025						<0.0025
3/18/2020	<0.0025					<0.0025	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
3/19/2020					<0.0025		
3/24/2020		<0.0025	<0.0025	<0.0025			<0.0025
9/23/2020		<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
9/24/2020							<0.0025
9/25/2020	<0.0025						

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						<0.0025	
6/2/2016			<0.0025		<0.0025		
6/7/2016	<0.0025						
7/25/2016			<0.0025			<0.0025	
7/26/2016					<0.0025		
7/28/2016	<0.0025						
9/14/2016		<0.0025				<0.0025	
9/15/2016					<0.0025		
9/19/2016	<0.0025		<0.0025				
11/1/2016			<0.0025		<0.0025	<0.0025	
11/3/2016	<0.0025						
11/4/2016		<0.0025					
12/15/2016		<0.0025					
1/11/2017					0.0001 (J)	8E-05 (J)	
1/13/2017	<0.0025						
1/16/2017		<0.0025	<0.0025				
2/21/2017			<0.0025				
3/1/2017						<0.0025	
3/2/2017					<0.0025		
3/3/2017		<0.0025					
3/6/2017	<0.0025						
4/26/2017	<0.0025		<0.0025		<0.0025	<0.0025	
4/28/2017		<0.0025					
5/26/2017		<0.0025					
6/28/2017		<0.0025			<0.0025	<0.0025	
6/29/2017	<0.0025						
6/30/2017			<0.0025				
10/11/2017				<0.0025			
10/12/2017							<0.0025
11/20/2017				<0.0025			<0.0025
1/10/2018							<0.0025
1/11/2018				<0.0025			
2/19/2018							<0.0025
2/20/2018				<0.0025			
3/27/2018			<0.0025				
3/28/2018		<0.0025			<0.0025	<0.0025	
3/29/2018	<0.0025						
4/3/2018				<0.0025			<0.0025
6/5/2018	<0.0025						
6/28/2018				<0.0025			<0.0025
8/7/2018				<0.0025			<0.0025
9/24/2018				<0.0025			<0.0025
9/25/2018	9.6E-05 (J)						
2/26/2019			<0.0025				
2/27/2019		<0.0025			<0.0025	<0.0025	
3/5/2019	<0.0025						
3/29/2019		<0.0025					
4/1/2019			<0.0025		<0.0025	<0.0025	
4/2/2019	<0.0025						
8/21/2019				<0.0025			<0.0025
9/24/2019	<0.0025	<0.0025					
9/25/2019			<0.0025		<0.0025	<0.0025	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
10/9/2019				<0.0025			<0.0025
2/11/2020		<0.0025				<0.0025	
2/12/2020	<0.0025		<0.0025	<0.0025	<0.0025		<0.0025
3/19/2020		<0.0025	<0.0025		<0.0025	<0.0025	
3/24/2020	<0.0025						<0.0025
3/25/2020				<0.0025			
9/23/2020		<0.0025			<0.0025	<0.0025	
9/24/2020	<0.0025		<0.0025	<0.0025			<0.0025

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.0025	<0.0025	<0.0025
7/26/2016		<0.0025	<0.0025	<0.0025
8/30/2016	0.0001 (J)			
9/14/2016		<0.0025	<0.0025	<0.0025
11/2/2016		<0.0025	<0.0025	
11/4/2016				<0.0025
11/14/2016	0.0001 (J)			
1/12/2017			<0.0025	9E-05 (J)
1/13/2017		<0.0025		
2/24/2017	9E-05 (J)			
3/6/2017		<0.0025		
3/7/2017			<0.0025	<0.0025
5/1/2017		<0.0025	<0.0025	
5/2/2017				<0.0025
5/8/2017	0.0001 (J)			
6/27/2017			<0.0025	<0.0025
6/29/2017		<0.0025		
7/11/2017	<0.0025			
10/10/2017	<0.0025			
3/29/2018		<0.0025	<0.0025	<0.0025
4/2/2018	<0.0025			
6/6/2018			<0.0025	
6/7/2018		<0.0025		<0.0025
9/19/2018	<0.0025			
9/26/2018		<0.0025	<0.0025	<0.0025
3/4/2019		<0.0025	<0.0025	<0.0025
4/3/2019		<0.0025	<0.0025	<0.0025
8/20/2019	<0.0025			
9/24/2019			<0.0025	<0.0025
9/25/2019		<0.0025		
10/8/2019	<0.0025			
2/12/2020		<0.0025	<0.0025	<0.0025
3/17/2020	<0.0025			
3/24/2020			<0.0025	<0.0025
3/25/2020		<0.0025		
8/27/2020	<0.0025			
9/22/2020		<0.0025	<0.0025	<0.0025

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	9.31	69.4	19.9	7.23			
9/1/2016					37.1	113	56.8
11/28/2016	9.47 (B)		17.7 (B)				
11/29/2016		70.6 (B)					50.7 (B)
11/30/2016				6.43 (B)	13.4 (B)		
12/1/2016						141 (B)	
2/22/2017	10.4		16.2				
2/23/2017		62.4		4.25			63.5
2/24/2017					29.5	118	
5/8/2017	14.2						
5/9/2017		47.4		3.56			
5/10/2017			11.8		17	136	105
7/17/2017	14.1					125	
7/18/2017		33.2	8.69	4.16	16.8		157
10/16/2017	13.6					78.2	
10/17/2017		38.7	9.77		14.3		
10/18/2017				5.67			118
2/19/2018	<25						124
2/20/2018			<25		<25		
2/21/2018		34.3		4.76		64	
8/6/2018	11.4 (J)						173
8/7/2018		26.2		4.7		83	
8/8/2018			13.4 (J)		22.1 (J)		
2/25/2019	12.7 (J)						143
2/26/2019		24.7 (J)	20.9 (J)	7.1	15.1 (J)	94.4	
6/12/2019	18.9		26.6		24.2		
6/13/2019		33.8		15.7		127	146
10/8/2019	28.3						115
10/9/2019		59.1	27.8			128	
10/10/2019				4.3	18		
3/17/2020	24.3	36.7		20.3			66.8
3/18/2020			34.5		76.6	149	
9/22/2020	31	98.8	40.5	6.2	21.8		
9/23/2020						144	103

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					12	2.5	
6/2/2016	1.3						
6/6/2016			6.2	1.4			
6/7/2016		2.2					2.3
7/25/2016						2.16	
7/26/2016	1.24				11		
7/27/2016		2	4.73	1.19			2.08
9/13/2016					11.8	2.21	
9/15/2016	1.17						
9/16/2016		1.97		1.5			
9/19/2016			4.76				1.97
11/1/2016					11		
11/2/2016	1.23						2.13
11/3/2016		1.99	5.25	1.31			
11/4/2016						2.67	
1/10/2017	1.24						
1/11/2017		2.28	4.74	1.25	11.2		
1/13/2017							2.45
1/16/2017						2.45	
3/1/2017			5.37	1.26			
3/2/2017		2.15			11	2.57	
3/6/2017							2.48
3/8/2017	1.21						
4/26/2017	1.14		4.28	1.05			2.3
4/27/2017					11.1	2.38	
5/2/2017		1.95					
6/27/2017					13.8	2.36	
6/28/2017			4.95	1.06			
6/29/2017		2.02					2.54
6/30/2017	1.24						
10/3/2017					14	2.21	
10/4/2017		2.03		1.1			2.25
10/5/2017	1.11		5.28				
6/5/2018					15.2 (J)		
6/6/2018						2.3	2.3
6/7/2018			4.8				
6/8/2018	1.1						
6/11/2018		2.1		1.4			
9/25/2018		2.1	4.6	1			2.3
10/1/2018	0.99				15.1	1.8	
3/28/2019					13.3 (J)	2.2	
3/29/2019	1.1						
4/2/2019		2.5					
4/3/2019			5.3	1.2			2.9
9/24/2019					15.8	2.3	
9/25/2019	1.1	2.6					2.4
9/26/2019			4.9	1.1			
3/18/2020	1.1					2.1	
3/19/2020					15		
3/24/2020		2.7	5.3	1			2.6
9/23/2020		2.6	5.2	0.91 (J)	14.1	1.8	
9/24/2020							2.6



# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2020	1.3						

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						21	
6/2/2016			1.3		28		
6/7/2016	3.7						
7/25/2016			1.17			20.3	
7/26/2016					24.5		
7/28/2016	3.15						
9/14/2016		23.5				19.7	
9/15/2016					27		
9/19/2016	3.17		1.05				
11/1/2016			1.14		25.6	18.4	
11/3/2016	3.4						
11/4/2016		23.7					
12/15/2016		23.1					
1/11/2017					27.5	20.3	
1/13/2017	4.98						
1/16/2017		23.3	1.23				
2/21/2017			1.25				
3/1/2017						18.6	
3/2/2017					27.5		
3/3/2017		25.1					
3/6/2017	6.28						
4/26/2017	6.65		1.03		30.4	25.6	
4/28/2017		30.7					
5/26/2017		26.2					
6/28/2017		26.1			29.8	23.9	
6/29/2017	6.04						
6/30/2017			1.13				
10/3/2017	8.28	26.7					
10/4/2017			1.09		29.7	22.1	
10/11/2017				2.74			
10/12/2017							2.9
11/20/2017				1.81			10.4
1/10/2018							10.2
1/11/2018				1.54			
2/19/2018							<25
2/20/2018				1.71			
4/3/2018				1.4			6.3
6/5/2018	9.1						
6/7/2018		25			29.1		
6/8/2018						21.9 (J)	
6/11/2018			1.1				
6/28/2018				1.4			6.7
8/7/2018				1.2			6.3
9/24/2018				1.1			5.7
9/25/2018	10.4 (J)						
10/1/2018		25			26.9	19.7	
10/2/2018			1.1				
3/26/2019							5.6
3/27/2019				1.5			
3/29/2019		23.5 (J)					
4/1/2019			1.3		30.1	20.4 (J)	
4/2/2019	8.8						

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/24/2019	7.7	26.4					
9/25/2019			1.1		29.5	22.4	
10/9/2019				2.4			4.9
3/19/2020		27.4	1.2		31.5	21.9	
3/24/2020	6						4.8
3/25/2020				2.7			
9/23/2020		26.3			28.6	23.6	
9/24/2020	7.8		1.1	3.7			4.4

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		8.8	33	2.4
7/26/2016		7.69	32.3	2.12
8/30/2016	20.9			
9/14/2016		8.49	31	2.18
11/2/2016		7.83	30.9	
11/4/2016				2.17 (J)
11/14/2016	18.6			
1/12/2017			35.7	2.37
1/13/2017		8.08		
2/24/2017	16.1			
3/6/2017		8.64		
3/7/2017			32.7	2.34
5/1/2017		13.4	37	
5/2/2017				2.17
5/8/2017	14.6			
6/27/2017			36.5	2.13
6/29/2017		8.81		
7/11/2017	14.3			
10/3/2017			30.9	2.15
10/5/2017		9.29		
10/10/2017	12.1			
4/2/2018	<25			
6/6/2018			26.2	
6/7/2018		8.2		2.3
9/19/2018	11.1 (J)			
9/26/2018		9.5 (J)	25.8	2.3
3/27/2019	10.8 (J)			
4/3/2019		8.4	24.7 (J)	2.8
9/24/2019			25.8	2.5
9/25/2019		9.5		
10/8/2019	9.7			
3/17/2020	14.8			
3/24/2020			26.1	2.5
3/25/2020		10.5		
9/22/2020	10.1	9.6	27.2	2.6



# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					1.3	1.6	
6/2/2016	4.1						
6/6/2016			6.8	6.4			
6/7/2016		4.5					1.9
7/25/2016						1.4	
7/26/2016	4				1.2		
7/27/2016		4.5	6.7	6.2			1.9
9/13/2016					1.1	1.3	
9/15/2016	4.2						
9/16/2016		4.5		6.1			
9/19/2016			7				1.9
11/1/2016					1.3		
11/2/2016	4.9						2.6
11/3/2016		5.4	7.5	7.4			
11/4/2016						1.6	
1/10/2017	4.1						
1/11/2017		4.7	6.5	6.1	1.1		
1/13/2017							2.3
1/16/2017						1.4	
3/1/2017			6.9	6			
3/2/2017		4.8			1	1.3	
3/6/2017							1.9
3/8/2017	4.2						
4/26/2017	4.1		7	6.5			2
4/27/2017					1	1.3	
5/2/2017		4.6					
6/27/2017					1.1	1.4	
6/28/2017			7	6.4			
6/29/2017		4.5					2.6
6/30/2017	3.7						
10/3/2017					1.1	1.7	
10/4/2017		4.7		6.8			2.6
10/5/2017	3.8		7				
6/5/2018					1.1		
6/6/2018						1.4	2.7
6/7/2018			6.8				
6/8/2018	3.4						
6/11/2018		4.9		6.8			
9/25/2018		5.6	7.9	7.8			3.6
10/1/2018	3.8				1.1	1.4	
3/28/2019					1.4	1.5	
3/29/2019	4.2						
4/2/2019		4.8					
4/3/2019			6.9	6.3			3.1
9/24/2019					1.1	1.3	
9/25/2019	4.8	5.7					2.8
9/26/2019			7	7.1			
3/18/2020	5.2					1.4	
3/19/2020					1.1		
3/24/2020		5	7	6.8			2.7
9/23/2020		6.6	7.2	7.2	0.99 (J)	1.2	
9/24/2020							2.7

# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2020	5.3						

# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						1.3	
6/2/2016			1.9		1.4		
6/7/2016	2.8						
7/25/2016			1.7			1.3	
7/26/2016					1.6		
7/28/2016	2.6						
9/14/2016		1.1				1.3	
9/15/2016					1.5		
9/19/2016	2.4		1.6				
11/1/2016			1.8		1.7	1.4	
11/3/2016	2.9						
11/4/2016		1.4					
12/15/2016		2.9					
1/11/2017					1.2	1.1	
1/13/2017	2.5						
1/16/2017		0.98	1.7				
2/21/2017			1.7				
3/1/2017						1.1	
3/2/2017					1.2		
3/3/2017		1.1					
3/6/2017	2.1						
4/26/2017	2.1		1.7		1.2	1.1	
4/28/2017		0.91					
5/26/2017		0.93					
6/28/2017		1			1.3	1.2	
6/29/2017	2.8						
6/30/2017			1.8				
10/3/2017	2.2	1.2					
10/4/2017			1.8		1.5	1.2	
10/11/2017				2.4			
10/12/2017							3.8
11/20/2017				1.8			4.4
1/10/2018							4.6
1/11/2018				1.6			
2/19/2018							4.6
2/20/2018				2			
4/3/2018				3.3			5.9
6/5/2018	1.7						
6/7/2018		1			1.2		
6/8/2018						1.2	
6/11/2018			2				
6/28/2018				2.1			5
8/7/2018				1.2			4.3
9/24/2018				1.3			4.9
9/25/2018	2.2						
10/1/2018		1.1			1.5	1.2	
10/2/2018			1.8				
3/26/2019							4.4
3/27/2019				1.4			
3/29/2019		1.2					
4/1/2019			1.7		1.2	1.1	
4/2/2019	2.5						



# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/24/2019	3.1	0.95 (J)					
9/25/2019			1.6		1.1	1.1	
10/9/2019				2.1			5.1
3/19/2020		0.97 (J)	1.8		1.2	1.1	
3/24/2020	2.8						4.7
3/25/2020				1.9			
9/23/2020		0.88 (J)			1.1	1	
9/24/2020	2		1.5	2.7			5

# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		3.7	7.2	4.3
7/26/2016		3.6	6.6	4.4
8/30/2016	5.2			
9/14/2016		3.4	6.6	3.8
11/2/2016		4.5	7.6	
11/4/2016				4.8
11/14/2016	6.4			
1/12/2017			6.8	3.8
1/13/2017		4.2		
2/24/2017	5.5			
3/6/2017		3.6		
3/7/2017			6.8	4.5
5/1/2017		4.3	7.2	
5/2/2017				4.6
5/8/2017	5.8			
6/27/2017			7	4.3
6/29/2017		4.2		
7/11/2017	5.8			
10/3/2017			6.5	4.2
10/5/2017		4.7		
10/10/2017	5.9			
4/2/2018	4.8			
6/6/2018			4.7	
6/7/2018		4.4		4.5
9/19/2018	4			
9/26/2018		4.8	4.8	5.1
3/27/2019	4.3			
4/3/2019		4.3	4	4.2
9/24/2019			3.7	4.5
9/25/2019		4.5		
10/8/2019	4.4			
3/17/2020	4.1			
3/24/2020			3.5	4.3
3/25/2020		3.9		
9/22/2020	4.2	4.5	3.6	4.2

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	<0.01						
9/20/1999	0.01						
9/12/2001	<0.01						
9/3/2002	<0.01						
7/29/2003	<0.01						
12/5/2003	<0.01						
9/22/2004	0.0067						
5/1/2007		0.0029					
9/11/2007		0.0084					
3/20/2008		0.0027					
8/27/2008		0.0026					
3/3/2009		0.0022					
11/18/2009		0.0036					
3/3/2010		<0.01					
9/8/2010		<0.01					
11/22/2010				<0.01		<0.01	
1/4/2011				<0.01		0.0062	
2/17/2011				<0.01		<0.01	
3/10/2011		<0.01					
3/11/2011				<0.01		<0.01	
3/28/2011				<0.01		<0.01	
9/7/2011				<0.01	<0.01	<0.01	<0.01
9/8/2011		<0.01	<0.01				
3/4/2012						<0.01	
3/5/2012		<0.01	<0.01		<0.01		<0.01
3/6/2012				<0.01			
9/5/2012			<0.01		<0.01		<0.01
9/10/2012		<0.01				<0.01	
9/11/2012				<0.01			
2/5/2013			<0.01				<0.01
2/6/2013		<0.01		<0.01	<0.01	<0.01	
8/12/2013		<0.01					
8/13/2013			<0.01	0.0017	0.0019		
8/14/2013						<0.01	0.0016
2/4/2014			<0.01	<0.01		<0.01	
2/5/2014		0.0059			0.0023		0.0018
8/4/2014					0.002	<0.01	0.0029
8/5/2014		<0.01	<0.01	<0.01			
2/2/2015			0.0028	<0.01		<0.01	
2/3/2015					0.0014		0.0017
2/4/2015		<0.01					
8/3/2015		0.0011 (J)			0.0012 (JD)	<0.01 (D)	0.0028 (D)
8/4/2015			<0.01 (D)	<0.01			
2/16/2016		<0.01	<0.01		0.0017	<0.01	0.0028
2/17/2016				<0.01			
8/31/2016		<0.01	0.0012 (J)	<0.01	0.0013 (J)		
9/1/2016						<0.01	0.0021 (J)
11/28/2016		<0.01		<0.01			
11/29/2016			0.0009 (J)				
11/30/2016					0.001 (J)	0.0013 (J)	
12/1/2016							0.0017 (J)
2/22/2017		<0.01		<0.01			



# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	<0.01						
11/18/2009	<0.01						
1/5/2010	<0.01						
3/3/2010	<0.01						
9/7/2010	<0.01						
3/10/2011	<0.01						
9/8/2011	0.0018						
3/5/2012	<0.01						
9/5/2012	0.0013						
2/5/2013	<0.01						
8/13/2013	0.0025						
2/4/2014	0.0013						
8/5/2014	0.0018						
2/3/2015	0.0015						
8/4/2015	0.0028						
2/16/2016	0.001 (J)						
6/1/2016						0.0035	<0.01
6/2/2016		<0.01					
6/6/2016				0.0012 (J)	<0.01		
6/7/2016			<0.01				
7/25/2016							<0.01
7/26/2016		<0.01				<0.01	
7/27/2016			0.0008 (J)	0.0007 (J)	0.0006 (J)		
9/1/2016	0.0015 (J)						
9/13/2016						<0.01	<0.01
9/15/2016		<0.01					
9/16/2016			<0.01		<0.01		
9/19/2016				<0.01			
11/1/2016						<0.01	
11/2/2016		<0.01					
11/3/2016			<0.01	<0.01	<0.01		
11/4/2016							<0.01
11/29/2016	0.0014 (J)						
1/10/2017		<0.01					
1/11/2017			<0.01	<0.01	<0.01	<0.01	
1/16/2017							<0.01
2/23/2017	0.0017 (J)						
3/1/2017				0.0012 (J)	<0.01		
3/2/2017			0.001 (J)			0.0009 (J)	0.0004 (J)
3/8/2017		<0.01					
4/26/2017		<0.01		0.0005 (J)	0.0003 (J)		
4/27/2017						<0.01	<0.01
5/2/2017			0.0007 (J)				
5/10/2017	0.0015 (J)						
6/27/2017						<0.01	<0.01
6/28/2017				0.0006 (J)	<0.01		
6/29/2017			0.0006 (J)				
6/30/2017		<0.01					
7/18/2017	0.0012 (J)						
10/18/2017	0.0012 (J)						
2/19/2018	<0.01						
3/27/2018		<0.01					<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			<0.01	<0.01	<0.01		
3/29/2018						<0.01	
8/6/2018	<0.01						
2/25/2019	<0.01						
2/26/2019		<0.01					
2/27/2019						<0.01	<0.01
3/5/2019			<0.01		<0.01		
3/6/2019				<0.01			
3/28/2019						<0.01	0.0021 (J)
3/29/2019		<0.01					
6/13/2019	0.00089 (J)						
8/20/2019	0.0017 (J)						
9/24/2019						0.00072 (J)	0.0028 (J)
9/25/2019		<0.01					
10/8/2019	0.0014 (J)						
2/10/2020						0.00042 (J)	<0.01
2/11/2020			0.00087 (J)	0.001 (J)	0.00088 (J)		
2/12/2020		<0.01					
3/17/2020	0.0013 (J)						
3/18/2020		<0.01					0.00044 (J)
3/19/2020						0.00084 (J)	
3/24/2020			0.00087 (J)	0.00095 (J)	0.0011 (J)		
8/27/2020	0.0012 (J)						
9/23/2020	0.0015 (J)		0.00098 (J)	0.00092 (J)	0.0012 (J)	0.00062 (J)	0.00058 (J)
9/25/2020		<0.01					

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							<0.01
6/2/2016				<0.01		0.0013 (J)	
6/7/2016	<0.01	<0.01					
7/25/2016				<0.01			<0.01
7/26/2016						<0.01	
7/27/2016	0.0005 (J)						
7/28/2016		<0.01					
9/14/2016			<0.01				<0.01
9/15/2016						<0.01	
9/19/2016	<0.01	<0.01		<0.01			
11/1/2016				<0.01		<0.01	<0.01
11/2/2016	<0.01						
11/3/2016		<0.01					
11/4/2016			<0.01				
12/15/2016			<0.01				
1/11/2017						<0.01	<0.01
1/13/2017	<0.01	<0.01					
1/16/2017			<0.01	<0.01			
2/21/2017				<0.01			
3/1/2017							0.0004 (J)
3/2/2017						0.0006 (J)	
3/3/2017			0.0005 (J)				
3/6/2017	<0.01	<0.01					
4/26/2017	0.0007 (J)	<0.01		0.0016 (J)		<0.01	<0.01
4/28/2017			0.0004 (J)				
5/26/2017			<0.01				
6/28/2017			<0.01			<0.01	<0.01
6/29/2017	0.0005 (J)	<0.01					
6/30/2017				<0.01			
10/11/2017					<0.01		
11/20/2017					<0.01		
1/11/2018					<0.01		
2/20/2018					<0.01		
3/27/2018				<0.01			
3/28/2018			<0.01			<0.01	<0.01
3/29/2018	<0.01	<0.01					
4/3/2018					<0.01		
6/28/2018					<0.01		
8/7/2018					<0.01		
9/24/2018					<0.01		
2/26/2019				<0.01			
2/27/2019			<0.01			<0.01	<0.01
3/5/2019	<0.01	<0.01					
3/29/2019			<0.01				
4/1/2019				<0.01		<0.01	<0.01
8/21/2019					<0.01		
9/24/2019			<0.01				
9/25/2019				<0.01		0.0014 (J)	0.0019 (J)
10/9/2019					<0.01		
2/11/2020			<0.01				<0.01
2/12/2020	0.00045 (J)	<0.01		<0.01	<0.01	<0.01	
3/19/2020			0.00048 (J)	<0.01		<0.01	<0.01

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
3/24/2020	0.00077 (J)	<0.01					
3/25/2020					<0.01		
9/23/2020			<0.01			<0.01	<0.01
9/24/2020	0.00076 (J)	<0.01		<0.01	<0.01		



# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			<0.01	<0.01	<0.01
7/26/2016			<0.01	<0.01	<0.01
8/30/2016		<0.01			
9/14/2016			<0.01	<0.01	<0.01
11/2/2016			<0.01	<0.01	
11/4/2016					<0.01
11/14/2016		0.0093 (J)			
1/12/2017				<0.01	<0.01
1/13/2017			<0.01		
2/24/2017		<0.01			
3/6/2017			<0.01		
3/7/2017				<0.01	<0.01
5/1/2017			<0.01	0.0004 (J)	
5/2/2017					<0.01
5/8/2017		<0.01			
6/27/2017				<0.01	<0.01
6/29/2017			<0.01		
7/11/2017		<0.01			
10/10/2017		<0.01			
10/12/2017	<0.01				
11/20/2017	<0.01				
1/10/2018	<0.01				
2/19/2018	<0.01				
3/29/2018			<0.01	<0.01	<0.01
4/2/2018		<0.01			
4/3/2018	<0.01				
6/28/2018	<0.01				
8/7/2018	<0.01				
9/19/2018		<0.01			
9/24/2018	<0.01				
3/4/2019			<0.01	<0.01	<0.01
8/20/2019		<0.01			
8/21/2019	0.00053 (J)				
10/9/2019	0.0012 (J)				
2/12/2020	0.00065 (J)		<0.01	<0.01	0.00043 (J)
3/24/2020	0.00055 (J)			<0.01	0.0014 (J)
3/25/2020			0.00058 (J)		
8/27/2020		<0.01			
9/22/2020		<0.01	<0.01	0.0011 (J)	<0.01
9/24/2020	<0.01				

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	0.013						
9/20/1999	<0.005						
9/12/2001	0.0024						
9/3/2002	<0.005						
7/29/2003	0.002						
12/5/2003	<0.005						
9/22/2004	<0.005						
5/1/2007		0.0067					
9/11/2007		<0.005					
3/20/2008		<0.005					
8/27/2008		<0.005					
3/3/2009		<0.005					
11/18/2009		<0.005					
3/3/2010		0.0027					
9/8/2010		0.007					
11/22/2010				0.038		<0.005	
1/4/2011				0.049		0.0036	
2/17/2011				0.044		0.0035	
3/10/2011		<0.005					
3/11/2011				0.038		0.0053	
3/28/2011				0.029		<0.005	
9/7/2011				0.031	<0.005	0.0033	<0.005
9/8/2011		<0.005	0.015				
3/4/2012						0.0032	
3/5/2012		0.0032	<0.005		<0.005		<0.005
3/6/2012				0.021			
9/5/2012			0.0018		<0.005		<0.005
9/10/2012		<0.005				0.0067	
9/11/2012				0.017			
2/5/2013			0.0013				<0.005
2/6/2013		<0.005		0.025	<0.005	0.0024	
8/12/2013		0.0045					
8/13/2013			<0.005	0.023	<0.005		
8/14/2013						0.0014	<0.005
2/4/2014			<0.005	0.019		<0.005	
2/5/2014		<0.005			<0.005		<0.005
8/4/2014					<0.005	<0.005	<0.005
8/5/2014		0.0027	<0.005	0.023			
2/2/2015			0.0015	0.022		<0.005	
2/3/2015					<0.005		<0.005
2/4/2015		0.0016					
8/3/2015		0.002			<0.005 (D)	<0.005 (D)	<0.005 (D)
8/4/2015			<0.005 (D)	0.021			
2/16/2016		0.0027	<0.005		<0.005	0.0082	<0.005
2/17/2016				0.024			
8/31/2016		0.0053 (J)	0.0006 (J)	0.0239	<0.005		
9/1/2016						0.0023 (J)	<0.005
11/28/2016		0.0036 (J)		0.0189			
11/29/2016			<0.005				
11/30/2016					<0.005	0.0008 (J)	
12/1/2016							<0.005
2/22/2017		0.0049 (J)		0.0184			



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	<0.005						
11/18/2009	<0.005						
1/5/2010	<0.005						
3/3/2010	<0.005						
9/7/2010	<0.005						
3/10/2011	<0.005						
9/8/2011	<0.005						
3/5/2012	<0.005						
9/5/2012	<0.005						
2/5/2013	<0.005						
8/13/2013	<0.005						
2/4/2014	<0.005						
8/5/2014	<0.005						
2/3/2015	<0.005						
8/4/2015	0.0014						
2/16/2016	<0.005						
6/1/2016						<0.005	0.00082 (J)
6/2/2016		<0.005					
6/6/2016				<0.005	0.00061 (J)		
6/7/2016			<0.005				
7/25/2016							0.0008 (J)
7/26/2016		<0.005				<0.005	
7/27/2016			<0.005	<0.005	0.0004 (J)		
9/1/2016	<0.005						
9/13/2016						<0.005	0.0009 (J)
9/15/2016		<0.005					
9/16/2016			<0.005		0.0008 (J)		
9/19/2016				<0.005			
11/1/2016						<0.005	
11/2/2016		<0.005					
11/3/2016			<0.005	<0.005	<0.005		
11/4/2016							0.0025 (J)
11/29/2016	<0.005						
1/10/2017		<0.005					
1/11/2017			<0.005	<0.005	<0.005	<0.005	
1/16/2017							0.0027 (J)
2/23/2017	<0.005						
3/1/2017				<0.005	<0.005		
3/2/2017			<0.005			<0.005	0.0022 (J)
3/8/2017		<0.005					
4/26/2017		<0.005		<0.005	<0.005		
4/27/2017						<0.005	0.0018 (J)
5/2/2017			<0.005				
5/10/2017	<0.005						
6/27/2017						<0.005	0.0023 (J)
6/28/2017				<0.005	<0.005		
6/29/2017			<0.005				
6/30/2017		<0.005					
7/18/2017	<0.005						
10/18/2017	<0.005						
2/19/2018	<0.005						
3/27/2018		<0.005					<0.005

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			<0.005	<0.005	<0.005		
3/29/2018						<0.005	
6/5/2018						<0.005	
6/6/2018							<0.005
6/7/2018				<0.005			
6/8/2018		<0.005					
6/11/2018			<0.005		<0.005		
8/6/2018	<0.005						
9/25/2018			<0.005	<0.005	<0.005		
10/1/2018		<0.005				<0.005	0.00059 (J)
2/25/2019	<0.005						
2/26/2019		<0.005					
2/27/2019						<0.005	0.00064 (J)
3/5/2019			<0.005		<0.005		
3/6/2019				<0.005			
3/28/2019						<0.005	0.00091 (J)
3/29/2019		<0.005					
4/2/2019			<0.005				
4/3/2019				<0.005	<0.005		
6/13/2019	<0.005						
8/20/2019	<0.005						
9/24/2019						<0.005	0.0013 (J)
9/25/2019		<0.005	<0.005				
9/26/2019				<0.005	<0.005		
10/8/2019	<0.005						
2/10/2020						<0.005	0.0016 (J)
2/11/2020			<0.005	<0.005	<0.005		
2/12/2020		<0.005					
3/17/2020	<0.005						
3/18/2020		<0.005					0.00087 (J)
3/19/2020						<0.005	
3/24/2020			<0.005	<0.005	<0.005		
8/27/2020	<0.005						
9/23/2020	<0.005		<0.005	<0.005	<0.005	<0.005	0.0013 (J)
9/25/2020		<0.005					

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							<0.005
6/2/2016				0.035		<0.005	
6/7/2016	<0.005	0.0056					
7/25/2016				0.0312			<0.005
7/26/2016						<0.005	
7/27/2016	<0.005						
7/28/2016		0.0032 (J)					
9/14/2016			<0.005				<0.005
9/15/2016						<0.005	
9/19/2016	<0.005	0.0047 (J)		0.0275			
11/1/2016				0.0255		<0.005	<0.005
11/2/2016	<0.005						
11/3/2016		0.013					
11/4/2016			<0.005				
12/15/2016			<0.005				
1/11/2017						<0.005	<0.005
1/13/2017	<0.005	0.011					
1/16/2017			<0.005	0.0245			
2/21/2017				0.0272			
3/1/2017							<0.005
3/2/2017						<0.005	
3/3/2017			<0.005				
3/6/2017	<0.005	0.011					
4/26/2017	<0.005	0.009 (J)		0.0244		<0.005	<0.005
4/28/2017			<0.005				
5/26/2017			<0.005				
6/28/2017			<0.005			<0.005	<0.005
6/29/2017	<0.005	0.0093 (J)					
6/30/2017				0.0233			
10/11/2017					<0.005		
11/20/2017					<0.005		
1/11/2018					<0.005		
2/20/2018					<0.005		
3/27/2018				0.023			
3/28/2018			<0.005			<0.005	<0.005
3/29/2018	<0.005	<0.005					
4/3/2018					<0.005		
6/5/2018		0.0041 (J)					
6/6/2018	<0.005						
6/7/2018			<0.005			<0.005	
6/8/2018							<0.005
6/11/2018				0.023			
6/28/2018					<0.005		
8/7/2018					<0.005		
9/24/2018					<0.005		
9/25/2018	<0.005	0.0044 (J)					
10/1/2018			<0.005			<0.005	<0.005
10/2/2018				0.022			
2/26/2019				0.021			
2/27/2019			<0.005			<0.005	<0.005
3/5/2019	<0.005	0.0039 (J)					
3/29/2019			<0.005				

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
4/1/2019				0.022		<0.005	<0.005
4/2/2019		0.0039 (J)					
4/3/2019	<0.005						
8/21/2019					0.00034 (J)		
9/24/2019		0.0032 (J)	<0.005				
9/25/2019	<0.005			0.016		<0.005	<0.005
10/9/2019					<0.005		
2/11/2020			<0.005				<0.005
2/12/2020	<0.005	0.0081		0.014	0.00034 (J)	<0.005	
3/19/2020	<0.005		<0.005	0.014		<0.005	<0.005
3/24/2020	<0.005	0.0061					
3/25/2020					0.00034 (J)		
9/23/2020			<0.005			<0.005	<0.005
9/24/2020	<0.005	0.0079		0.0064	0.00053 (J)		

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			0.00082 (J)	<0.005	<0.005
7/26/2016			0.0012 (J)	<0.005	<0.005
8/30/2016		0.0073 (J)			
9/14/2016			0.0006 (J)	<0.005	<0.005
11/2/2016			<0.005	<0.005	
11/4/2016					<0.005
11/14/2016		0.0115			
1/12/2017				<0.005	<0.005
1/13/2017			0.0029 (J)		
2/24/2017		0.0106			
3/6/2017			0.0006 (J)		
3/7/2017				<0.005	<0.005
5/1/2017			<0.005	<0.005	
5/2/2017					<0.005
5/8/2017		0.0099 (J)			
6/27/2017				<0.005	<0.005
6/29/2017			0.0005 (J)		
7/11/2017		0.0096 (J)			
10/10/2017		0.0036 (J)			
10/12/2017	<0.005				
11/20/2017	<0.005				
1/10/2018	<0.005				
2/19/2018	<0.005				
3/29/2018			<0.005	<0.005	<0.005
4/2/2018		<0.005			
4/3/2018	<0.005				
6/6/2018				<0.005	
6/7/2018			0.00058 (J)		<0.005
6/28/2018	<0.005				
8/7/2018	<0.005				
9/19/2018		0.0036 (J)			
9/24/2018	<0.005				
9/26/2018			<0.005	<0.005	<0.005
3/4/2019			<0.005	<0.005	<0.005
4/3/2019			0.00083 (J)	<0.005	<0.005
8/20/2019		0.00092 (J)			
8/21/2019	<0.005				
9/24/2019				<0.005	<0.005
9/25/2019			<0.005		
10/8/2019		0.0014 (J)			
10/9/2019	<0.005				
2/12/2020	<0.005		<0.005	0.00037 (J)	<0.005
3/17/2020		0.0017 (J)			
3/24/2020	<0.005			0.00035 (J)	<0.005
3/25/2020			0.00056 (J)		
8/27/2020		0.0011 (J)			
9/22/2020		0.00097 (J)	<0.005	<0.005	<0.005
9/24/2020	<0.005				



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	1.2						
11/28/2016	0.264 (U)		0.387 (U)				
11/29/2016		0.551 (U)					0.232 (U)
11/30/2016				0.0236 (U)	0.477 (U)		
12/1/2016						0.0588 (U)	
2/22/2017	1.06 (U)		0.739 (U)				
2/23/2017		0.504 (U)		0.728 (U)			1.18 (U)
2/24/2017					0.305 (U)	0.487 (U)	
5/8/2017	0.187 (U)						
5/9/2017		0.434 (U)		0.0367 (U)			
5/10/2017			0.458 (U)		0.0659 (U)	0.289 (U)	0.658 (U)
7/17/2017	1.42					0.528 (U)	
7/18/2017		1.37	0.708 (U)	0.237 (U)	0.199 (U)		0.797 (U)
10/16/2017	1.17					0.558 (U)	
10/17/2017		0.937 (U)	0.402 (U)		0.294 (U)		
10/18/2017				0.706 (U)			0.239 (U)
2/19/2018	1.58 (D)						0.973 (D)
2/20/2018			1.64 (D)		1.03 (UD)		
2/21/2018		0.817 (UD)		0.526 (UD)		1.13 (UD)	
8/6/2018	0.196 (U)						0.866 (U)
8/7/2018		0.578 (U)		0.376 (U)		0.51 (U)	
8/8/2018			2.01		0.0378 (U)		
8/19/2019	1.39				0.637 (U)		
8/20/2019		1.25 (U)	1.22				0.409 (U)
8/21/2019				0.774 (U)		1.82	
10/8/2019	1.32 (U)						0.91 (U)
10/9/2019		0.482 (U)	0.71 (U)			0.498 (U)	
10/10/2019				0.433 (U)	0.525 (U)		
3/17/2020	1 (U)	1.4		2.84			2.5
3/18/2020			1.3		0.866 (U)	0.788 (U)	
8/26/2020	1.75 (U)						
8/27/2020		0.413 (U)				0.691 (U)	0.514 (U)
8/28/2020			1.52 (U)	0.494 (U)	0.336 (U)		
9/22/2020	0.688 (U)	0.7 (U)	2.09	1.24 (U)	0.509 (U)		
9/23/2020						0 (U)	0.96 (U)

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					0.321 (U)	0.42	
6/2/2016	0.329 (U)						
6/6/2016			0.0804 (U)	0.301 (U)			
6/7/2016		0.158 (U)					0.0191 (U)
7/25/2016						1.83	
7/26/2016	1.51				0.707 (U)		
7/27/2016		0.0354 (U)	0.206 (U)	0.196 (U)			0.541 (U)
9/13/2016					1.22	0.841	
9/15/2016	1.04 (U)						
9/16/2016		1.04		0.915 (U)			
9/19/2016			1.58				0.826 (U)
11/1/2016					0.805 (U)		
11/2/2016	0.496 (U)						0.791 (U)
11/3/2016		0.314 (U)	0.342 (U)	0.928 (U)			
11/4/2016						0.166 (U)	
1/10/2017	0.376 (U)						
1/11/2017		0.34 (U)	0.365 (U)	0.502 (U)	0.705 (U)		
1/13/2017							0.296 (U)
1/16/2017						0	
3/1/2017			0.395 (U)	0.202 (U)			
3/2/2017		0.746 (U)			0.251 (U)	0.504 (U)	
3/6/2017							0.518 (U)
3/8/2017	0.0745 (U)						
4/26/2017	0.282 (U)		0.507 (U)	0.264 (U)			0.282 (U)
4/27/2017					1.08	0.593 (U)	
5/2/2017		0.111 (U)					
6/27/2017					1.02 (U)	0.657 (U)	
6/28/2017			0.892	0.636 (U)			
6/29/2017		0.576 (U)					1.12
6/30/2017	0.994						
3/27/2018	0.189 (U)					0.39 (U)	
3/28/2018		0.438 (U)	0.92 (U)	0.56 (U)			
3/29/2018					0.503 (U)		1.73
6/5/2018					0.771 (U)		
6/6/2018						2.8	0.694 (U)
6/7/2018			0.668 (U)				
6/8/2018	0.218 (U)						
6/11/2018		0.901 (U)		0.649 (U)			
9/25/2018		0.68 (U)	0.141 (U)	0.574 (U)			0.772 (U)
10/1/2018	1.24				0.783 (U)	1.06 (U)	
2/26/2019	0.202 (U)						
2/27/2019					1.21 (U)	0.637 (U)	
3/5/2019		0.272 (U)		0.474 (U)			0.84 (U)
3/6/2019			0.714 (U)				
3/28/2019					1.13 (U)	0.125 (U)	
3/29/2019	0 (U)						
4/2/2019		0.847 (U)					
4/3/2019			0.385 (U)	0.429 (U)			1.01
9/24/2019					1.22 (U)	0.949 (U)	
9/25/2019	0.707 (U)	0.412 (U)					1.18 (U)
9/26/2019			0.386 (U)	0.222 (U)			
2/10/2020					1.41	1.25 (U)	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
2/11/2020		0.461 (U)	1.48	0.597 (U)			
2/12/2020	1.07 (U)						1.11 (U)
3/18/2020	0.207 (U)					0.458 (U)	
3/19/2020					1.1		
3/24/2020		0.534 (U)	0.632 (U)	0.262 (U)			1.88
9/23/2020		0.466 (U)	0.887 (U)	0.43 (U)	1.35 (U)	0.00884 (U)	
9/24/2020							0.611 (U)
9/25/2020	0.603 (U)						

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						0.896	
6/2/2016			0.0652 (U)		2.51		
6/7/2016	0.347						
7/25/2016			3.01			2.28	
7/26/2016					3.82		
7/28/2016	0.815 (U)						
9/14/2016		0.98 (U)				0.821 (U)	
9/15/2016					4.24		
9/19/2016	0.862 (U)		0.871 (U)				
11/1/2016			0.307 (U)		3.92	0.585 (U)	
11/3/2016	0.797 (U)						
11/4/2016		0.277 (U)					
12/15/2016		0.071 (U)					
1/11/2017					2.52	1.22	
1/13/2017	0.72 (U)						
1/16/2017		0.44 (U)	0.284 (U)				
2/21/2017			0.503 (U)				
3/1/2017						0.877 (U)	
3/2/2017					3.13		
3/3/2017		0.448 (U)					
3/6/2017	0.518 (U)						
4/26/2017	1.13 (U)		0.204 (U)		2.35	0.672 (U)	
4/28/2017		0.548 (U)					
5/26/2017		0 (U)					
6/28/2017		0.608 (U)			2.6	1.07 (U)	
6/29/2017	0.841 (U)						
6/30/2017			0.738 (U)				
10/11/2017				0.586 (U)			
10/12/2017							1.49
11/20/2017				0.816 (U)			0.918 (U)
1/10/2018							1.05
1/11/2018				0.841 (U)			
2/19/2018							2.05
2/20/2018				1.58			
3/27/2018			0.31 (U)				
3/28/2018		0.412 (U)			3	0.65 (U)	
3/29/2018	1.91						
4/3/2018				0.385 (U)			0.68 (U)
6/5/2018	1.39						
6/7/2018		0.73 (U)			2.79		
6/8/2018						1.89	
6/11/2018			0.608 (U)				
6/28/2018				0.283 (U)			1.28
8/7/2018				0.332 (U)			1.16
9/24/2018				0.767 (U)			0.965 (U)
9/25/2018	1.62						
10/1/2018		0.756 (U)			3.14	1.58	
10/2/2018			0.97 (U)				
2/26/2019			0.524 (U)				
2/27/2019		0.635 (U)			3.79	3.67	
3/5/2019	0.985 (U)						
3/29/2019		0.224 (U)					

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
4/1/2019			1.02 (U)		4.33	2.28	
4/2/2019	1.42						
8/21/2019				1.01 (U)			1.24 (U)
9/24/2019	1.35	0.429 (U)					
9/25/2019			1.02 (U)		4.2	1.6	
10/8/2019				1.02 (U)			0.866 (U)
2/11/2020		0.817 (U)			3.87	1.85	
2/12/2020	1.61		0.301 (U)	0.45 (U)			1.83
3/19/2020		0.715 (U)	1		3.96	2.2	
3/24/2020	1.24 (U)						1.27 (U)
3/25/2020				0.377 (U)			
9/23/2020		0.565 (U)			4.14	1.14 (U)	
9/24/2020	1.8		0.684 (U)	0.568 (U)			0.634 (U)

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		0.721	5.11	0.614
7/26/2016		1.26	6.92	1.47
8/30/2016	1.09			
9/14/2016		0.901 (U)	3.96	1.27
11/2/2016		1.09 (U)	4.53	
11/4/2016				0.434 (U)
12/15/2016	1 (U)			
1/12/2017			4.43	0.202 (U)
1/13/2017		1.19		
2/24/2017	0.504 (U)			
3/6/2017		0.669 (U)		
3/7/2017			4.8	0.0674 (U)
5/1/2017		0.803 (U)	4.16	
5/2/2017				0.444 (U)
5/8/2017	0.455 (U)			
6/27/2017			2.8	0.77 (U)
6/29/2017		1.35		
7/11/2017	0.471 (U)			
10/10/2017	0.649 (U)			
3/29/2018		0.703 (U)	3.42	0.648 (U)
4/2/2018	0.512 (U)			
6/6/2018			3.99	
6/7/2018		0.628 (U)		0.745 (U)
9/19/2018	0.789 (U)			
9/26/2018		0.756 (U)	2.73	0.377 (U)
3/4/2019		1.21 (U)	4.43	1 (U)
4/3/2019		1.07 (U)	4.79	0.43 (U)
8/20/2019	2.44			
9/24/2019			4.06	0.699 (U)
9/25/2019		1.86		
10/8/2019	1.72			
2/12/2020		1.25	4.02	0.913 (U)
3/17/2020	1.22 (U)			
3/24/2020			3.52	
3/25/2020		0.766 (U)		
8/27/2020	1.26 (U)			
9/22/2020	1.06 (U)	0.795 (U)	2.98	0.428 (U)

# Time Series

Constituent: Copper (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	<0.005						
9/20/1999	<0.005						
9/12/2001	0.004						
9/3/2002	0.01						
7/29/2003	0.011						
12/5/2003	0.0034						
9/22/2004	0.0033						
5/1/2007		0.0047					
9/11/2007		<0.005					
3/20/2008		<0.005					
8/27/2008		0.0074					
3/3/2009		<0.005					
11/18/2009		0.0029					
3/3/2010		0.005					
9/8/2010		<0.005					
11/22/2010				<0.005		<0.005	
1/4/2011				<0.005		0.0049	
2/17/2011				<0.005		<0.005	
3/10/2011		0.0029					
3/11/2011				<0.005		<0.005	
3/28/2011				<0.005		<0.005	
9/7/2011				<0.005	<0.005	<0.005	<0.005
9/8/2011		<0.005	<0.005				
3/4/2012						<0.005	
3/5/2012		<0.005	<0.005		<0.005		<0.005
3/6/2012				<0.005			
9/5/2012			<0.005		0.016		<0.005
9/10/2012		<0.005				<0.005	
9/11/2012				<0.005			
2/5/2013			<0.005				<0.005
2/6/2013		<0.005		<0.005	<0.005	<0.005	
8/12/2013		<0.005					
8/13/2013			<0.005	<0.005	<0.005		
8/14/2013						<0.005	<0.005
2/4/2014			<0.005	<0.005		<0.005	
2/5/2014		<0.005			<0.005		<0.005
8/4/2014					0.0012 (J)	<0.005	0.0015 (J)
8/5/2014		0.005	<0.005	<0.005			
2/2/2015			0.0031 (J)	<0.005		<0.005	
2/3/2015					<0.005		<0.005
2/4/2015		0.0025 (J)					
8/3/2015		0.0014 (J)			<0.005 (D)	<0.005 (D)	<0.005 (D)
8/4/2015			<0.005 (D)	<0.005			
2/16/2016		0.0011 (J)	<0.005		0.00082 (J)	0.00088 (J)	<0.005
2/17/2016				<0.005			
2/22/2017		0.0011 (J)		<0.005			
2/23/2017			<0.005		<0.005		
2/24/2017						<0.005	<0.005
2/19/2018		<0.005					
2/20/2018				<0.005		<0.005	
2/21/2018			<0.005		<0.005		<0.005
8/6/2018		<0.005					





# Time Series

Constituent: Copper (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R
9/9/2009	0.0028
11/18/2009	0.0027
1/5/2010	0.0035
3/3/2010	<0.005
9/7/2010	<0.005
3/10/2011	<0.005
9/8/2011	<0.005
3/5/2012	<0.005
9/5/2012	<0.005
2/5/2013	<0.005
8/13/2013	<0.005
2/4/2014	<0.005
8/5/2014	0.0012 (J)
2/3/2015	0.0013 (J)
8/4/2015	0.0043 (J)
2/16/2016	<0.005
2/23/2017	0.0018 (J)
2/19/2018	<0.005
8/6/2018	0.0016 (J)
2/25/2019	0.0016 (J)
6/13/2019	0.0011 (J)
10/8/2019	0.0011 (J)
3/17/2020	0.00091 (J)
9/23/2020	<0.005

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	0.14 (J)	0.05 (J)	0.08 (J)	0.07 (J)			
9/1/2016					0.15 (J)	0.03 (J)	0.28 (J)
11/28/2016	0.12 (J)		0.03 (J)				
11/29/2016		0.04 (J)					0.05 (J)
11/30/2016				0.03 (J)	0.11 (J)		
12/1/2016						<0.1	
2/22/2017	0.09 (J)		0.04 (J)				
2/23/2017		0.06 (J)		0.04 (J)			0.07 (J)
2/24/2017					0.08 (J)	0.03 (J)	
5/8/2017	0.05 (J)						
5/9/2017		0.06 (J)		<0.1			
5/10/2017			0.05 (J)		0.04 (J)	<0.1	0.02 (J)
7/17/2017	0.14 (J)					0.37	
7/18/2017		<0.1	<0.1	<0.1	<0.1		<0.1
10/16/2017	0.12 (J)					<0.1	
10/17/2017		<0.1	<0.1		<0.1		
10/18/2017				0.22 (J)			<0.1
2/19/2018	0.17						<0.1
2/20/2018			<0.1		<0.1		
2/21/2018		<0.1		<0.1		<0.1	
8/6/2018	0.087 (J)						<0.1
8/7/2018		<0.1		<0.1		<0.1	
8/8/2018			<0.1		<0.1		
2/25/2019	0.14 (J)						<0.1
2/26/2019		<0.1	<0.1	<0.1	<0.1	0.035 (J)	
6/12/2019	0.12 (J)		0.58		<0.1		
6/13/2019		<0.1		0.58		<0.1	<0.1
8/19/2019	<0.1				<0.1		
8/20/2019		<0.1	<0.1				<0.1
8/21/2019				0.037 (J)		<0.1	
10/8/2019	0.052 (J)						<0.1
10/9/2019		<0.1	<0.1			0.35	
10/10/2019				<0.1	<0.1		
3/17/2020	0.053 (J)	<0.1		0.1 (J)			<0.1
3/18/2020			<0.1		<0.1	<0.1	
8/26/2020	0.068 (J)						
8/27/2020		<0.1				0.064 (J)	<0.1
8/28/2020			<0.1	0.097 (J)	<0.1		
9/22/2020	0.058 (J)	<0.1	<0.1	<0.1	<0.1		
9/23/2020						<0.1	<0.1

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					0.12 (J)	<0.1	
6/2/2016	<0.1						
6/6/2016			<0.1	<0.1			
6/7/2016		<0.1					<0.1
7/25/2016						0.06 (J)	
7/26/2016	0.02 (J)				0.08 (J)		
7/27/2016		<0.1	<0.1	<0.1			<0.1
9/13/2016					0.11 (J)	<0.1	
9/15/2016	<0.1						
9/16/2016		<0.1		<0.1			
9/19/2016			<0.1				<0.1
11/1/2016					<0.1		
11/2/2016	<0.1						<0.1
11/3/2016		<0.1	<0.1	<0.1			
11/4/2016						<0.1	
1/10/2017	<0.1						
1/11/2017		<0.1	<0.1	<0.1	0.05 (J)		
1/13/2017							<0.1
1/16/2017						<0.1	
3/1/2017			<0.1	<0.1			
3/2/2017		<0.1			<0.1	<0.1	
3/6/2017							<0.1
3/8/2017	<0.1						
4/26/2017	<0.1		<0.1	<0.1			<0.1
4/27/2017					0.04 (J)	0.01 (J)	
5/2/2017		<0.1					
6/27/2017					<0.1	<0.1	
6/28/2017			<0.1	<0.1			
6/29/2017		<0.1					<0.1
6/30/2017	<0.1						
10/3/2017					<0.1	<0.1	
10/4/2017		<0.1		<0.1			<0.1
10/5/2017	<0.1		<0.1				
3/27/2018	<0.1					<0.1	
3/28/2018		<0.1	<0.1	<0.1			
3/29/2018					<0.1		<0.1
6/5/2018					0.055 (J)		
6/6/2018						<0.1	<0.1
6/7/2018			<0.1				
6/8/2018	<0.1						
6/11/2018		<0.1		<0.1			
9/25/2018		<0.1	<0.1	<0.1			<0.1
10/1/2018	<0.1				<0.1	<0.1	
2/26/2019	<0.1						
2/27/2019					0.052 (J)	<0.1	
3/5/2019		<0.1		<0.1			<0.1
3/6/2019			<0.1				
3/28/2019					0.036 (J)	<0.1	
3/29/2019	<0.1						
4/2/2019		<0.1					
4/3/2019			<0.1	<0.1			<0.1
9/24/2019					0.063 (J)	<0.1	

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2019	<0.1	<0.1					<0.1
9/26/2019			<0.1	<0.1			
2/10/2020					0.061 (J)	<0.1	
2/11/2020		<0.1	<0.1	<0.1			
2/12/2020	<0.1						<0.1
3/18/2020	<0.1					<0.1	
3/19/2020					0.064 (J)		
3/24/2020		<0.1	<0.1	<0.1			<0.1
9/23/2020		<0.1	<0.1	<0.1	0.058 (J)	<0.1	
9/24/2020							<0.1
9/25/2020	<0.1						

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						0.15 (J)	
6/2/2016			<0.1		0.62		
6/7/2016	<0.1						
7/25/2016			0.06 (J)			0.14 (J)	
7/26/2016					0.49		
7/28/2016	0.02 (J)						
9/14/2016		0.08 (J)				0.18 (J)	
9/15/2016					0.54		
9/19/2016	0.02 (J)		<0.1				
11/1/2016			<0.1		0.68	<0.1	
11/3/2016	<0.1						
11/4/2016		<0.1					
12/15/2016		0.06 (J)					
1/11/2017					0.49	0.09 (J)	
1/13/2017	<0.1						
1/16/2017		0.1 (J)	<0.1				
2/21/2017			<0.1				
3/1/2017						<0.1	
3/2/2017					0.48		
3/3/2017		<0.1					
3/6/2017	<0.1						
4/26/2017	0.04 (J)		<0.1		0.48	0.08 (J)	
4/28/2017		0.06 (J)					
5/26/2017		0.09 (J)					
6/28/2017		0.11 (J)			0.47	0.12 (J)	
6/29/2017	<0.1						
6/30/2017			<0.1				
10/3/2017	<0.1	<0.1					
10/4/2017			<0.1		<0.1	<0.1	
10/11/2017				<0.1			
10/12/2017							<0.1
11/20/2017				<0.1			<0.1
1/10/2018							<0.1
1/11/2018				<0.1			
2/19/2018							<0.1
2/20/2018				0.23			
3/27/2018			<0.1				
3/28/2018		0.31			0.56	<0.1	
3/29/2018	<0.1						
4/3/2018				<0.1			<0.1
6/5/2018	0.13 (J)						
6/7/2018		0.11 (J)			0.48		
6/8/2018						0.2 (J)	
6/11/2018			<0.1				
6/28/2018				<0.1			<0.1
8/7/2018				0.048 (J)			<0.1
9/24/2018				<0.1			<0.1
9/25/2018	0 (J)						
10/1/2018		<0.1			0.44	<0.1	
10/2/2018			<0.1				
2/26/2019			<0.1				
2/27/2019		0.12 (J)			0.53	0.13 (J)	

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
3/5/2019	0.32						
3/26/2019							<0.1
3/27/2019				<0.1			
3/29/2019		0.13 (J)					
4/1/2019			<0.1		0.45	0.1 (J)	
4/2/2019	0.12 (J)						
8/21/2019				<0.1			<0.1
9/24/2019	0.15 (J)	0.081 (J)					
9/25/2019			<0.1		0.46	0.1 (J)	
10/9/2019				<0.1			<0.1
2/11/2020		0.075 (J)				0.094 (J)	
2/12/2020	0.1 (J)		<0.1	<0.1	0.4		<0.1
3/19/2020		0.093 (J)	<0.1		0.51	0.11 (J)	
3/24/2020	0.081 (J)						<0.1
3/25/2020				<0.1			
9/23/2020		0.08 (J)			0.47	0.098 (J)	
9/24/2020	0.079 (J)		<0.1	<0.1			<0.1

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.1	0.11 (J)	<0.1
7/26/2016		<0.1	0.05 (J)	<0.1
8/30/2016	0.09 (J)			
9/14/2016		<0.1	0.04 (J)	<0.1
11/2/2016		<0.1	<0.1	
11/4/2016				<0.1
11/14/2016	0.18 (J)			
1/12/2017			0.04 (J)	<0.1
1/13/2017		<0.1		
2/24/2017	0.05 (J)			
3/6/2017		<0.1		
3/7/2017			<0.1	<0.1
5/1/2017		<0.1	<0.1	
5/2/2017				<0.1
5/8/2017	0.03 (J)			
6/27/2017			<0.1	<0.1
6/29/2017		<0.1		
7/11/2017	0.07 (J)			
10/3/2017			<0.1	<0.1
10/5/2017		<0.1		
10/10/2017	<0.1			
3/29/2018		<0.1	<0.1	<0.1
4/2/2018	<0.1			
6/6/2018			0.15 (J)	
6/7/2018		<0.1		<0.1
9/19/2018	<0.1			
9/26/2018		<0.1	<0.1	<0.1
3/4/2019		<0.1	0.19 (J)	<0.1
3/27/2019	0.081 (J)			
4/3/2019		<0.1	0.047 (J)	<0.1
8/20/2019	<0.1			
9/24/2019			0.05 (J)	<0.1
9/25/2019		<0.1		
10/8/2019	0.034 (J)			
2/12/2020		<0.1	<0.1	<0.1
3/17/2020	<0.1			
3/24/2020			<0.1	<0.1
3/25/2020		<0.1		
8/27/2020	<0.1			
9/22/2020	<0.1	<0.1	0.056 (J)	<0.1

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	0.006						
9/20/1999	<0.005						
9/12/2001	0.0042						
9/3/2002	<0.005						
7/29/2003	0.015						
12/5/2003	<0.005						
9/22/2004	<0.005						
5/1/2007		<0.005					
9/11/2007		<0.005					
3/20/2008		<0.005					
8/27/2008		<0.005					
3/3/2009		<0.005					
11/18/2009		<0.005					
3/3/2010		<0.005					
9/8/2010		<0.005					
11/22/2010				<0.005		<0.005	
1/4/2011				<0.005		<0.005	
2/17/2011				<0.005		<0.005	
3/10/2011		<0.005					
3/11/2011				<0.005		<0.005	
3/28/2011				<0.005		<0.005	
9/7/2011				<0.005	<0.005	<0.005	<0.005
9/8/2011		<0.005	<0.005				
3/4/2012						<0.005	
3/5/2012		<0.005	<0.005		<0.005		<0.005
3/6/2012				<0.005			
9/5/2012			<0.005		<0.005		<0.005
9/10/2012		<0.005				<0.005	
9/11/2012				<0.005			
2/5/2013			<0.005				<0.005
2/6/2013		<0.005		<0.005	<0.005	<0.005	
8/12/2013		<0.005					
8/13/2013			<0.005	<0.005	<0.005		
8/14/2013						<0.005	<0.005
2/4/2014			<0.005	<0.005		<0.005	
2/5/2014		<0.005			<0.005		<0.005
8/4/2014					<0.005	<0.005	<0.005
8/5/2014		<0.005	<0.005	<0.005			
2/2/2015			<0.005	<0.005		<0.005	
2/3/2015					<0.005		<0.005
2/4/2015		<0.005					
8/3/2015		<0.005			<0.005 (D)	<0.005 (D)	<0.005 (D)
8/4/2015			<0.005 (D)	<0.005			
2/16/2016		<0.005	<0.005		<0.005	<0.005	<0.005
2/17/2016				<0.005			
8/31/2016		<0.005	<0.005	<0.005	0.0001 (J)		
9/1/2016						<0.005	<0.005
11/28/2016		<0.005		<0.005			
11/29/2016			<0.005				
11/30/2016					<0.005	<0.005	
12/1/2016							<0.005
2/22/2017		<0.005		<0.005			





# Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	<0.005						
11/18/2009	<0.005						
1/5/2010	<0.005						
3/3/2010	<0.005						
9/7/2010	<0.005						
3/10/2011	<0.005						
9/8/2011	<0.005						
3/5/2012	<0.005						
9/5/2012	<0.005						
2/5/2013	<0.005						
8/13/2013	<0.005						
2/4/2014	<0.005						
8/5/2014	<0.005						
2/3/2015	<0.005						
8/4/2015	<0.005						
2/16/2016	<0.005						
6/1/2016						0.00056 (J)	<0.005
6/2/2016		<0.005					
6/6/2016				<0.005	<0.005		
6/7/2016			<0.005				
7/25/2016							<0.005
7/26/2016		<0.005				<0.005	
7/27/2016			<0.005	<0.005	<0.005		
9/1/2016	<0.005						
9/13/2016						0.0001 (J)	<0.005
9/15/2016		<0.005					
9/16/2016			<0.005		<0.005		
9/19/2016				<0.005			
11/1/2016						<0.005	
11/2/2016		<0.005					
11/3/2016			<0.005	<0.005	<0.005		
11/4/2016							<0.005
11/29/2016	<0.005						
1/10/2017		<0.005					
1/11/2017			<0.005	<0.005	<0.005	<0.005	
1/16/2017							<0.005
2/23/2017	<0.005						
3/1/2017				<0.005	<0.005		
3/2/2017			8E-05 (J)			0.0001 (J)	<0.005
3/8/2017		0.0001 (J)					
4/26/2017		<0.005		<0.005	<0.005		
4/27/2017						<0.005	<0.005
5/2/2017			<0.005				
5/10/2017	<0.005						
6/27/2017						<0.005	<0.005
6/28/2017				<0.005	0.0001 (J)		
6/29/2017			8E-05 (J)				
6/30/2017		<0.005					
7/18/2017	<0.005						
10/18/2017	<0.005						
2/19/2018	<0.005						
3/27/2018		<0.005					<0.005

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Date	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			<0.005	<0.005	<0.005		
3/29/2018						<0.005	
8/6/2018	<0.005						
2/25/2019	<0.005						
2/26/2019		<0.005					
2/27/2019						<0.005	<0.005
3/5/2019			<0.005		<0.005		
3/6/2019				<0.005			
4/2/2019			<0.005				
4/3/2019				<0.005	<0.005		
6/13/2019	<0.005						
8/20/2019	<0.005						
9/25/2019			<0.005				
9/26/2019				<0.005	<0.005		
10/8/2019	<0.005						
2/10/2020						4.9E-05 (J)	<0.005
2/11/2020			<0.005	<0.005	<0.005		
2/12/2020		<0.005					
3/17/2020	<0.005						
3/18/2020		<0.005					<0.005
3/19/2020						0.00012 (J)	
3/24/2020			6.4E-05 (J)	7.1E-05 (J)	5.4E-05 (J)		
8/27/2020	<0.005						
9/23/2020	<0.005		4.1E-05 (J)	6E-05 (J)	9.7E-05 (J)	<0.005	0.00021 (J)
9/25/2020		<0.005					

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							<0.005
6/2/2016				<0.005		0.00056 (J)	
6/7/2016	<0.005	<0.005					
7/25/2016				<0.005			<0.005
7/26/2016						0.0001 (J)	
7/27/2016	<0.005						
7/28/2016		<0.005					
9/14/2016			<0.005				<0.005
9/15/2016						0.0002 (J)	
9/19/2016	<0.005	<0.005		<0.005			
11/1/2016				<0.005		<0.005	<0.005
11/2/2016	0.0013 (J)						
11/3/2016		<0.005					
11/4/2016			<0.005				
12/15/2016			<0.005				
1/11/2017						<0.005	<0.005
1/13/2017	<0.005	<0.005					
1/16/2017			<0.005	<0.005			
2/21/2017				<0.005			
3/1/2017							<0.005
3/2/2017						0.0002 (J)	
3/3/2017			<0.005				
3/6/2017	<0.005	<0.005					
4/26/2017	<0.005	<0.005		<0.005		<0.005	<0.005
4/28/2017			<0.005				
5/26/2017			<0.005				
6/28/2017			<0.005			<0.005	<0.005
6/29/2017	<0.005	<0.005					
6/30/2017				<0.005			
10/11/2017					0.0001 (J)		
11/20/2017					<0.005		
1/11/2018					0.0002 (J)		
2/20/2018					<0.005		
3/27/2018				<0.005			
3/28/2018			<0.005			<0.005	<0.005
3/29/2018	<0.005	<0.005					
4/3/2018					<0.005		
6/28/2018					<0.005		
8/7/2018					<0.005		
9/24/2018					<0.005		
2/26/2019				<0.005			
2/27/2019			<0.005			<0.005	<0.005
3/5/2019	<0.005	<0.005					
4/2/2019		<0.005					
4/3/2019	<0.005						
8/21/2019					<0.005		
9/24/2019		<0.005					
9/25/2019	<0.005						
10/9/2019					<0.005		
2/11/2020			<0.005				<0.005
2/12/2020	<0.005	<0.005		<0.005	<0.005	<0.005	
3/19/2020			<0.005	<0.005		0.00017 (J)	<0.005

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
3/24/2020	0.00011 (J)	<0.005					
3/25/2020					5.1E-05 (J)		
9/23/2020			0.0011 (J)			<0.005	0.00015 (J)
9/24/2020	9.2E-05 (J)	4.6E-05 (J)		<0.005	<0.005		

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			<0.005	<0.005	<0.005
7/26/2016			<0.005	<0.005	<0.005
8/30/2016		<0.005			
9/14/2016			<0.005	<0.005	<0.005
11/2/2016			<0.005	<0.005	
11/4/2016					<0.005
11/14/2016		<0.005			
1/12/2017				<0.005	<0.005
1/13/2017			<0.005		
2/24/2017		<0.005			
3/6/2017			<0.005		
3/7/2017				0.0001 (J)	7E-05 (J)
5/1/2017			<0.005	<0.005	
5/2/2017					<0.005
5/8/2017		<0.005			
6/27/2017				<0.005	<0.005
6/29/2017			<0.005		
7/11/2017		<0.005			
10/10/2017		<0.005			
10/12/2017	9E-05 (J)				
11/20/2017	<0.005				
1/10/2018	<0.005				
2/19/2018	<0.005				
3/29/2018			<0.005	<0.005	<0.005
4/2/2018		<0.005			
4/3/2018	<0.005				
6/28/2018	<0.005				
8/7/2018	<0.005				
9/19/2018		<0.005			
9/24/2018	<0.005				
3/4/2019			<0.005	<0.005	<0.005
4/3/2019			<0.005	<0.005	<0.005
8/20/2019		<0.005			
8/21/2019	<0.005				
9/24/2019				<0.005	9E-05 (J)
9/25/2019			<0.005		
10/9/2019	<0.005				
2/12/2020	<0.005		<0.005	<0.005	<0.005
3/24/2020	<0.005			5.4E-05 (J)	6.8E-05 (J)
3/25/2020			<0.005		
8/27/2020		<0.005			
9/22/2020		<0.005	<0.005	4.5E-05 (J)	4.2E-05 (J)
9/24/2020	3.8E-05 (J)				

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	<0.03	0.0024 (J)	<0.03	<0.03			
9/1/2016					<0.03	<0.03	<0.03
11/28/2016	<0.03		<0.03				
11/29/2016		<0.03		<0.03	<0.03		<0.03
11/30/2016				<0.03	<0.03		
12/1/2016						<0.03	
2/22/2017	<0.03		0.0036 (J)				
2/23/2017		<0.03		<0.03			0.0028 (J)
2/24/2017					<0.03	<0.03	
5/8/2017	0.0014 (J)						
5/9/2017		0.002 (J)		<0.03			
5/10/2017			0.0035 (J)		<0.03	<0.03	0.0054 (J)
7/17/2017	<0.03					<0.03	
7/18/2017		<0.03	0.0035 (J)	<0.03	<0.03		0.002 (J)
10/16/2017	0.0016 (J)					<0.03	
10/17/2017		0.0016 (J)	0.0035 (J)		<0.03		
10/18/2017				<0.03			0.0026 (J)
2/19/2018	<0.03						<0.03
2/20/2018			<0.03		<0.03		
2/21/2018		0.0014 (J)		<0.03		<0.03	
8/6/2018	<0.03						<0.03
8/7/2018		0.001 (J)		<0.03		<0.03	
8/8/2018			0.0031 (J)		<0.03		
8/19/2019	0.0019 (J)				0.00094 (J)		
8/20/2019		0.0012 (J)	0.0043 (J)				0.002 (J)
8/21/2019				<0.03		0.0015 (J)	
10/8/2019	0.0015 (J)						0.0021 (J)
10/9/2019		0.0013 (J)	0.0047 (J)			0.0014 (J)	
10/10/2019				<0.03	0.0013 (J)		
3/17/2020	0.0017 (J)	0.00094 (J)		0.0012 (J)			0.0018 (J)
3/18/2020			0.0053 (J)		<0.03	0.0017 (J)	
8/26/2020	0.0032 (J)						
8/27/2020		0.0017 (J)				0.0013 (J)	0.0083 (J)
8/28/2020			0.0047 (J)	<0.03	0.0011 (J)		
9/22/2020	0.0029 (J)	0.0015 (J)	0.0042 (J)	<0.03	0.0013 (J)		
9/23/2020						0.0012 (J)	0.0023 (J)

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					0.015	<0.03	
6/2/2016	<0.03						
6/6/2016			0.0088	0.015			
6/7/2016		<0.03					<0.03
7/25/2016						0.002 (J)	
7/26/2016	<0.03				0.0135 (J)		
7/27/2016		<0.03	0.0087 (J)	0.0049 (J)			<0.03
9/13/2016					0.0112 (J)	<0.03	
9/15/2016	<0.03						
9/16/2016		<0.03		0.0031 (J)			
9/19/2016			0.0043 (J)				<0.03
11/1/2016					0.0163 (J)		
11/2/2016	<0.03						<0.03
11/3/2016		<0.03	<0.03	0.0021 (J)			
11/4/2016						<0.03	
1/10/2017	<0.03						
1/11/2017		0.0035 (J)	0.0052 (J)	0.0025 (J)	0.0166 (J)		
1/13/2017							<0.03
1/16/2017						0.0023 (J)	
3/1/2017			0.0053 (J)	0.0029 (J)			
3/2/2017		<0.03			0.0159 (J)	0.0025 (J)	
3/6/2017							<0.03
3/8/2017	<0.03						
4/26/2017	<0.03		0.0041 (J)	0.0019 (J)			<0.03
4/27/2017					0.0137 (J)	0.0027 (J)	
5/2/2017		<0.03					
6/27/2017					0.0094 (J)	0.0024 (J)	
6/28/2017			0.0039 (J)	0.0016 (J)			
6/29/2017		<0.03					<0.03
6/30/2017	<0.03						
3/27/2018	<0.03					0.0023 (J)	
3/28/2018		<0.03	0.0041 (J)	0.0024 (J)			
3/29/2018					0.0078 (J)		<0.03
6/5/2018					0.0079 (J)		
6/6/2018						0.0024 (J)	<0.03
6/7/2018			0.0032 (J)				
6/8/2018	<0.03						
6/11/2018		<0.03		0.0014 (J)			
9/25/2018		<0.03	0.0036 (J)	0.0016 (J)			<0.03
10/1/2018	<0.03				0.0053 (J)	0.0023 (J)	
2/26/2019	<0.03						
2/27/2019					0.0093 (J)	0.0023 (J)	
3/5/2019		<0.03		0.0031 (J)			<0.03
3/6/2019			0.0033 (J)				
3/28/2019					0.013 (J)	0.0022 (J)	
3/29/2019	<0.03						
4/2/2019		<0.03					
4/3/2019			0.0035 (J)	0.0028 (J)			<0.03
9/24/2019					0.0046 (J)	0.0023 (J)	
9/25/2019	<0.03	<0.03					<0.03
9/26/2019			0.0032 (J)	0.0029 (J)			
2/10/2020					0.011 (J)	0.0023 (J)	



# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
2/11/2020		<0.03	0.0033 (J)	0.005 (J)			
2/12/2020	<0.03						<0.03
3/18/2020	<0.03					0.0024 (J)	
3/19/2020					0.013 (J)		
3/24/2020		0.0034 (J)	0.0033 (J)	0.0035 (J)			<0.03
9/23/2020		<0.03	0.003 (J)	0.0022 (J)	0.014 (J)	0.0024 (J)	
9/24/2020							<0.03
9/25/2020	<0.03						

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						0.01	
6/2/2016			<0.03		0.018		
6/7/2016	0.0055						
7/25/2016			<0.03			0.0132 (J)	
7/26/2016					0.0221 (J)		
7/28/2016	0.0045 (J)						
9/14/2016		0.004 (J)				0.012 (J)	
9/15/2016					0.0197 (J)		
9/19/2016	0.0054 (J)		<0.03				
11/1/2016			<0.03		0.0194 (J)	0.0115 (J)	
11/3/2016	<0.03						
11/4/2016		<0.03					
12/15/2016		0.0026 (J)					
1/11/2017					0.0177 (J)	0.0085 (J)	
1/13/2017	0.0062 (J)						
1/16/2017		0.0023 (J)	<0.03				
2/21/2017			<0.03				
3/1/2017						0.0114 (J)	
3/2/2017					0.0185 (J)		
3/3/2017		0.0013 (J)					
3/6/2017	0.0059 (J)						
4/26/2017	0.0054 (J)		<0.03		0.0183 (J)	0.0092 (J)	
4/28/2017		0.0031 (J)					
5/26/2017		0.0038 (J)					
6/28/2017		0.0026 (J)			0.0173 (J)	0.0085 (J)	
6/29/2017	0.0047 (J)						
6/30/2017			<0.03				
10/11/2017				0.0018 (J)			
10/12/2017							<0.03
11/20/2017				0.0018 (J)			<0.03
1/10/2018							<0.03
1/11/2018				0.0019 (J)			
2/19/2018							<0.03
2/20/2018				<0.03			
3/27/2018			0.0011 (J)				
3/28/2018		0.0025 (J)			0.02 (J)	0.013 (J)	
3/29/2018	0.0062 (J)						
4/3/2018				0.0022 (J)			<0.03
6/5/2018	0.0061 (J)						
6/7/2018		0.0017 (J)			0.02 (J)		
6/8/2018						0.012 (J)	
6/11/2018			0.0012 (J)				
6/28/2018				0.0026 (J)			<0.03
8/7/2018				0.0024 (J)			<0.03
9/24/2018				0.0022 (J)			<0.03
9/25/2018	0.0062 (J)						
10/1/2018		<0.03			0.02 (J)	0.011 (J)	
10/2/2018			<0.03				
2/26/2019			0.0011 (J)				
2/27/2019		0.0011 (J)			0.021 (J)	0.014 (J)	
3/5/2019	0.0053 (J)						
3/29/2019		0.0016 (J)					

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-211 (bg)	YGWA-21 (bg)	YGWA-301 (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
4/1/2019			0.001 (J)		0.021 (J)	0.013 (J)	
4/2/2019	0.0051 (J)						
8/21/2019				0.0035 (J)			<0.03
9/24/2019	0.0068 (J)	0.0011 (J)					
9/25/2019			0.0011 (J)		0.02 (J)	0.01 (J)	
10/9/2019				0.0036 (J)			<0.03
2/11/2020		0.0012 (J)				0.013 (J)	
2/12/2020	0.0065 (J)		0.0013 (J)	0.0041 (J)	0.019 (J)		<0.03
3/19/2020		0.0022 (J)	0.0012 (J)		0.023 (J)	0.014 (J)	
3/24/2020	0.0064 (J)						<0.03
3/25/2020				0.0049 (J)			
9/23/2020		0.0016 (J)			0.023 (J)	0.013 (J)	
9/24/2020	0.0069 (J)		0.0011 (J)	0.0054 (J)			<0.03

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		0.013	0.0049 (J)	<0.03
7/26/2016		0.0123 (J)	0.0063 (J)	0.0027 (J)
8/30/2016	0.0061 (J)			
9/14/2016		0.0137 (J)	0.0058 (J)	0.0029 (J)
11/2/2016		0.0136 (J)	0.0053 (J)	
11/4/2016				<0.03
11/14/2016	0.0064 (J)			
1/12/2017			0.0054 (J)	0.0032 (J)
1/13/2017		0.0121 (J)		
2/24/2017	0.0049 (J)			
3/6/2017		0.0143 (J)		
3/7/2017			0.0056 (J)	0.0035 (J)
5/1/2017		0.0132 (J)	0.0031 (J)	
5/2/2017				0.0031 (J)
5/8/2017	0.0053 (J)			
6/27/2017			0.0018 (J)	0.0029 (J)
6/29/2017		0.0145 (J)		
7/11/2017	0.0051 (J)			
10/10/2017	0.0043 (J)			
3/29/2018		0.014 (J)	0.0058 (J)	0.0034 (J)
4/2/2018	0.0045 (J)			
6/6/2018			0.0068 (J)	
6/7/2018		0.013 (J)		0.0032 (J)
9/19/2018	0.0043 (J)			
9/26/2018		0.014 (J)	0.0065 (J)	0.0032 (J)
3/4/2019		0.015 (J)	0.0065 (J)	0.0032 (J)
4/3/2019		0.014 (J)	0.007 (J)	0.0035 (J)
8/20/2019	0.0036 (J)			
9/24/2019			0.0065 (J)	0.0031 (J)
9/25/2019		0.014 (J)		
10/8/2019	0.0036 (J)			
2/12/2020		0.011 (J)	0.0066 (J)	0.0032 (J)
3/17/2020	0.0046 (J)			
3/24/2020			0.0064 (J)	0.0033 (J)
3/25/2020		0.014 (J)		
8/27/2020	0.0039 (J)			
9/22/2020	0.0036 (J)	0.013 (J)	0.0066 (J)	0.0034 (J)

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/1/2007	<0.0005						
9/11/2007	<0.0005						
3/20/2008	<0.0005						
8/27/2008	<0.0005						
3/3/2009	<0.0005						
9/9/2009							<0.0005
11/18/2009	<0.0005						<0.0005
1/5/2010							<0.0005
3/3/2010	<0.0005						<0.0005
9/7/2010							<0.0005
9/8/2010	<0.0005						
11/22/2010			<0.0005		<0.0005		
1/4/2011			<0.0005		<0.0005		
2/17/2011			<0.0005		<0.0005		
3/10/2011	<0.0005						<0.0005
3/11/2011			<0.0005		<0.0005		
3/28/2011			<0.0005		<0.0005		
9/7/2011			<0.0005	<0.0005	<0.0005	<0.0005	
9/8/2011	<0.0005	<0.0005					<0.0005
3/4/2012					<0.0005		
3/5/2012	<0.0005	<0.0005		<0.0005		<0.0005	<0.0005
3/6/2012			<0.0005				
9/5/2012		<0.0005		<0.0005		<0.0005	<0.0005
9/10/2012	<0.0005				<0.0005		
9/11/2012			<0.0005				
2/5/2013		<0.0005				<0.0005	<0.0005
2/6/2013	<0.0005		<0.0005	<0.0005	0.00014		
8/12/2013	<0.0005						
8/13/2013		<0.0005	<0.0005	<0.0005			<0.0005
8/14/2013					<0.0005	<0.0005	
2/4/2014		<0.0005	<0.0005		<0.0005		<0.0005
2/5/2014	<0.0005			<0.0005		<0.0005	
8/4/2014				<0.0005	<0.0005	<0.0005	
8/5/2014	<0.0005	<0.0005	<0.0005				<0.0005
2/2/2015		<0.0005	<0.0005		<0.0005		
2/3/2015				<0.0005		<0.0005	<0.0005
2/4/2015	<0.0005						
8/3/2015	<0.0005			<0.0005 (D)	<0.0005 (D)	<0.0005 (D)	
8/4/2015		<0.0005 (D)	<0.0005				<0.0005
2/16/2016	1.36E-05 (J)	<0.0005		1.34E-05 (J)	<0.0005	<0.0005	1.13E-05 (J)
2/17/2016			<0.0005				
8/31/2016	<0.0005	<0.0005	<0.0005	<0.0005			
9/1/2016					<0.0005	<0.0005	<0.0005
11/28/2016	<0.0005		<0.0005				
11/29/2016		<0.0005					<0.0005
11/30/2016				<0.0005	<0.0005		
12/1/2016						<0.0005	
2/22/2017	<0.0005		<0.0005				
2/23/2017		<0.0005		<0.0005			<0.0005
2/24/2017					<0.0005	<0.0005	
5/8/2017	<0.0005						
5/9/2017		<0.0005		<0.0005			

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/10/2017			<0.0005		<0.0005	<0.0005	<0.0005
7/17/2017	<0.0005					<0.0005	
7/18/2017		<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
10/16/2017	<0.0005					<0.0005	
10/17/2017		<0.0005	<0.0005		<0.0005		
10/18/2017				<0.0005			<0.0005
2/19/2018	<0.0005						<0.0005
2/20/2018			<0.0005		<0.0005		
2/21/2018		<0.0005		<0.0005		<0.0005	
8/6/2018	<0.0005						<0.0005
8/7/2018		<0.0005		<0.0005		<0.0005	
8/8/2018			<0.0005		<0.0005		
2/25/2019	7.4E-05 (J)						6.7E-05 (J)
2/26/2019		5.9E-05 (J)	7.1E-05 (J)	6.4E-05 (J)	5.8E-05 (J)	6E-05 (J)	
6/12/2019	<0.0005		<0.0005		<0.0005		
6/13/2019		<0.0005		<0.0005		<0.0005	<0.0005
8/19/2019	<0.0005				<0.0005		
8/20/2019		<0.0005	<0.0005				<0.0005
8/21/2019				<0.0005		<0.0005	
10/8/2019	<0.0005						<0.0005
10/9/2019		<0.0005	<0.0005			<0.0005	
10/10/2019				0.00043 (J)	<0.0005		
5/6/2020	<0.0005	<0.0005					<0.0005
5/7/2020			<0.0005	<0.0005	<0.0005	<0.0005	
8/26/2020	<0.0005						
8/27/2020		<0.0005				<0.0005	<0.0005
8/28/2020			<0.0005	<0.0005	<0.0005		
9/22/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
9/23/2020						<0.0005	<0.0005

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					<0.0005	<0.0005	
6/2/2016	<0.0005						
6/6/2016			<0.0005	<0.0005			
6/7/2016		9.5E-05 (J)					9.6E-05 (J)
7/25/2016						<0.0005	
7/26/2016	<0.0005				<0.0005		
7/27/2016		<0.0005	<0.0005	<0.0005			<0.0005
9/13/2016					<0.0005	<0.0005	
9/15/2016	<0.0005						
9/16/2016		<0.0005		<0.0005			
9/19/2016			<0.0005				<0.0005
11/1/2016					<0.0005		
11/2/2016	<0.0005						<0.0005
11/3/2016		<0.0005	<0.0005	<0.0005			
11/4/2016						<0.0005	
1/10/2017	<0.0005						
1/11/2017		<0.0005	<0.0005	<0.0005	<0.0005		
1/13/2017							<0.0005
1/16/2017						<0.0005	
3/1/2017			<0.0005	<0.0005			
3/2/2017		<0.0005			<0.0005	<0.0005	
3/6/2017							<0.0005
3/8/2017	<0.0005						
4/26/2017	<0.0005		<0.0005	<0.0005			<0.0005
4/27/2017					<0.0005	<0.0005	
5/2/2017		<0.0005					
6/27/2017					<0.0005	<0.0005	
6/28/2017			<0.0005	<0.0005			
6/29/2017		<0.0005					<0.0005
6/30/2017	<0.0005						
3/27/2018	<0.0005					<0.0005	
3/28/2018		<0.0005	<0.0005	<0.0005			
3/29/2018					<0.0005		<0.0005
9/25/2018		<0.0005	<0.0005	<0.0005			<0.0005
2/26/2019	6.1E-05 (J)						
2/27/2019					5.1E-05 (J)	5.4E-05 (J)	
3/5/2019		<0.0005		<0.0005			<0.0005
3/6/2019			<0.0005				
3/28/2019					4E-05 (J)	<0.0005	
3/29/2019	<0.0005						
9/24/2019					<0.0005	<0.0005	
9/25/2019	<0.0005						
2/10/2020					<0.0005	<0.0005	
2/11/2020		<0.0005	<0.0005	<0.0005			
2/12/2020	<0.0005						<0.0005

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						<0.0005	
6/2/2016			<0.0005		<0.0005		
6/7/2016	9.6E-05 (J)						
7/25/2016			<0.0005			<0.0005	
7/26/2016					<0.0005		
7/28/2016	<0.0005						
9/14/2016		<0.0005				<0.0005	
9/15/2016					<0.0005		
9/19/2016	<0.0005		<0.0005				
11/1/2016			<0.0005		<0.0005	<0.0005	
11/3/2016	<0.0005						
11/4/2016		<0.0005					
12/15/2016		<0.0005					
1/11/2017					<0.0005	<0.0005	
1/13/2017	<0.0005						
1/16/2017		<0.0005	<0.0005				
2/21/2017			<0.0005				
3/1/2017						<0.0005	
3/2/2017					<0.0005		
3/3/2017		<0.0005					
3/6/2017	<0.0005						
4/26/2017	<0.0005		<0.0005		<0.0005	<0.0005	
4/28/2017		<0.0005					
5/26/2017		<0.0005					
6/28/2017		<0.0005			<0.0005	<0.0005	
6/29/2017	<0.0005						
6/30/2017			<0.0005				
10/11/2017				<0.0005			
10/12/2017							<0.0005
11/20/2017				7E-05 (J)			8E-05 (J)
1/10/2018							<0.0005
1/11/2018				<0.0005			
2/19/2018							<0.0005
2/20/2018				<0.0005			
3/27/2018			<0.0005				
3/28/2018		<0.0005			<0.0005	<0.0005	
3/29/2018	<0.0005						
4/3/2018				<0.0005			<0.0005
6/28/2018				<0.0005			3.6E-05 (J)
8/7/2018				<0.0005			<0.0005
9/24/2018				<0.0005			<0.0005
9/25/2018	<0.0005						
2/26/2019			6.8E-05 (J)				
2/27/2019		<0.0005			6.2E-05 (J)	6.1E-05 (J)	
3/5/2019	<0.0005						
3/29/2019		<0.0005					
4/1/2019			8.2E-05 (J)		9.6E-05 (J)	8.4E-05 (J)	
8/21/2019				<0.0005			<0.0005
9/24/2019		<0.0005					
9/25/2019			<0.0005		<0.0005	<0.0005	
2/11/2020		<0.0005				<0.0005	
2/12/2020	<0.0005		<0.0005	<0.0005	<0.0005		<0.0005



# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.0005	<0.0005	<0.0005
7/26/2016		<0.0005	<0.0005	<0.0005
8/30/2016	<0.0005			
9/14/2016		<0.0005	<0.0005	<0.0005
11/2/2016		<0.0005	<0.0005	
11/4/2016				<0.0005
11/14/2016	<0.0005			
1/12/2017			<0.0005	<0.0005
1/13/2017		<0.0005		
2/24/2017	<0.0005			
3/6/2017		<0.0005		
3/7/2017			<0.0005	<0.0005
5/1/2017		<0.0005	<0.0005	
5/2/2017				<0.0005
5/8/2017	<0.0005			
6/27/2017			<0.0005	<0.0005
6/29/2017		<0.0005		
7/11/2017	<0.0005			
10/10/2017	<0.0005			
3/29/2018		<0.0005	<0.0005	<0.0005
4/2/2018	<0.0005			
9/19/2018	5.3E-05 (J)			
9/26/2018		<0.0005	<0.0005	<0.0005
3/4/2019		<0.0005	<0.0005	<0.0005
8/20/2019	<0.0005			
2/12/2020		<0.0005	<0.0005	<0.0005
8/27/2020	<0.0005			

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	<0.01	<0.01	<0.01	<0.01			
9/1/2016					<0.01	<0.01	<0.01
11/28/2016	<0.01		<0.01				
11/29/2016		<0.01					<0.01
11/30/2016				<0.01	<0.01		
12/1/2016						<0.01	
2/22/2017	<0.01		<0.01				
2/23/2017		<0.01		<0.01			<0.01
2/24/2017					<0.01	<0.01	
5/8/2017	<0.01						
5/9/2017		<0.01		<0.01			
5/10/2017			<0.01		<0.01	<0.01	<0.01
7/17/2017	<0.01					<0.01	
7/18/2017		<0.01	<0.01	<0.01	<0.01		<0.01
10/16/2017	<0.01					<0.01	
10/17/2017		<0.01	<0.01		<0.01		
10/18/2017				<0.01			<0.01
2/19/2018	<0.01						<0.01
2/20/2018			<0.01		<0.01		
2/21/2018		<0.01		<0.01		<0.01	
8/6/2018	<0.01						<0.01
8/7/2018		<0.01		<0.01		<0.01	
8/8/2018			<0.01		<0.01		
8/19/2019	<0.01				<0.01		
8/20/2019		<0.01	<0.01				<0.01
8/21/2019				<0.01		<0.01	
8/26/2020	<0.01						
8/27/2020		<0.01				<0.01	<0.01
8/28/2020			<0.01	<0.01	<0.01		

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					0.014 (J)	0.012 (J)	
6/2/2016	<0.01						
6/6/2016			<0.01	<0.01			
6/7/2016		<0.01					<0.01
7/25/2016						0.0098 (J)	
7/26/2016	<0.01				0.0132		
7/27/2016		<0.01	<0.01	<0.01			<0.01
9/13/2016					0.0127	0.01 (J)	
9/15/2016	<0.01						
9/16/2016		<0.01		<0.01			
9/19/2016			<0.01				<0.01
11/1/2016					0.0092 (J)		
11/2/2016	<0.01						<0.01
11/3/2016		<0.01	<0.01	<0.01			
11/4/2016						0.01	
1/10/2017	<0.01						
1/11/2017		<0.01	<0.01	<0.01	0.0093 (J)		
1/13/2017							<0.01
1/16/2017						0.0086 (J)	
3/1/2017			<0.01	<0.01			
3/2/2017		<0.01			0.0099 (J)	0.01	
3/6/2017							<0.01
3/8/2017	<0.01						
4/26/2017	<0.01		<0.01	<0.01			<0.01
4/27/2017					0.0103	0.0101	
5/2/2017		<0.01					
6/27/2017					0.0097 (J)	0.0093 (J)	
6/28/2017			<0.01	<0.01			
6/29/2017		<0.01					<0.01
6/30/2017	<0.01						
3/27/2018	<0.01					0.0074 (J)	
3/28/2018		<0.01	<0.01	<0.01			
3/29/2018					0.0076 (J)		<0.01
6/5/2018					0.0092 (J)		
6/6/2018						0.0073 (J)	
6/8/2018	<0.01						
10/1/2018	<0.01				0.0085 (J)	0.0076 (J)	
2/26/2019	<0.01						
2/27/2019					0.0087 (J)	0.0078 (J)	
3/5/2019		<0.01		<0.01			<0.01
3/6/2019			<0.01				
3/28/2019					0.0092 (J)	0.0082 (J)	
3/29/2019	<0.01						
9/24/2019					0.0072 (J)	0.0074 (J)	
9/25/2019	<0.01						
2/10/2020					0.0087 (J)	0.0062 (J)	
2/11/2020		<0.01	<0.01	<0.01			
2/12/2020	<0.01						<0.01
3/18/2020	<0.01					0.0056 (J)	
3/19/2020					0.0088 (J)		
3/24/2020		<0.01	<0.01	<0.01			<0.01
9/23/2020		<0.01	<0.01	<0.01	0.008 (J)	0.0059 (J)	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/24/2020							<0.01
9/25/2020	<0.01						

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						0.0055 (J)	
6/2/2016			<0.01		0.0093 (J)		
6/7/2016	<0.01						
7/25/2016			<0.01			0.0037 (J)	
7/26/2016					0.0113		
7/28/2016	<0.01						
9/14/2016		0.0039 (J)				0.0034 (J)	
9/15/2016					0.0112		
9/19/2016	<0.01		<0.01				
11/1/2016			<0.01		0.0099 (J)	0.0025 (J)	
11/3/2016	<0.01						
11/4/2016		0.0077 (J)					
12/15/2016		0.0066 (J)					
1/11/2017					0.0093 (J)	0.0033 (J)	
1/13/2017	<0.01						
1/16/2017		0.0056 (J)	<0.01				
2/21/2017			<0.01				
3/1/2017						0.0044 (J)	
3/2/2017					0.0103		
3/3/2017		0.0049 (J)					
3/6/2017	0.0007 (J)						
4/26/2017	0.0008 (J)		<0.01		0.01	0.0075 (J)	
4/28/2017		0.004 (J)					
5/26/2017		0.0029 (J)					
6/28/2017		0.0036 (J)			0.0102	0.008 (J)	
6/29/2017	<0.01						
6/30/2017			<0.01				
10/11/2017				0.0094 (J)			
10/12/2017							<0.01
11/20/2017				0.0081 (J)			<0.01
1/10/2018							<0.01
1/11/2018				0.0074 (J)			
2/19/2018							<0.01
2/20/2018				<0.01			
3/27/2018			<0.01				
3/28/2018		0.0038 (J)			0.011	0.0025 (J)	
3/29/2018	<0.01						
4/3/2018				0.006 (J)			<0.01
6/7/2018		0.004 (J)			0.011		
6/8/2018						0.0041 (J)	
6/11/2018			<0.01				
6/28/2018				0.005 (J)			<0.01
8/7/2018				0.0045 (J)			<0.01
9/24/2018				0.0035 (J)			<0.01
10/1/2018		0.0042 (J)			0.012	0.0037 (J)	
10/2/2018			<0.01				
2/26/2019			<0.01				
2/27/2019		0.0041 (J)			0.011	0.0027 (J)	
3/5/2019	<0.01						
3/29/2019		0.0041 (J)					
4/1/2019			<0.01		0.012	0.0021 (J)	
8/21/2019				0.0021 (J)			<0.01

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/24/2019		0.0054 (J)					
9/25/2019			<0.01		0.012	0.0087 (J)	
10/9/2019				0.0018 (J)			<0.01
2/11/2020		0.0057 (J)				0.003 (J)	
2/12/2020	<0.01		<0.01	0.0025 (J)	0.013		<0.01
3/19/2020		0.0046 (J)	<0.01		0.013	0.0043 (J)	
3/24/2020	<0.01						<0.01
3/25/2020				0.002 (J)			
9/23/2020		0.0071 (J)			0.012	0.01	
9/24/2020	<0.01		<0.01	0.0016 (J)			<0.01

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/2/2020 9:22 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.01	0.0035 (J)	<0.01
7/26/2016		<0.01	0.0042 (J)	<0.01
8/30/2016	<0.01			
9/14/2016		<0.01	0.0041 (J)	<0.01
11/2/2016		<0.01	0.0039 (J)	
11/4/2016				<0.01
11/14/2016	<0.01			
1/12/2017			0.0041 (J)	<0.01
1/13/2017		<0.01		
2/24/2017	<0.01			
3/6/2017		<0.01		
3/7/2017			0.0047 (J)	<0.01
5/1/2017		<0.01	0.0045 (J)	
5/2/2017				<0.01
5/8/2017	<0.01			
6/27/2017			0.004 (J)	<0.01
6/29/2017		<0.01		
7/11/2017	<0.01			
10/10/2017	<0.01			
3/29/2018		<0.01	<0.01	<0.01
4/2/2018	<0.01			
9/19/2018	<0.01			
3/4/2019		<0.01	<0.01	<0.01
8/20/2019	<0.01			
10/8/2019	<0.01			
2/12/2020		<0.01	0.0011 (J)	<0.01
3/17/2020	<0.01			
3/24/2020			0.0011 (J)	<0.01
3/25/2020		<0.01		
8/27/2020	<0.01			
9/22/2020	<0.01	<0.01	0.00099 (J)	<0.01

# Time Series

Constituent: Nickel (mg/L) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	<0.005						
9/20/1999	<0.005						
9/12/2001	<0.005						
9/3/2002	<0.005						
7/29/2003	0.0061						
12/5/2003	<0.005						
9/22/2004	<0.005						
5/1/2007		0.0061					
9/11/2007		0.021					
3/20/2008		<0.005					
8/27/2008		<0.005					
3/3/2009		0.005					
11/18/2009		0.0052					
3/3/2010		0.011					
9/8/2010		0.012					
11/22/2010				0.0096		<0.005	
1/4/2011				0.0084		<0.005	
2/17/2011				0.0088		<0.005	
3/10/2011		0.0032					
3/11/2011				0.0058		<0.005	
3/28/2011				0.0058		<0.005	
9/7/2011				0.005	0.0054	<0.005	<0.005
9/8/2011		0.0046	0.009				
3/4/2012						<0.005	
3/5/2012		0.0053	0.0035		<0.005		<0.005
3/6/2012				<0.005			
9/5/2012			0.0027		<0.005		<0.005
9/10/2012		0.0074				<0.005	
9/11/2012				<0.005			
2/5/2013			0.0026				<0.005
2/6/2013		0.0077		<0.005	<0.005	<0.005	
8/12/2013		0.016					
8/13/2013			<0.005	0.003	0.0032		
8/14/2013						<0.005	0.0032
2/4/2014			<0.005	0.0026		0.0033	
2/5/2014		0.019			0.0039		0.0032
8/4/2014					0.0024 (J)	0.0015 (J)	0.0059
8/5/2014		0.0057	0.0013 (J)	0.0015 (J)			
2/2/2015			0.0023 (J)	<0.005		<0.005	
2/3/2015					<0.005		0.0013 (J)
2/4/2015		0.0055					
8/3/2015		0.0055			<0.005 (D)	<0.005 (D)	0.0039 (D)
8/4/2015			<0.005 (D)	<0.005			
2/16/2016		0.0039	<0.005		<0.005	<0.005	0.0036
2/17/2016				<0.005			
2/22/2017		0.0051 (J)		0.0009 (J)			
2/23/2017			0.0026 (J)		<0.005		
2/24/2017						0.0021 (J)	0.0019 (J)
2/19/2018		<0.005					
2/20/2018				<0.005		<0.005	
2/21/2018			0.001 (J)		<0.005		0.0013 (J)
8/6/2018		0.003 (J)					





# Time Series

Constituent: Nickel (mg/L) Analysis Run 12/2/2020 9:22 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R
9/9/2009	<0.005
11/18/2009	<0.005
1/5/2010	<0.005
3/3/2010	<0.005
9/7/2010	<0.005
3/10/2011	<0.005
9/8/2011	<0.005
3/5/2012	<0.005
9/5/2012	<0.005
2/5/2013	<0.005
8/13/2013	<0.005
2/4/2014	<0.005
8/5/2014	<0.005
2/3/2015	<0.005
8/4/2015	<0.005
2/16/2016	<0.005
2/23/2017	0.0015 (J)
2/19/2018	<0.005
8/6/2018	0.0026 (J)
2/25/2019	0.0023 (J)
6/13/2019	0.0037 (J)
10/8/2019	0.0021 (J)
3/17/2020	0.0011 (J)
9/23/2020	0.0016 (J)

# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:22 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/27/2008	6.53						
3/3/2009	6.35						
11/18/2009	6.47						5.82
1/5/2010							5.8
3/3/2010	6.53						6.15
3/10/2011	5.83						6.05
3/11/2011			5.52		6.16		
9/7/2011			4.35	4.31	5.07	5.64	
9/8/2011	5.69	4.49					5.31
3/5/2012	6.27						6.23
3/6/2012			6.37				
9/5/2012							5.83
9/10/2012	6.23						
9/11/2012			5.69				
2/5/2013							6.79
2/6/2013	7.56		6.8				
8/12/2013	6.68						
8/13/2013			5.51				6.48
2/4/2014			5.74				6.14
2/5/2014	6.32						
8/3/2015	6.13 (D)						
2/16/2016	5.64						5.2
2/17/2016			5.59				
11/28/2016	6.23		5.47				
11/29/2016		5.37					5.92
11/30/2016				5.13	5.61		
12/1/2016						5.24	
2/22/2017	6.21		5.48				
2/23/2017		5.5		5.28			5.97
2/24/2017					5.47	5.37	
5/8/2017	6.12						
5/9/2017		5.41		5.12			
5/10/2017			5.6		5.68	5.2	5.82
7/17/2017	6.03					5.21	
7/18/2017		5.5	5.49	5.21	5.59		5.76
10/16/2017	6.12					5.16	
10/17/2017		5.42	5.45		5.52		
10/18/2017				5.17			5.76
2/19/2018	6.13						5.86
2/20/2018			5.52		5.51		
2/21/2018		5.39		5.15		5.18	
8/6/2018	6.01						5.84
8/7/2018		5.14		4.95		5.06	
8/8/2018			5.15		5.33		
2/25/2019	6.51						5.91
2/26/2019		5.52	5.4	5.22	5.42	5.08	
6/12/2019	6.3		5.38		5.54		
6/13/2019		5.55		5.08		5.01	5.84
8/19/2019	6.23				5.56		
8/20/2019		5.33	5.33				5.85
8/21/2019				5.32		4.88	
10/8/2019	6.28						5.91

# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
10/9/2019		5.37	5.39			4.89	
10/10/2019				5.4	5.55		
1/21/2020						4.99	
3/17/2020	6.14	5.7		5.03			5.97
3/18/2020			5.38		5.58	4.88	
5/6/2020	6.24	6.8					5.99
5/7/2020			5.43	5.05	5.52	5.2	
8/26/2020	5.67						
8/27/2020		5.39				5.17	5.77
8/28/2020			5.45	5.2	5.38		
9/22/2020	5.78	5.25	5.34	5.11	5.43		
9/23/2020						5.04	5.81

# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					7.46	6.33	
6/2/2016	5.46						
6/6/2016			6.17	5.71			
6/7/2016		5.62					5.77
7/25/2016						6.21	
7/26/2016	5.45				7.43		
7/27/2016		5.59	6.14	5.46			5.79
9/13/2016					7.44	6.16	
9/15/2016	5.45						
9/16/2016		5.58					
9/19/2016			6.04	5.59			5.73
11/1/2016					7.24		
11/2/2016	5.41						5.67
11/3/2016		5.59	5.97	5.39			
11/4/2016						6.29	
1/10/2017	5.37						
1/11/2017		5.59	6.05	5.48	7.3		
1/13/2017							5.79
1/16/2017						6.29	
3/1/2017			5.94	5.41			
3/2/2017		5.54			7.23	6.28	
3/6/2017							5.63
3/8/2017	5.41						
4/26/2017	5.02		5.99	5.4			5.66
4/27/2017					6.99	6.09	
5/2/2017		5.47					
6/27/2017					6.87	6.21	
6/28/2017			6	5.36			
6/29/2017		5.56					5.85
6/30/2017	5.39						
10/3/2017					6.81	5.98	
10/4/2017		5.57		5.32			5.83
10/5/2017	5.49		6.11				
3/27/2018	5.47					6.25	
3/28/2018		5.59	6.1	5.34			
3/29/2018					7.38		5.93
6/5/2018					7.16		
6/6/2018						6.17	5.86
6/7/2018			5.98				
6/8/2018	5.45						
6/11/2018		5.58		5.28			
9/25/2018		5.59	5.81	4.86			5.84
10/1/2018	5.39				6.8	5.9	
2/26/2019	5.46						
2/27/2019					6.84	5.8	
3/5/2019		5.48		5.26			6.07
3/6/2019			5.99				
3/28/2019					6.99	6.15	
3/29/2019	5.34						
4/2/2019		5.74					
4/3/2019			6.29	5.47			5.71
9/24/2019					7.07	6.23	

# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2019	5.19	5.49					5.86
9/26/2019			6.04	5.2			
2/10/2020					7.2	6.1	
2/11/2020		5.58	6.07	5.3			
2/12/2020	5.48						6
3/18/2020	5.38					6.19	
3/19/2020					7.03		
3/24/2020		5.57	5.98	5.33			5.86
9/23/2020		5.58	6.01	5.29	7.15	6.01	
9/24/2020							5.8
9/25/2020	5.44						

# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						7.72	
6/2/2016			5.75		7.84		
6/7/2016	6.1						
7/25/2016			5.82			7.74	
7/26/2016					7.88		
7/28/2016	6.12						
9/13/2016		7.41					
9/14/2016						7.65	
9/15/2016					7.74		
9/19/2016	6.12		5.78 (D)				
11/1/2016			5.62		7.75	7.7	
11/3/2016	6.07						
11/4/2016		7.12					
12/15/2016		7.24					
1/11/2017					7.66	7.53	
1/13/2017	6.41						
1/16/2017		7.24	5.72				
2/21/2017			5.67				
3/1/2017						7.42	
3/2/2017					7.68		
3/3/2017		7.22					
3/6/2017	6.34						
4/26/2017	6.32		5.56		7.45	7.4	
4/28/2017		7.21					
5/26/2017		7.13					
6/28/2017		7.06			7.65	7.5	
6/29/2017	6.47						
6/30/2017			5.72				
10/3/2017	6.56	6.99					
10/4/2017			5.87		7.49	7.45	
10/11/2017				6.4			
10/12/2017							5.43
11/20/2017				6.33			5.1
1/10/2018							4.97
1/11/2018				6.29			
2/19/2018							5.6
2/20/2018				7.22			
3/27/2018			5.83				
3/28/2018		7.3			7.91	7.74	
3/29/2018	6.75						
4/3/2018				6.87			5.84
6/5/2018	6.09						
6/7/2018		7.29			7.69		
6/8/2018						7.64	
6/11/2018			5.69				
6/28/2018				6.18			5.24
8/7/2018				6.08			5.18
9/24/2018				5.81			5.14
9/25/2018	6.67						
10/1/2018		7.07			7.39	7.47	
10/2/2018			5.39				
2/26/2019			5.77				

# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
2/27/2019		7.27			7.55	7.54	
3/5/2019	7.22						
3/26/2019							5.3
3/27/2019				5.84			
3/29/2019		7.06					
4/1/2019			5.62		7.87	7.74	
4/2/2019	6.94						
8/21/2019				5.96			5.26
9/24/2019	6.87	7.01					
9/25/2019			5.69		7.64	7.47	
10/9/2019				5.81			5.22
2/11/2020		7.38				7.09	
2/12/2020	7.13		5.8	5.97	7.83		5.3
3/19/2020		7.22	6		7.65	7.31	
3/24/2020	6.35						5.29
3/25/2020				5.78			
9/23/2020		7.22			7.57	7.37	
9/24/2020	6.7		5.67	5.7			5.43



# Time Series

Constituent: pH (S.U.) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		6.36	7.67	5.75
7/26/2016		6.22	7.66	5.72
8/30/2016	5.75			
9/14/2016		6.23	7.6	5.74
11/2/2016		6.08	7.35	
11/4/2016				5.61
11/14/2016	5.59			
1/12/2017			7.49	5.71
1/13/2017		6.19		
2/24/2017	5.49			
3/6/2017		6.2		
3/7/2017			7.43	5.66
5/1/2017		6.21	7.22	
5/2/2017				5.65
5/8/2017	5.58			
6/27/2017			7.32	5.7
6/29/2017		6.21		
7/11/2017	5.58			
10/3/2017			7.48	5.79
10/5/2017		6.16		
10/10/2017	5.49			
3/29/2018		6.09	7.02	5.63
4/2/2018	6.3 (O)			
6/6/2018			7.43	
6/7/2018		6.12		5.63
9/19/2018	5.48			
9/26/2018		5.84	7.13	5.63
3/4/2019		6.18	7.46	5.75
3/27/2019	5.83			
4/3/2019		6.43	7.11	5.63
8/20/2019	5.58			
9/24/2019			6.93	5.6
9/25/2019		6.2		
10/8/2019	5.59			
2/12/2020		6.15	7.52	5.83
3/17/2020	5.57			
3/24/2020			7.34	5.81
3/25/2020		6.26		
8/27/2020	4.88			
9/22/2020	5.46	5.8	7.19	5.99

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	<0.01						
9/20/1999	<0.01						
9/12/2001	<0.01						
9/3/2002	<0.01						
7/29/2003	0.015						
12/5/2003	<0.01						
9/22/2004	<0.01						
5/1/2007		<0.01					
9/11/2007		<0.01					
3/20/2008		<0.01					
8/27/2008		<0.01					
3/3/2009		<0.01					
11/18/2009		<0.01					
3/3/2010		<0.01					
9/8/2010		<0.01					
11/22/2010				<0.01		<0.01	
1/4/2011				<0.01		<0.01	
2/17/2011				<0.01		<0.01	
3/10/2011		<0.01					
3/11/2011				<0.01		<0.01	
3/28/2011				<0.01		<0.01	
9/7/2011				<0.01	<0.01	<0.01	<0.01
9/8/2011		<0.01	<0.01				
3/4/2012						<0.01	
3/5/2012		<0.01	<0.01		<0.01		0.014
3/6/2012				<0.01			
9/5/2012			<0.01		<0.01		0.012
9/10/2012	<0.01					0.011	
9/11/2012				<0.01			
2/5/2013			<0.01				0.011
2/6/2013	<0.01			<0.01	<0.01	0.011	
8/12/2013	<0.01						
8/13/2013			<0.01	<0.01	0.0057		
8/14/2013						0.013	0.025
2/4/2014			<0.01	<0.01		0.017	
2/5/2014	<0.01				<0.01		0.02
8/4/2014					<0.01	0.0085	0.032
8/5/2014	<0.01	<0.01	<0.01	<0.01			
2/2/2015			<0.01	<0.01		0.0089	
2/3/2015					<0.01		0.011
2/4/2015	<0.01						
8/3/2015	<0.01				<0.01 (D)	0.0067 (D)	0.046 (D)
8/4/2015			<0.01 (D)	<0.01			
2/16/2016	<0.01	<0.01			<0.01	0.0047 (J)	0.022
2/17/2016				<0.01			
8/31/2016	<0.01		0.0039 (J)	0.0029 (J)	0.0038 (J)		
9/1/2016						0.0132	0.0212
11/28/2016	<0.01			0.0019 (J)			
11/29/2016			0.0033 (J)				
11/30/2016					0.0054 (J)	0.0046 (J)	
12/1/2016							0.0234
2/22/2017	<0.01			0.0015 (J)			



# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
9/9/2009	<0.01						
11/18/2009	<0.01						
1/5/2010	<0.01						
3/3/2010	<0.01						
9/7/2010	<0.01						
3/10/2011	<0.01						
9/8/2011	<0.01						
3/5/2012	<0.01						
9/5/2012	<0.01						
2/5/2013	<0.01						
8/13/2013	<0.01						
2/4/2014	<0.01						
8/5/2014	<0.01						
2/3/2015	<0.01						
8/4/2015	<0.01						
2/16/2016	<0.01						
6/1/2016						<0.01	<0.01
6/2/2016		0.0011 (J)					
6/6/2016				<0.01	<0.01		
6/7/2016			0.001 (J)				
7/25/2016							<0.01
7/26/2016		0.0016 (J)				<0.01	
7/27/2016			0.0012 (J)	<0.01	<0.01		
9/1/2016	0.002 (J)						
9/13/2016						<0.01	<0.01
9/15/2016		0.0014 (J)					
9/16/2016			0.0015 (J)		<0.01		
9/19/2016				<0.01			
11/1/2016						<0.01	
11/2/2016		<0.01					
11/3/2016			0.0015 (J)	<0.01	<0.01		
11/4/2016							<0.01
11/29/2016	0.0017 (J)						
1/10/2017		0.0012 (J)					
1/11/2017			0.0014 (J)	<0.01	<0.01	<0.01	
1/16/2017							<0.01
2/23/2017	0.0018 (J)						
3/1/2017				<0.01	<0.01		
3/2/2017			0.0017 (J)			<0.01	<0.01
3/8/2017		<0.01					
4/26/2017		<0.01		<0.01	<0.01		
4/27/2017						<0.01	<0.01
5/2/2017			<0.01				
5/10/2017	0.0023 (J)						
6/27/2017						<0.01	<0.01
6/28/2017				<0.01	<0.01		
6/29/2017			<0.01				
6/30/2017		<0.01					
7/18/2017	0.0046 (J)						
10/18/2017	0.0037 (J)						
2/19/2018	<0.01						
3/27/2018		<0.01					<0.01

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)
3/28/2018			<0.01	<0.01	<0.01		
3/29/2018						<0.01	
6/7/2018				<0.01			
6/11/2018			<0.01		<0.01		
8/6/2018	0.0047 (J)						
9/25/2018			<0.01	<0.01	<0.01		
2/25/2019	0.0051 (J)						
2/26/2019		<0.01					
2/27/2019						<0.01	<0.01
3/5/2019			<0.01		<0.01		
3/6/2019				<0.01			
3/28/2019						<0.01	<0.01
3/29/2019		0.0019 (J)					
4/2/2019			<0.01				
4/3/2019				<0.01	<0.01		
6/13/2019	0.0048 (J)						
8/20/2019	0.0039 (J)						
9/24/2019						<0.01	<0.01
9/25/2019		<0.01	<0.01				
9/26/2019				<0.01	<0.01		
10/8/2019	0.0031 (J)						
2/10/2020						<0.01	<0.01
2/11/2020			<0.01	<0.01	<0.01		
2/12/2020		<0.01					
3/17/2020	0.0026 (J)						
3/18/2020		<0.01					<0.01
3/19/2020						<0.01	
3/24/2020			<0.01	<0.01	<0.01		
8/27/2020	0.0027 (J)						
9/23/2020	0.0031 (J)		<0.01	<0.01	<0.01	<0.01	<0.01
9/25/2020		<0.01					

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016							<0.01
6/2/2016				<0.01		<0.01	
6/7/2016	<0.01	0.00048 (J)					
7/25/2016				<0.01			<0.01
7/26/2016						<0.01	
7/27/2016	<0.01						
7/28/2016		<0.01					
9/14/2016			<0.01				<0.01
9/15/2016						<0.01	
9/19/2016	<0.01	0.0014 (J)		<0.01			
11/1/2016				<0.01		<0.01	<0.01
11/2/2016	<0.01						
11/3/2016		<0.01					
11/4/2016			<0.01				
12/15/2016			<0.01				
1/11/2017						<0.01	<0.01
1/13/2017	<0.01	<0.01					
1/16/2017			<0.01	<0.01			
2/21/2017				<0.01			
3/1/2017							<0.01
3/2/2017						<0.01	
3/3/2017			<0.01				
3/6/2017	<0.01	<0.01					
4/26/2017	<0.01	<0.01		<0.01		<0.01	<0.01
4/28/2017			<0.01				
5/26/2017			<0.01				
6/28/2017			<0.01			<0.01	<0.01
6/29/2017	<0.01	<0.01					
6/30/2017				<0.01			
10/11/2017					<0.01		
11/20/2017					<0.01		
1/11/2018					<0.01		
2/20/2018					<0.01		
3/27/2018				<0.01			
3/28/2018			<0.01			<0.01	<0.01
3/29/2018	<0.01	<0.01					
4/3/2018					<0.01		
6/5/2018		<0.01					
6/6/2018	<0.01						
6/28/2018					<0.01		
8/7/2018					<0.01		
9/24/2018					0.0015 (J)		
9/25/2018	<0.01	<0.01					
2/26/2019				<0.01			
2/27/2019			<0.01			<0.01	<0.01
3/5/2019	<0.01	<0.01					
3/29/2019			<0.01				
4/1/2019				<0.01		<0.01	<0.01
4/2/2019		<0.01					
4/3/2019	<0.01						
8/21/2019					<0.01		
9/24/2019		<0.01	<0.01				

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)
9/25/2019	<0.01			<0.01		<0.01	<0.01
10/9/2019					<0.01		
2/11/2020			<0.01				<0.01
2/12/2020	<0.01	<0.01		<0.01	<0.01	<0.01	
3/19/2020			<0.01	<0.01		<0.01	<0.01
3/24/2020	<0.01	<0.01					
3/25/2020					<0.01		
9/23/2020			<0.01			<0.01	<0.01
9/24/2020	<0.01	<0.01		<0.01	<0.01		

# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/2/2020 9:23 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-40 (bg)	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			<0.01	<0.01	<0.01
7/26/2016			0.0009 (J)	<0.01	0.0009 (J)
8/30/2016		0.0017 (J)			
9/14/2016			<0.01	<0.01	<0.01
11/2/2016			<0.01	<0.01	
11/4/2016					<0.01
11/14/2016		<0.01			
1/12/2017				<0.01	<0.01
1/13/2017			<0.01		
2/24/2017		0.0011 (J)			
3/6/2017			<0.01		
3/7/2017				<0.01	<0.01
5/1/2017			<0.01	<0.01	
5/2/2017					<0.01
5/8/2017		<0.01			
6/27/2017				<0.01	<0.01
6/29/2017			<0.01		
7/11/2017		<0.01			
10/10/2017		<0.01			
10/12/2017	<0.01				
11/20/2017	0.0042 (J)				
1/10/2018	0.0043 (J)				
2/19/2018	<0.01				
3/29/2018			<0.01	<0.01	<0.01
4/2/2018		<0.01			
4/3/2018	<0.01				
6/6/2018				<0.01	
6/7/2018			<0.01		<0.01
6/28/2018	0.0032 (J)				
8/7/2018	0.0031 (J)				
9/19/2018		<0.01			
9/24/2018	0.0026 (J)				
9/26/2018			<0.01	<0.01	<0.01
3/4/2019			<0.01	<0.01	<0.01
4/3/2019			<0.01	<0.01	<0.01
8/20/2019		<0.01			
8/21/2019	0.0024 (J)				
9/24/2019				<0.01	<0.01
9/25/2019			<0.01		
10/9/2019	0.0026 (J)				
2/12/2020	0.002 (J)		<0.01	<0.01	<0.01
3/24/2020	0.002 (J)			<0.01	<0.01
3/25/2020			<0.01		
8/27/2020		<0.01			
9/22/2020			<0.01	<0.01	<0.01
9/24/2020	0.0016 (J)				



# Time Series

Constituent: Silver (mg/L) Analysis Run 12/2/2020 9:23 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/1/2007	<0.005						
9/11/2007	<0.005						
3/20/2008	<0.005						
8/27/2008	<0.005						
3/3/2009	<0.005						
9/9/2009							<0.005
11/18/2009	<0.005						<0.005
1/5/2010							<0.005
3/3/2010	<0.005						<0.005
9/7/2010							<0.005
9/8/2010	<0.005						
11/22/2010			<0.005		<0.005		
1/4/2011			<0.005		<0.005		
2/17/2011			<0.005		<0.005		
3/10/2011	<0.005						<0.005
3/11/2011			<0.005		<0.005		
3/28/2011			<0.005		<0.005		
9/7/2011			<0.005	<0.005	<0.005	<0.005	
9/8/2011	<0.005	<0.005					<0.005
3/4/2012					<0.005		
3/5/2012	<0.005	<0.005		<0.005		<0.005	<0.005
3/6/2012			<0.005				
9/5/2012		<0.005		<0.005		<0.005	<0.005
9/10/2012	<0.005				<0.005		
9/11/2012			<0.005				
2/5/2013		<0.005				<0.005	<0.005
2/6/2013	<0.005		<0.005	<0.005	<0.005		
8/12/2013	<0.005						
8/13/2013		<0.005	<0.005	<0.005			<0.005
8/14/2013					<0.005	<0.005	
2/4/2014		<0.005	<0.005		<0.005		<0.005
2/5/2014	<0.005			<0.005		<0.005	
8/4/2014				<0.005	<0.005	<0.005	
8/5/2014	<0.005	<0.005	<0.005				<0.005
2/2/2015		<0.005	<0.005		<0.005		
2/3/2015				<0.005		<0.005	<0.005
2/4/2015	<0.005						
8/3/2015	<0.005			<0.005 (D)	<0.005 (D)	<0.005 (D)	
8/4/2015		<0.005 (D)	<0.005				<0.005
2/16/2016	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
2/17/2016			<0.005				
2/22/2017	<0.005		<0.005				
2/23/2017		<0.005		<0.005			<0.005
2/24/2017					<0.005	<0.005	
2/19/2018	<0.005						<0.005
2/20/2018			<0.005		<0.005		
2/21/2018		<0.005		<0.005		<0.005	
8/6/2018	<0.005						<0.005
8/7/2018		<0.005		<0.005		<0.005	
8/8/2018			<0.005		<0.005		
2/25/2019	<0.005						<0.005
2/26/2019		<0.005	<0.005	<0.005	<0.005	<0.005	

# Time Series

Constituent: Silver (mg/L) Analysis Run 12/2/2020 9:23 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
6/12/2019	<0.005		<0.005		<0.005		
6/13/2019		<0.005		<0.005		<0.005	<0.005
10/8/2019	<0.005						<0.005
10/9/2019		<0.005	<0.005			<0.005	
10/10/2019				<0.005	<0.005		
3/17/2020	<0.005	<0.005		<0.005			<0.005
3/18/2020			<0.005		<0.005	<0.005	
9/22/2020	<0.005	<0.005	<0.005	<0.005	<0.005		
9/23/2020						<0.005	<0.005

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	29	410	140	87			
9/1/2016					150	990	360
11/28/2016	36		120				
11/29/2016		450					320
11/30/2016				76	50		
12/1/2016						1100	
2/22/2017	43		100				
2/23/2017		390		47			380
2/24/2017					110	850	
5/8/2017	60						
5/9/2017		280		41			
5/10/2017			80		70	1000	660
7/17/2017	63					830	
7/18/2017		200	57	44	50		880
10/16/2017	62					720	
10/17/2017		180	59		58		
10/18/2017				53			760
2/19/2018	64.6						718
2/20/2018			55.9		64.6		
2/21/2018		146		46.7		533	
8/6/2018	42.1						797
8/7/2018		100		38.8		784	
8/8/2018			81.1		79.5		
2/25/2019	42.1						763
2/26/2019		118	129	49.3	55.8	742	
6/12/2019	83.4		180		92.8		
6/13/2019		163		77.1		976	918
10/8/2019	128						664
10/9/2019		318	91.2			1180	
10/10/2019				48	68.7		
3/17/2020	98.6	145		95.2			303
3/18/2020			200		199	960	
9/22/2020	145	478	216	55.1	72.1		
9/23/2020						992	518



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2020	6.1						

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						12	
6/2/2016			1.3		5.8		
6/7/2016	5.2						
7/25/2016			1.2			8.4	
7/26/2016					6.7		
7/28/2016	5.1						
9/14/2016		9.4				8.6	
9/15/2016					6		
9/19/2016	4.8		1.2				
11/1/2016			1.3		4.9	8.9	
11/3/2016	5						
11/4/2016		13					
12/15/2016		1.8					
1/11/2017					4.5	8.6	
1/13/2017	4.3						
1/16/2017		11	<1				
2/21/2017			1.4				
3/1/2017						9.3	
3/2/2017					4.4		
3/3/2017		8.8					
3/6/2017	4.5						
4/26/2017	4.9		1.4		5.1	11	
4/28/2017		10					
5/26/2017		12					
6/28/2017		11			5.4	12	
6/29/2017	5.5						
6/30/2017			<1				
10/3/2017	5.8	7.9					
10/4/2017			1.4		6.2	12	
10/11/2017				20			
10/12/2017							17
11/20/2017				24			71
1/10/2018							66
1/11/2018				23			
2/19/2018							57.2
2/20/2018				20.6			
4/3/2018				24.5			49.4
6/5/2018	6.1						
6/7/2018		8.8			6.7		
6/8/2018						9.6	
6/11/2018			1.1				
6/28/2018				22			43.8
8/7/2018				20.7			40.5
9/24/2018				21.2			39.7
9/25/2018	7						
10/1/2018		9.1			7.1	9.1	
10/2/2018			1				
3/26/2019							34.3
3/27/2019				17.7			
3/29/2019		9					
4/1/2019			0.96 (J)		7.2	8.5	
4/2/2019	3.8						

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/24/2019	1	9.1					
9/25/2019			0.81 (J)		7	13.8	
10/9/2019				15			27.9
3/19/2020		12.4	1.6		9	12.9	
3/24/2020	3						25.2
3/25/2020				14.3			
9/23/2020		11.8			6.9	16.8	
9/24/2020	3.6		0.69 (J)	11.7			22.9

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		8	20	1.9
7/26/2016		7.7	20	1.8
8/30/2016	160			
9/14/2016		7.5	19	1.8
11/2/2016		8.2	20	
11/4/2016				2
11/14/2016	150			
1/12/2017			19	1.9
1/13/2017		8.1		
2/24/2017	120			
3/6/2017		8		
3/7/2017			20	2.1
5/1/2017		8.4	20	
5/2/2017				2
5/8/2017	120			
6/27/2017			18	2.1
6/29/2017		9.2		
7/11/2017	110			
10/3/2017			16	2.3
10/5/2017		9.6		
10/10/2017	93			
4/2/2018	88.8			
6/6/2018			8.3	
6/7/2018		8.5		2
9/19/2018	75			
9/26/2018		10.2	7.9	2.3
3/27/2019	65.9			
4/3/2019		8.5	7	2.1
9/24/2019			5.5	2.4
9/25/2019		8.5		
10/8/2019	52.3			
3/17/2020	71.6			
3/24/2020			5.9	2.1
3/25/2020		8.8		
9/22/2020	51.5	8.2	5.5	2.1



# Time Series

Constituent: TDS (mg/L) Analysis Run 12/2/2020 9:23 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	209	616	257	216			
9/1/2016					553	1400	578
11/28/2016	102		177				
11/29/2016		594					455
11/30/2016				177 (B)	247 (B)		
12/1/2016						1610 (B)	
2/22/2017	164		240				
2/23/2017		581		105			614
2/24/2017					414	1200	
5/8/2017	145						
5/9/2017		410		77			
5/10/2017			149		251	1360	955
7/17/2017	185					1340	
7/18/2017		322	122	89	179		1270
10/16/2017	218					1080	
10/17/2017		381	214		256		
10/18/2017				166			1150
2/19/2018	173						1070
2/20/2018			131		233		
2/21/2018		285		105		830	
8/6/2018	158						1260
8/7/2018		242		99		1180	
8/8/2018			166		292		
2/25/2019	92						1160
2/26/2019		69	293	109	226	1010	
6/12/2019	226		391		298		
6/13/2019		301		136		1410	1310
10/8/2019	276						1050
10/9/2019		526	372			1680	
10/10/2019				109	247		
3/17/2020	185	306		175			588
3/18/2020			351		703	1520	
9/22/2020	281	675	394	110	217		
9/23/2020						1000	820

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					120	54	
6/2/2016	46						
6/6/2016			120	58			
6/7/2016		28					38
7/25/2016						48	
7/26/2016	54				94		
7/27/2016		74	94	35			74
9/13/2016					105	67	
9/15/2016	54						
9/16/2016		67		35			
9/19/2016			92				45
11/1/2016					44		
11/2/2016	71						53
11/3/2016		41	104	48			
11/4/2016						60	
1/10/2017	45						
1/11/2017		104	133	95	107		
1/13/2017							46
1/16/2017						65	
3/1/2017			119	79			
3/2/2017		77			98	61	
3/6/2017							164
3/8/2017	178						
4/26/2017	52		162	36			34
4/27/2017					116	31	
5/2/2017		142					
6/27/2017					89	42	
6/28/2017			98	45			
6/29/2017		53					68
6/30/2017	45						
10/3/2017					119	58	
10/4/2017		61		45			54
10/5/2017	40		104				
6/5/2018					127		
6/6/2018						96	79
6/7/2018			68				
6/8/2018	114						
6/11/2018		70		74			
9/25/2018		86	109	63			73
10/1/2018	50				117	60	
3/28/2019					87	87	
3/29/2019	63						
4/2/2019		72					
4/3/2019			89	63			57
9/24/2019					124	54	
9/25/2019	64	81					75
9/26/2019			126	72			
3/18/2020	57					35	
3/19/2020					116		
3/24/2020		71	91	59			76
9/23/2020		99	103	81	108	15	
9/24/2020							69

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
9/25/2020	54						

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						150	
6/2/2016			36		130		
6/7/2016	60						
7/25/2016			50			135	
7/26/2016					141		
7/28/2016	81						
9/14/2016		152				127	
9/15/2016					153		
9/19/2016	68		35				
11/1/2016			<25		92	75	
11/3/2016	61						
11/4/2016		148					
12/15/2016		191					
1/11/2017					159	148	
1/13/2017	76						
1/16/2017		180	47				
2/21/2017			<25				
3/1/2017						182	
3/2/2017					117		
3/3/2017		156					
3/6/2017	167						
4/26/2017	50		55		181	92	
4/28/2017		130					
5/26/2017		223					
6/28/2017		166			169	126	
6/29/2017	94						
6/30/2017			42				
10/3/2017	149	153					
10/4/2017			31		141	147	
10/11/2017				68			
10/12/2017							74
11/20/2017				139			179
1/10/2018							140
1/11/2018				153			
2/19/2018							119
2/20/2018				87			
4/3/2018				85			106
6/5/2018	109						
6/7/2018		146			95		
6/8/2018						158	
6/11/2018			59				
6/28/2018				88			112
8/7/2018				89			103
9/24/2018				82			107
9/25/2018	122						
10/1/2018		155			165	138	
10/2/2018			57				
3/26/2019							90
3/27/2019				75			
3/29/2019		150					
4/1/2019			54		149	19 (J)	
4/2/2019	134						

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
9/24/2019	157	146					
9/25/2019			51		157	159	
10/9/2019				119			98
3/19/2020		148	47		146	148	
3/24/2020	117						84
3/25/2020				158			
9/23/2020		161			157	155	
9/24/2020	113		51	170			77

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/2/2020 9:23 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		96	160	66
7/26/2016		92	177	78
8/30/2016	319			
9/14/2016		102	187	73
11/2/2016		115	181	
11/4/2016				75
11/14/2016	280			
1/12/2017			202	86
1/13/2017		67		
2/24/2017	162			
3/6/2017		159		
3/7/2017			257	108
5/1/2017		107	165	
5/2/2017				103
5/8/2017	194			
6/27/2017			189	73
6/29/2017		79		
7/11/2017	193			
10/3/2017			170	89
10/5/2017		95		
10/10/2017	175			
4/2/2018	192			
6/6/2018			151	
6/7/2018		90		142
9/19/2018	186			
9/26/2018		116	144	86
3/27/2019	170			
4/3/2019		111	142	83
9/24/2019			129	79
9/25/2019		117		
10/8/2019	172			
3/17/2020	165			
3/24/2020			139	68
3/25/2020		146		
9/22/2020	141	83	104	75

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/1/2007	<0.001						
9/11/2007	<0.001						
3/20/2008	<0.001						
8/27/2008	<0.001						
3/3/2009	<0.001						
9/9/2009							<0.001
11/18/2009	<0.001						<0.001
1/5/2010							<0.001
3/3/2010	<0.001						<0.001
9/7/2010							<0.001
9/8/2010	<0.001						
11/22/2010			<0.001		<0.001		
1/4/2011			<0.001		<0.001		
2/17/2011			<0.001		<0.001		
3/10/2011	<0.001						<0.001
3/11/2011			<0.001		<0.001		
3/28/2011			<0.001		<0.001		
9/7/2011			<0.001	<0.001	<0.001	<0.001	
9/8/2011	<0.001	<0.001					<0.001
3/4/2012					<0.001		
3/5/2012	<0.001	<0.001		<0.001		<0.001	<0.001
3/6/2012			<0.001				
9/5/2012		<0.001		<0.001		<0.001	<0.001
9/10/2012	<0.001				<0.001		
9/11/2012			<0.001				
2/5/2013		<0.001				<0.001	<0.001
2/6/2013	<0.001		<0.001	<0.001	<0.001		
8/12/2013	<0.001						
8/13/2013		<0.001	<0.001	<0.001			<0.001
8/14/2013					<0.001	<0.001	
2/4/2014		<0.001	<0.001		<0.001		<0.001
2/5/2014	<0.001			<0.001		<0.001	
8/4/2014				<0.001	<0.001	<0.001	
8/5/2014	<0.001	<0.001					<0.001
2/2/2015		<0.001	<0.001		<0.001		
2/3/2015				<0.001		<0.001	<0.001
2/4/2015	<0.001						
2/16/2016	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
2/17/2016			7E-05 (J)				
8/31/2016	<0.001	<0.001	<0.001	<0.001			
9/1/2016					<0.001	<0.001	<0.001
11/28/2016	<0.001		<0.001				
11/29/2016		<0.001					<0.001
11/30/2016				<0.001	<0.001		
12/1/2016						<0.001	
2/22/2017	<0.001		<0.001				
2/23/2017		<0.001		<0.001			<0.001
2/24/2017					<0.001	<0.001	
5/8/2017	6E-05 (J)						
5/9/2017		<0.001		<0.001			
5/10/2017			<0.001		<0.001	<0.001	<0.001
7/17/2017	6E-05 (J)					<0.001	

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
7/18/2017		<0.001	<0.001	<0.001	<0.001		<0.001
10/16/2017	7E-05 (J)					<0.001	
10/17/2017		<0.001	<0.001		<0.001		
10/18/2017				<0.001			<0.001
2/19/2018	<0.001						<0.001
2/20/2018			<0.001		<0.001		
2/21/2018		<0.001		<0.001		<0.001	
8/6/2018	<0.001						<0.001
8/7/2018		<0.001		<0.001		<0.001	
8/8/2018			<0.001		<0.001		
2/25/2019	<0.001						<0.001
2/26/2019		<0.001	<0.001	<0.001	<0.001	<0.001	
6/12/2019	<0.001		<0.001		<0.001		
6/13/2019		<0.001		<0.001		<0.001	<0.001
8/19/2019	5.5E-05 (J)				<0.001		
8/20/2019		<0.001	<0.001				<0.001
8/21/2019				<0.001		5.3E-05 (J)	
10/8/2019	<0.001						<0.001
10/9/2019		<0.001	<0.001			<0.001	
10/10/2019				<0.001	<0.001		
3/17/2020	<0.001	<0.001		<0.001			<0.001
3/18/2020			<0.001		<0.001	<0.001	
8/26/2020	<0.001						
8/27/2020		<0.001				<0.001	<0.001
8/28/2020			<0.001	<0.001	<0.001		
9/22/2020	<0.001	<0.001	<0.001	<0.001	<0.001		
9/23/2020						<0.001	<0.001



# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-14S (bg)	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-20S (bg)
6/1/2016					<0.001	<0.001	
6/2/2016	<0.001						
6/6/2016			<0.001	<0.001			
6/7/2016		<0.001					<0.001
7/25/2016						<0.001	
7/26/2016	<0.001				<0.001		
7/27/2016		<0.001	<0.001	<0.001			<0.001
9/13/2016					<0.001	<0.001	
9/15/2016	<0.001						
9/16/2016		<0.001		<0.001			
9/19/2016			<0.001				<0.001
11/1/2016					<0.001		
11/2/2016	<0.001						<0.001
11/3/2016		<0.001	<0.001	<0.001			
11/4/2016						<0.001	
1/10/2017	<0.001						
1/11/2017		<0.001	<0.001	<0.001	<0.001		
1/13/2017							<0.001
1/16/2017						<0.001	
3/1/2017			<0.001	<0.001			
3/2/2017		<0.001			<0.001	<0.001	
3/6/2017							<0.001
3/8/2017	<0.001						
4/26/2017	<0.001		<0.001	<0.001			<0.001
4/27/2017					<0.001	<0.001	
5/2/2017		<0.001					
6/27/2017					<0.001	<0.001	
6/28/2017			<0.001	<0.001			
6/29/2017		<0.001					<0.001
6/30/2017	<0.001						
3/27/2018	<0.001					<0.001	
3/28/2018		<0.001	<0.001	<0.001			
3/29/2018					<0.001		<0.001
2/26/2019	<0.001						
2/27/2019					<0.001	<0.001	
3/5/2019		<0.001		<0.001			<0.001
3/6/2019			<0.001				
4/2/2019		<0.001					
4/3/2019			<0.001	<0.001			<0.001
9/25/2019		<0.001					<0.001
9/26/2019			<0.001	<0.001			
2/10/2020					<0.001	5.5E-05 (J)	
2/11/2020		<0.001	<0.001	<0.001			
2/12/2020	8.9E-05 (J)						<0.001
3/18/2020	<0.001					<0.001	
3/19/2020					<0.001		
3/24/2020		<0.001	<0.001	<0.001			<0.001
9/23/2020		<0.001	<0.001	<0.001	<0.001	<0.001	
9/24/2020							<0.001
9/25/2020	<0.001						

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
6/1/2016						<0.001	
6/2/2016			<0.001		<0.001		
6/7/2016	<0.001						
7/25/2016			<0.001			<0.001	
7/26/2016					0.0001 (J)		
7/28/2016	<0.001						
9/14/2016		<0.001				<0.001	
9/15/2016					<0.001		
9/19/2016	<0.001		<0.001				
11/1/2016			<0.001		<0.001	<0.001	
11/3/2016	<0.001						
11/4/2016		<0.001					
12/15/2016		<0.001					
1/11/2017					<0.001	<0.001	
1/13/2017	<0.001						
1/16/2017		<0.001	<0.001				
2/21/2017			<0.001				
3/1/2017						<0.001	
3/2/2017					<0.001		
3/3/2017		<0.001					
3/6/2017	<0.001						
4/26/2017	<0.001		<0.001		<0.001	<0.001	
4/28/2017		<0.001					
5/26/2017		<0.001					
6/28/2017		<0.001			<0.001	<0.001	
6/29/2017	<0.001						
6/30/2017			<0.001				
10/11/2017				<0.001			
10/12/2017							<0.001
11/20/2017				<0.001			<0.001
1/10/2018							<0.001
1/11/2018				<0.001			
2/19/2018							<0.001
2/20/2018				<0.001			
3/27/2018			<0.001				
3/28/2018		<0.001			<0.001	<0.001	
3/29/2018	<0.001						
4/3/2018				<0.001			<0.001
6/28/2018				<0.001			<0.001
8/7/2018				<0.001			<0.001
9/24/2018				<0.001			<0.001
9/25/2018	<0.001						
2/26/2019			<0.001				
2/27/2019		<0.001			<0.001	<0.001	
3/5/2019	<0.001						
4/2/2019	<0.001						
8/21/2019				<0.001			<0.001
9/24/2019	<0.001						
2/11/2020		<0.001				<0.001	
2/12/2020	<0.001		<0.001	<0.001	<0.001		<0.001
3/19/2020		<0.001	<0.001		<0.001	<0.001	
3/24/2020	<0.001						<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-21I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-39 (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWA-40 (bg)
3/25/2020				<0.001			
9/23/2020		<0.001			<0.001	0.00016 (J)	
9/24/2020	<0.001		<0.001	<0.001			<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/2/2020 9:23 AM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-47 (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016		<0.001	<0.001	<0.001
7/26/2016		<0.001	<0.001	<0.001
8/30/2016	<0.001			
9/14/2016		<0.001	<0.001	<0.001
11/2/2016		<0.001	<0.001	
11/4/2016				<0.001
11/14/2016	<0.001			
1/12/2017			<0.001	<0.001
1/13/2017		<0.001		
2/24/2017	<0.001			
3/6/2017		<0.001		
3/7/2017			<0.001	<0.001
5/1/2017		<0.001	<0.001	
5/2/2017				<0.001
5/8/2017	<0.001			
6/27/2017			<0.001	<0.001
6/29/2017		<0.001		
7/11/2017	<0.001			
10/10/2017	<0.001			
3/29/2018		<0.001	<0.001	<0.001
4/2/2018	<0.001			
9/19/2018	<0.001			
3/4/2019		<0.001	<0.001	<0.001
4/3/2019		<0.001	<0.001	<0.001
8/20/2019	5.8E-05 (J)			
9/24/2019			<0.001	<0.001
9/25/2019		<0.001		
10/8/2019	8.4E-05 (J)			
2/12/2020		<0.001	<0.001	<0.001
3/17/2020	<0.001			
3/24/2020			<0.001	<0.001
3/25/2020		<0.001		
8/27/2020	<0.001			
9/22/2020		<0.001	<0.001	<0.001

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 9:23 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
5/1/2007	0.0055						
9/11/2007	0.004						
3/20/2008	<0.01						
8/27/2008	0.0029						
3/3/2009	<0.01						
9/9/2009							<0.01
11/18/2009	<0.01						<0.01
1/5/2010							<0.01
3/3/2010	<0.01						<0.01
9/7/2010							<0.01
9/8/2010	<0.01						
11/22/2010			<0.01		<0.01		
1/4/2011			<0.01		<0.01		
2/17/2011			<0.01		<0.01		
3/10/2011	<0.01						<0.01
3/11/2011			<0.01		<0.01		
3/28/2011			<0.01		<0.01		
9/7/2011			<0.01	<0.01	<0.01	<0.01	
9/8/2011	<0.01	<0.01					<0.01
3/4/2012					<0.01		
3/5/2012	<0.01	<0.01		<0.01		<0.01	<0.01
3/6/2012			<0.01				
9/5/2012		<0.01		<0.01		<0.01	<0.01
9/10/2012	<0.01				<0.01		
9/11/2012			<0.01				
2/5/2013		<0.01				<0.01	<0.01
2/6/2013	<0.01		<0.01	<0.01	<0.01		
8/12/2013	<0.01						
8/13/2013		<0.01	<0.01	<0.01			<0.01
8/14/2013					<0.01	<0.01	
2/4/2014		<0.01	<0.01		<0.01		<0.01
2/5/2014	<0.01			<0.01		<0.01	
8/4/2014				<0.01	<0.01	0.0022 (J)	
8/5/2014	<0.01	0.0011 (J)	<0.01				0.0015 (J)
2/2/2015		0.0051	<0.01		<0.01		
2/3/2015				<0.01		<0.01	0.00093 (J)
2/4/2015	<0.01						
8/3/2015	0.0013 (J)			<0.01 (D)	<0.01 (D)	0.0019 (JD)	
8/4/2015		<0.01 (D)	<0.01				0.0036 (J)
2/16/2016	<0.01	0.00075 (J)		<0.01	<0.01	0.0011 (J)	0.0011 (J)
2/17/2016			<0.01				
2/22/2017	<0.01		<0.01				
2/23/2017		<0.01		<0.01			<0.01
2/24/2017					<0.01	<0.01	
5/8/2017	<0.01						
5/9/2017		<0.01		<0.01			
5/10/2017			<0.01		<0.01	<0.01	<0.01
7/17/2017	<0.01					<0.01	
7/18/2017		<0.01	<0.01	<0.01	<0.01		<0.01
2/19/2018	<0.01						<0.01
2/20/2018			<0.01		<0.01		
2/21/2018		<0.01		<0.01		<0.01	

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/6/2018	<0.01						0.0029 (J)
8/7/2018		<0.01		<0.01		<0.01	
8/8/2018			<0.01		<0.01		
2/25/2019	<0.01						<0.01
2/26/2019		<0.01	<0.01	<0.01	<0.01	<0.01	
6/12/2019	0.0032 (J)		0.00079 (J)		0.00088 (J)		
6/13/2019		<0.01		0.0021 (J)		<0.01	<0.01
10/8/2019	<0.01						<0.01
10/9/2019		<0.01	<0.01			<0.01	
10/10/2019				0.0011 (J)	<0.01		
3/17/2020	<0.01	<0.01		<0.01			0.00098 (J)
3/18/2020			<0.01		<0.01	<0.01	
9/22/2020	<0.01	<0.01	<0.01	<0.01	<0.01		
9/23/2020						<0.01	<0.01

# Time Series

Constituent: Zinc (mg/L)    Analysis Run 12/2/2020 9:23 AM  
 Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
9/9/1998	0.01						
9/20/1999	0.017						
9/12/2001	0.017						
9/3/2002	0.015						
7/29/2003	0.022						
12/5/2003	0.0087						
9/22/2004	<0.01						
5/1/2007		0.0081					
9/11/2007		0.0049					
3/20/2008		0.004					
8/27/2008		0.0042					
3/3/2009		0.0058					
11/18/2009		0.0038					
3/3/2010		0.0085					
9/8/2010		0.0065					
11/22/2010				0.0047		<0.01	
1/4/2011				0.0038		<0.01	
2/17/2011				0.0074		<0.01	
3/10/2011		0.0029					
3/11/2011				0.0038		0.025 (o)	
3/28/2011				<0.01		<0.01	
9/7/2011				0.0059	0.0064	<0.01	0.0064
9/8/2011		0.004	0.0048				
3/4/2012						<0.01	
3/5/2012		0.0059	0.0038		0.0043		0.0034
3/6/2012				0.0032			
9/5/2012			0.0051		0.0069		0.0035
9/10/2012		0.0052				<0.01	
9/11/2012				0.0029			
2/5/2013			<0.01				0.0027
2/6/2013		0.0038		0.0036	<0.01	<0.01	
8/12/2013		0.0075					
8/13/2013			<0.01	0.0066	0.011		
8/14/2013						<0.01	0.0041
2/4/2014			0.0037	0.011		0.0034	
2/5/2014		0.018 (o)			0.026 (o)		0.011
8/4/2014					0.012	0.0013 (J)	0.011
8/5/2014		0.0037	0.0019 (J)	0.0032			
2/2/2015			0.0051	0.0031		<0.01	
2/3/2015					0.0061		0.0044
2/4/2015		0.0057					
8/3/2015		0.0043			0.0037 (D)	<0.01 (D)	0.011 (D)
8/4/2015			0.0017 (JD)	0.0017 (J)			
2/16/2016		0.0024 (J)	0.0015 (J)		0.0093	0.0017 (J)	0.014
2/17/2016				0.0034			
2/22/2017		0.0042 (J)		0.0024 (J)			
2/23/2017			0.0024 (J)		0.0031 (J)		
2/24/2017						0.0028 (J)	0.0043 (J)
5/8/2017		0.0025 (J)					
5/9/2017			0.0016 (J)		0.0025 (J)		
5/10/2017				0.0022 (J)		0.0014 (J)	0.0042 (J)
7/17/2017		0.0032 (J)					0.0055 (J)

# Time Series

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-1 (bg)	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R
7/18/2017			0.0015 (J)	0.0017 (J)	0.0028 (J)	0.0015 (J)	
2/19/2018		<0.01					
2/20/2018				<0.01		<0.01	
2/21/2018			<0.01		0.003 (J)		0.0102
8/6/2018		0.0037 (J)					
8/7/2018			0.0044 (J)		0.0036 (J)		0.015
8/8/2018				0.0021 (J)		0.0033 (J)	
2/25/2019		0.013					
2/26/2019			0.0022 (J)	0.003 (J)	0.0033 (J)	<0.01	0.015
6/12/2019		<0.01		0.0019 (J)		<0.01	
6/13/2019			<0.01		0.0069 (J)		0.015
10/8/2019		0.0078 (J)					
10/9/2019			0.0078 (J)	0.0069 (J)			0.025
10/10/2019					0.0079 (J)	0.006 (J)	
1/21/2020							0.015
3/17/2020		<0.01	<0.01		<0.01		
3/18/2020				<0.01		<0.01	0.023
9/22/2020		0.033	0.0029 (J)	0.003 (J)	0.0036 (J)	<0.01	
9/23/2020							0.018



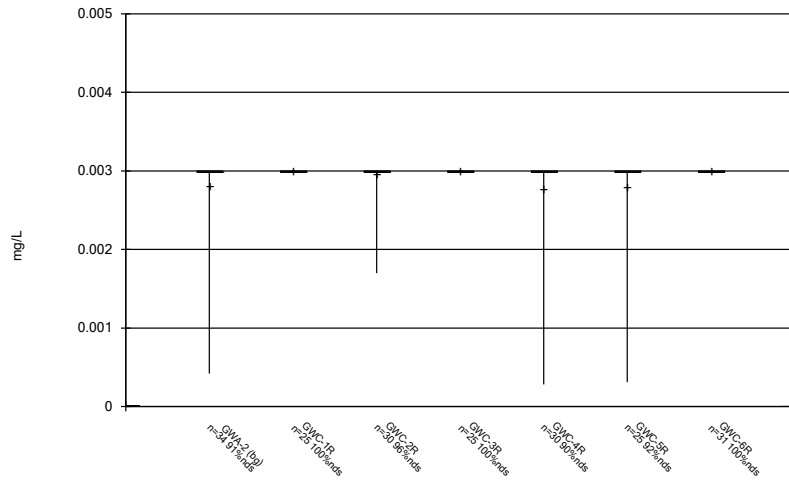
# Time Series

Constituent: Zinc (mg/L) Analysis Run 12/2/2020 9:23 AM  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R
9/9/2009	0.003
11/18/2009	<0.01
1/5/2010	0.0027
3/3/2010	<0.01
9/7/2010	<0.01
3/10/2011	<0.01
9/8/2011	<0.01
3/5/2012	0.0053
9/5/2012	0.0033
2/5/2013	<0.01
8/13/2013	0.0038
2/4/2014	0.0046
8/5/2014	0.0019 (J)
2/3/2015	0.0026
8/4/2015	0.0035
2/16/2016	0.002 (J)
2/23/2017	0.0038 (J)
5/10/2017	0.0027 (J)
7/18/2017	0.0024 (J)
2/19/2018	<0.01
8/6/2018	0.004 (J)
2/25/2019	0.0028 (J)
6/13/2019	<0.01
10/8/2019	0.006 (J)
3/17/2020	<0.01
9/23/2020	<0.01

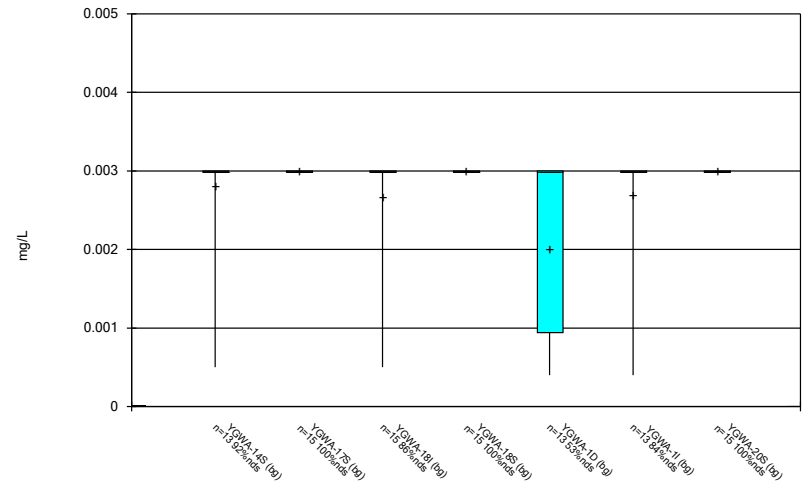
FIGURE B.

### Box & Whiskers Plot



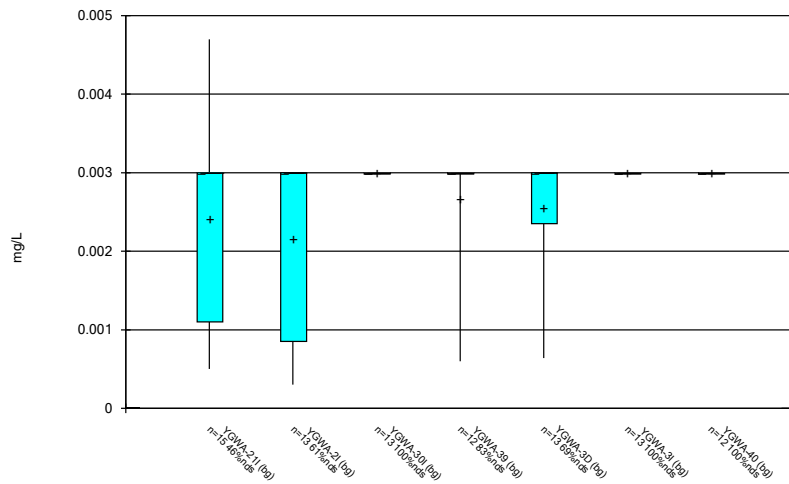
Constituent: Antimony Analysis Run 12/2/2020 9:26 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



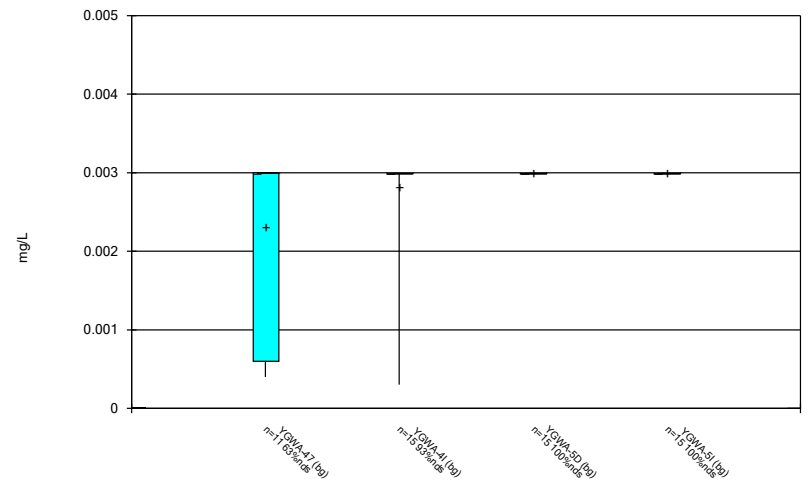
Constituent: Antimony Analysis Run 12/2/2020 9:26 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



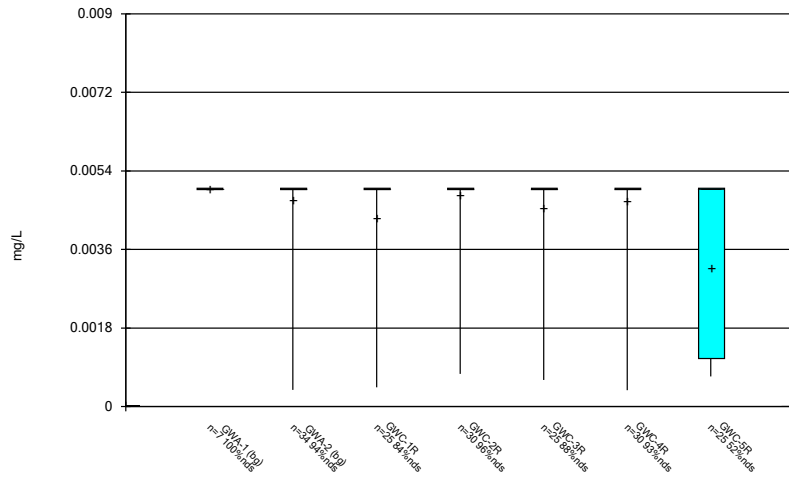
Constituent: Antimony Analysis Run 12/2/2020 9:26 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



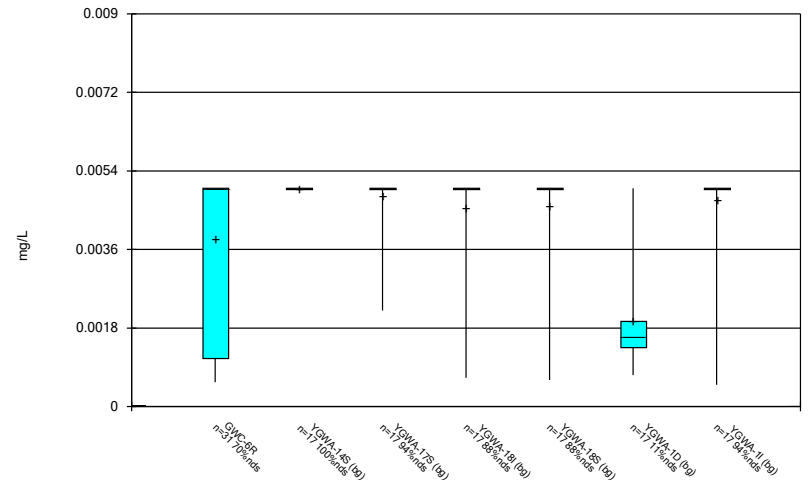
Constituent: Antimony Analysis Run 12/2/2020 9:26 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



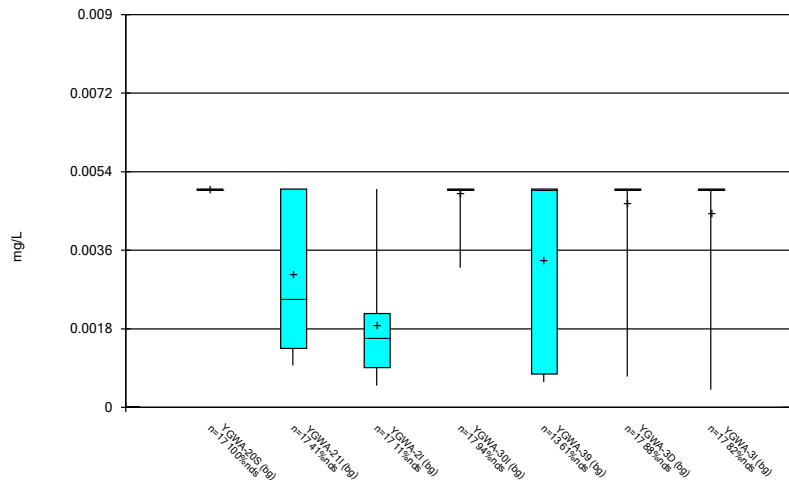
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



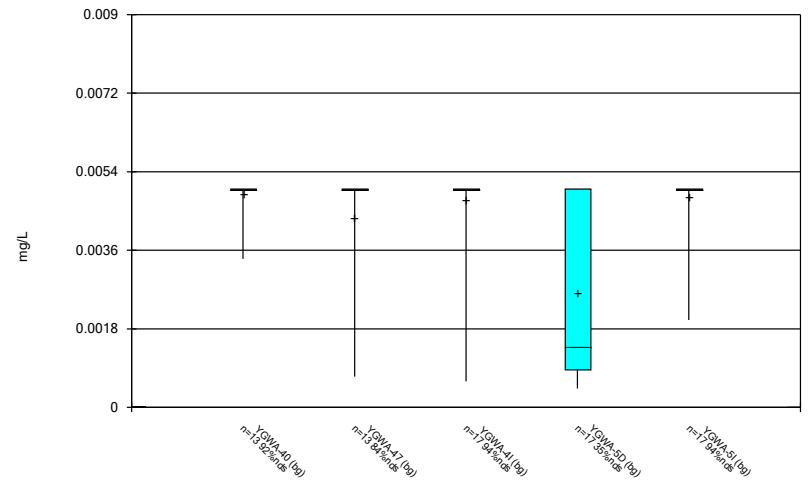
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



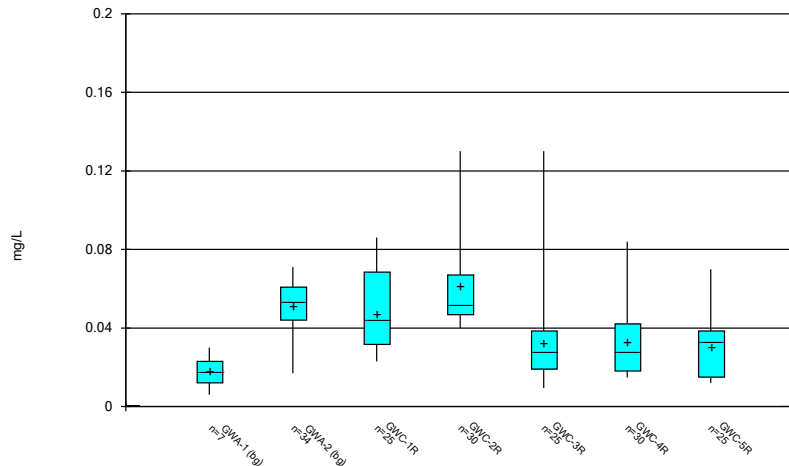
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



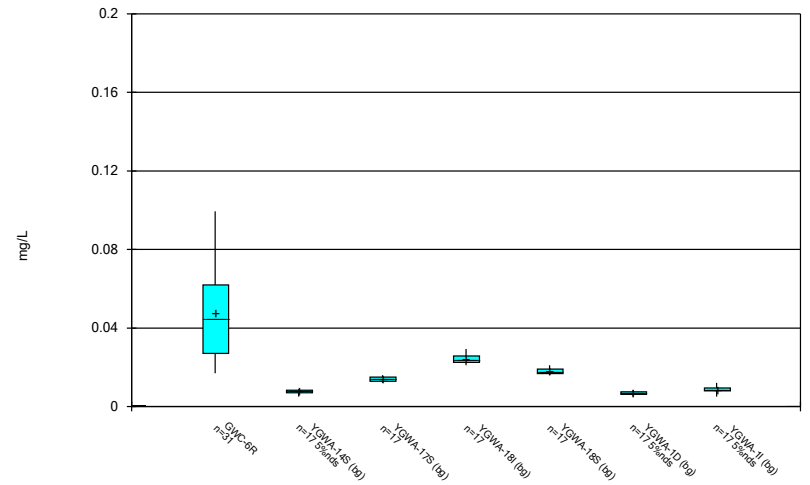
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Box & Whiskers Plot



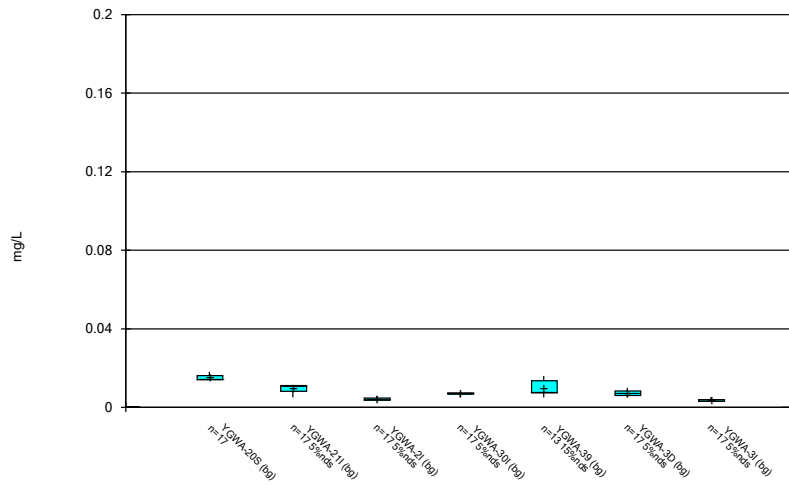
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Box & Whiskers Plot



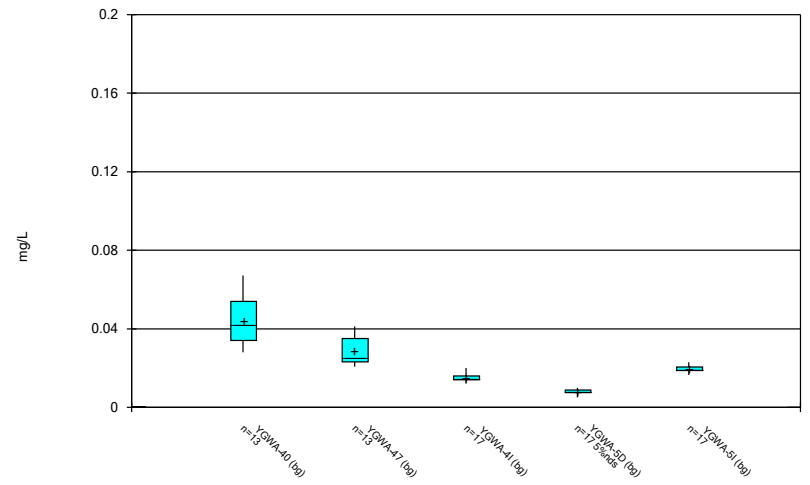
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Box & Whiskers Plot



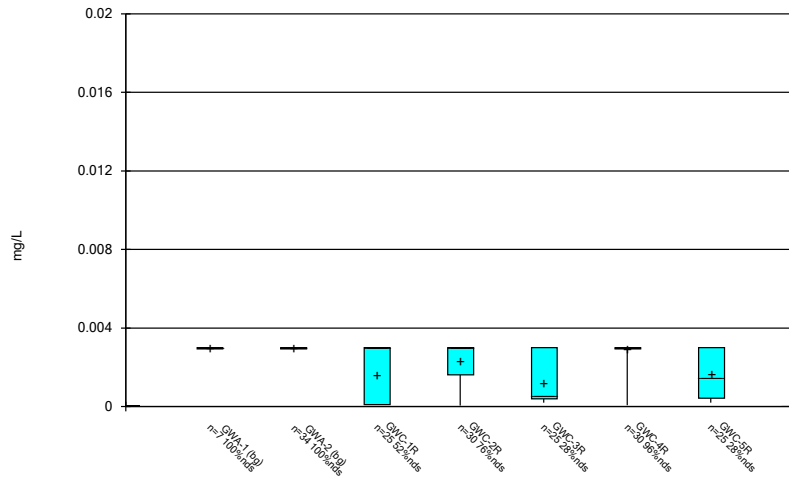
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Box & Whiskers Plot



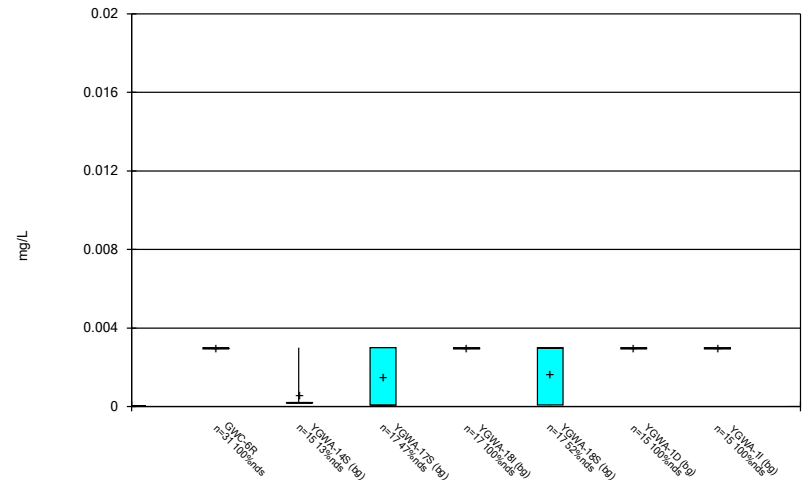
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Box & Whiskers Plot



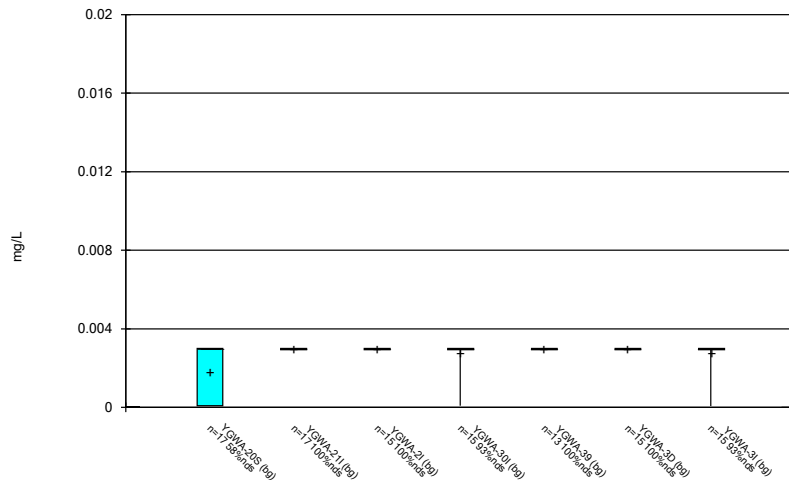
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



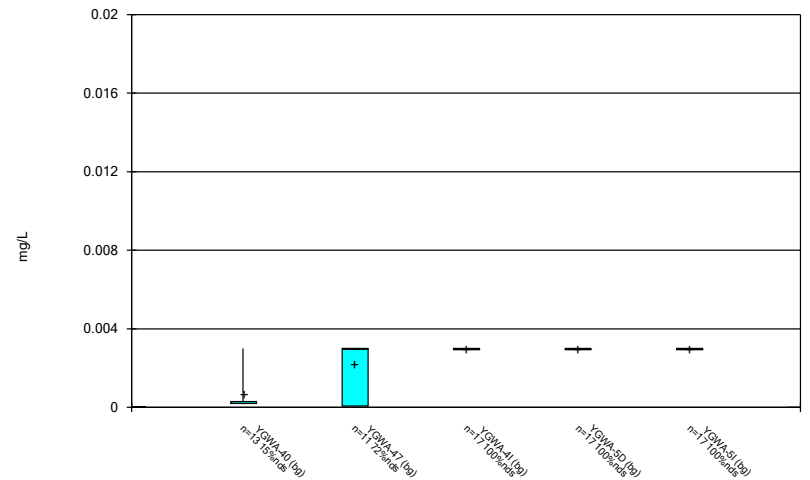
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Box & Whiskers Plot



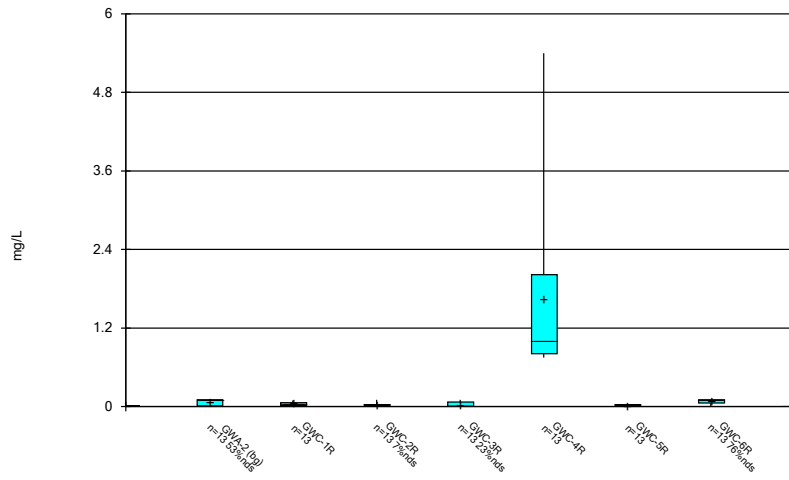
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Box & Whiskers Plot



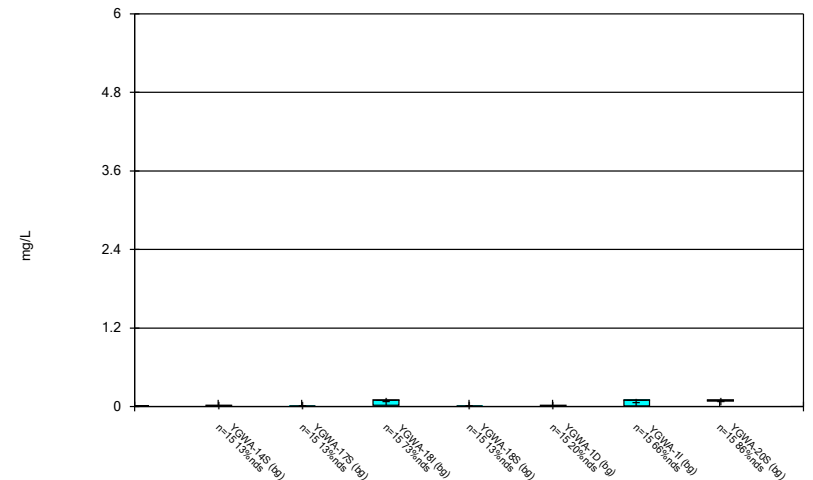
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### Box & Whiskers Plot



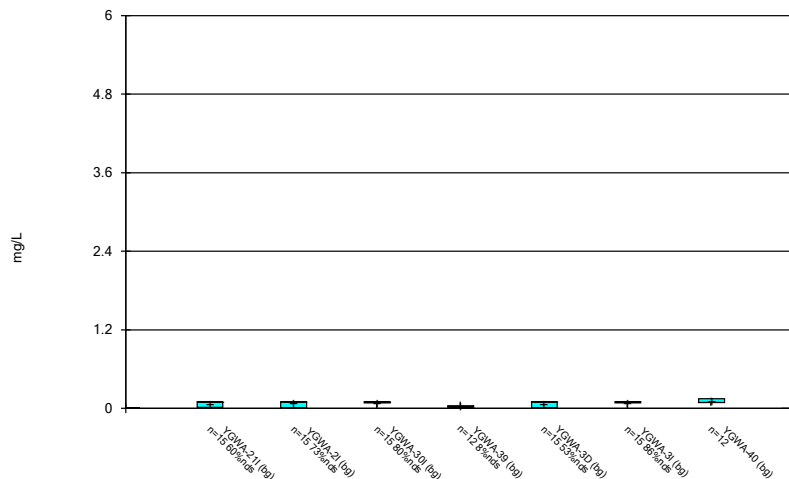
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### Box & Whiskers Plot



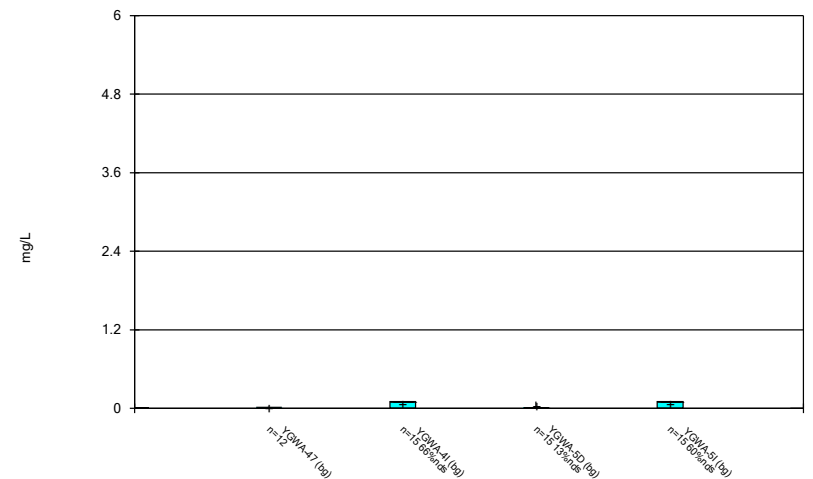
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### Box & Whiskers Plot



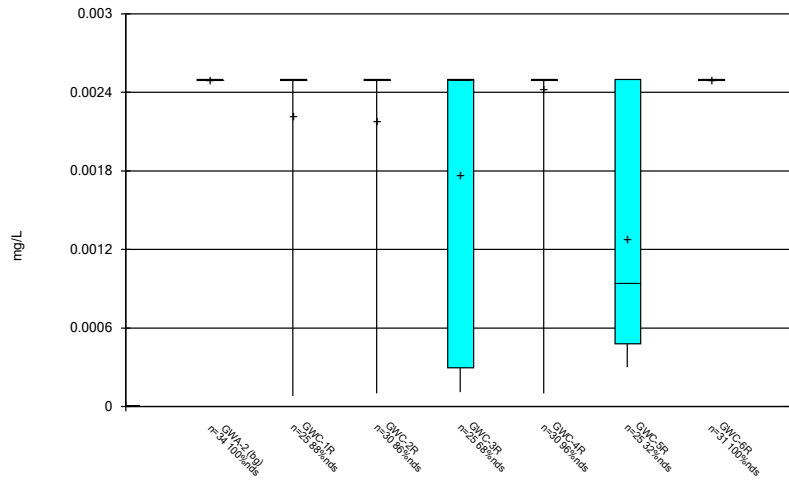
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### Box & Whiskers Plot



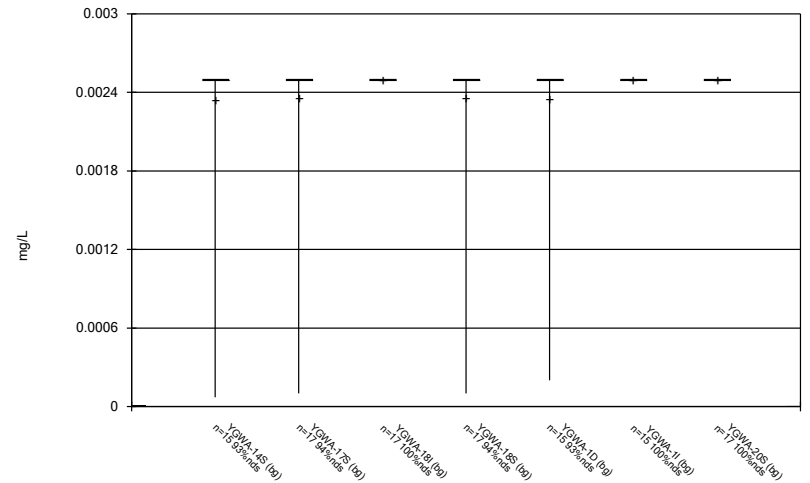
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Box & Whiskers Plot



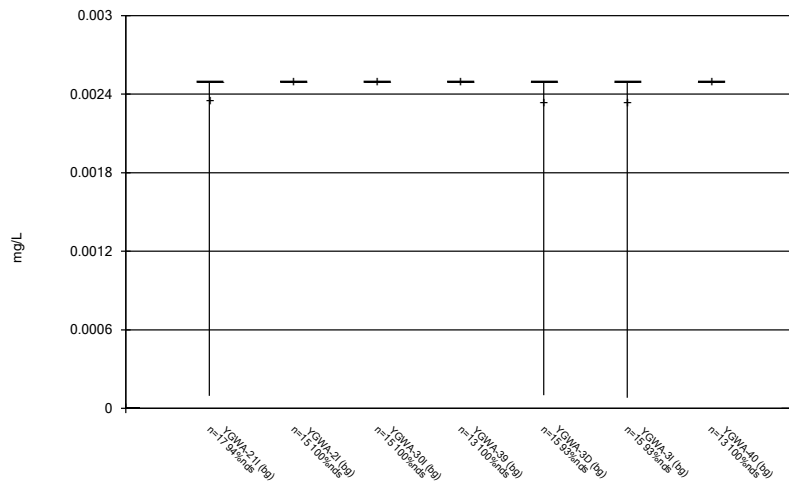
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



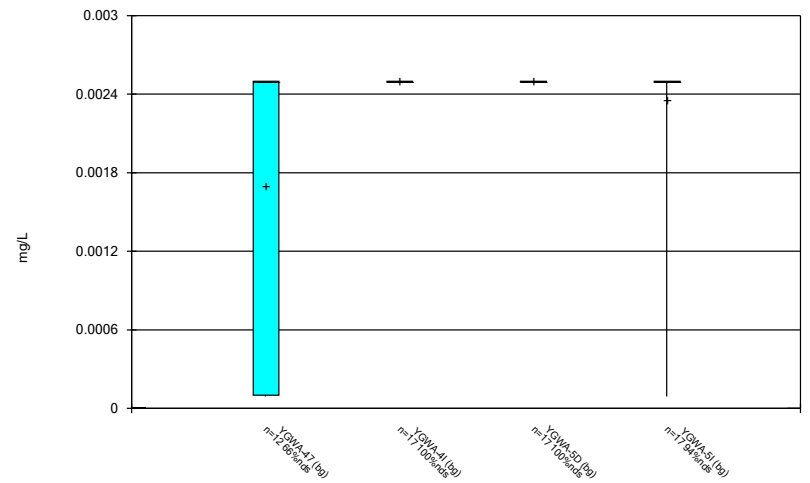
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



Constituent: Cadmium Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

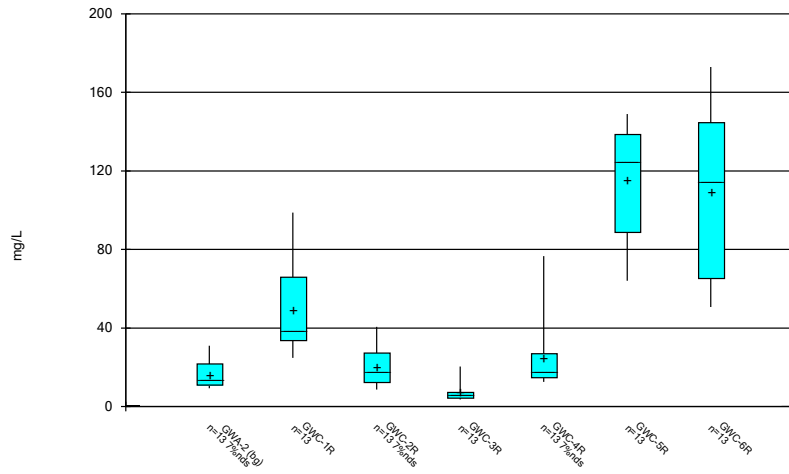
Box & Whiskers Plot



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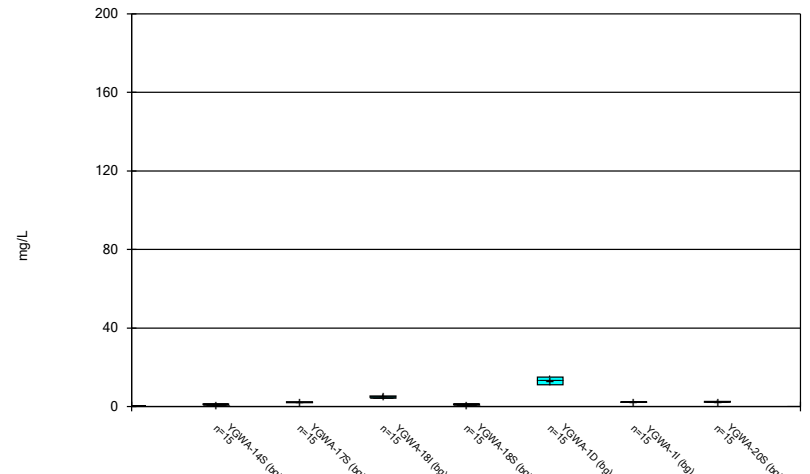


Box & Whiskers Plot



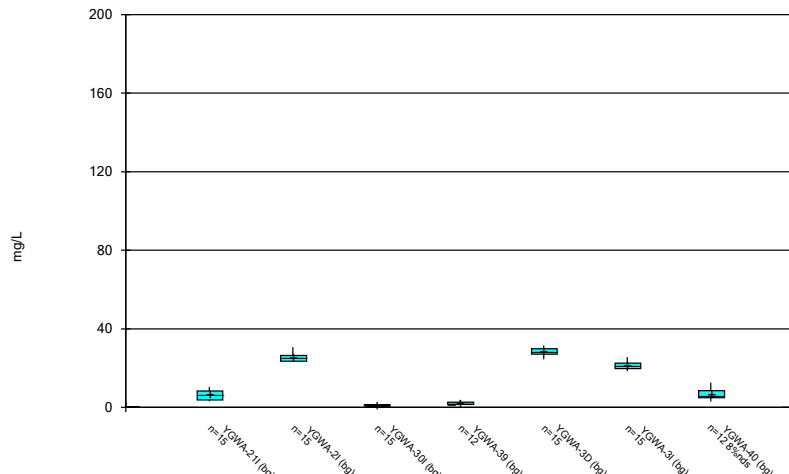
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



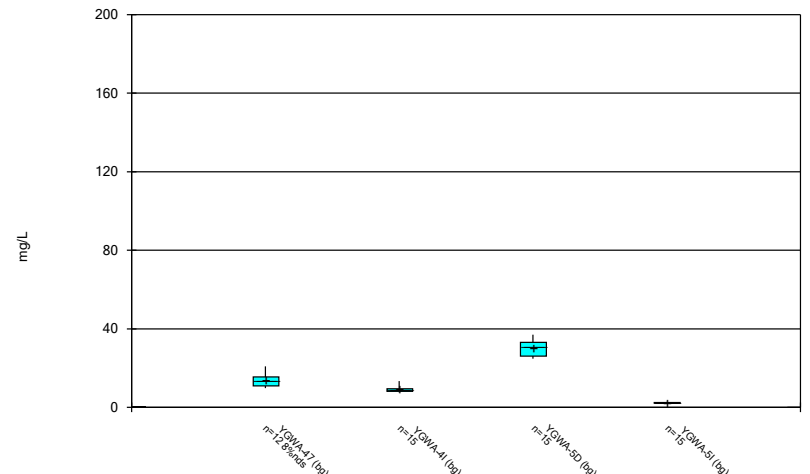
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Box & Whiskers Plot



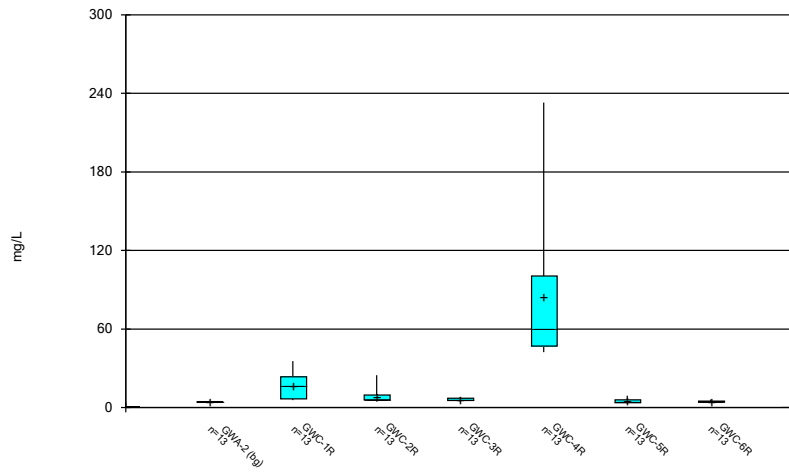
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Box & Whiskers Plot



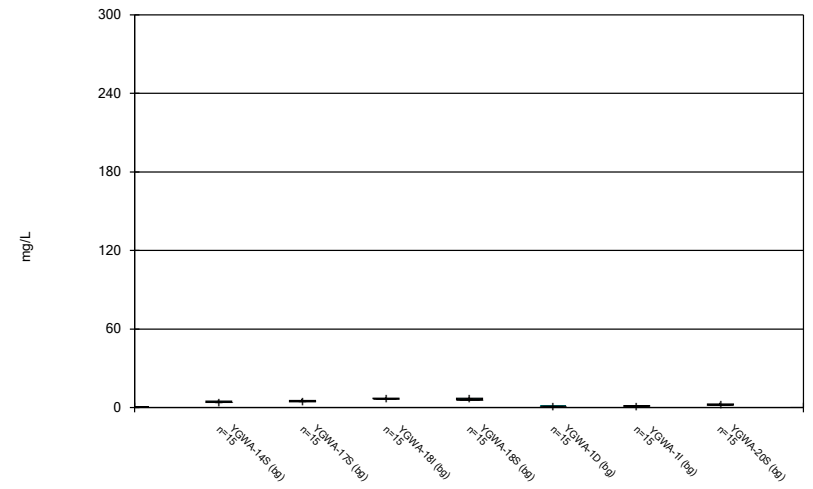
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### Box & Whiskers Plot



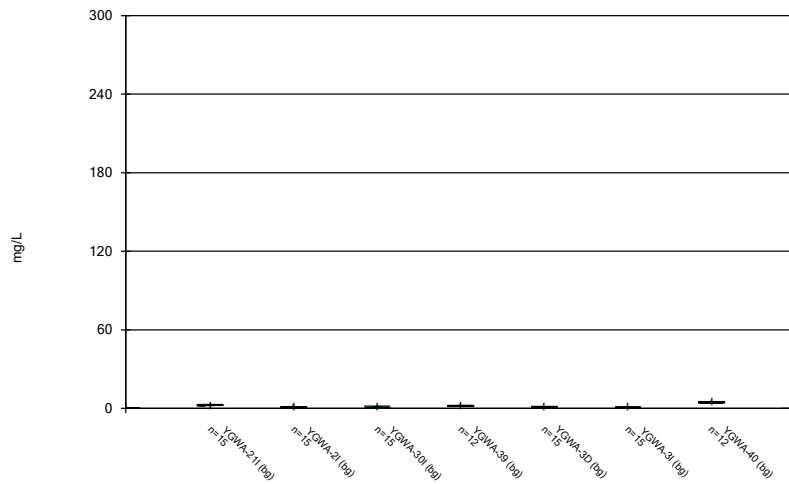
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



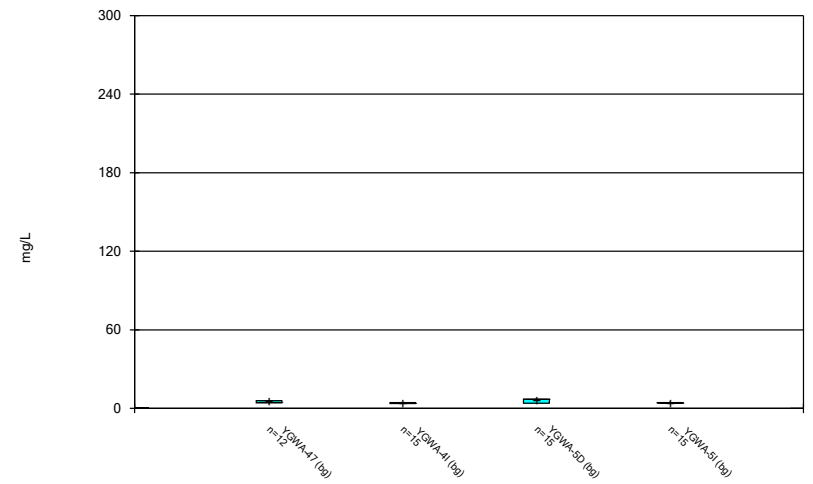
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



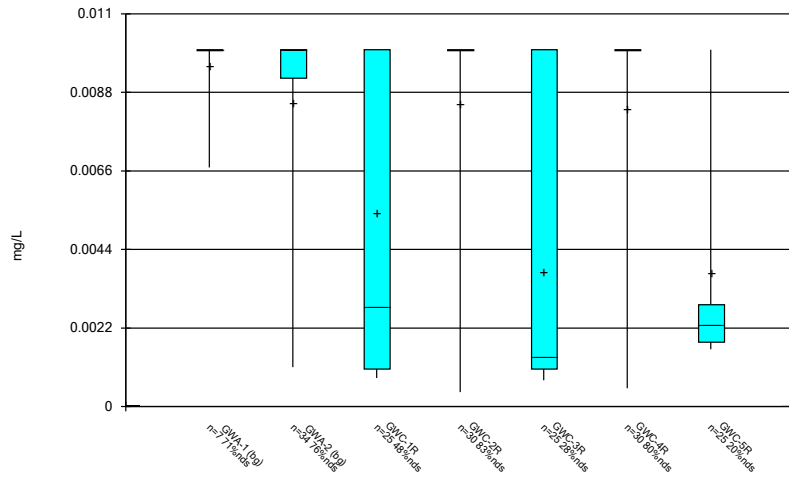
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### Box & Whiskers Plot



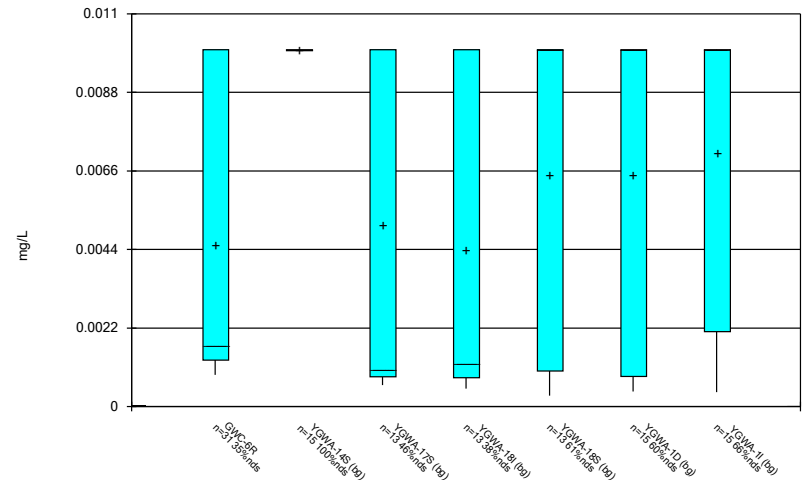
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Box & Whiskers Plot



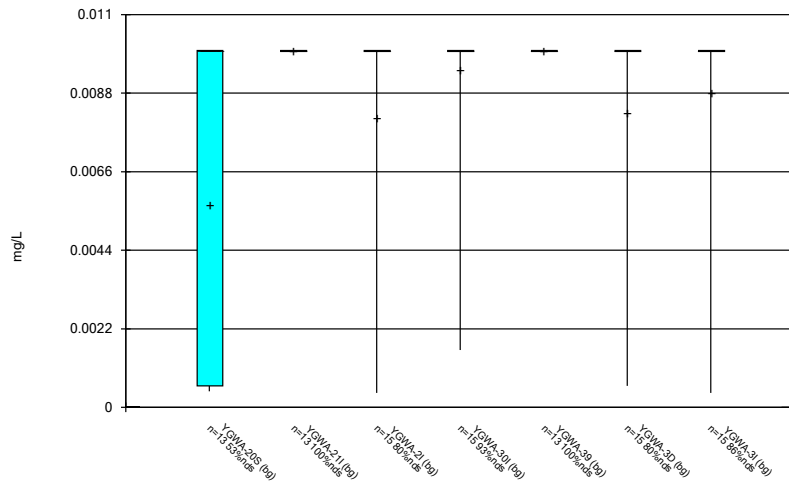
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Box & Whiskers Plot



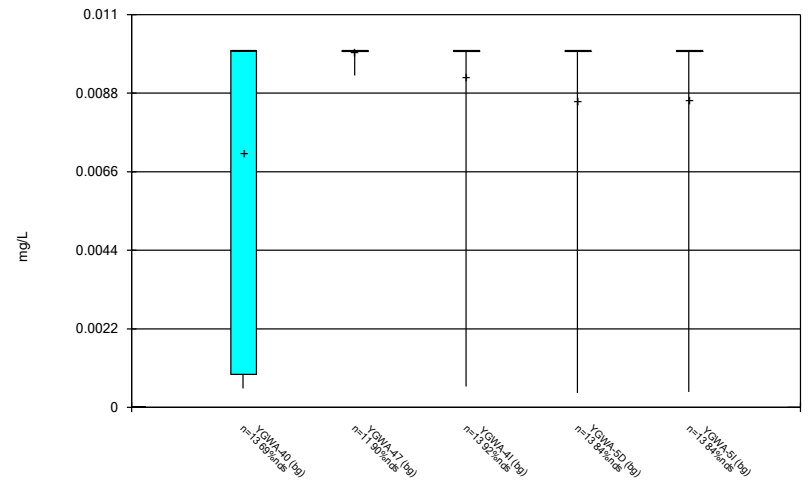
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Box & Whiskers Plot



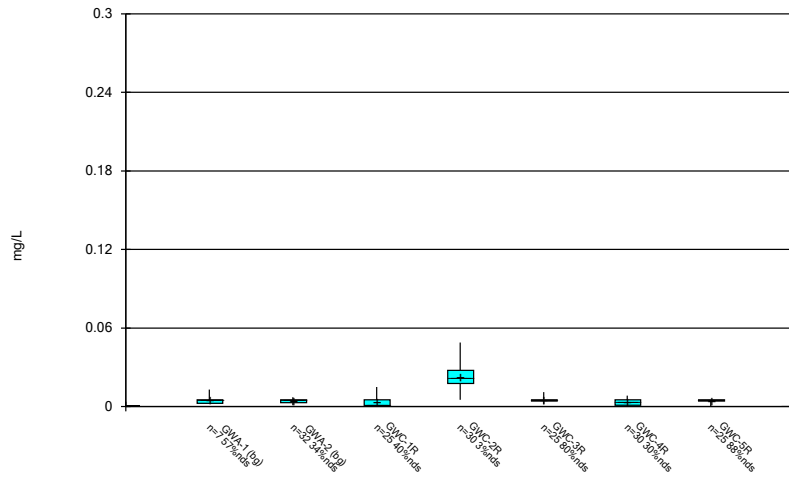
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Box & Whiskers Plot



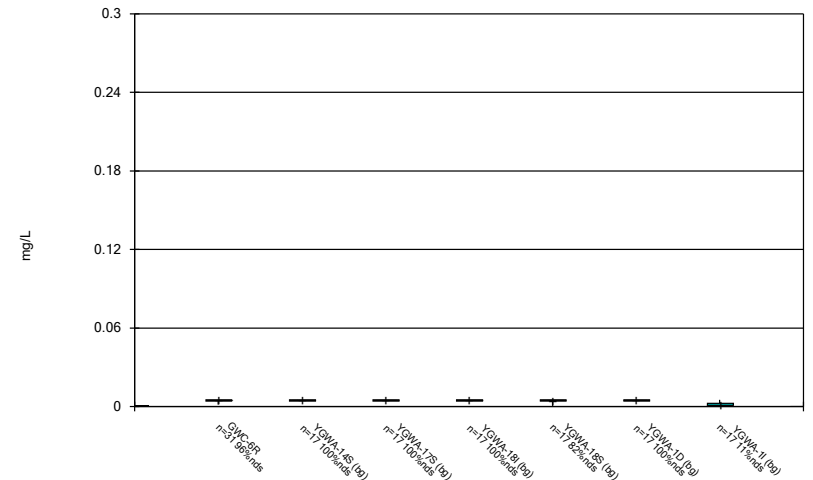
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Box & Whiskers Plot



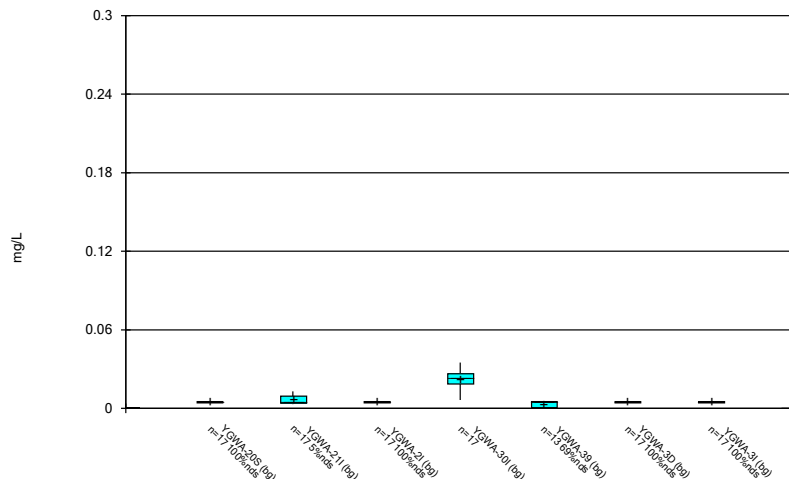
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



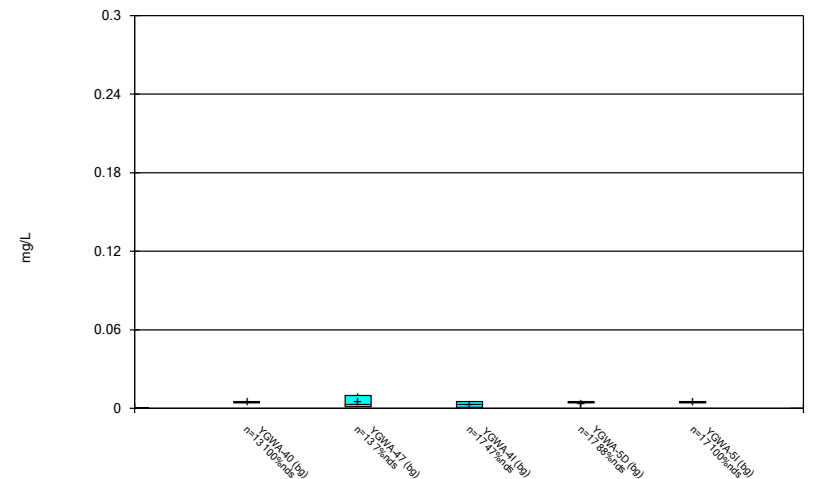
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Box & Whiskers Plot



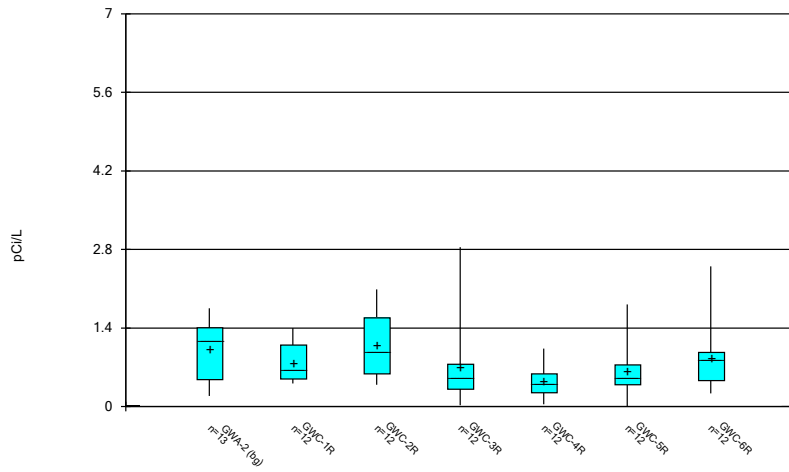
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Box & Whiskers Plot



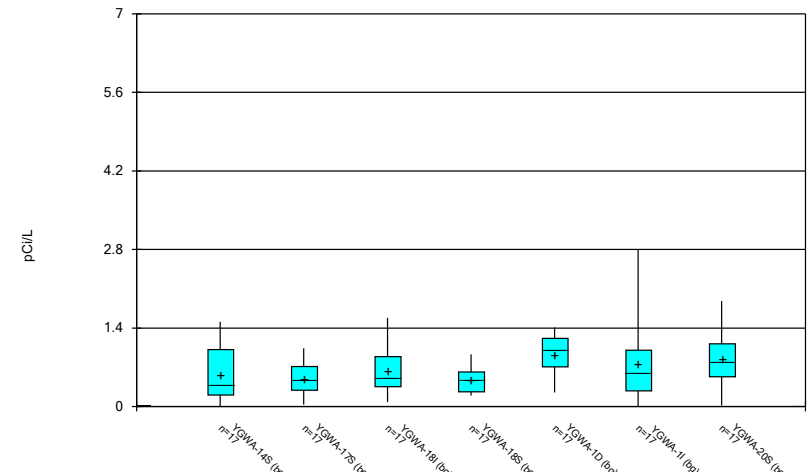
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



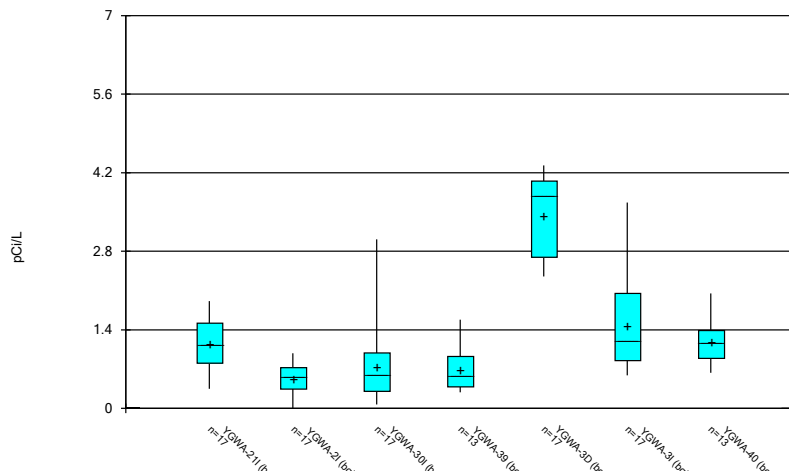
Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



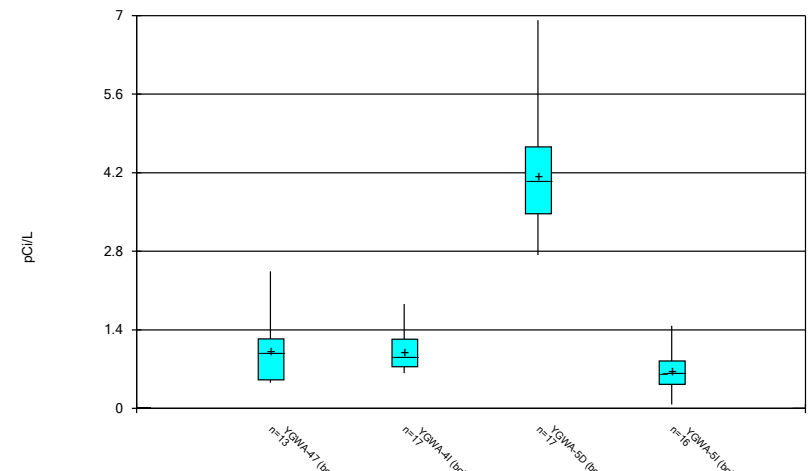
Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



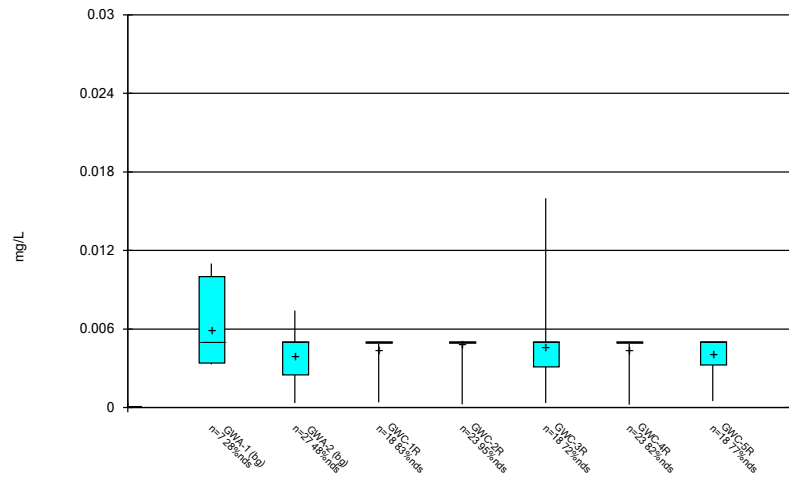
Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



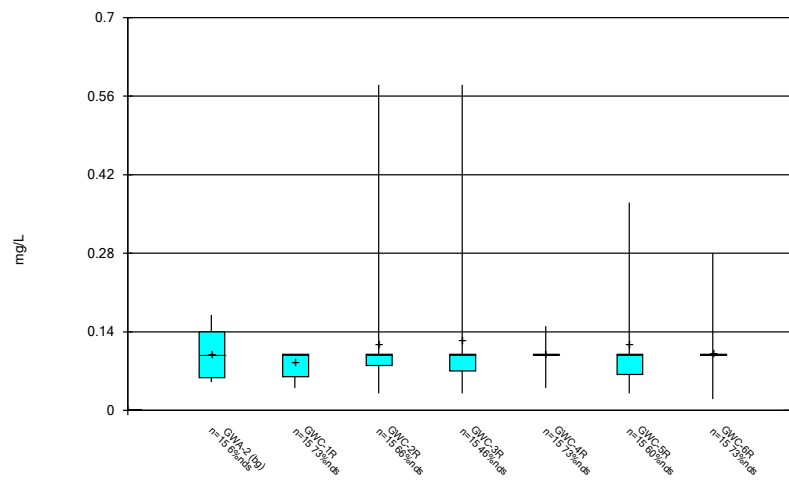
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



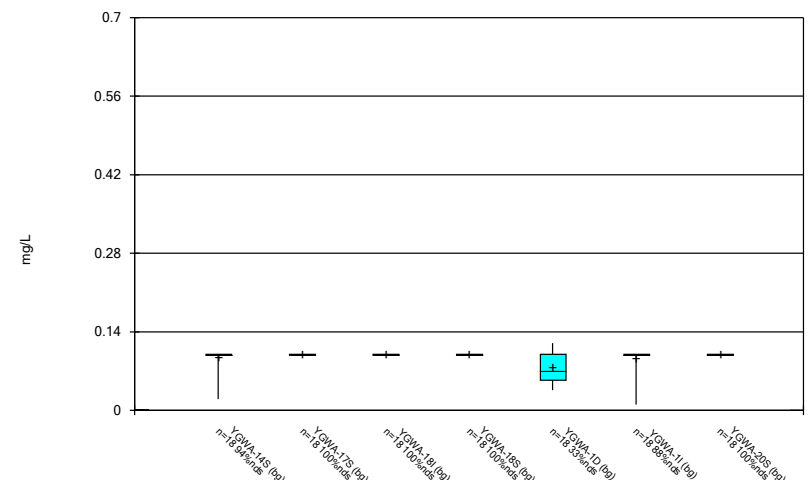
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Box & Whiskers Plot



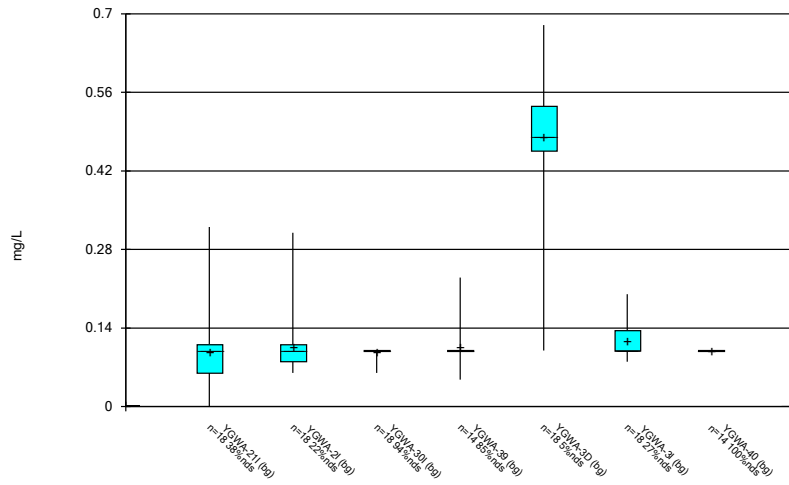
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



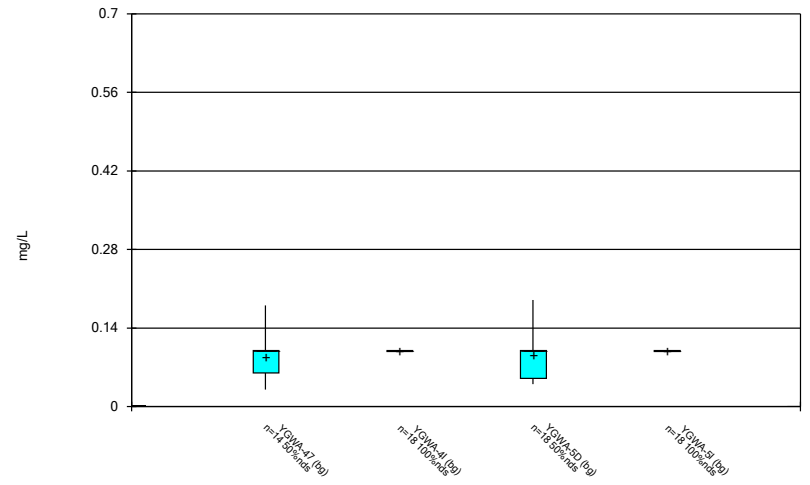
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Box & Whiskers Plot



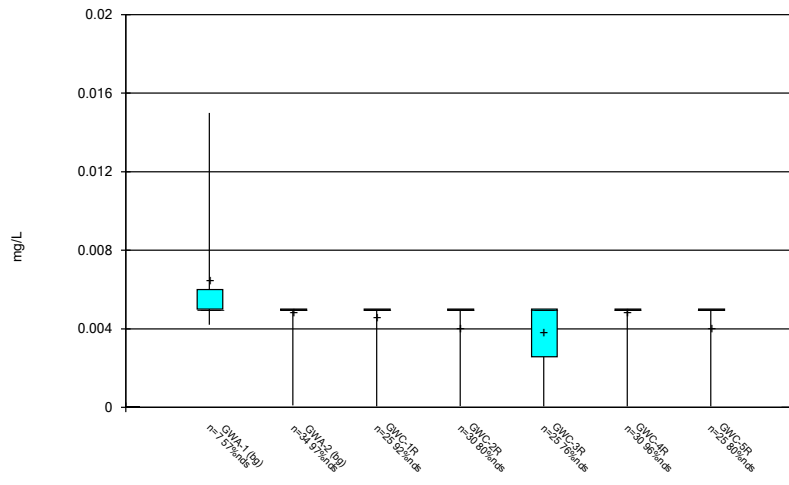
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Box & Whiskers Plot



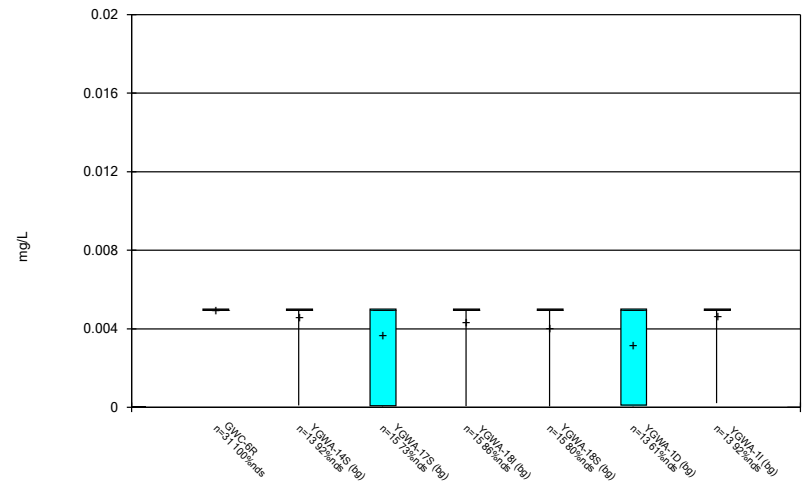
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Box & Whiskers Plot



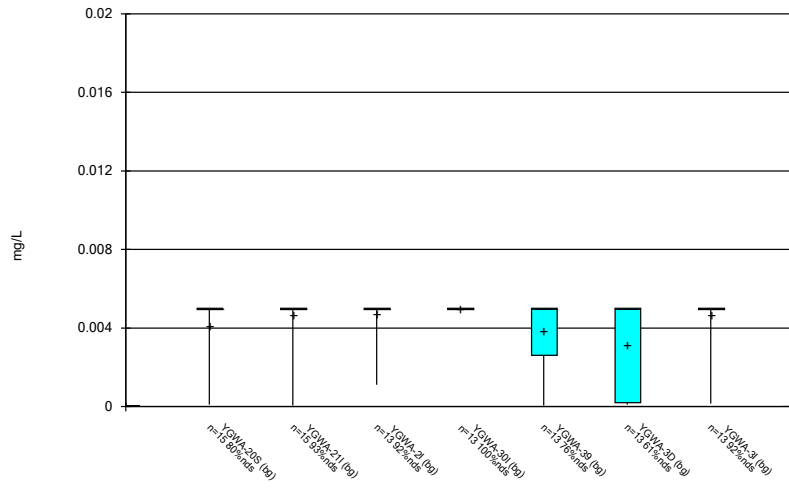
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Box & Whiskers Plot



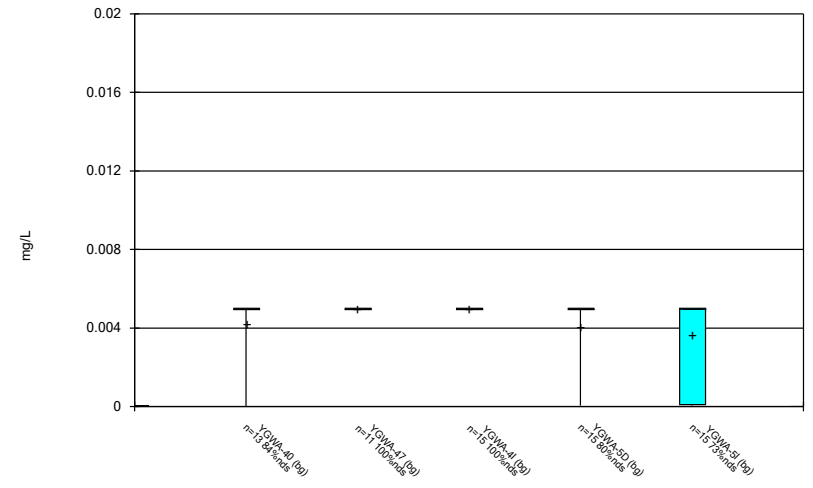
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Box & Whiskers Plot



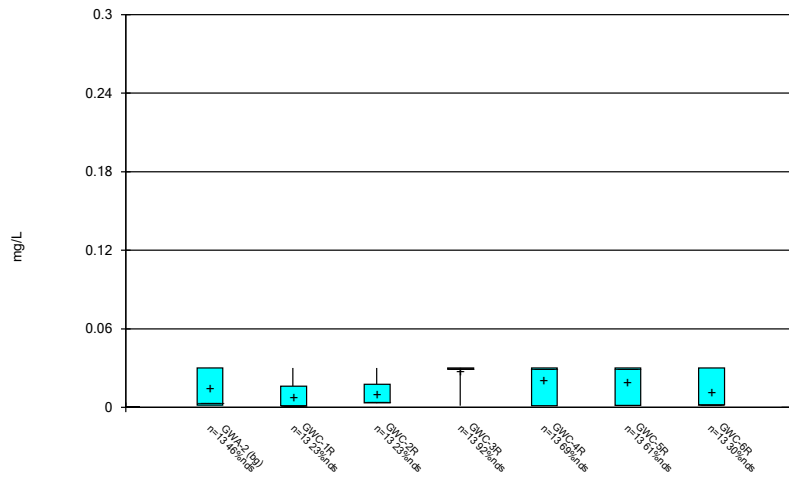
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Box & Whiskers Plot



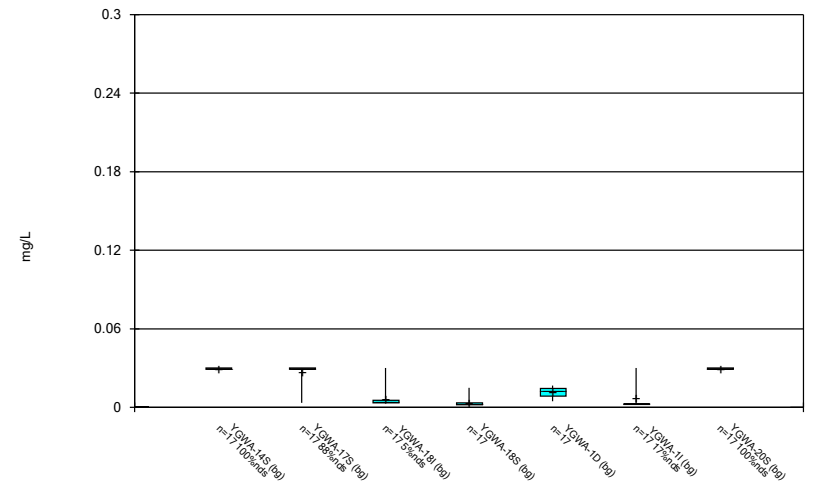
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

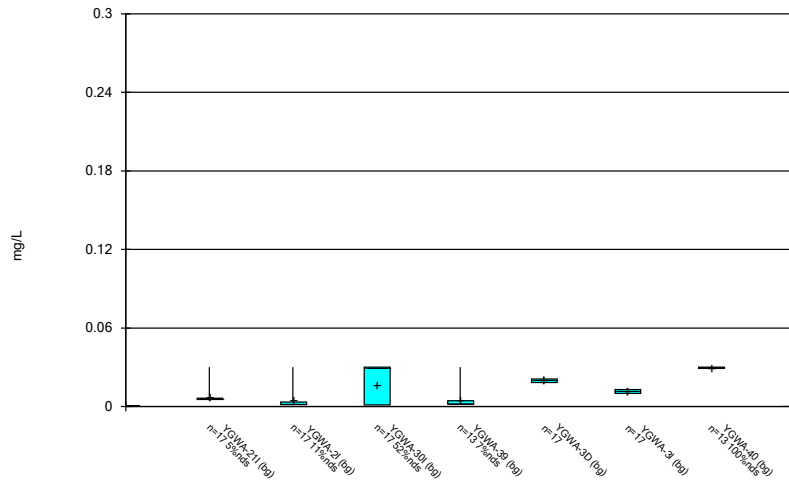
Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/2/2020 9:27 AM  
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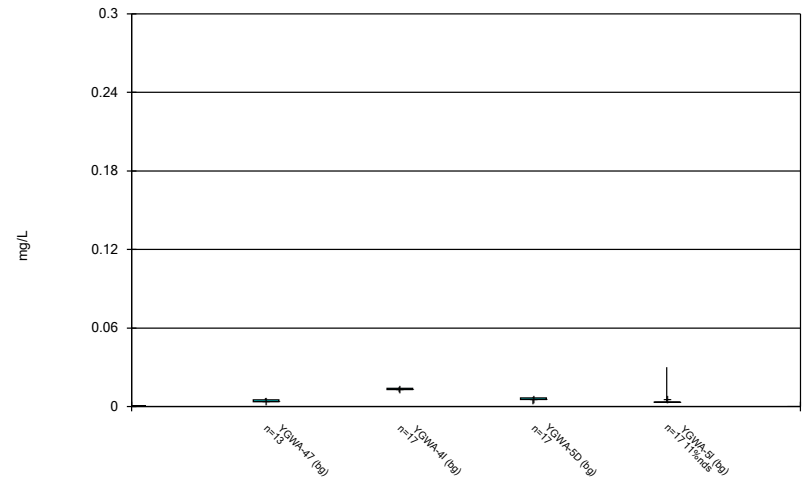


Box & Whiskers Plot



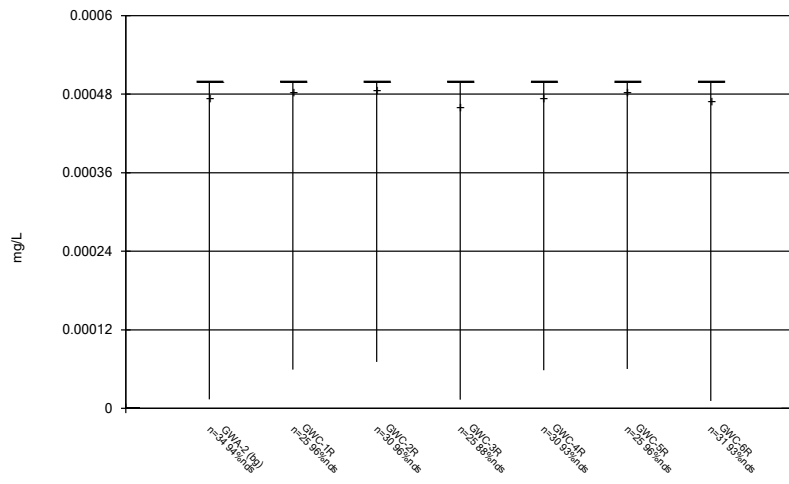
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



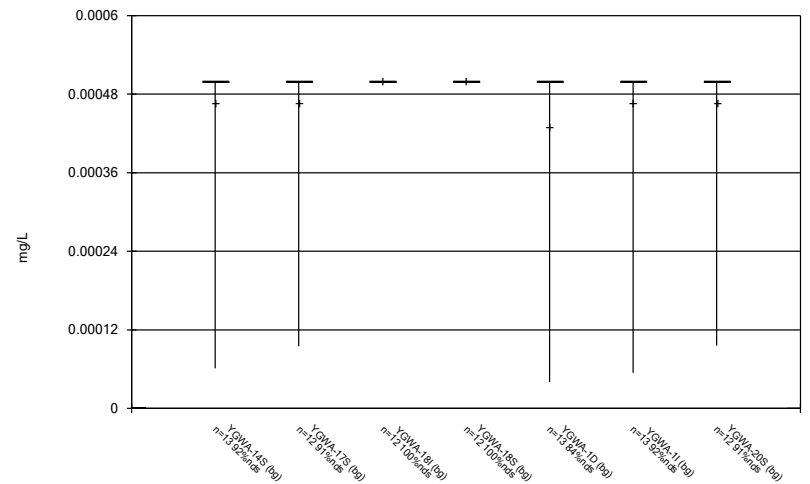
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



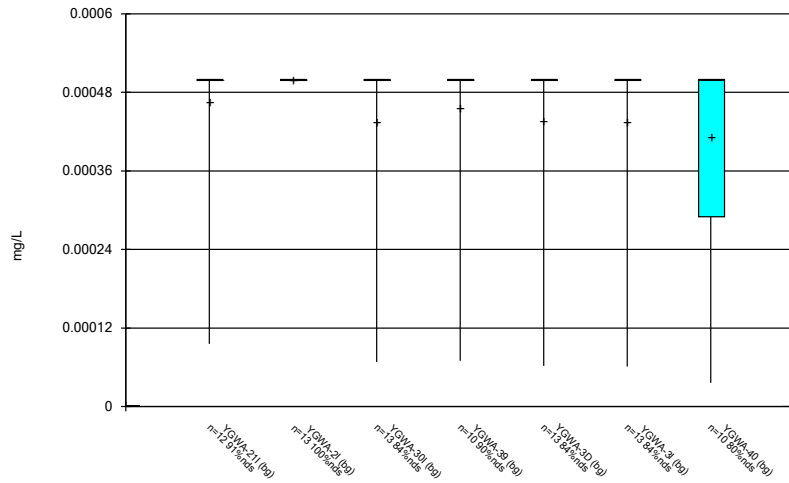
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



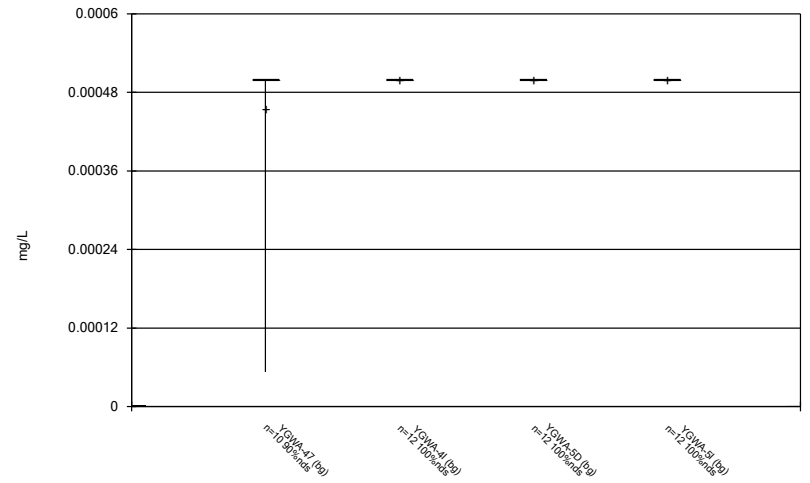
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



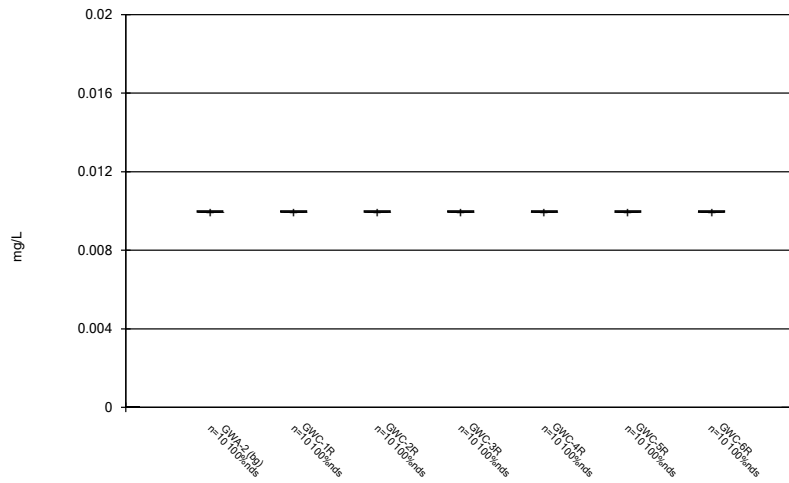
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



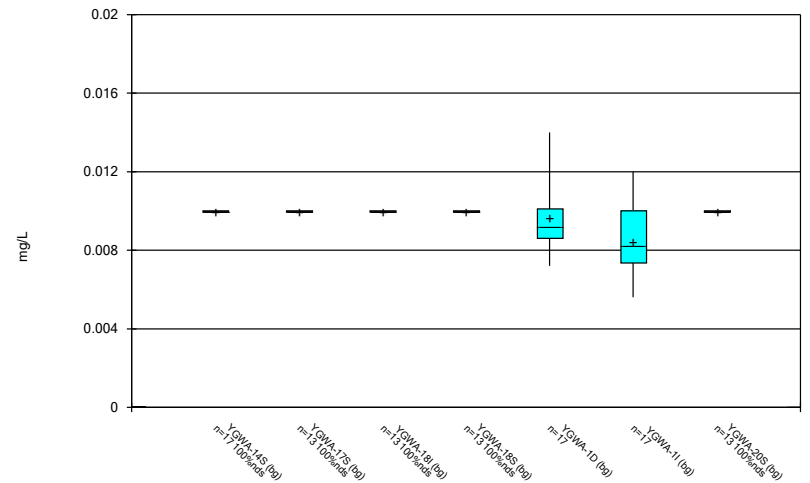
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



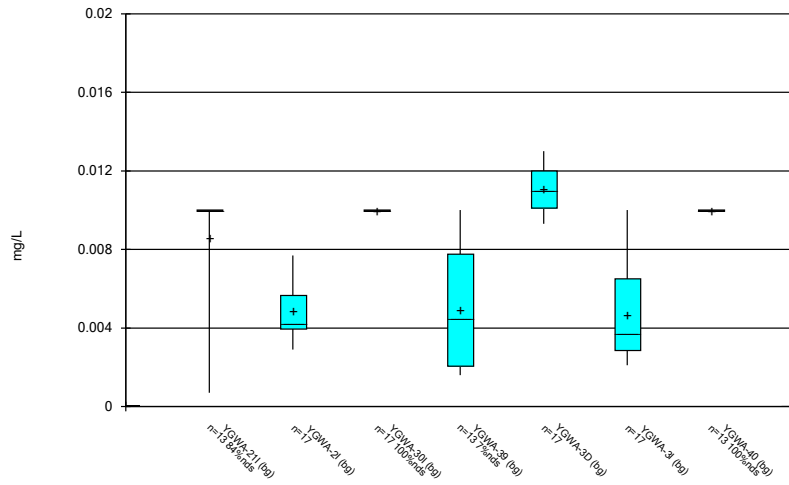
Constituent: Molybdenum Analysis Run 12/2/2020 9:27 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



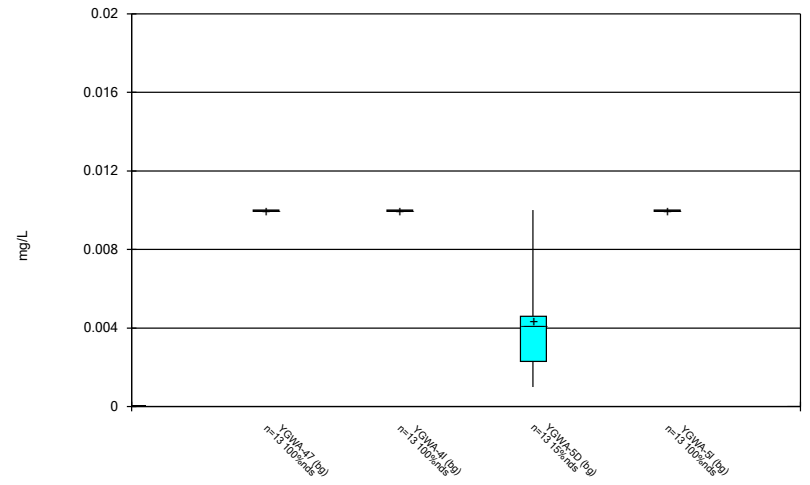
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



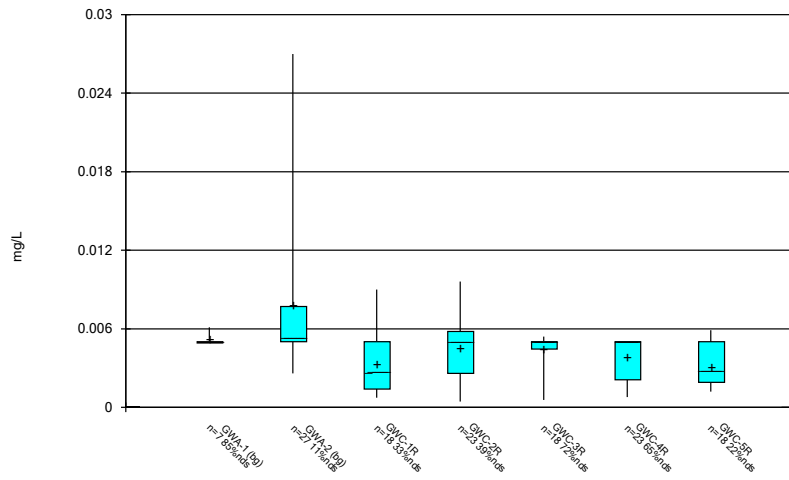
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



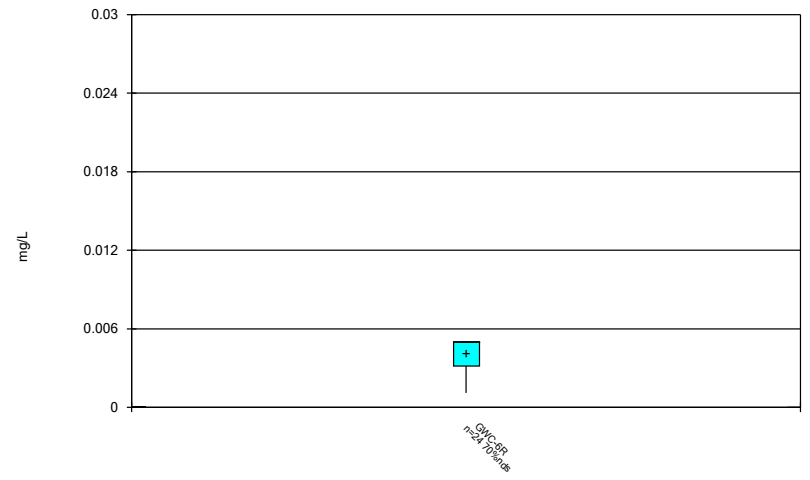
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



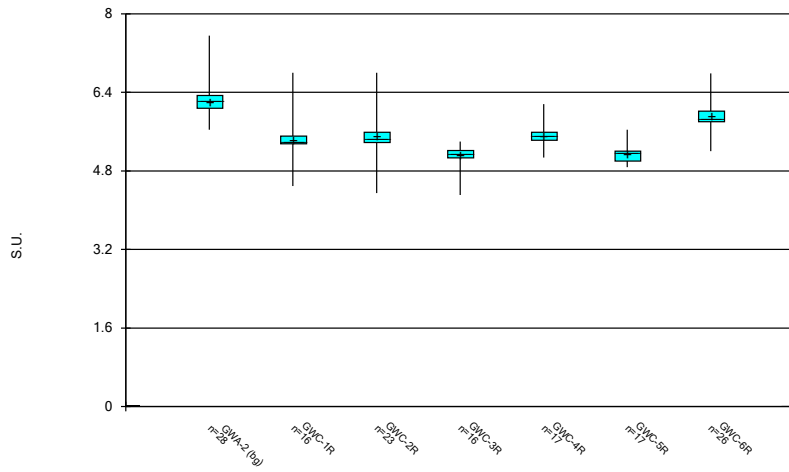
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



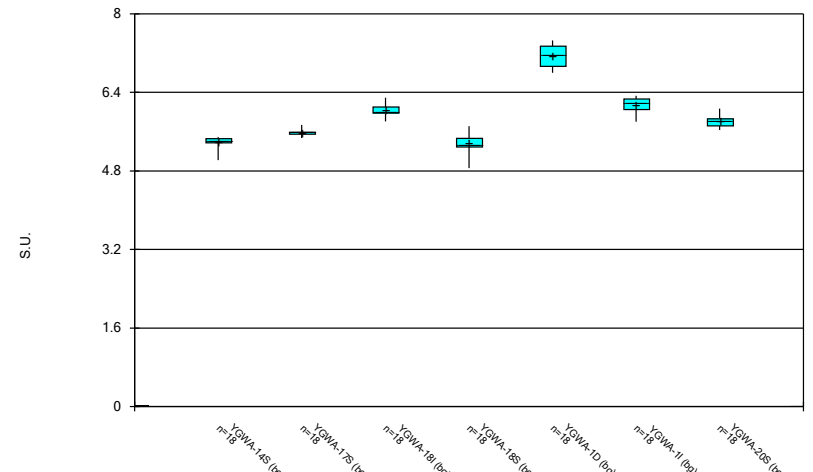
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



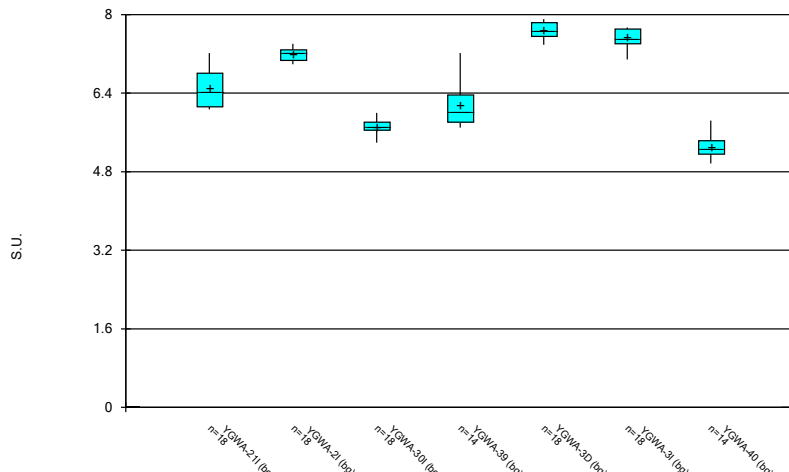
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



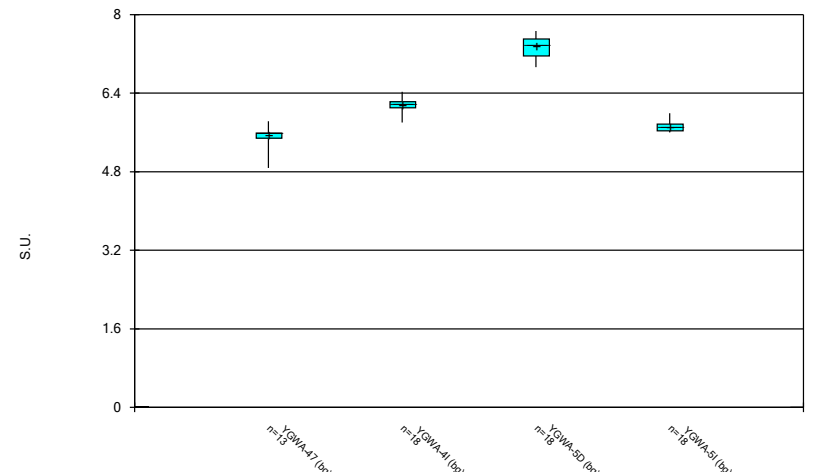
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Box & Whiskers Plot



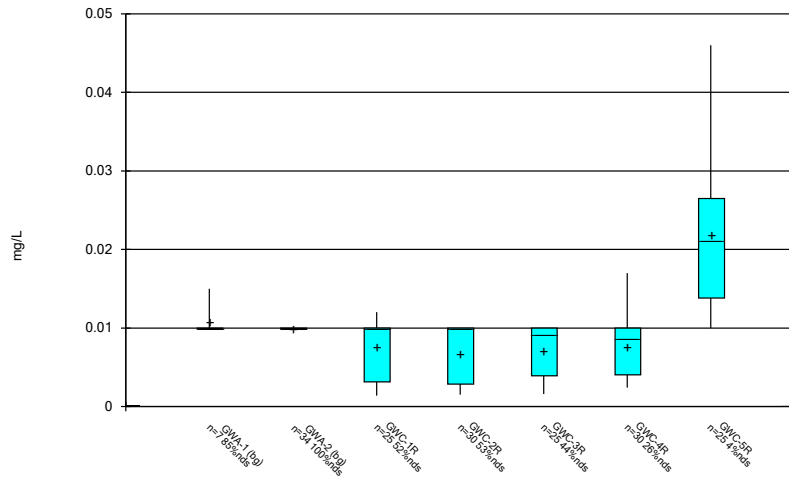
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



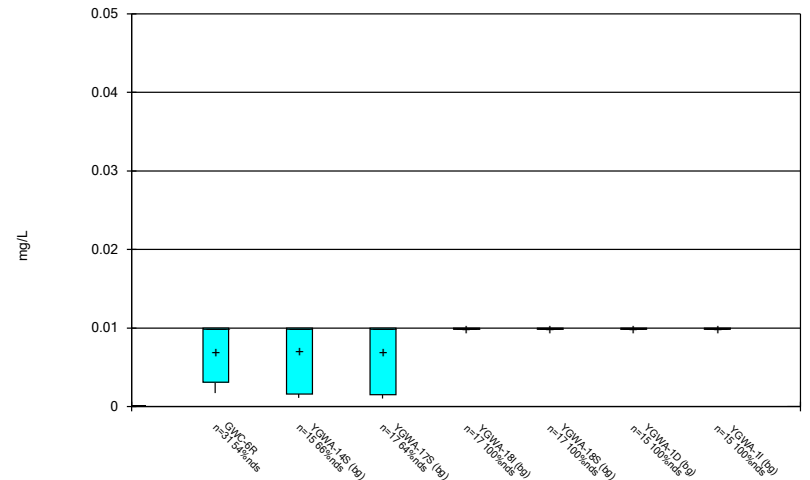
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



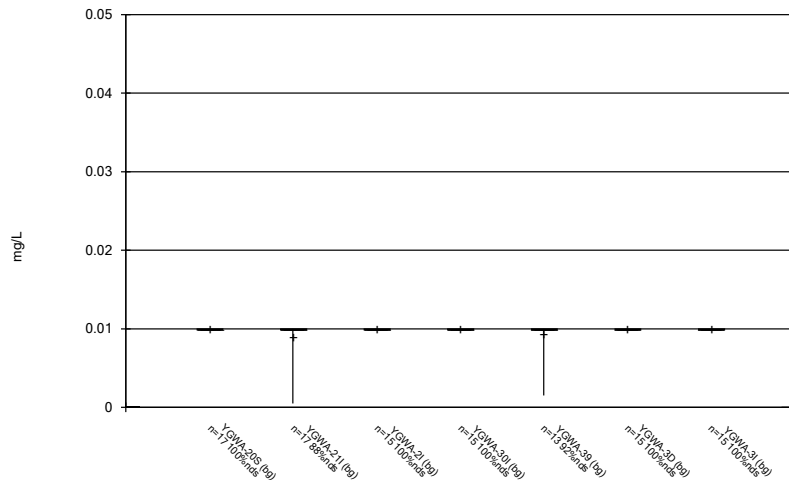
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Box & Whiskers Plot



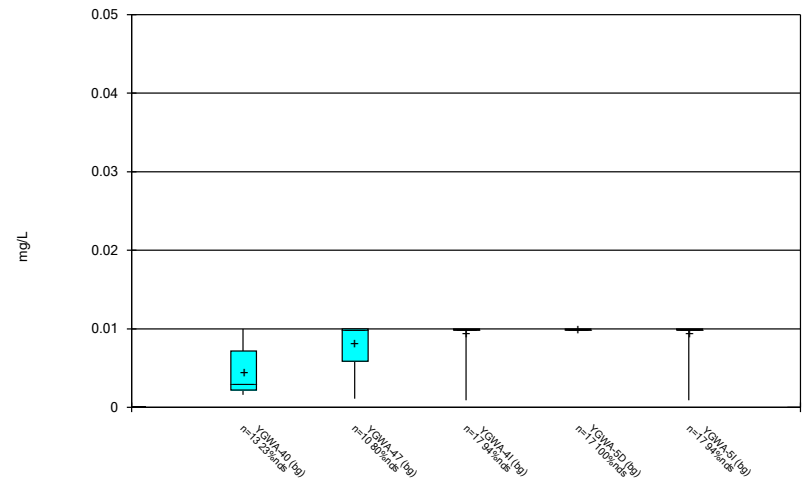
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Box & Whiskers Plot



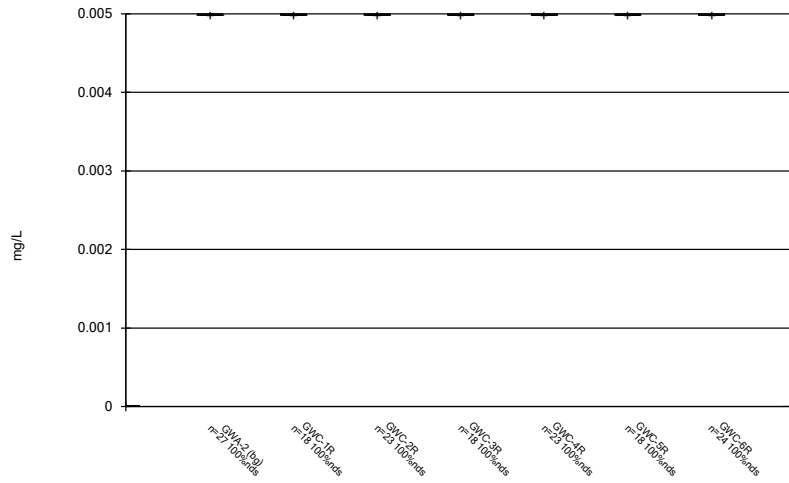
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Box & Whiskers Plot



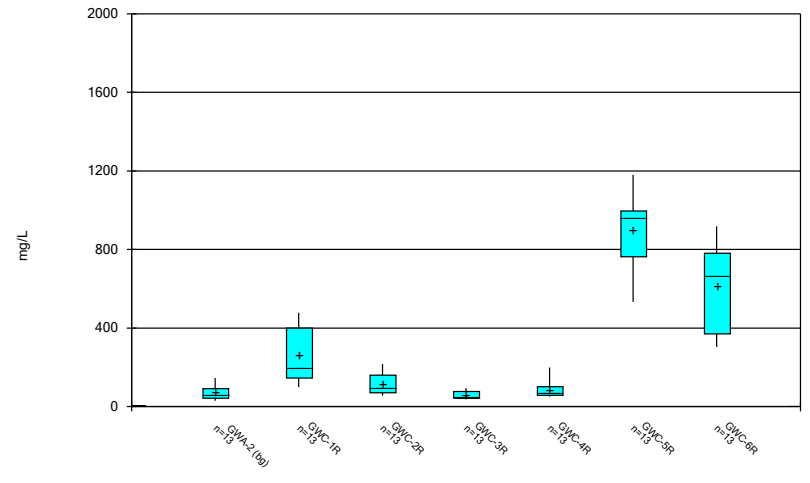
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### Box & Whiskers Plot



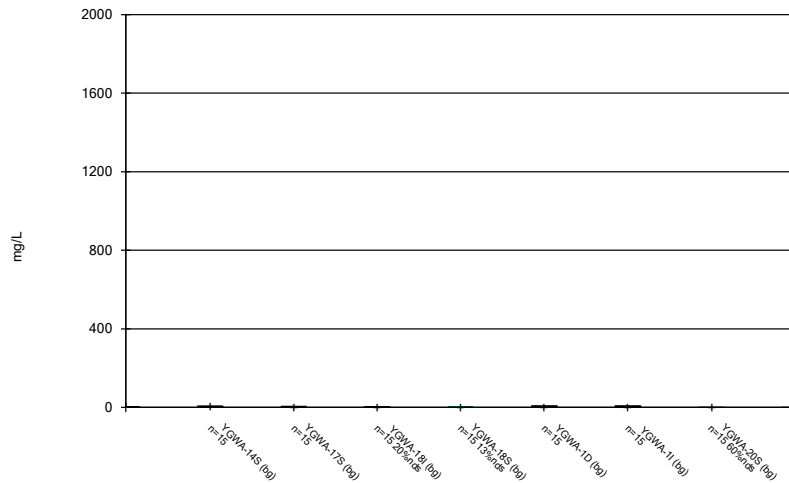
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



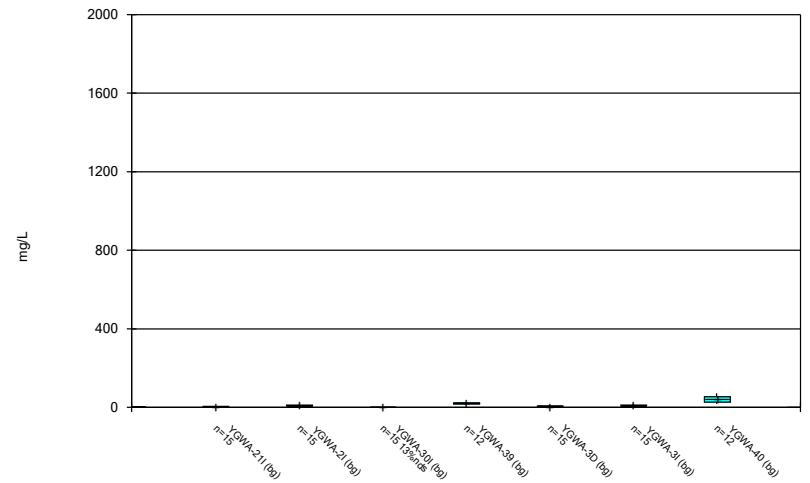
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



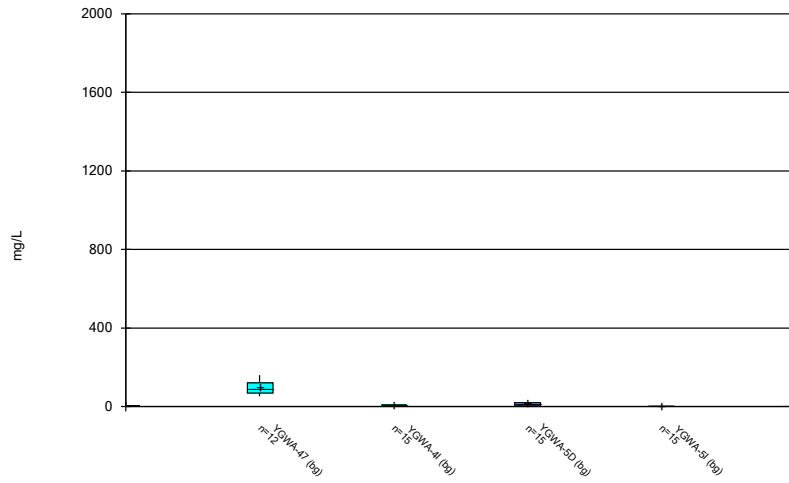
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



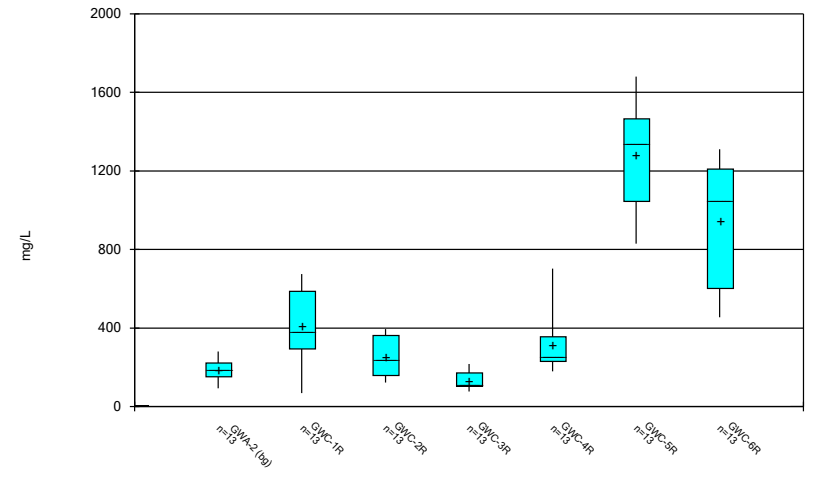
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



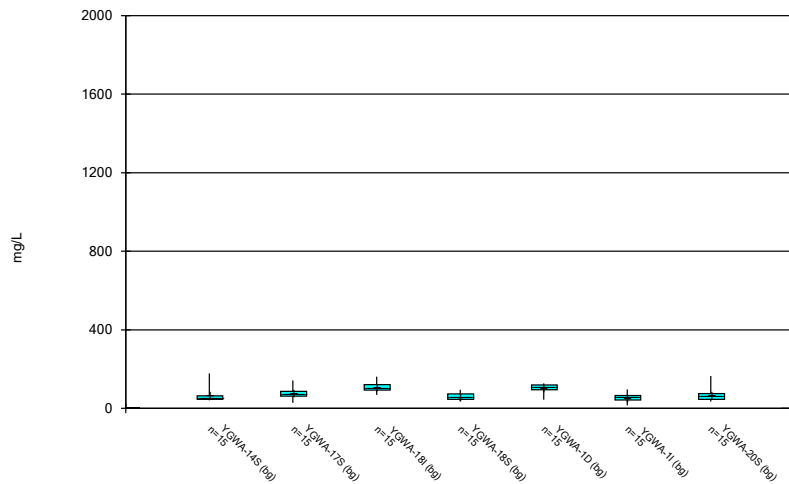
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### Box & Whiskers Plot



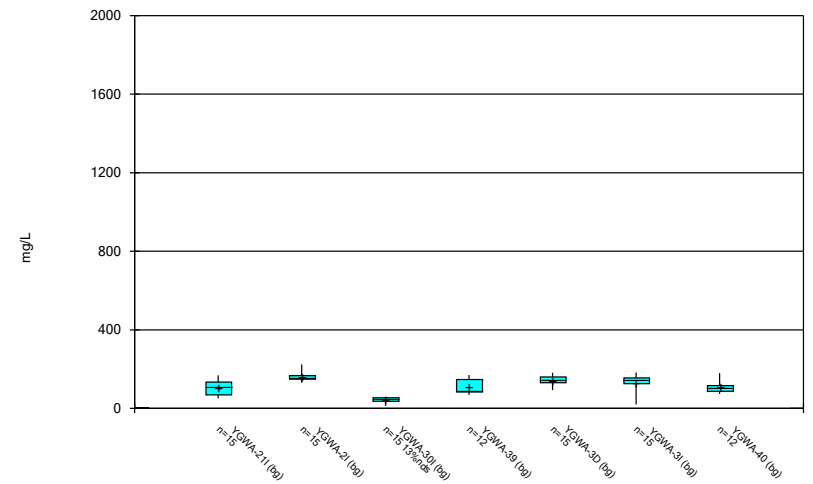
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### Box & Whiskers Plot



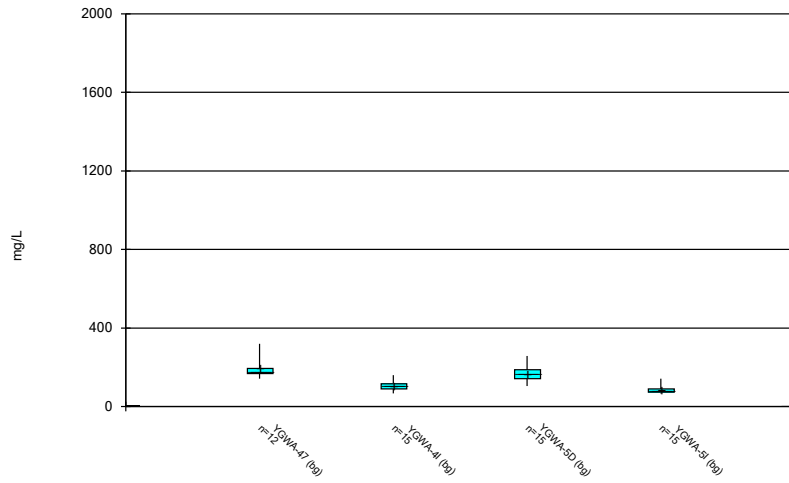
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### Box & Whiskers Plot



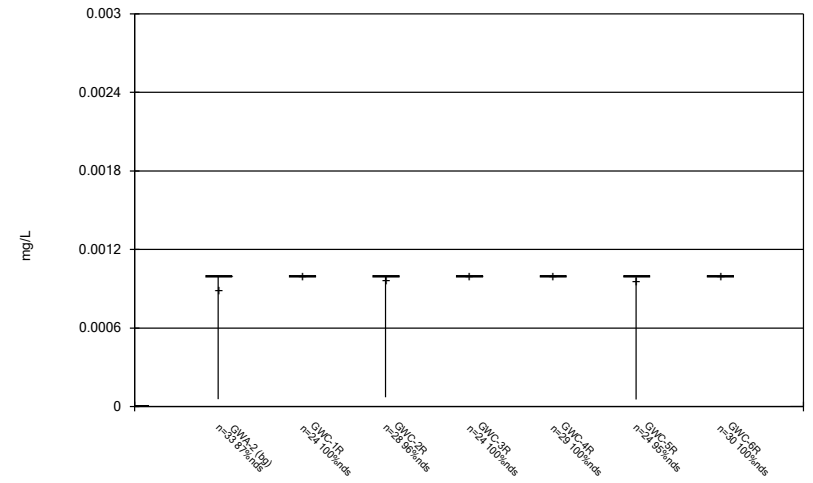
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



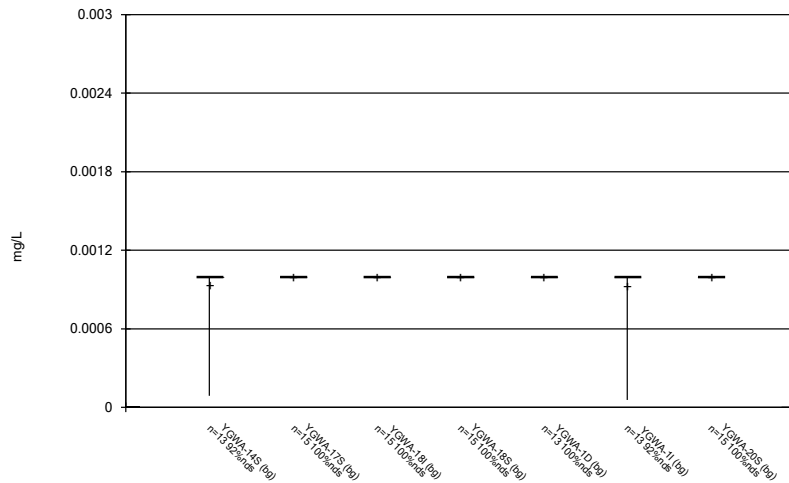
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



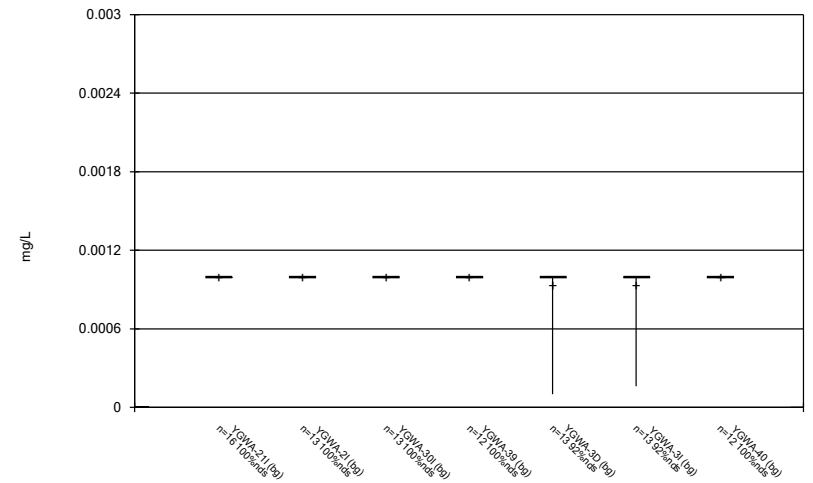
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/2/2020 9:28 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

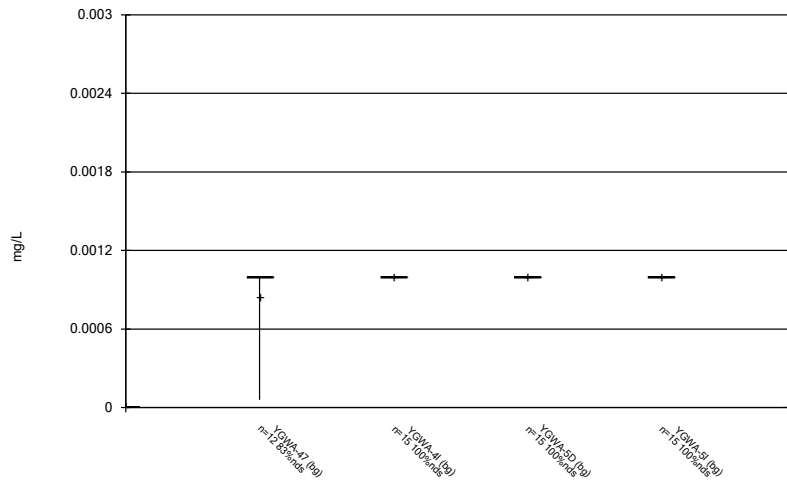
### Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/2/2020 9:28 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

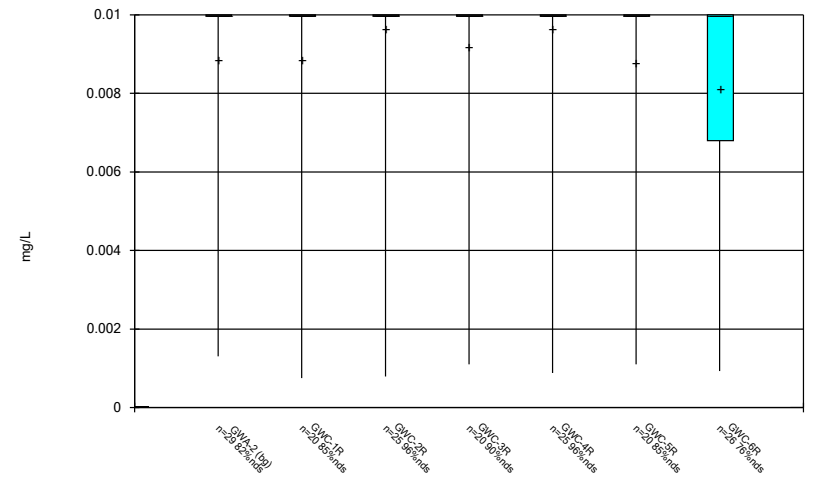


Box & Whiskers Plot



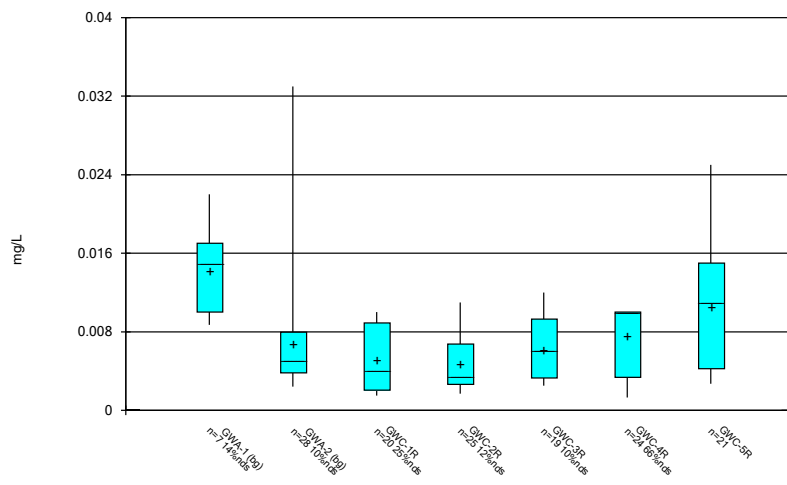
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



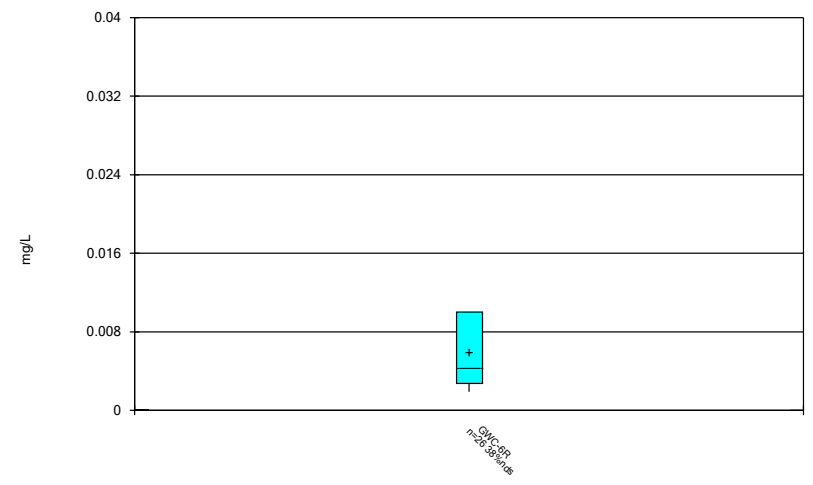
Constituent: Vanadium Analysis Run 12/2/2020 9:28 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



Constituent: Zinc Analysis Run 12/2/2020 9:28 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Box & Whiskers Plot



Constituent: Zinc Analysis Run 12/2/2020 9:28 AM  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

FIGURE C.

# Outlier Summary

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 11/23/2020, 8:59 PM

	GWA-2 Cobalt (mg/L)	YGWA-47 pH (S.U.)	GWA-2 Zinc (mg/L)	GWC-3R Zinc (mg/L)	GWC-4R Zinc (mg/L)
3/11/2011					0.025 (o)
2/5/2014			0.018 (o)	0.026 (o)	
4/2/2018		6.3 (O)			
8/26/2020	0.2 (o)				
9/22/2020	0.16 (o)				

FIGURE D.

# State Parameters - Intrawell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:26 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Nickel (mg/L)	GWA-2	0.021	n/a	9/22/2020	0.027	Yes	22	n/a	n/a	13.64	n/a	n/a	0.003707	NP Intra (normality) 1 of 2
Selenium (mg/L)	GWC-1R	0.01	n/a	9/22/2020	0.012	Yes	18	n/a	n/a	66.67	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Zinc (mg/L)	GWA-2	0.009584	n/a	9/22/2020	0.033	Yes	23	0.004991	0.002	4.348	None	No	0.0005852	Param Intra 1 of 2
Zinc (mg/L)	GWC-5R	0.01798	n/a	9/23/2020	0.018	Yes	15	0.00738	0.004189	0	None	No	0.0005852	Param Intra 1 of 2

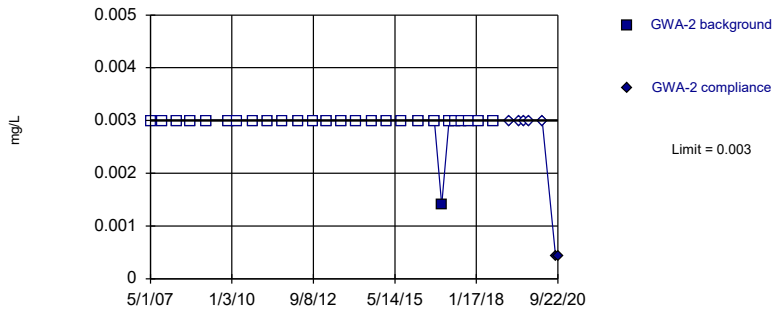
# State Parameters - Intrawell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:26 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)	GWA-2	0.003	n/a	9/22/2020	0.00044J	No 27	n/a	n/a	96.3	n/a	n/a	n/a	0.002502	NP Intra (NDs) 1 of 2
Antimony (mg/L)	GWC-2R	0.003	n/a	9/22/2020	0.0017J	No 23	n/a	n/a	100	n/a	n/a	n/a	0.003415	NP Intra (NDs) 1 of 2
Antimony (mg/L)	GWC-4R	0.003	n/a	9/22/2020	0.00053J	No 23	n/a	n/a	95.65	n/a	n/a	n/a	0.003415	NP Intra (NDs) 1 of 2
Antimony (mg/L)	GWC-5R	0.003	n/a	9/23/2020	0.00031J	No 18	n/a	n/a	100	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Barium (mg/L)	GWA-2	0.07943	n/a	9/22/2020	0.045	No 27	0.05023	0.01305	0	None	No	No	0.0005852	Param Intra 1 of 2
Barium (mg/L)	GWC-1R	0.09203	n/a	9/22/2020	0.068	No 18	0.04614	0.01903	0	None	No	No	0.0005852	Param Intra 1 of 2
Barium (mg/L)	GWC-2R	0.13	n/a	9/22/2020	0.04	No 23	n/a	n/a	0	n/a	n/a	n/a	0.003415	NP Intra (normality) 1 of 2
Barium (mg/L)	GWC-3R	0.1072	n/a	9/22/2020	0.014	No 18	0.1832	0.05976	0	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Barium (mg/L)	GWC-4R	0.0778	n/a	9/22/2020	0.026	No 19	0.1732	0.04443	0	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Barium (mg/L)	GWC-5R	0.06311	n/a	9/23/2020	0.012	No 14	0.03304	0.01162	0	None	No	No	0.0005852	Param Intra 1 of 2
Barium (mg/L)	GWC-6R	0.1025	n/a	9/23/2020	0.044	No 24	0.04776	0.02401	0	None	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWA-2	0.006994	n/a	3/17/2020	0.003J	No 27	0.003566	0.001537	40.74	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWC-1R	0.008717	n/a	9/22/2020	0.0008J	No 18	-6.613	0.7756	50	Kaplan-Meier	ln(x)	0.0005852	Param Intra 1 of 2	
Cobalt (mg/L)	GWC-2R	0.04742	n/a	9/22/2020	0.0054	No 23	0.02477	0.009863	4.348	None	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWC-3R	0.005	n/a	9/22/2020	0.0021J	No 18	n/a	n/a	100	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	GWC-4R	0.007137	n/a	9/22/2020	0.00039J	No 23	0.002697	0.001934	34.78	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Cobalt (mg/L)	GWC-5R	0.005	n/a	9/23/2020	0.005ND	No 18	n/a	n/a	100	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	GWC-6R	0.005	n/a	9/23/2020	0.005ND	No 24	n/a	n/a	95.83	n/a	n/a	n/a	0.003124	NP Intra (NDs) 1 of 2
<b>Nickel (mg/L)</b>	<b>GWA-2</b>	<b>0.021</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.027</b>	<b>Yes 22</b>	<b>n/a</b>	<b>n/a</b>	<b>13.64</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003707</b>	<b>NP intra (normality) 1 of 2</b>
Nickel (mg/L)	GWC-1R	0.01331	n/a	9/22/2020	0.0021J	No 13	-6.05	0.655	38.46	Kaplan-Meier	ln(x)	0.0005852	Param Intra 1 of 2	
Nickel (mg/L)	GWC-2R	0.01015	n/a	9/22/2020	0.005ND	No 18	0.003546	0.00274	44.44	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Nickel (mg/L)	GWC-3R	0.0054	n/a	9/22/2020	0.005ND	No 13	n/a	n/a	69.23	n/a	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Nickel (mg/L)	GWC-4R	0.01	n/a	9/22/2020	0.00077J	No 18	n/a	n/a	77.78	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Nickel (mg/L)	GWC-5R	0.005956	n/a	9/23/2020	0.0012J	No 13	0.002281	0.00139	30.77	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Nickel (mg/L)	GWC-6R	0.005	n/a	9/23/2020	0.0016J	No 19	n/a	n/a	89.47	n/a	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
<b>Selenium (mg/L)</b>	<b>GWC-1R</b>	<b>0.01</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.012</b>	<b>Yes 18</b>	<b>n/a</b>	<b>n/a</b>	<b>66.67</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.005373</b>	<b>NP Intra (NDs) 1 of 2</b>
Selenium (mg/L)	GWC-2R	0.01	n/a	9/22/2020	0.0056J	No 23	n/a	n/a	69.57	n/a	n/a	n/a	0.003415	NP Intra (NDs) 1 of 2
Selenium (mg/L)	GWC-3R	0.01	n/a	9/22/2020	0.0091J	No 18	n/a	n/a	61.11	n/a	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Selenium (mg/L)	GWC-4R	0.01548	n/a	9/22/2020	0.0032J	No 23	0.007285	0.003569	34.78	Kaplan-Meier	No	No	0.0005852	Param Intra 1 of 2
Selenium (mg/L)	GWC-5R	0.04273	n/a	9/23/2020	0.026	No 18	0.1371	0.02884	5.556	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Selenium (mg/L)	GWC-6R	0.01	n/a	9/23/2020	0.0031J	No 24	n/a	n/a	70.83	n/a	n/a	n/a	0.003124	NP Intra (NDs) 1 of 2
<b>Zinc (mg/L)</b>	<b>GWA-2</b>	<b>0.009584</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>0.033</b>	<b>Yes 23</b>	<b>0.004991</b>	<b>0.002</b>	<b>4.348</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>0.0005852</b>	<b>Param Intra 1 of 2</b>
Zinc (mg/L)	GWC-1R	0.007102	n/a	9/22/2020	0.0029J	No 15	0.05264	0.0125	20	Kaplan-Meier	sqrt(x)	0.0005852	Param Intra 1 of 2	
Zinc (mg/L)	GWC-2R	0.01249	n/a	9/22/2020	0.003J	No 20	0.0653	0.01977	10	None	sqrt(x)	0.0005852	Param Intra 1 of 2	
Zinc (mg/L)	GWC-3R	0.01462	n/a	9/22/2020	0.0036J	No 14	0.00605	0.003313	7.143	None	No	No	0.0005852	Param Intra 1 of 2
Zinc (mg/L)	GWC-4R	0.01	n/a	9/22/2020	0.01ND	No 19	n/a	n/a	63.16	n/a	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
<b>Zinc (mg/L)</b>	<b>GWC-5R</b>	<b>0.01798</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>0.018</b>	<b>Yes 15</b>	<b>0.00738</b>	<b>0.004189</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>No</b>	<b>0.0005852</b>	<b>Param Intra 1 of 2</b>
Zinc (mg/L)	GWC-6R	0.01	n/a	9/23/2020	0.01ND	No 21	n/a	n/a	33.33	n/a	n/a	n/a	0.003999	NP Intra (normality) 1 of 2

Within Limit

Prediction Limit  
Intrawell Non-parametric

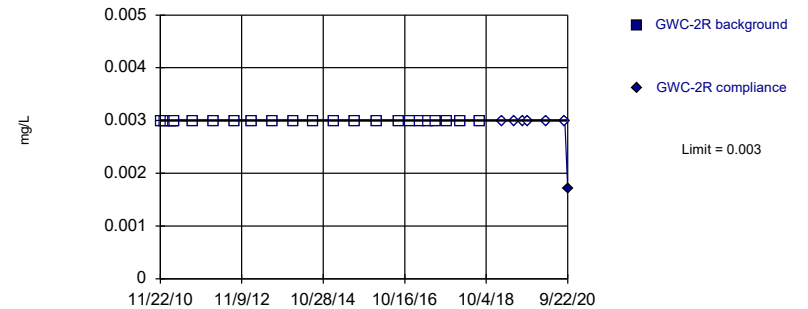


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 96.3% NDs. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

Constituent: Antimony Analysis Run 2/12/2021 10:12 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

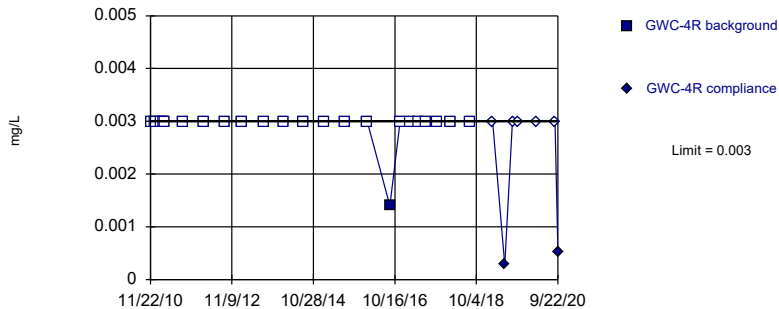


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 23) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Antimony Analysis Run 2/12/2021 10:12 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

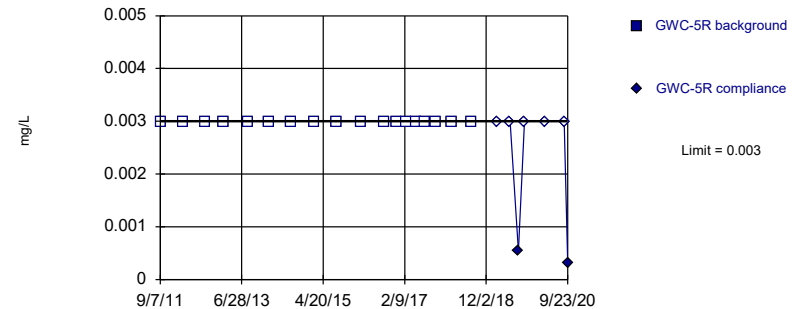


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Antimony Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

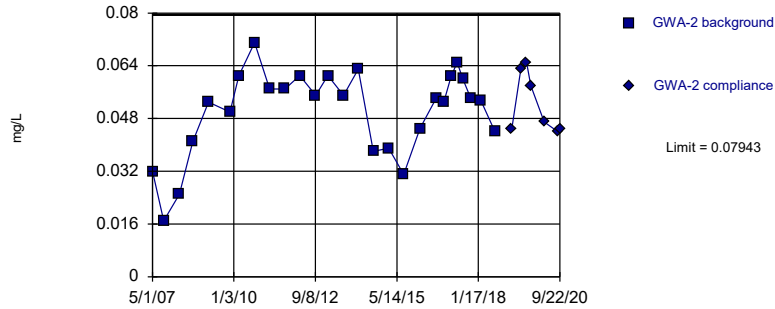


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Antimony Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

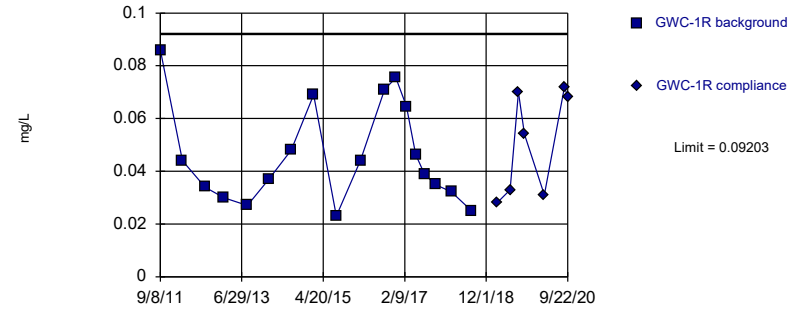


Background Data Summary: Mean=0.05023, Std. Dev.=0.01305, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.924, critical = 0.894. Kappa = 2.237 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

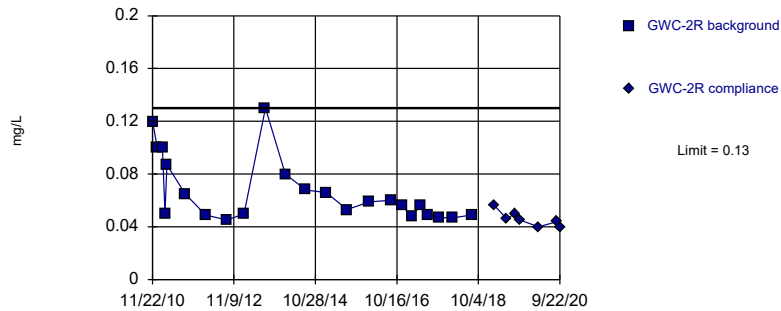


Background Data Summary: Mean=0.04614, Std. Dev.=0.01903, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9026, critical = 0.858. Kappa = 2.412 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

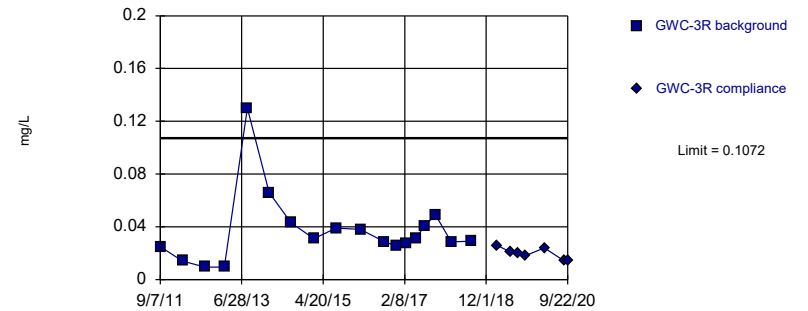


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 23 background values. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric



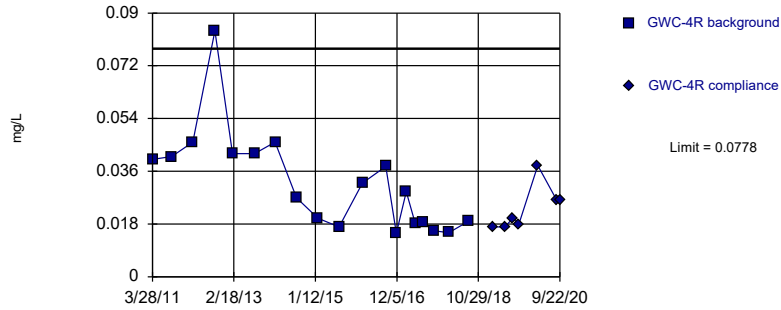
Background Data Summary (based on square root transformation): Mean=0.1832, Std. Dev.=0.05976, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8697, critical = 0.858. Kappa = 2.412 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



Within Limit

Prediction Limit  
Intrawell Parametric

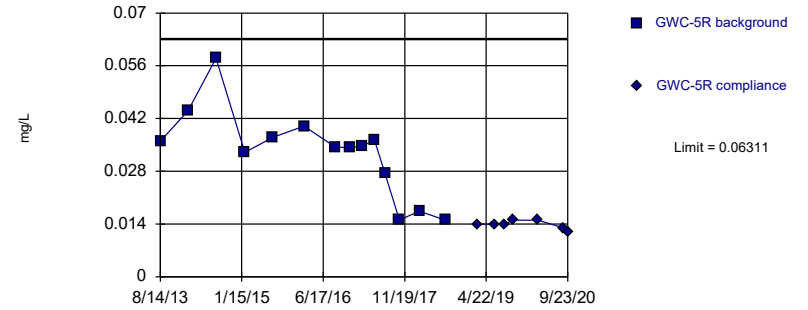


Background Data Summary (based on square root transformation): Mean=0.1732, Std. Dev.=0.04443, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.863. Kappa = 2.381 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

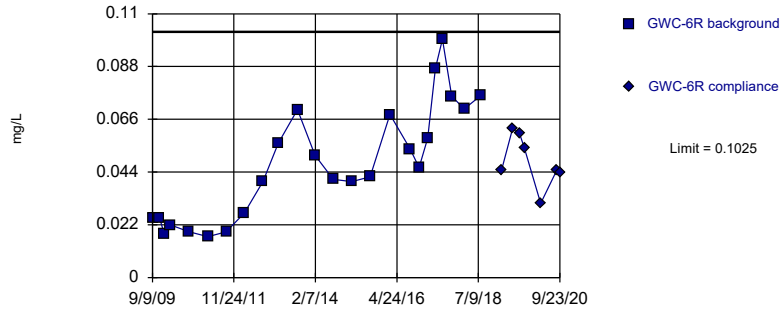


Background Data Summary: Mean=0.03304, Std. Dev.=0.01162, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.911, critical = 0.825. Kappa = 2.587 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

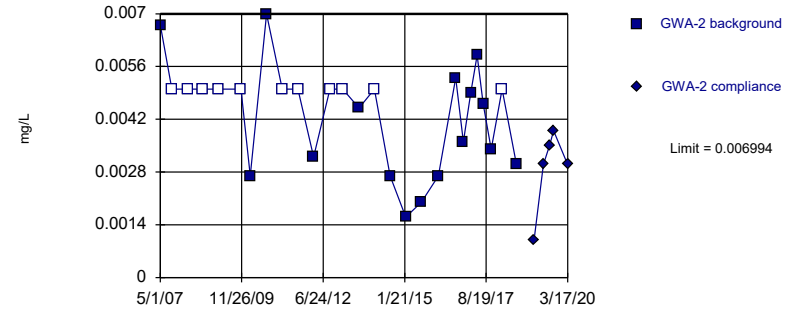


Background Data Summary: Mean=0.04776, Std. Dev.=0.02401, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9379, critical = 0.884. Kappa = 2.278 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Barium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

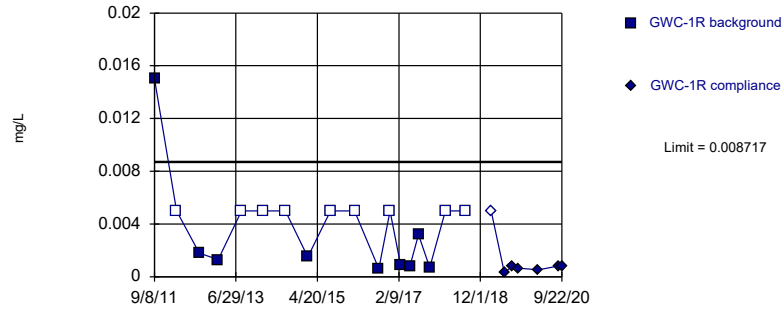


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.003556, Std. Dev.=0.001537, n=27, 40.74% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.894. Kappa = 2.237 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

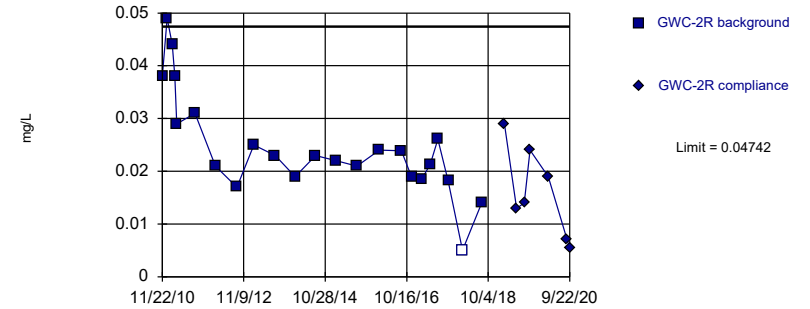


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=6.613, Std. Dev.=0.7756, n=18, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8602, critical = 0.858. Kappa = 2.412 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

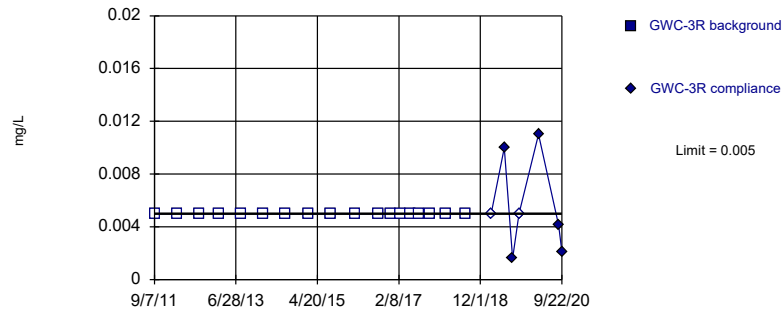


Background Data Summary: Mean=0.02477, Std. Dev.=0.009863, n=23, 4.348% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9174, critical = 0.881. Kappa = 2.296 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

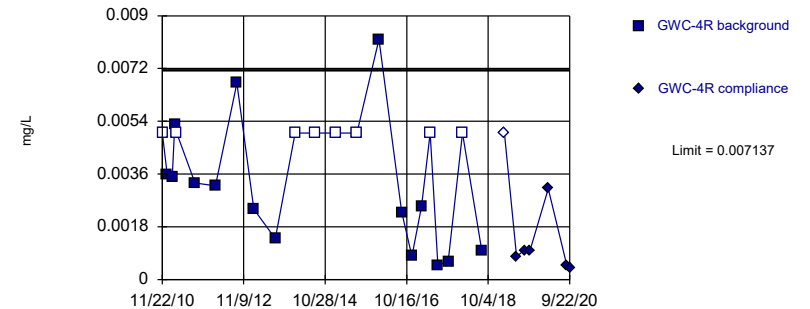


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

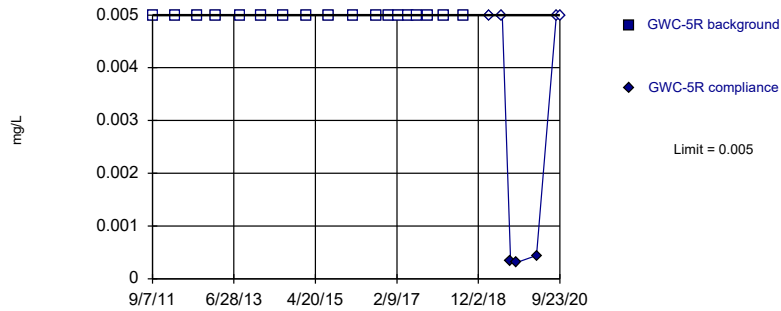


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.002697, Std. Dev.=0.001934, n=23, 34.78% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9311, critical = 0.881. Kappa = 2.296 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

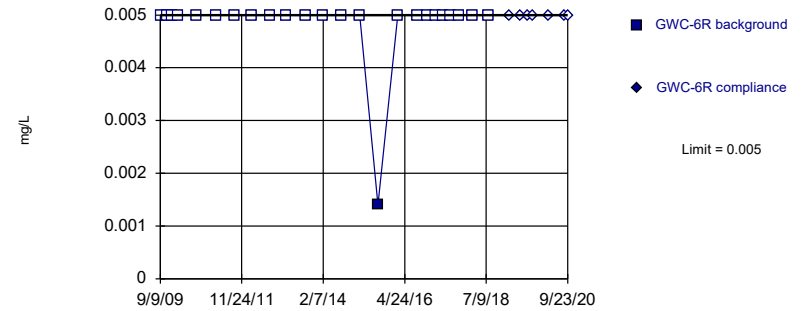


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

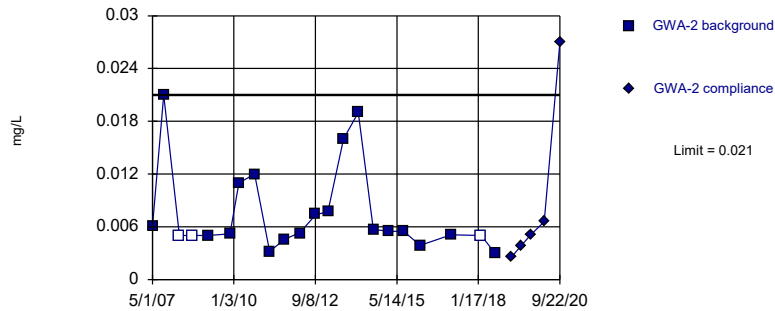


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 95.83% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

Constituent: Cobalt Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit

Prediction Limit  
Intrawell Non-parametric

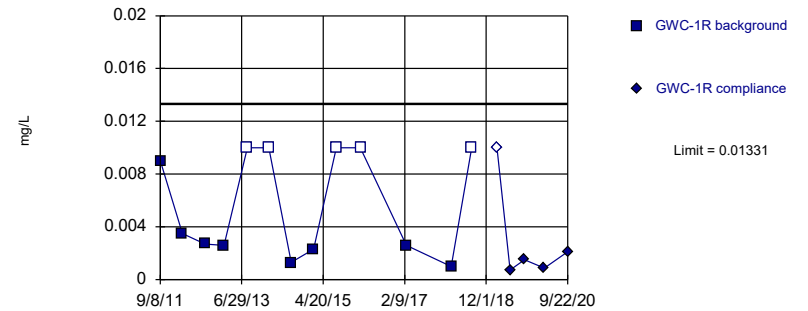


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. 13.64% NDs. Well-constituent pair annual alpha = 0.007401. Individual comparison alpha = 0.003707 (1 of 2).

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

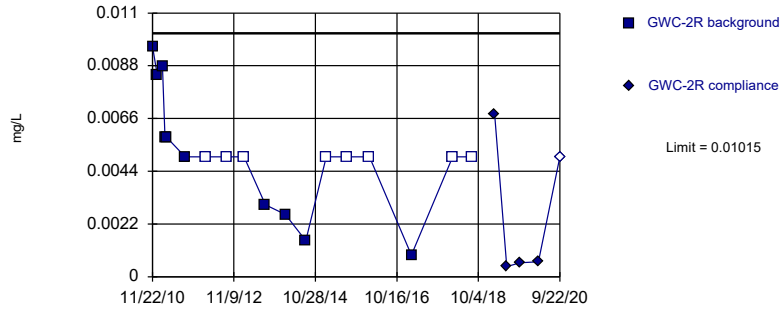


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-6.05, Std. Dev.=0.655, n=13, 38.46% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8323, critical = 0.814. Kappa = 2.643 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

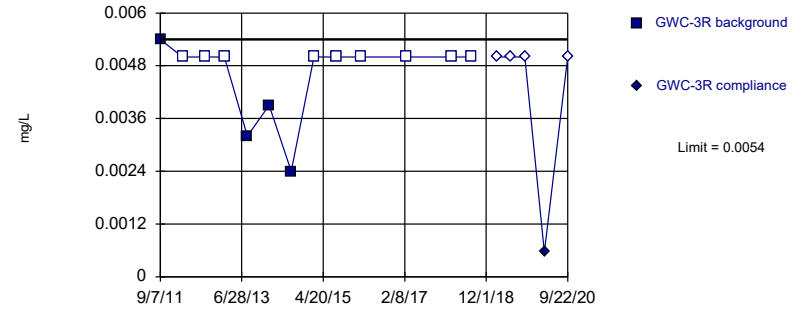


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.003546, Std. Dev.=0.00274, n=18, 44.44% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8887, critical = 0.858. Kappa = 2.412 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

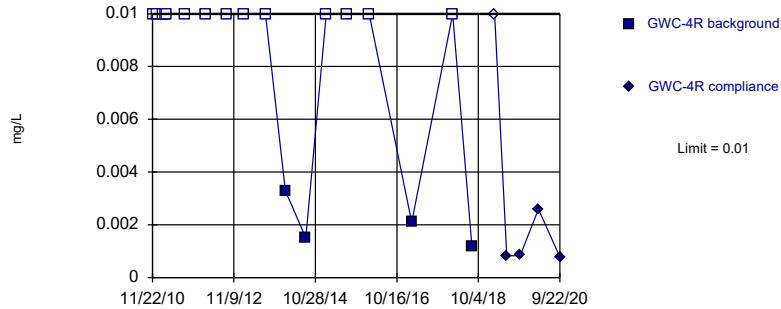


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

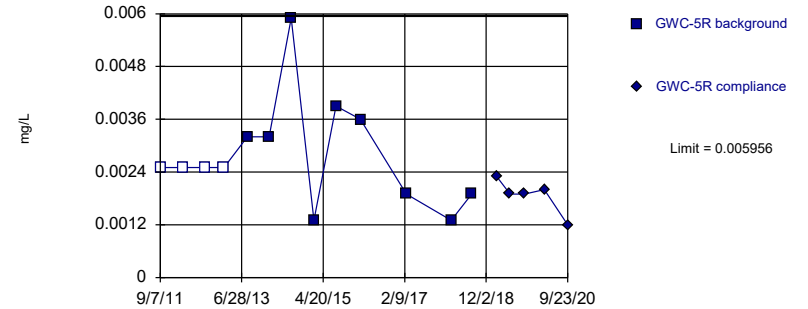


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

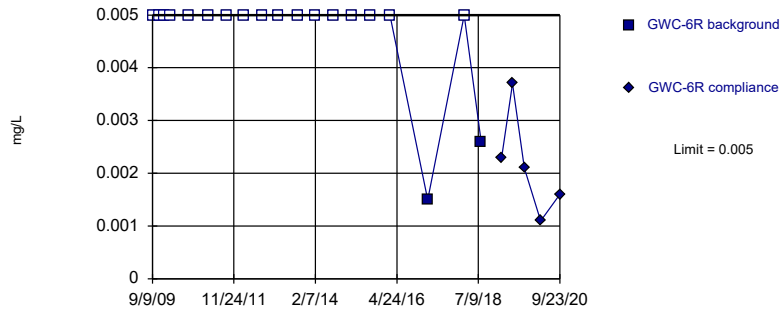


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.002281, Std. Dev.=0.00139, n=13, 30.77% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8933, critical = 0.814. Kappa = 2.643 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

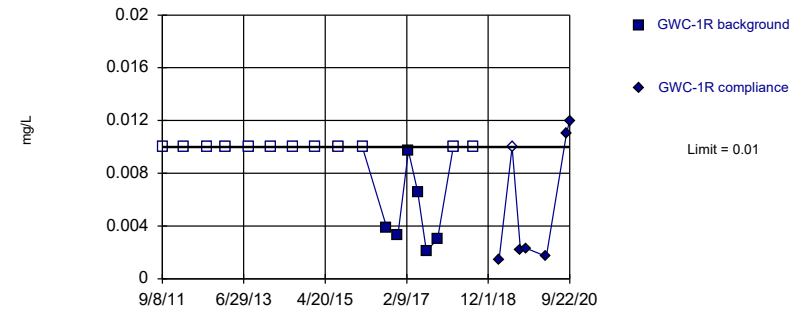


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Nickel Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit

Prediction Limit  
Intrawell Non-parametric

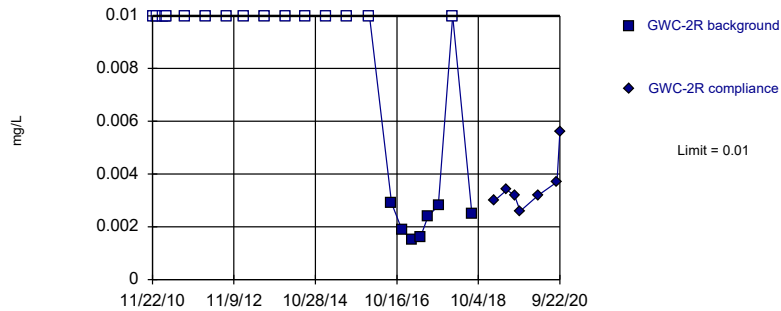


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Selenium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

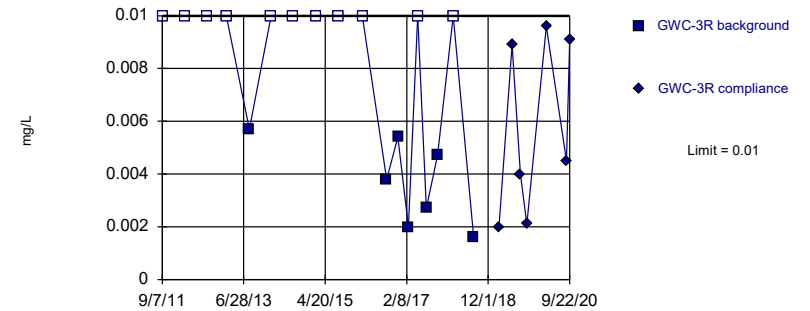


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 69.57% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

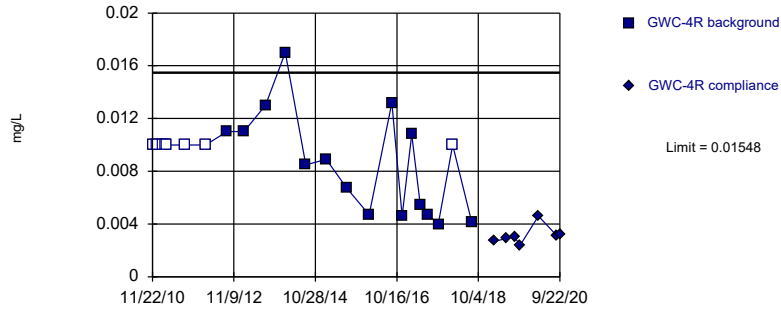


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 61.11% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Selenium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

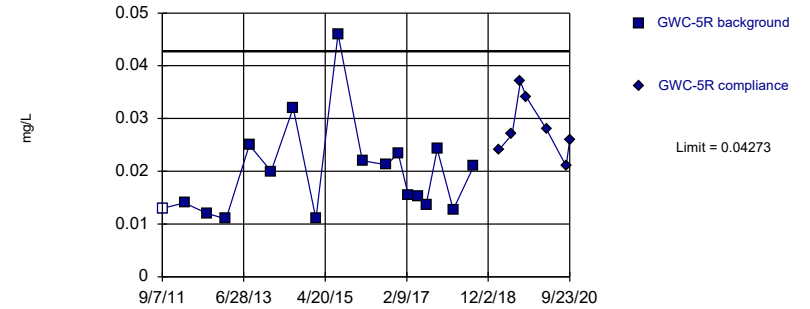


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.007285, Std. Dev.=0.003569, n=23, 34.78% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9085, critical = 0.881. Kappa = 2.296 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Selenium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

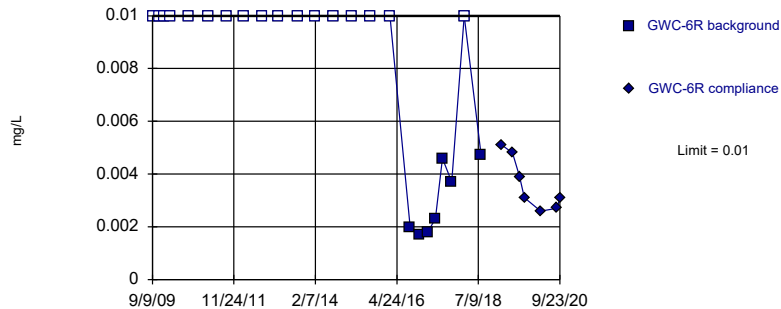


Background Data Summary (based on square root transformation): Mean=0.1371, Std. Dev.=0.02884, n=18, 5.566% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8922, critical = 0.858. Kappa = 2.412 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Selenium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

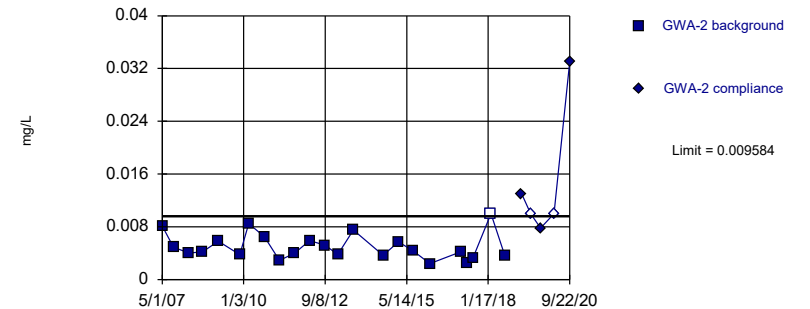


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 70.83% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

Constituent: Selenium Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit

Prediction Limit  
Intrawell Parametric

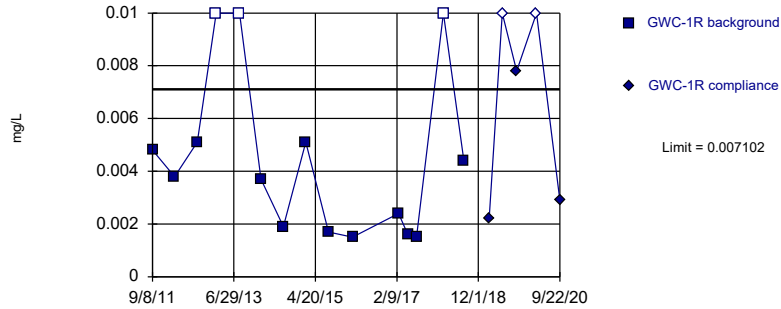


Background Data Summary: Mean=0.004991, Std. Dev.=0.002, n=23, 4.348% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9103, critical = 0.881. Kappa = 2.296 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

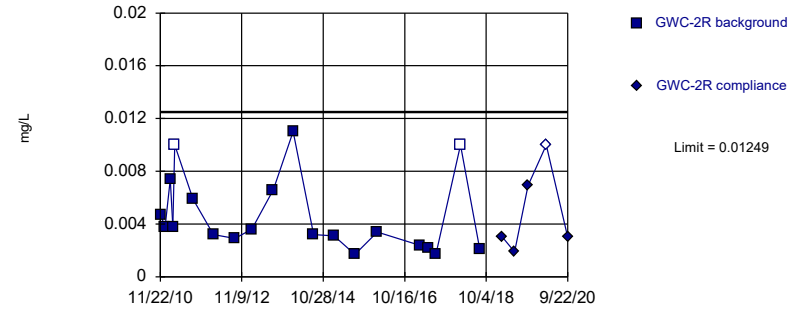


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.05264, Std. Dev.=0.0125, n=15, 20% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8675, critical = 0.835. Kappa = 2.53 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

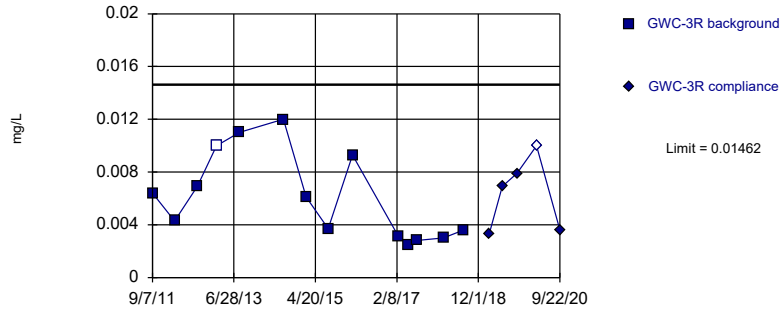


Background Data Summary (based on square root transformation): Mean=0.0653, Std. Dev.=0.01977, n=20, 10% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8938, critical = 0.868. Kappa = 2.35 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Parametric

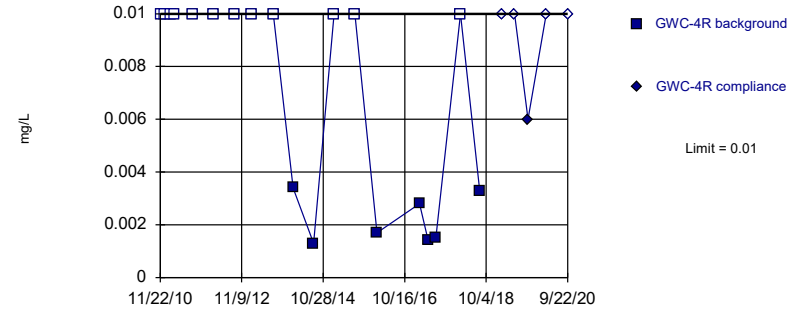


Background Data Summary: Mean=0.00605, Std. Dev.=0.003313, n=14, 7.143% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8788, critical = 0.825. Kappa = 2.587 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

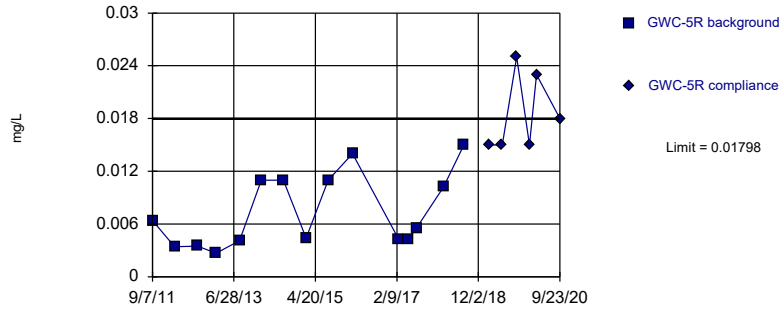


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 63.16% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit

Prediction Limit  
Intrawell Parametric



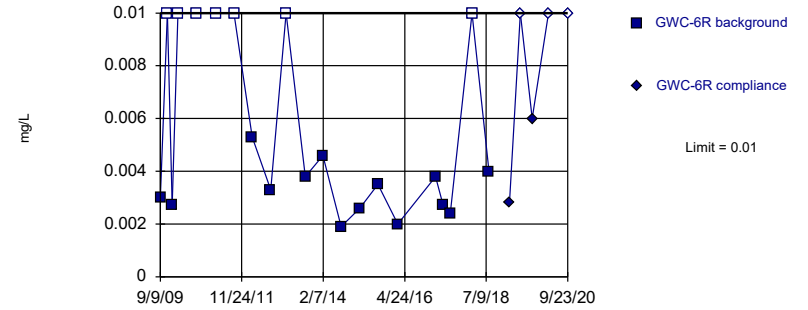
Background Data Summary: Mean=0.00738, Std. Dev.=0.004189, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8595, critical = 0.835. Kappa = 2.53 (c=15, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.0005852.

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Within Limit

Prediction Limit  
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 21 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Zinc Analysis Run 2/12/2021 10:13 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
5/1/2007	<0.003	
9/11/2007	<0.003	
3/20/2008	<0.003	
8/27/2008	<0.003	
3/3/2009	<0.003	
11/18/2009	<0.003	
3/3/2010	<0.003	
9/8/2010	<0.003	
3/10/2011	<0.003	
9/8/2011	<0.003	
3/5/2012	<0.003	
9/10/2012	<0.003	
2/6/2013	<0.003	
8/12/2013	<0.003	
2/5/2014	<0.003	
8/5/2014	<0.003	
2/4/2015	<0.003	
8/3/2015	<0.003	
2/16/2016	<0.003	
8/31/2016	<0.003	
11/28/2016	0.0014 (J)	
2/22/2017	<0.003	
5/8/2017	<0.003	
7/17/2017	<0.003	
10/16/2017	<0.003	
2/19/2018	<0.003	
8/6/2018	<0.003	
2/25/2019		<0.003
6/12/2019		<0.003
8/19/2019		<0.003
10/8/2019		<0.003
3/17/2020		<0.003
8/26/2020		0.00042 (J)
9/22/2020		0.00044 (J)

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
11/22/2010	<0.003	
1/4/2011	<0.003	
2/17/2011	<0.003	
3/11/2011	<0.003	
3/28/2011	<0.003	
9/7/2011	<0.003	
3/6/2012	<0.003	
9/11/2012	<0.003	
2/6/2013	<0.003	
8/13/2013	<0.003	
2/4/2014	<0.003	
8/5/2014	<0.003	
2/2/2015	<0.003	
8/4/2015	<0.003	
2/17/2016	<0.003	
8/31/2016	<0.003	
11/28/2016	<0.003	
2/22/2017	<0.003	
5/10/2017	<0.003	
7/18/2017	<0.003	
10/17/2017	<0.003	
2/20/2018	<0.003	
8/8/2018	<0.003	
2/26/2019		<0.003
6/12/2019		<0.003
8/20/2019		<0.003
10/9/2019		<0.003
3/18/2020		<0.003
8/28/2020		<0.003
9/22/2020		0.0017 (J)

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
11/22/2010	<0.003	
1/4/2011	<0.003	
2/17/2011	<0.003	
3/11/2011	<0.003	
3/28/2011	<0.003	
9/7/2011	<0.003	
3/4/2012	<0.003	
9/10/2012	<0.003	
2/6/2013	<0.003	
8/14/2013	<0.003	
2/4/2014	<0.003	
8/4/2014	<0.003	
2/2/2015	<0.003	
8/3/2015	<0.003 (D)	
2/16/2016	<0.003	
9/1/2016	0.0014 (J)	
11/30/2016	<0.003	
2/24/2017	<0.003	
5/10/2017	<0.003	
7/18/2017	<0.003	
10/17/2017	<0.003	
2/20/2018	<0.003	
8/8/2018	<0.003	
2/26/2019		<0.003
6/12/2019		0.00028 (J)
8/19/2019		<0.003
10/10/2019		<0.003
3/18/2020		<0.003
8/28/2020		<0.003
9/22/2020		0.00053 (J)

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	<0.003	
3/5/2012	<0.003	
9/5/2012	<0.003	
2/5/2013	<0.003	
8/14/2013	<0.003	
2/5/2014	<0.003	
8/4/2014	<0.003	
2/3/2015	<0.003	
8/3/2015	<0.003 (D)	
2/16/2016	<0.003	
9/1/2016	<0.003	
12/1/2016	<0.003	
2/24/2017	<0.003	
5/10/2017	<0.003	
7/17/2017	<0.003	
10/16/2017	<0.003	
2/21/2018	<0.003	
8/7/2018	<0.003	
2/26/2019		<0.003
6/13/2019		<0.003
8/21/2019		0.00054 (J)
10/9/2019		<0.003
3/18/2020		<0.003
8/27/2020		<0.003
9/23/2020		0.00031 (J)

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
5/1/2007	0.032	
9/11/2007	0.017	
3/20/2008	0.025	
8/27/2008	0.041	
3/3/2009	0.053	
11/18/2009	0.05	
3/3/2010	0.061	
9/8/2010	0.071	
3/10/2011	0.057	
9/8/2011	0.057	
3/5/2012	0.061	
9/10/2012	0.055	
2/6/2013	0.061	
8/12/2013	0.055	
2/5/2014	0.063	
8/5/2014	0.038	
2/4/2015	0.039	
8/3/2015	0.031	
2/16/2016	0.045	
8/31/2016	0.0542	
11/28/2016	0.0529	
2/22/2017	0.0607	
5/8/2017	0.065	
7/17/2017	0.06	
10/16/2017	0.0542	
2/19/2018	0.0533	
8/6/2018	0.044	
2/25/2019		0.045
6/12/2019		0.063
8/19/2019		0.065
10/8/2019		0.058
3/17/2020		0.047
8/26/2020		0.044
9/22/2020		0.045

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Inrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
9/8/2011	0.086	
3/5/2012	0.044	
9/5/2012	0.034	
2/5/2013	0.03	
8/13/2013	0.027	
2/4/2014	0.037	
8/5/2014	0.048	
2/2/2015	0.069	
8/4/2015	0.023 (D)	
2/16/2016	0.044	
8/31/2016	0.0711	
11/29/2016	0.0754	
2/23/2017	0.0646	
5/9/2017	0.0463	
7/18/2017	0.039	
10/17/2017	0.0349	
2/21/2018	0.0322	
8/7/2018	0.025	
2/26/2019		0.028
6/13/2019		0.033
8/20/2019		0.07
10/9/2019		0.054
3/17/2020		0.031
8/27/2020		0.072
9/22/2020		0.068

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
11/22/2010	0.12	
1/4/2011	0.1	
2/17/2011	0.1	
3/11/2011	0.05	
3/28/2011	0.087	
9/7/2011	0.065	
3/6/2012	0.049	
9/11/2012	0.045	
2/6/2013	0.05	
8/13/2013	0.13	
2/4/2014	0.08	
8/5/2014	0.068	
2/2/2015	0.066	
8/4/2015	0.053	
2/17/2016	0.059	
8/31/2016	0.0601	
11/28/2016	0.0562	
2/22/2017	0.0481	
5/10/2017	0.0563	
7/18/2017	0.049	
10/17/2017	0.047	
2/20/2018	0.0467	
8/8/2018	0.049	
2/26/2019		0.056
6/12/2019		0.046
8/20/2019		0.05
10/9/2019		0.045
3/18/2020		0.04
8/28/2020		0.044
9/22/2020		0.04

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Inrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
9/7/2011	0.025	
3/5/2012	0.014	
9/5/2012	0.0095	
2/6/2013	0.0094	
8/13/2013	0.13	
2/5/2014	0.066	
8/4/2014	0.043	
2/3/2015	0.031	
8/3/2015	0.039 (D)	
2/16/2016	0.038	
8/31/2016	0.0286	
11/30/2016	0.0258	
2/23/2017	0.0278	
5/9/2017	0.0308	
7/18/2017	0.0407	
10/18/2017	0.049	
2/21/2018	0.0285	
8/7/2018	0.029	
2/26/2019		0.026
6/13/2019		0.021
8/21/2019		0.02
10/10/2019		0.018
3/17/2020		0.024
8/28/2020		0.014
9/22/2020		0.014



# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
11/22/2010	0.03	
1/4/2011	0.065	
2/17/2011	0.061	
3/11/2011	0.066	
3/28/2011	0.04	
9/7/2011	0.041	
3/4/2012	0.046	
9/10/2012	0.084	
2/6/2013	0.042	
8/14/2013	0.042	
2/4/2014	0.046	
8/4/2014	0.027	
2/2/2015	0.02	
8/3/2015	0.017 (D)	
2/16/2016	0.032	
9/1/2016	0.0377	
11/30/2016	0.0148	
2/24/2017	0.029	
5/10/2017	0.0182	
7/18/2017	0.0187	
10/17/2017	0.0157	
2/20/2018	0.0151	
8/8/2018	0.019	
2/26/2019		0.017
6/12/2019		0.017
8/19/2019		0.02
10/10/2019		0.018
3/18/2020		0.038
8/28/2020		0.026
9/22/2020		0.026

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Inrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	0.02	
3/5/2012	0.048	
9/5/2012	0.07	
2/5/2013	0.068	
8/14/2013	0.036	
2/5/2014	0.044	
8/4/2014	0.058	
2/3/2015	0.033	
8/3/2015	0.037 (D)	
2/16/2016	0.04	
9/1/2016	0.0345	
12/1/2016	0.0342	
2/24/2017	0.0347	
5/10/2017	0.0363	
7/17/2017	0.0274	
10/16/2017	0.0151	
2/21/2018	0.0174	
8/7/2018	0.015	
2/26/2019		0.014
6/13/2019		0.014
8/21/2019		0.014
10/9/2019		0.015
3/18/2020		0.015
8/27/2020		0.013
9/23/2020		0.012

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/9/2009	0.025	
11/18/2009	0.025	
1/5/2010	0.018	
3/3/2010	0.022	
9/7/2010	0.019	
3/10/2011	0.017	
9/8/2011	0.019	
3/5/2012	0.027	
9/5/2012	0.04	
2/5/2013	0.056	
8/13/2013	0.07	
2/4/2014	0.051	
8/5/2014	0.041	
2/3/2015	0.04	
8/4/2015	0.042	
2/16/2016	0.068	
9/1/2016	0.0536	
11/29/2016	0.0459	
2/23/2017	0.0581	
5/10/2017	0.0873	
7/18/2017	0.0994	
10/18/2017	0.0757	
2/19/2018	0.0703	
8/6/2018	0.076	
2/25/2019		0.045
6/13/2019		0.062
8/20/2019		0.06
10/8/2019		0.054
3/17/2020		0.031
8/27/2020		0.045
9/23/2020		0.044

# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
5/1/2007	0.0067	
9/11/2007	<0.005	
3/20/2008	<0.005	
8/27/2008	<0.005	
3/3/2009	<0.005	
11/18/2009	<0.005	
3/3/2010	0.0027	
9/8/2010	0.007	
3/10/2011	<0.005	
9/8/2011	<0.005	
3/5/2012	0.0032	
9/10/2012	<0.005	
2/6/2013	<0.005	
8/12/2013	0.0045	
2/5/2014	<0.005	
8/5/2014	0.0027	
2/4/2015	0.0016	
8/3/2015	0.002	
2/16/2016	0.0027	
8/31/2016	0.0053 (J)	
11/28/2016	0.0036 (J)	
2/22/2017	0.0049 (J)	
5/8/2017	0.0059 (J)	
7/17/2017	0.0046 (J)	
10/16/2017	0.0034 (J)	
2/19/2018	<0.005	
8/6/2018	0.003 (J)	
2/25/2019		0.001 (J)
6/12/2019		0.003 (J)
8/19/2019		0.0035 (J)
10/8/2019		0.0039 (J)
3/17/2020		0.003 (J)
8/26/2020		0.2 (o)
9/22/2020		0.16 (o)

# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intravel  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
9/8/2011	0.015	
3/5/2012	<0.005	
9/5/2012	0.0018	
2/5/2013	0.0013	
8/13/2013	<0.005	
2/4/2014	<0.005	
8/5/2014	<0.005	
2/2/2015	0.0015	
8/4/2015	<0.005 (D)	
2/16/2016	<0.005	
8/31/2016	0.0006 (J)	
11/29/2016	<0.005	
2/23/2017	0.0009 (J)	
5/9/2017	0.0008 (J)	
7/18/2017	0.0032 (J)	
10/17/2017	0.0007 (J)	
2/21/2018	<0.005	
8/7/2018	<0.005	
2/26/2019		<0.005
6/13/2019		0.00033 (J)
8/20/2019		0.00079 (J)
10/9/2019		0.00064 (J)
3/17/2020		0.00054 (J)
8/27/2020		0.00081 (J)
9/22/2020		0.0008 (J)

# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
11/22/2010	0.038	
1/4/2011	0.049	
2/17/2011	0.044	
3/11/2011	0.038	
3/28/2011	0.029	
9/7/2011	0.031	
3/6/2012	0.021	
9/11/2012	0.017	
2/6/2013	0.025	
8/13/2013	0.023	
2/4/2014	0.019	
8/5/2014	0.023	
2/2/2015	0.022	
8/4/2015	0.021	
2/17/2016	0.024	
8/31/2016	0.0239	
11/28/2016	0.0189	
2/22/2017	0.0184	
5/10/2017	0.0213	
7/18/2017	0.0261	
10/17/2017	0.0182	
2/20/2018	<0.005	
8/8/2018	0.014	
2/26/2019		0.029
6/12/2019		0.013
8/20/2019		0.014
10/9/2019		0.024
3/18/2020		0.019
8/28/2020		0.0072
9/22/2020		0.0054

# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intravel  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
9/7/2011	<0.005	
3/5/2012	<0.005	
9/5/2012	<0.005	
2/6/2013	<0.005	
8/13/2013	<0.005	
2/5/2014	<0.005	
8/4/2014	<0.005	
2/3/2015	<0.005	
8/3/2015	<0.005 (D)	
2/16/2016	<0.005	
8/31/2016	<0.005	
11/30/2016	<0.005	
2/23/2017	<0.005	
5/9/2017	<0.005	
7/18/2017	<0.005	
10/18/2017	<0.005	
2/21/2018	<0.005	
8/7/2018	<0.005	
2/26/2019		<0.005
6/13/2019		0.01
8/21/2019		0.0016 (J)
10/10/2019		<0.005
3/17/2020		0.011
8/28/2020		0.0041 (J)
9/22/2020		0.0021 (J)

# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
11/22/2010	<0.005	
1/4/2011	0.0036	
2/17/2011	0.0035	
3/11/2011	0.0053	
3/28/2011	<0.005	
9/7/2011	0.0033	
3/4/2012	0.0032	
9/10/2012	0.0067	
2/6/2013	0.0024	
8/14/2013	0.0014	
2/4/2014	<0.005	
8/4/2014	<0.005	
2/2/2015	<0.005	
8/3/2015	<0.005 (D)	
2/16/2016	0.0082	
9/1/2016	0.0023 (J)	
11/30/2016	0.0008 (J)	
2/24/2017	0.0025 (J)	
5/10/2017	<0.005	
7/18/2017	0.0005 (J)	
10/17/2017	0.0006 (J)	
2/20/2018	<0.005	
8/8/2018	0.001 (J)	
2/26/2019		<0.005
6/12/2019		0.00078 (J)
8/19/2019		0.001 (J)
10/10/2019		0.00099 (J)
3/18/2020		0.0031 (J)
8/28/2020		0.00049 (J)
9/22/2020		0.00039 (J)



# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	<0.005	
3/5/2012	<0.005	
9/5/2012	<0.005	
2/5/2013	<0.005	
8/14/2013	<0.005	
2/5/2014	<0.005	
8/4/2014	<0.005	
2/3/2015	<0.005	
8/3/2015	<0.005 (D)	
2/16/2016	<0.005	
9/1/2016	<0.005	
12/1/2016	<0.005	
2/24/2017	<0.005	
5/10/2017	<0.005	
7/17/2017	<0.005	
10/16/2017	<0.005	
2/21/2018	<0.005	
8/7/2018	<0.005	
2/26/2019		<0.005
6/13/2019		<0.005
8/21/2019		0.00034 (J)
10/9/2019		0.00031 (J)
3/18/2020		0.00044 (J)
8/27/2020		<0.005
9/23/2020		<0.005

# Prediction Limit

Constituent: Cobalt (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/9/2009	<0.005	
11/18/2009	<0.005	
1/5/2010	<0.005	
3/3/2010	<0.005	
9/7/2010	<0.005	
3/10/2011	<0.005	
9/8/2011	<0.005	
3/5/2012	<0.005	
9/5/2012	<0.005	
2/5/2013	<0.005	
8/13/2013	<0.005	
2/4/2014	<0.005	
8/5/2014	<0.005	
2/3/2015	<0.005	
8/4/2015	0.0014	
2/16/2016	<0.005	
9/1/2016	<0.005	
11/29/2016	<0.005	
2/23/2017	<0.005	
5/10/2017	<0.005	
7/18/2017	<0.005	
10/18/2017	<0.005	
2/19/2018	<0.005	
8/6/2018	<0.005	
2/25/2019		<0.005
6/13/2019		<0.005
8/20/2019		<0.005
10/8/2019		<0.005
3/17/2020		<0.005
8/27/2020		<0.005
9/23/2020		<0.005

# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
5/1/2007	0.0061	
9/11/2007	0.021	
3/20/2008	<0.005	
8/27/2008	<0.005	
3/3/2009	0.005	
11/18/2009	0.0052	
3/3/2010	0.011	
9/8/2010	0.012	
3/10/2011	0.0032	
9/8/2011	0.0046	
3/5/2012	0.0053	
9/10/2012	0.0074	
2/6/2013	0.0077	
8/12/2013	0.016	
2/5/2014	0.019	
8/5/2014	0.0057	
2/4/2015	0.0055	
8/3/2015	0.0055	
2/16/2016	0.0039	
2/22/2017	0.0051 (J)	
2/19/2018	<0.005	
8/6/2018	0.003 (J)	
2/25/2019		0.0026 (J)
6/12/2019		0.0038 (J)
10/8/2019		0.0051 (J)
3/17/2020		0.0066
9/22/2020		0.027

# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
9/8/2011	0.009	
3/5/2012	0.0035	
9/5/2012	0.0027	
2/5/2013	0.0026	
8/13/2013	<0.01	
2/4/2014	<0.01	
8/5/2014	0.0013 (J)	
2/2/2015	0.0023 (J)	
8/4/2015	<0.01 (D)	
2/16/2016	<0.01	
2/23/2017	0.0026 (J)	
2/21/2018	0.001 (J)	
8/7/2018	<0.01	
2/26/2019		<0.01
6/13/2019		0.00072 (J)
10/9/2019		0.0015 (J)
3/17/2020		0.00087 (J)
9/22/2020		0.0021 (J)

# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
11/22/2010	0.0096	
1/4/2011	0.0084	
2/17/2011	0.0088	
3/11/2011	0.0058	
3/28/2011	0.0058	
9/7/2011	0.005	
3/6/2012	<0.005	
9/11/2012	<0.005	
2/6/2013	<0.005	
8/13/2013	0.003	
2/4/2014	0.0026	
8/5/2014	0.0015 (J)	
2/2/2015	<0.005	
8/4/2015	<0.005	
2/17/2016	<0.005	
2/22/2017	0.0009 (J)	
2/20/2018	<0.005	
8/8/2018	<0.005	
2/26/2019		0.0068 (J)
6/12/2019		0.00043 (J)
10/9/2019		0.00058 (J)
3/18/2020		0.00063 (J)
9/22/2020		<0.005

# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
9/7/2011	0.0054	
3/5/2012	<0.005	
9/5/2012	<0.005	
2/6/2013	<0.005	
8/13/2013	0.0032	
2/5/2014	0.0039	
8/4/2014	0.0024 (J)	
2/3/2015	<0.005	
8/3/2015	<0.005 (D)	
2/16/2016	<0.005	
2/23/2017	<0.005	
2/21/2018	<0.005	
8/7/2018	<0.005	
2/26/2019		<0.005
6/13/2019		<0.005
10/10/2019		<0.005
3/17/2020		0.00056 (J)
9/22/2020		<0.005

# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
11/22/2010	<0.01	
1/4/2011	<0.01	
2/17/2011	<0.01	
3/11/2011	<0.01	
3/28/2011	<0.01	
9/7/2011	<0.01	
3/4/2012	<0.01	
9/10/2012	<0.01	
2/6/2013	<0.01	
8/14/2013	<0.01	
2/4/2014	0.0033	
8/4/2014	0.0015 (J)	
2/2/2015	<0.01	
8/3/2015	<0.01 (D)	
2/16/2016	<0.01	
2/24/2017	0.0021 (J)	
2/20/2018	<0.01	
8/8/2018	0.0012 (J)	
2/26/2019		<0.01
6/12/2019		0.00082 (J)
10/10/2019		0.00084 (J)
3/18/2020		0.0026 (J)
9/22/2020		0.00077 (J)

# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	<0.0025	
3/5/2012	<0.0025	
9/5/2012	<0.0025	
2/5/2013	<0.0025	
8/14/2013	0.0032	
2/5/2014	0.0032	
8/4/2014	0.0059	
2/3/2015	0.0013 (J)	
8/3/2015	0.0039 (D)	
2/16/2016	0.0036	
2/24/2017	0.0019 (J)	
2/21/2018	0.0013 (J)	
8/7/2018	0.0019 (J)	
2/26/2019		0.0023 (J)
6/13/2019		0.0019 (J)
10/9/2019		0.0019 (J)
3/18/2020		0.002 (J)
9/23/2020		0.0012 (J)



# Prediction Limit

Constituent: Nickel (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/9/2009	<0.005	
11/18/2009	<0.005	
1/5/2010	<0.005	
3/3/2010	<0.005	
9/7/2010	<0.005	
3/10/2011	<0.005	
9/8/2011	<0.005	
3/5/2012	<0.005	
9/5/2012	<0.005	
2/5/2013	<0.005	
8/13/2013	<0.005	
2/4/2014	<0.005	
8/5/2014	<0.005	
2/3/2015	<0.005	
8/4/2015	<0.005	
2/16/2016	<0.005	
2/23/2017	0.0015 (J)	
2/19/2018	<0.005	
8/6/2018	0.0026 (J)	
2/25/2019		0.0023 (J)
6/13/2019		0.0037 (J)
10/8/2019		0.0021 (J)
3/17/2020		0.0011 (J)
9/23/2020		0.0016 (J)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
9/8/2011	<0.01	
3/5/2012	<0.01	
9/5/2012	<0.01	
2/5/2013	<0.01	
8/13/2013	<0.01	
2/4/2014	<0.01	
8/5/2014	<0.01	
2/2/2015	<0.01	
8/4/2015	<0.01 (D)	
2/16/2016	<0.01	
8/31/2016	0.0039 (J)	
11/29/2016	0.0033 (J)	
2/23/2017	0.0097 (J)	
5/9/2017	0.0066 (J)	
7/18/2017	0.0021 (J)	
10/17/2017	0.003 (J)	
2/21/2018	<0.01	
8/7/2018	<0.01	
2/26/2019		0.0014 (J)
6/13/2019		<0.01
8/20/2019		0.0022 (J)
10/9/2019		0.0023 (J)
3/17/2020		0.0017 (J)
8/27/2020		0.011
9/22/2020		0.012

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
11/22/2010	<0.01	
1/4/2011	<0.01	
2/17/2011	<0.01	
3/11/2011	<0.01	
3/28/2011	<0.01	
9/7/2011	<0.01	
3/6/2012	<0.01	
9/11/2012	<0.01	
2/6/2013	<0.01	
8/13/2013	<0.01	
2/4/2014	<0.01	
8/5/2014	<0.01	
2/2/2015	<0.01	
8/4/2015	<0.01	
2/17/2016	<0.01	
8/31/2016	0.0029 (J)	
11/28/2016	0.0019 (J)	
2/22/2017	0.0015 (J)	
5/10/2017	0.0016 (J)	
7/18/2017	0.0024 (J)	
10/17/2017	0.0028 (J)	
2/20/2018	<0.01	
8/8/2018	0.0025 (J)	
2/26/2019		0.003 (J)
6/12/2019		0.0034 (J)
8/20/2019		0.0032 (J)
10/9/2019		0.0026 (J)
3/18/2020		0.0032 (J)
8/28/2020		0.0037 (J)
9/22/2020		0.0056 (J)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
9/7/2011	<0.01	
3/5/2012	<0.01	
9/5/2012	<0.01	
2/6/2013	<0.01	
8/13/2013	0.0057	
2/5/2014	<0.01	
8/4/2014	<0.01	
2/3/2015	<0.01	
8/3/2015	<0.01 (D)	
2/16/2016	<0.01	
8/31/2016	0.0038 (J)	
11/30/2016	0.0054 (J)	
2/23/2017	0.002 (J)	
5/9/2017	<0.01	
7/18/2017	0.0027 (J)	
10/18/2017	0.0047 (J)	
2/21/2018	<0.01	
8/7/2018	0.0016 (J)	
2/26/2019		0.002 (J)
6/13/2019		0.0089 (J)
8/21/2019		0.004 (J)
10/10/2019		0.0021 (J)
3/17/2020		0.0096 (J)
8/28/2020		0.0045 (J)
9/22/2020		0.0091 (J)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
11/22/2010	<0.01	
1/4/2011	<0.01	
2/17/2011	<0.01	
3/11/2011	<0.01	
3/28/2011	<0.01	
9/7/2011	<0.01	
3/4/2012	<0.01	
9/10/2012	0.011	
2/6/2013	0.011	
8/14/2013	0.013	
2/4/2014	0.017	
8/4/2014	0.0085	
2/2/2015	0.0089	
8/3/2015	0.0067 (D)	
2/16/2016	0.0047 (J)	
9/1/2016	0.0132	
11/30/2016	0.0046 (J)	
2/24/2017	0.0108	
5/10/2017	0.0054 (J)	
7/18/2017	0.0047 (J)	
10/17/2017	0.004 (J)	
2/20/2018	<0.01	
8/8/2018	0.0041 (J)	
2/26/2019		0.0027 (J)
6/12/2019		0.0029 (J)
8/19/2019		0.003 (J)
10/10/2019		0.0024 (J)
3/18/2020		0.0046 (J)
8/28/2020		0.0031 (J)
9/22/2020		0.0032 (J)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	<0.013	
3/5/2012	0.014	
9/5/2012	0.012	
2/5/2013	0.011	
8/14/2013	0.025	
2/5/2014	0.02	
8/4/2014	0.032	
2/3/2015	0.011	
8/3/2015	0.046 (D)	
2/16/2016	0.022	
9/1/2016	0.0212	
12/1/2016	0.0234	
2/24/2017	0.0154	
5/10/2017	0.0152	
7/17/2017	0.0136	
10/16/2017	0.0242	
2/21/2018	0.0127	
8/7/2018	0.021	
2/26/2019		0.024
6/13/2019		0.027
8/21/2019		0.037
10/9/2019		0.034
3/18/2020		0.028
8/27/2020		0.021
9/23/2020		0.026

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/9/2009	<0.01	
11/18/2009	<0.01	
1/5/2010	<0.01	
3/3/2010	<0.01	
9/7/2010	<0.01	
3/10/2011	<0.01	
9/8/2011	<0.01	
3/5/2012	<0.01	
9/5/2012	<0.01	
2/5/2013	<0.01	
8/13/2013	<0.01	
2/4/2014	<0.01	
8/5/2014	<0.01	
2/3/2015	<0.01	
8/4/2015	<0.01	
2/16/2016	<0.01	
9/1/2016	0.002 (J)	
11/29/2016	0.0017 (J)	
2/23/2017	0.0018 (J)	
5/10/2017	0.0023 (J)	
7/18/2017	0.0046 (J)	
10/18/2017	0.0037 (J)	
2/19/2018	<0.01	
8/6/2018	0.0047 (J)	
2/25/2019		0.0051 (J)
6/13/2019		0.0048 (J)
8/20/2019		0.0039 (J)
10/8/2019		0.0031 (J)
3/17/2020		0.0026 (J)
8/27/2020		0.0027 (J)
9/23/2020		0.0031 (J)

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
5/1/2007	0.0081	
9/11/2007	0.0049	
3/20/2008	0.004	
8/27/2008	0.0042	
3/3/2009	0.0058	
11/18/2009	0.0038	
3/3/2010	0.0085	
9/8/2010	0.0065	
3/10/2011	0.0029	
9/8/2011	0.004	
3/5/2012	0.0059	
9/10/2012	0.0052	
2/6/2013	0.0038	
8/12/2013	0.0075	
2/5/2014	0.018 (o)	
8/5/2014	0.0037	
2/4/2015	0.0057	
8/3/2015	0.0043	
2/16/2016	0.0024 (J)	
2/22/2017	0.0042 (J)	
5/8/2017	0.0025 (J)	
7/17/2017	0.0032 (J)	
2/19/2018	<0.01	
8/6/2018	0.0037 (J)	
2/25/2019		0.013
6/12/2019		<0.01
10/8/2019		0.0078 (J)
3/17/2020		<0.01
9/22/2020		0.033



# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
9/8/2011	0.0048	
3/5/2012	0.0038	
9/5/2012	0.0051	
2/5/2013	<0.01	
8/13/2013	<0.01	
2/4/2014	0.0037	
8/5/2014	0.0019 (J)	
2/2/2015	0.0051	
8/4/2015	0.0017 (JD)	
2/16/2016	0.0015 (J)	
2/23/2017	0.0024 (J)	
5/9/2017	0.0016 (J)	
7/18/2017	0.0015 (J)	
2/21/2018	<0.01	
8/7/2018	0.0044 (J)	
2/26/2019		0.0022 (J)
6/13/2019		<0.01
10/9/2019		0.0078 (J)
3/17/2020		<0.01
9/22/2020		0.0029 (J)

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
11/22/2010	0.0047	
1/4/2011	0.0038	
2/17/2011	0.0074	
3/11/2011	0.0038	
3/28/2011	<0.01	
9/7/2011	0.0059	
3/6/2012	0.0032	
9/11/2012	0.0029	
2/6/2013	0.0036	
8/13/2013	0.0066	
2/4/2014	0.011	
8/5/2014	0.0032	
2/2/2015	0.0031	
8/4/2015	0.0017 (J)	
2/17/2016	0.0034	
2/22/2017	0.0024 (J)	
5/10/2017	0.0022 (J)	
7/18/2017	0.0017 (J)	
2/20/2018	<0.01	
8/8/2018	0.0021 (J)	
2/26/2019		0.003 (J)
6/12/2019		0.0019 (J)
10/9/2019		0.0069 (J)
3/18/2020		<0.01
9/22/2020		0.003 (J)

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
9/7/2011	0.0064	
3/5/2012	0.0043	
9/5/2012	0.0069	
2/6/2013	<0.01	
8/13/2013	0.011	
2/5/2014	0.026 (o)	
8/4/2014	0.012	
2/3/2015	0.0061	
8/3/2015	0.0037 (D)	
2/16/2016	0.0093	
2/23/2017	0.0031 (J)	
5/9/2017	0.0025 (J)	
7/18/2017	0.0028 (J)	
2/21/2018	0.003 (J)	
8/7/2018	0.0036 (J)	
2/26/2019		0.0033 (J)
6/13/2019		0.0069 (J)
10/10/2019		0.0079 (J)
3/17/2020		<0.01
9/22/2020		0.0036 (J)

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
11/22/2010	<0.01	
1/4/2011	<0.01	
2/17/2011	<0.01	
3/11/2011	0.025 (o)	
3/28/2011	<0.01	
9/7/2011	<0.01	
3/4/2012	<0.01	
9/10/2012	<0.01	
2/6/2013	<0.01	
8/14/2013	<0.01	
2/4/2014	0.0034	
8/4/2014	0.0013 (J)	
2/2/2015	<0.01	
8/3/2015	<0.01 (D)	
2/16/2016	0.0017 (J)	
2/24/2017	0.0028 (J)	
5/10/2017	0.0014 (J)	
7/18/2017	0.0015 (J)	
2/20/2018	<0.01	
8/8/2018	0.0033 (J)	
2/26/2019		<0.01
6/12/2019		<0.01
10/10/2019		0.006 (J)
3/18/2020		<0.01
9/22/2020		<0.01

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	0.0064	
3/5/2012	0.0034	
9/5/2012	0.0035	
2/5/2013	0.0027	
8/14/2013	0.0041	
2/5/2014	0.011	
8/4/2014	0.011	
2/3/2015	0.0044	
8/3/2015	0.011 (D)	
2/16/2016	0.014	
2/24/2017	0.0043 (J)	
5/10/2017	0.0042 (J)	
7/17/2017	0.0055 (J)	
2/21/2018	0.0102	
8/7/2018	0.015	
2/26/2019		0.015
6/13/2019		0.015
10/9/2019		0.025
1/21/2020		0.015
3/18/2020		0.023
9/23/2020		0.018

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 2/12/2021 10:26 AM View: State Parameters - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/9/2009	0.003	
11/18/2009	<0.01	
1/5/2010	0.0027	
3/3/2010	<0.01	
9/7/2010	<0.01	
3/10/2011	<0.01	
9/8/2011	<0.01	
3/5/2012	0.0053	
9/5/2012	0.0033	
2/5/2013	<0.01	
8/13/2013	0.0038	
2/4/2014	0.0046	
8/5/2014	0.0019 (J)	
2/3/2015	0.0026	
8/4/2015	0.0035	
2/16/2016	0.002 (J)	
2/23/2017	0.0038 (J)	
5/10/2017	0.0027 (J)	
7/18/2017	0.0024 (J)	
2/19/2018	<0.01	
8/6/2018	0.004 (J)	
2/25/2019		0.0028 (J)
6/13/2019		<0.01
10/8/2019		0.006 (J)
3/17/2020		<0.01
9/23/2020		<0.01

FIGURE E.

# State Parameters Trend Tests - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:35 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	GWC-5R	0.001708	131	87	Yes	21	0	n/a	n/a	0.01	NP

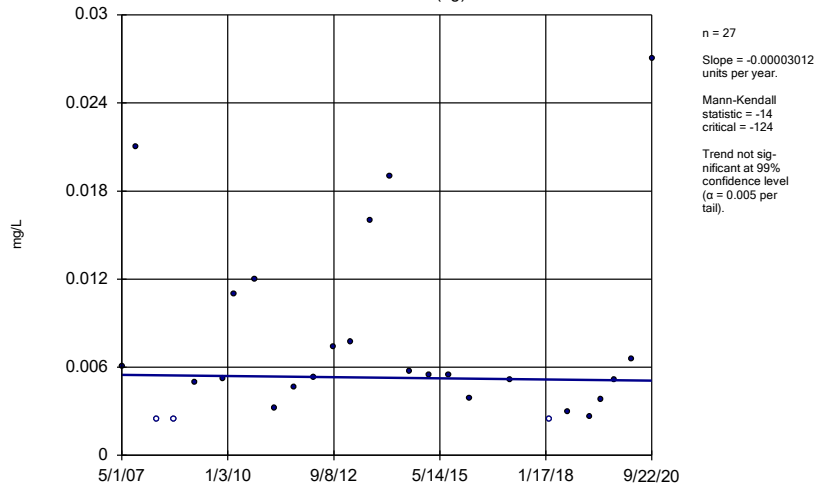


# State Parameters Trend Tests - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:35 AM

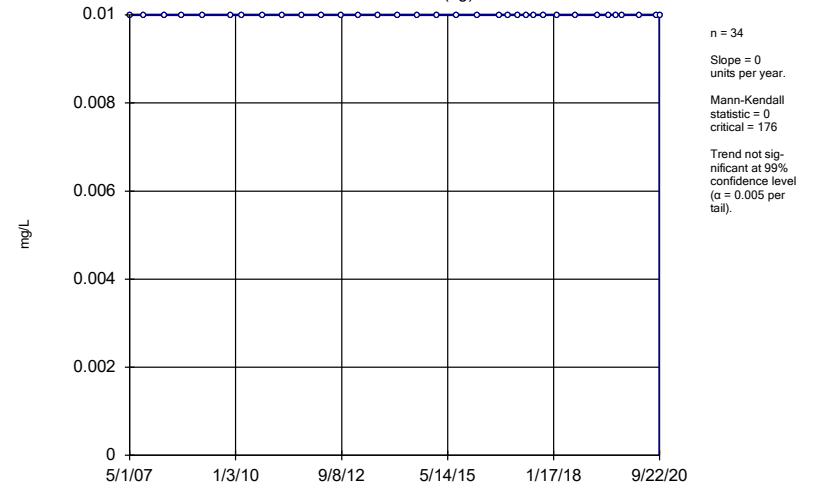
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Nickel (mg/L)	GWA-2 (bg)	-0.00003012	-14	-124	No	27	11.11	n/a	n/a	0.01	NP
Selenium (mg/L)	GWA-2 (bg)	0	0	176	No	34	100	n/a	n/a	0.01	NP
Selenium (mg/L)	GWC-1R	0	-68	-111	No	25	52	n/a	n/a	0.01	NP
Zinc (mg/L)	GWA-2 (bg)	0	3	131	No	28	10.71	n/a	n/a	0.01	NP
<b>Zinc (mg/L)</b>	<b>GWC-5R</b>	<b>0.001708</b>	<b>131</b>	<b>87</b>	<b>Yes</b>	<b>21</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

Sen's Slope Estimator  
GWA-2 (bg)



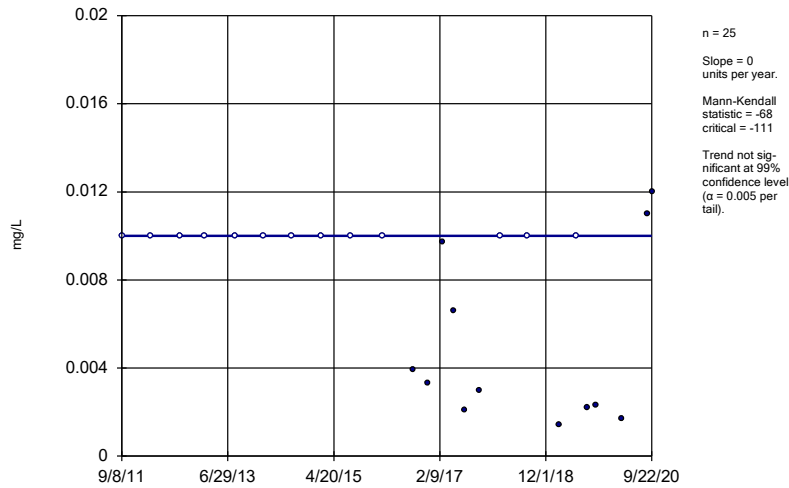
Constituent: Nickel Analysis Run 2/12/2021 10:34 AM View: State Parameters - Trend Tests  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWA-2 (bg)



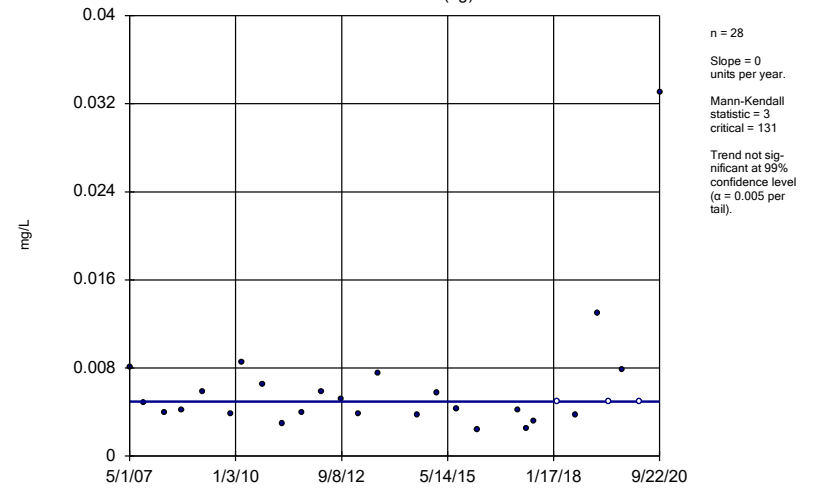
Constituent: Selenium Analysis Run 2/12/2021 10:34 AM View: State Parameters - Trend Tests  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-1R



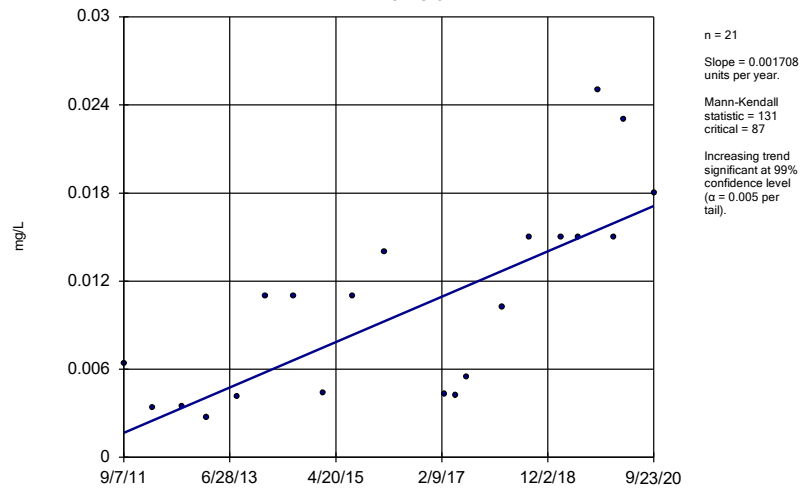
Constituent: Selenium Analysis Run 2/12/2021 10:34 AM View: State Parameters - Trend Tests  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWA-2 (bg)



Constituent: Zinc Analysis Run 2/12/2021 10:34 AM View: State Parameters - Trend Tests  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Sen's Slope Estimator GWC-5R



Constituent: Zinc    Analysis Run 2/12/2021 10:34 AM    View: State Parameters - Trend Tests  
Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill

FIGURE F.

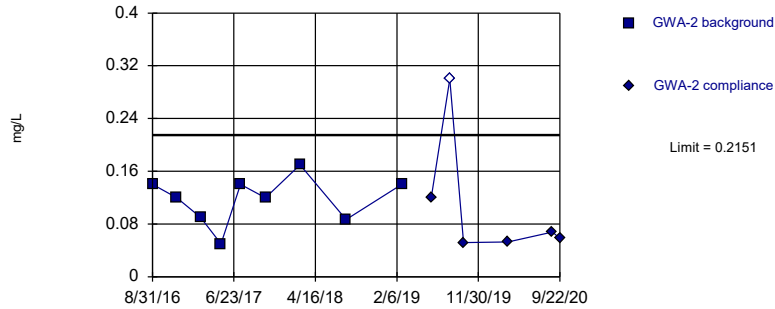
# Appendix III - Intrawell Prediction Limits - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:38 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)	GWA-2	0.2151	n/a	9/22/2020	0.058J	No	9	0.1174	0.03628	0	None	No	0.001254	Param Intra 1 of 2
Fluoride (mg/L)	GWC-1R	0.1	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-2R	0.1	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-3R	0.22	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-4R	0.15	n/a	9/22/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-5R	0.37	n/a	9/23/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	GWC-6R	0.28	n/a	9/23/2020	0.1ND	No	9	n/a	n/a	55.56	n/a	n/a	0.01809	NP Intra (NDs) 1 of 2
pH (S.U.)	GWA-2	7.106	5.427	9/22/2020	5.78	No	21	6.266	0.401	0	None	No	0.0006268	Param Intra 1 of 2
pH (S.U.)	GWC-1R	5.52	4.49	9/22/2020	5.25	No	9	n/a	n/a	0	n/a	n/a	0.03619	NP Intra (normality) 1 of 2
pH (S.U.)	GWC-2R	6.8	4.35	9/22/2020	5.34	No	16	n/a	n/a	0	n/a	n/a	0.01291	NP Intra (normality) 1 of 2
pH (S.U.)	GWC-3R	5.28	4.31	9/22/2020	5.11	No	9	n/a	n/a	0	n/a	n/a	0.03619	NP Intra (normality) 1 of 2
pH (S.U.)	GWC-4R	6.245	4.827	9/22/2020	5.43	No	10	5.536	0.2783	0	None	No	0.0006268	Param Intra 1 of 2
pH (S.U.)	GWC-5R	5.711	4.765	9/23/2020	5.04	No	9	5.238	0.1758	0	None	No	0.0006268	Param Intra 1 of 2
pH (S.U.)	GWC-6R	6.687	5.169	9/23/2020	5.81	No	19	5.928	0.3559	0	None	No	0.0006268	Param Intra 1 of 2

Within Limit

Prediction Limit  
Intrawell Parametric

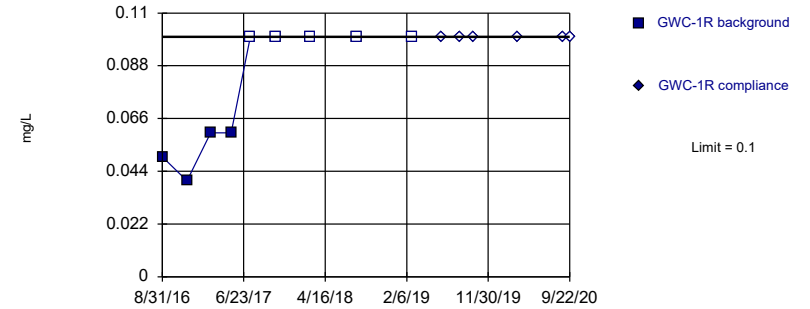


Background Data Summary: Mean=0.1174, Std. Dev.=0.03628, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.764. Kappa = 2.69 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

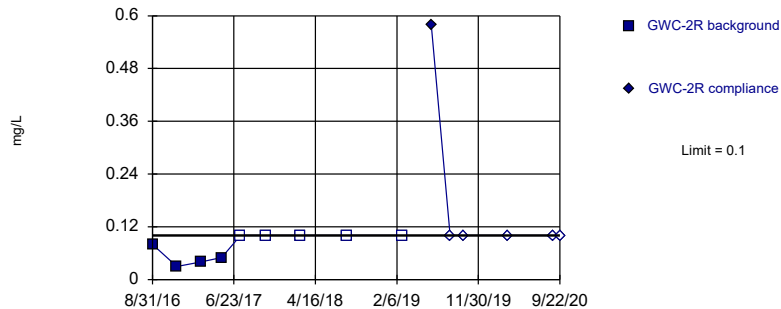


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

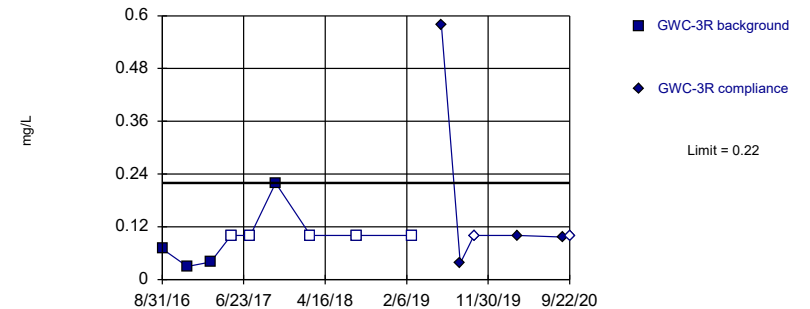


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

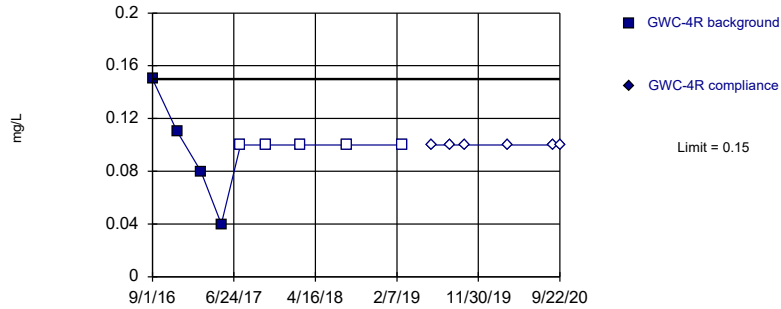


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

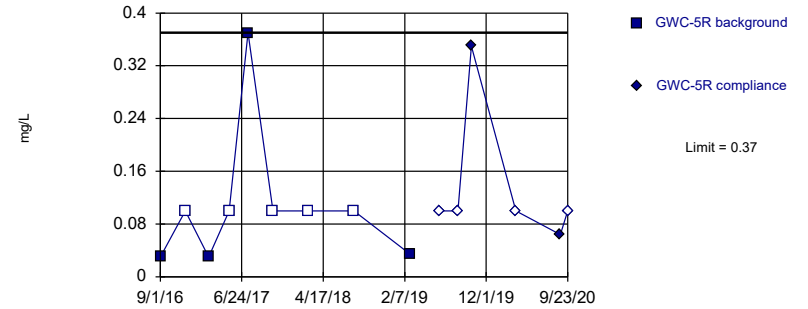


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

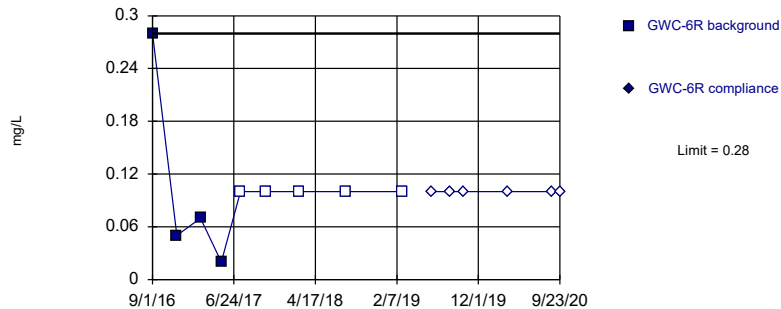


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit  
Intrawell Non-parametric

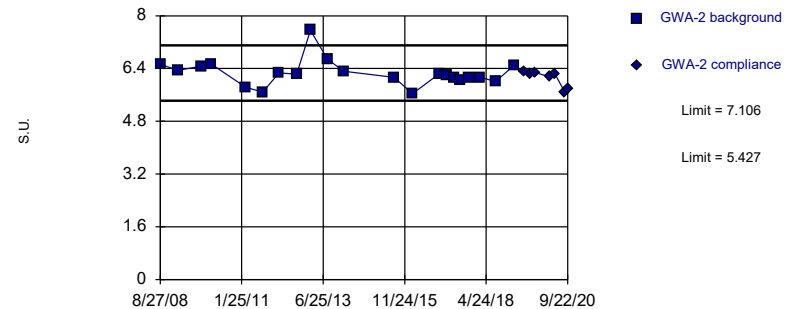


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit  
Intrawell Parametric

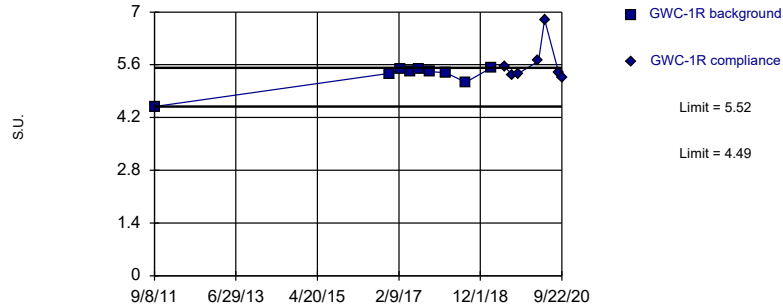


Background Data Summary: Mean=6.266, Std. Dev.=0.401, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8754, critical = 0.873. Kappa = 2.094 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit  
Intrawell Non-parametric

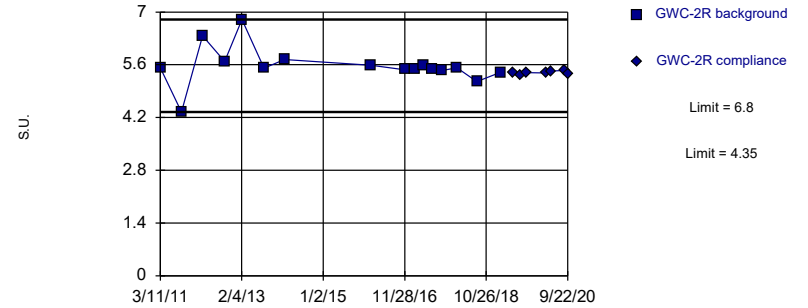


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 9 background values. Well-constituent pair annual alpha = 0.07172. Individual comparison alpha = 0.03619 (1 of 2).

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit  
Intrawell Non-parametric

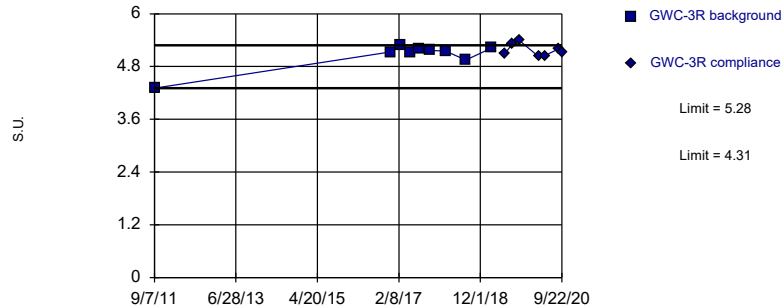


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 16 background values. Well-constituent pair annual alpha = 0.02574. Individual comparison alpha = 0.01291 (1 of 2).

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit  
Intrawell Non-parametric

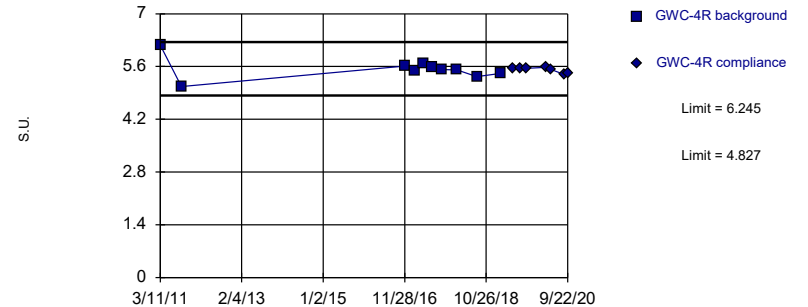


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 9 background values. Well-constituent pair annual alpha = 0.07172. Individual comparison alpha = 0.03619 (1 of 2).

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit  
Intrawell Parametric



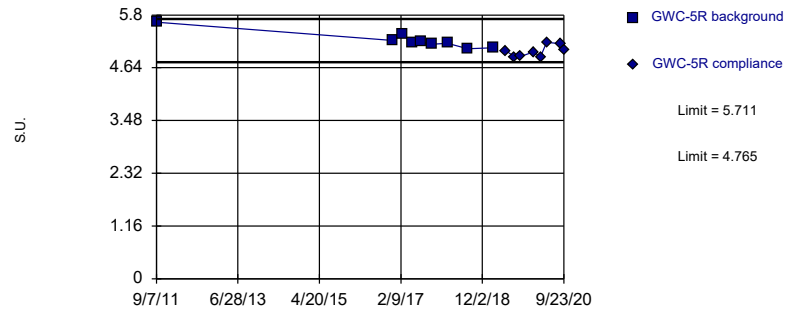
Background Data Summary: Mean=5.536, Std. Dev.=0.2783, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.781. Kappa = 2.549 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



Within Limits

Prediction Limit  
Intrawell Parametric

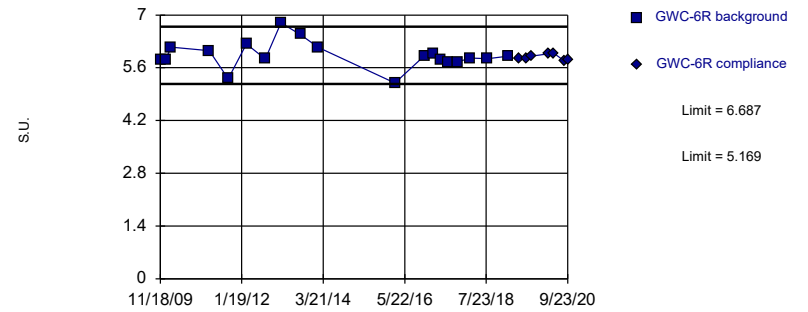


Background Data Summary: Mean=5.238, Std. Dev.=0.1758, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8341, critical = 0.764. Kappa = 2.69 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=5.928, Std. Dev.=0.3559, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9219, critical = 0.863. Kappa = 2.132 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 2/12/2021 10:37 AM View: Appendix III - Intrawell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
8/31/2016	0.14 (J)	
11/28/2016	0.12 (J)	
2/22/2017	0.09 (J)	
5/8/2017	0.05 (J)	
7/17/2017	0.14 (J)	
10/16/2017	0.12 (J)	
2/19/2018	0.17	
8/6/2018	0.087 (J)	
2/25/2019	0.14 (J)	
6/12/2019		0.12 (J)
8/19/2019		<0.3
10/8/2019		0.052 (J)
3/17/2020		0.053 (J)
8/26/2020		0.068 (J)
9/22/2020		0.058 (J)

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
8/31/2016	0.05 (J)	
11/29/2016	0.04 (J)	
2/23/2017	0.06 (J)	
5/9/2017	0.06 (J)	
7/18/2017	<0.1	
10/17/2017	<0.1	
2/21/2018	<0.1	
8/7/2018	<0.1	
2/26/2019	<0.1	
6/13/2019		<0.1
8/20/2019		<0.1
10/9/2019		<0.1
3/17/2020		<0.1
8/27/2020		<0.1
9/22/2020		<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
8/31/2016	0.08 (J)	
11/28/2016	0.03 (J)	
2/22/2017	0.04 (J)	
5/10/2017	0.05 (J)	
7/18/2017	<0.1	
10/17/2017	<0.1	
2/20/2018	<0.1	
8/8/2018	<0.1	
2/26/2019	<0.1	
6/12/2019		0.58
8/20/2019		<0.1
10/9/2019		<0.1
3/18/2020		<0.1
8/28/2020		<0.1
9/22/2020		<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
8/31/2016	0.07 (J)	
11/30/2016	0.03 (J)	
2/23/2017	0.04 (J)	
5/9/2017	<0.1	
7/18/2017	<0.1	
10/18/2017	0.22 (J)	
2/21/2018	<0.1	
8/7/2018	<0.1	
2/26/2019	<0.1	
6/13/2019		0.58
8/21/2019		0.037 (J)
10/10/2019		<0.1
3/17/2020		0.1 (J)
8/28/2020		0.097 (J)
9/22/2020		<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
9/1/2016	0.15 (J)	
11/30/2016	0.11 (J)	
2/24/2017	0.08 (J)	
5/10/2017	0.04 (J)	
7/18/2017	<0.1	
10/17/2017	<0.1	
2/20/2018	<0.1	
8/8/2018	<0.1	
2/26/2019	<0.1	
6/12/2019		<0.1
8/19/2019		<0.1
10/10/2019		<0.1
3/18/2020		<0.1
8/28/2020		<0.1
9/22/2020		<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/1/2016	0.03 (J)	
12/1/2016	<0.1	
2/24/2017	0.03 (J)	
5/10/2017	<0.1	
7/17/2017	0.37	
10/16/2017	<0.1	
2/21/2018	<0.1	
8/7/2018	<0.1	
2/26/2019	0.035 (J)	
6/13/2019		<0.1
8/21/2019		<0.1
10/9/2019		0.35
3/18/2020		<0.1
8/27/2020		0.064 (J)
9/23/2020		<0.1

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/1/2016	0.28 (J)	
11/29/2016	0.05 (J)	
2/23/2017	0.07 (J)	
5/10/2017	0.02 (J)	
7/18/2017	<0.1	
10/18/2017	<0.1	
2/19/2018	<0.1	
8/6/2018	<0.1	
2/25/2019	<0.1	
6/13/2019		<0.1
8/20/2019		<0.1
10/8/2019		<0.1
3/17/2020		<0.1
8/27/2020		<0.1
9/23/2020		<0.1



# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2
8/27/2008	6.53	
3/3/2009	6.35	
11/18/2009	6.47	
3/3/2010	6.53	
3/10/2011	5.83	
9/8/2011	5.69	
3/5/2012	6.27	
9/10/2012	6.23	
2/6/2013	7.56	
8/12/2013	6.68	
2/5/2014	6.32	
8/3/2015	6.13 (D)	
2/16/2016	5.64	
11/28/2016	6.23	
2/22/2017	6.21	
5/8/2017	6.12	
7/17/2017	6.03	
10/16/2017	6.12	
2/19/2018	6.13	
8/6/2018	6.01	
2/25/2019	6.51	
6/12/2019		6.3
8/19/2019		6.23
10/8/2019		6.28
3/17/2020		6.14
5/6/2020		6.24
8/26/2020		5.67
9/22/2020		5.78

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R
9/8/2011	4.49	
11/29/2016	5.37	
2/23/2017	5.5	
5/9/2017	5.41	
7/18/2017	5.5	
10/17/2017	5.42	
2/21/2018	5.39	
8/7/2018	5.14	
2/26/2019	5.52	
6/13/2019		5.55
8/20/2019		5.33
10/9/2019		5.37
3/17/2020		5.7
5/6/2020		6.8
8/27/2020		5.39
9/22/2020		5.25

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R
3/11/2011	5.52	
9/7/2011	4.35	
3/6/2012	6.37	
9/11/2012	5.69	
2/6/2013	6.8	
8/13/2013	5.51	
2/4/2014	5.74	
2/17/2016	5.59	
11/28/2016	5.47	
2/22/2017	5.48	
5/10/2017	5.6	
7/18/2017	5.49	
10/17/2017	5.45	
2/20/2018	5.52	
8/8/2018	5.15	
2/26/2019	5.4	
6/12/2019		5.38
8/20/2019		5.33
10/9/2019		5.39
3/18/2020		5.38
5/7/2020		5.43
8/28/2020		5.45
9/22/2020		5.34

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R
9/7/2011	4.31	
11/30/2016	5.13	
2/23/2017	5.28	
5/9/2017	5.12	
7/18/2017	5.21	
10/18/2017	5.17	
2/21/2018	5.15	
8/7/2018	4.95	
2/26/2019	5.22	
6/13/2019		5.08
8/21/2019		5.32
10/10/2019		5.4
3/17/2020		5.03
5/7/2020		5.05
8/28/2020		5.2
9/22/2020		5.11

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R
3/11/2011	6.16	
9/7/2011	5.07	
11/30/2016	5.61	
2/24/2017	5.47	
5/10/2017	5.68	
7/18/2017	5.59	
10/17/2017	5.52	
2/20/2018	5.51	
8/8/2018	5.33	
2/26/2019	5.42	
6/12/2019		5.54
8/19/2019		5.56
10/10/2019		5.55
3/18/2020		5.58
5/7/2020		5.52
8/28/2020		5.38
9/22/2020		5.43

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - IntraWell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R
9/7/2011	5.64	
12/1/2016	5.24	
2/24/2017	5.37	
5/10/2017	5.2	
7/17/2017	5.21	
10/16/2017	5.16	
2/21/2018	5.18	
8/7/2018	5.06	
2/26/2019	5.08	
6/13/2019		5.01
8/21/2019		4.88
10/9/2019		4.89
1/21/2020		4.99
3/18/2020		4.88
5/7/2020		5.2
8/27/2020		5.17
9/23/2020		5.04

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 2/12/2021 10:38 AM View: Appendix III - Intrawell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
11/18/2009	5.82	
1/5/2010	5.8	
3/3/2010	6.15	
3/10/2011	6.05	
9/8/2011	5.31	
3/5/2012	6.23	
9/5/2012	5.83	
2/5/2013	6.79	
8/13/2013	6.48	
2/4/2014	6.14	
2/16/2016	5.2	
11/29/2016	5.92	
2/23/2017	5.97	
5/10/2017	5.82	
7/18/2017	5.76	
10/18/2017	5.76	
2/19/2018	5.86	
8/6/2018	5.84	
2/25/2019	5.91	
6/13/2019		5.84
8/20/2019		5.85
10/8/2019		5.91
3/17/2020		5.97
5/6/2020		5.99
8/27/2020		5.77
9/23/2020		5.81

FIGURE G.



# Appendix III - Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 11/23/2020, 8:11 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-4R	0.16	n/a	9/22/2020	1	Yes	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1R	37	n/a	9/22/2020	98.8	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-2R	37	n/a	9/22/2020	40.5	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-5R	37	n/a	9/23/2020	144	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-6R	37	n/a	9/23/2020	103	Yes	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-2R	7.9	n/a	9/22/2020	24.7	Yes	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-4R	7.9	n/a	9/22/2020	60.2	Yes	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-1R	160	n/a	9/22/2020	478	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-2R	160	n/a	9/22/2020	216	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-5R	160	n/a	9/23/2020	992	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-6R	160	n/a	9/23/2020	518	Yes	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
TDS (mg/L)	GWC-1R	216	n/a	9/22/2020	675	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-2R	216	n/a	9/22/2020	394	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-4R	216	n/a	9/22/2020	217	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-5R	216	n/a	9/23/2020	1000	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
TDS (mg/L)	GWC-6R	216	n/a	9/23/2020	820	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2

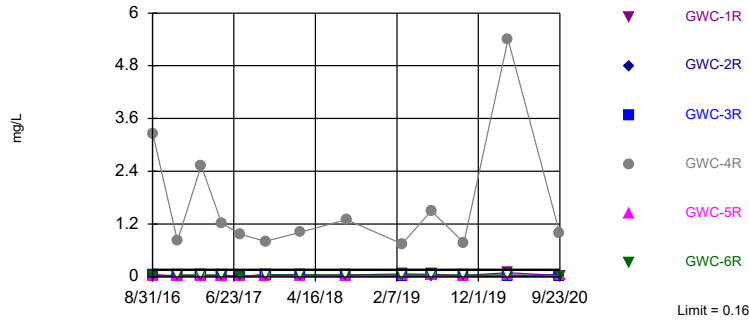
# Appendix III - Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 11/23/2020, 8:11 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWC-1R	0.16	n/a	9/22/2020	0.025J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2R	0.16	n/a	9/22/2020	0.046J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-3R	0.16	n/a	9/22/2020	0.0066J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Boron (mg/L)</b>	<b>GWC-4R</b>	<b>0.16</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>1</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>45.62</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Boron (mg/L)	GWC-5R	0.16	n/a	9/23/2020	0.028J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-6R	0.16	n/a	9/23/2020	0.0055J	No	274	n/a	n/a	45.62	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-1R</b>	<b>37</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>98.8</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-2R</b>	<b>37</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>40.5</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-3R	37	n/a	9/22/2020	6.2	No	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-4R	37	n/a	9/22/2020	21.8	No	274	n/a	n/a	1.095	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-5R</b>	<b>37</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>144</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-6R</b>	<b>37</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>103</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>1.095</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-1R	7.9	n/a	9/22/2020	5.5	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-2R</b>	<b>7.9</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>24.7</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-3R	7.9	n/a	9/22/2020	4.2	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-4R</b>	<b>7.9</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>60.2</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-5R	7.9	n/a	9/23/2020	3	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-6R	7.9	n/a	9/23/2020	4.7	No	274	n/a	n/a	0	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-1R</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>478</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-2R</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>216</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-3R	160	n/a	9/22/2020	55.1	No	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-4R	160	n/a	9/22/2020	72.1	No	274	n/a	n/a	5.839	n/a	n/a	0.0000492	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-5R</b>	<b>160</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>992</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-6R</b>	<b>160</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>518</b>	<b>Yes</b>	<b>274</b>	<b>n/a</b>	<b>n/a</b>	<b>5.839</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0000492</b>	<b>NP Inter (normality) 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-1R</b>	<b>216</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>675</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-2R</b>	<b>216</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>394</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	GWC-3R	216	n/a	9/22/2020	110	No	274	10.05	2.547	0.7299	None	sqrt(x)	0.001254	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>GWC-4R</b>	<b>216</b>	<b>n/a</b>	<b>9/22/2020</b>	<b>217</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-5R</b>	<b>216</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>1000</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>GWC-6R</b>	<b>216</b>	<b>n/a</b>	<b>9/23/2020</b>	<b>820</b>	<b>Yes</b>	<b>274</b>	<b>10.05</b>	<b>2.547</b>	<b>0.7299</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.001254</b>	<b>Param Inter 1 of 2</b>

Exceeds Limit: GWC-4R

Prediction Limit  
Interwell Non-parametric

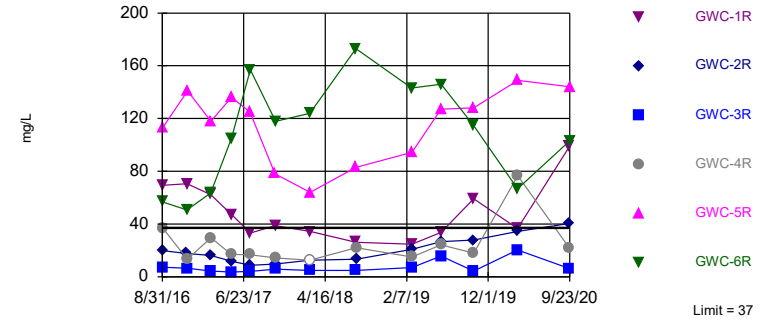


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. 45.62% NDs. Annual per-constituent alpha = 0.0005902. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 11/23/2020 8:10 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit: GWC-1R, GWC-2R, GWC-5R, GWC-6R

Prediction Limit  
Interwell Non-parametric

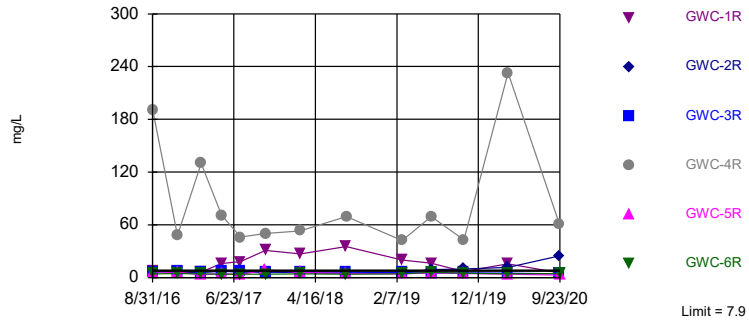


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. 1.095% NDs. Annual per-constituent alpha = 0.0005902. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 6 points to limit.

Constituent: Calcium Analysis Run 11/23/2020 8:10 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit: GWC-2R, GWC-4R

Prediction Limit  
Interwell Non-parametric

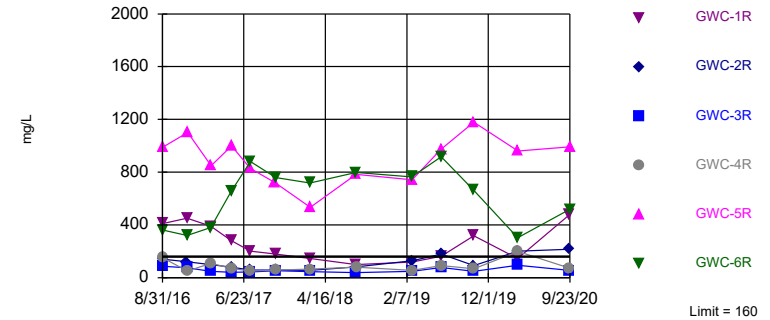


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. Annual per-constituent alpha = 0.0005902. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 6 points to limit.

Constituent: Chloride Analysis Run 11/23/2020 8:10 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit: GWC-1R, GWC-2R, GWC-5R, GWC-6R

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 274 background values. 5.839% NDs. Annual per-constituent alpha = 0.0005902. Individual comparison alpha = 0.0000492 (1 of 2). Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 11/23/2020 8:10 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill





# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-30I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
10/9/2019									
10/10/2019									
3/17/2020									
3/18/2020			0.0087 (J)		0.02 (J)				
3/19/2020	0.0053 (J)	0.0085 (J)		0.0052 (J)					0.0073 (J)
3/24/2020						0.0068 (J)	0.011 (J)		
3/25/2020								0.011 (J)	
9/22/2020						0.0053 (J)	0.0079 (J)	<0.04	
9/23/2020	0.0073 (J)	<0.04	<0.04						0.012 (J)
9/24/2020				0.0075 (J)					
9/25/2020					0.02 (J)				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/1/2016									
6/2/2016									
6/6/2016	<0.04	<0.04							
6/7/2016			<0.04	<0.04	<0.04				
7/25/2016									
7/26/2016									
7/27/2016	0.0059 (J)	<0.04	0.008 (J)	<0.04					
7/28/2016					<0.04				
8/30/2016						0.0166 (J)			
8/31/2016							0.0315 (J)	0.0315 (J)	0.0553 (J)
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	0.0079 (J)		0.0086 (J)						
9/19/2016		<0.04		<0.04	<0.04				
11/1/2016									
11/2/2016				<0.04					
11/3/2016	0.0082 (J)	<0.04	0.0077 (J)		<0.04				
11/4/2016									
11/14/2016						0.0166 (J)			
11/28/2016								0.0095 (J)	
11/29/2016									0.0149 (J)
11/30/2016							0.0089 (J)		
12/1/2016									
12/15/2016									
1/10/2017									
1/11/2017	0.0096 (J)	<0.04	0.0092 (J)						
1/12/2017									
1/13/2017				<0.04	<0.04				
1/16/2017									
2/21/2017									
2/22/2017								<0.04	
2/23/2017							<0.04		0.0082 (J)
2/24/2017						0.0145 (J)			
3/1/2017	<0.04	<0.04							
3/2/2017			0.0095 (J)						
3/3/2017									
3/6/2017				<0.04	<0.04				
3/7/2017									
3/8/2017									
4/26/2017	0.0091 (J)	<0.04		<0.04	<0.04				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			<0.04						
5/8/2017						0.0141 (J)		0.0084 (J)	
5/9/2017							0.0077 (J)		0.0097 (J)
5/10/2017									
5/26/2017									
6/27/2017									
6/28/2017	0.0079 (J)	<0.04							

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/29/2017			0.0074 (J)	<0.04	<0.04				
6/30/2017									
7/11/2017						0.0131 (J)			
7/17/2017								0.0092 (J)	
7/18/2017							0.0073 (J)		0.0123 (J)
10/3/2017					<0.04				
10/4/2017	0.009 (J)		0.0077 (J)	<0.04					
10/5/2017		<0.04							
10/10/2017						0.0124 (J)			
10/11/2017									
10/12/2017									
10/16/2017								<0.04	
10/17/2017									0.0513
10/18/2017							<0.04		
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								<0.04	
2/20/2018									
2/21/2018							0.0399 (J)		0.0378 (J)
4/2/2018						0.013 (J)			
4/3/2018									
6/5/2018					0.0092 (J)				
6/6/2018				0.0049 (J)					
6/7/2018		<0.04							
6/8/2018									
6/11/2018	0.0093 (J)		0.01 (J)						
6/28/2018									
8/6/2018								<0.04	
8/7/2018							0.0049 (J)		0.043
8/8/2018									
9/19/2018						0.012 (J)			
9/24/2018									
9/25/2018	0.007 (J)	0.0046 (J)	0.0096 (J)	<0.04	0.0054 (J)				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								<0.04	
2/26/2019							0.0053 (J)		0.062
3/26/2019									
3/27/2019						0.013 (J)			
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			0.0066 (J)		0.011 (J)				
4/3/2019	0.0053 (J)	<0.04		<0.04					
6/12/2019								<0.04	
6/13/2019							<0.04		0.057
9/24/2019					0.018 (J)				
9/25/2019			0.0081 (J)	<0.04					
9/26/2019	0.0072 (J)	0.0062 (J)							
10/8/2019						0.012 (J)		<0.04	





# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/1/2016							
6/2/2016							
6/6/2016							
6/7/2016							
7/25/2016							
7/26/2016							
7/27/2016							
7/28/2016							
8/30/2016							
8/31/2016	0.0305 (J)						
9/1/2016		0.0191 (J)	0.0108 (J)	3.25			
9/13/2016							
9/14/2016					<0.04		
9/15/2016							
9/16/2016							
9/19/2016							
11/1/2016							
11/2/2016							
11/3/2016							
11/4/2016					<0.04		
11/14/2016							
11/28/2016	0.0206 (J)						
11/29/2016			<0.04				
11/30/2016				0.813			
12/1/2016		0.0088 (J)					
12/15/2016					0.0107 (J)		
1/10/2017							
1/11/2017							
1/12/2017							
1/13/2017							
1/16/2017					<0.04		
2/21/2017							
2/22/2017	0.0192 (J)						
2/23/2017			<0.04				
2/24/2017		0.0067 (J)		2.53			
3/1/2017							
3/2/2017							
3/3/2017					<0.04		
3/6/2017							
3/7/2017							
3/8/2017							
4/26/2017							
4/27/2017							
4/28/2017					<0.04		
5/1/2017							
5/2/2017							
5/8/2017							
5/9/2017							
5/10/2017	0.0179 (J)	0.0068 (J)	<0.04	1.22			
5/26/2017					<0.04		
6/27/2017							
6/28/2017					<0.04		

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/29/2017							
6/30/2017							
7/11/2017							
7/17/2017		0.0102 (J)					
7/18/2017	0.0169 (J)		0.0061 (J)	0.97			
10/3/2017					<0.04		
10/4/2017							
10/5/2017							
10/10/2017							
10/11/2017						0.0135 (J)	
10/12/2017							0.0401
10/16/2017		0.0066 (J)					
10/17/2017	0.0168 (J)			0.804			
10/18/2017			<0.04				
11/20/2017						0.0251 (J)	0.156
1/10/2018							0.15
1/11/2018						0.0255 (J)	
2/19/2018			<0.04				0.146
2/20/2018	<0.04			1.01		<0.04	
2/21/2018		0.0268 (J)					
4/2/2018							
4/3/2018						0.033 (J)	0.12
6/5/2018							
6/6/2018							
6/7/2018					<0.04		
6/8/2018							
6/11/2018							
6/28/2018						0.053	0.16
8/6/2018			<0.04				
8/7/2018		0.012 (J)				0.024 (J)	0.12
8/8/2018	0.017 (J)			1.3			
9/19/2018							
9/24/2018						0.028 (J)	0.099
9/25/2018							
9/26/2018							
10/1/2018					<0.04		
10/2/2018							
2/25/2019			<0.04				
2/26/2019	0.017 (J)	0.033 (J)		0.75			
3/26/2019							0.096
3/27/2019						0.017 (J)	
3/28/2019							
3/29/2019					0.0065 (J)		
4/1/2019							
4/2/2019							
4/3/2019							
6/12/2019	0.013 (J)			1.5			
6/13/2019		0.03 (J)	<0.04				
9/24/2019					0.0076 (J)		
9/25/2019							
9/26/2019							
10/8/2019			<0.04				

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
10/9/2019	0.018 (J)	0.013 (J)				0.017 (J)	0.079
10/10/2019				0.78			
3/17/2020			<0.04				
3/18/2020	0.026 (J)	0.034 (J)		5.4			
3/19/2020					0.0073 (J)		
3/24/2020							0.088 (J)
3/25/2020						0.043 (J)	
9/22/2020	0.046 (J)			1			
9/23/2020		0.028 (J)	0.0055 (J)		<0.04		
9/24/2020						0.037 (J)	0.087 (J)
9/25/2020							





# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-30I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
10/9/2019									
10/10/2019									
3/17/2020									
3/18/2020			2.1		1.1				
3/19/2020	21.9	15		1.2					31.5
3/24/2020						2.5	26.1		
3/25/2020								10.5	
9/22/2020						2.6	27.2	9.6	
9/23/2020	23.6	14.1	1.8						28.6
9/24/2020				1.1					
9/25/2020					1.3				

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/1/2016									
6/2/2016									
6/6/2016	1.4	6.2							
6/7/2016			2.2	2.3	3.7				
7/25/2016									
7/26/2016									
7/27/2016	1.19	4.73	2	2.08					
7/28/2016					3.15				
8/30/2016						20.9			
8/31/2016							7.23	9.31	69.4
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	1.5		1.97						
9/19/2016		4.76		1.97	3.17				
11/1/2016									
11/2/2016				2.13					
11/3/2016	1.31	5.25	1.99		3.4				
11/4/2016									
11/14/2016						18.6			
11/28/2016								9.47 (B)	
11/29/2016									70.6 (B)
11/30/2016							6.43 (B)		
12/1/2016									
12/15/2016									
1/10/2017									
1/11/2017	1.25	4.74	2.28						
1/12/2017									
1/13/2017				2.45	4.98				
1/16/2017									
2/21/2017									
2/22/2017								10.4	
2/23/2017							4.25		62.4
2/24/2017						16.1			
3/1/2017	1.26	5.37							
3/2/2017			2.15						
3/3/2017									
3/6/2017				2.48	6.28				
3/7/2017									
3/8/2017									
4/26/2017	1.05	4.28		2.3	6.65				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			1.95						
5/8/2017						14.6		14.2	
5/9/2017							3.56		47.4
5/10/2017									
5/26/2017									
6/27/2017									
6/28/2017	1.06	4.95							



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/29/2017			2.02	2.54	6.04				
6/30/2017									
7/11/2017						14.3			
7/17/2017								14.1	
7/18/2017							4.16		33.2
10/3/2017					8.28				
10/4/2017	1.1		2.03	2.25					
10/5/2017		5.28							
10/10/2017						12.1			
10/11/2017									
10/12/2017									
10/16/2017								13.6	
10/17/2017									38.7
10/18/2017							5.67		
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								<25	
2/20/2018									
2/21/2018							4.76		34.3
4/2/2018						<25			
4/3/2018									
6/5/2018					9.1				
6/6/2018				2.3					
6/7/2018		4.8							
6/8/2018									
6/11/2018	1.4		2.1						
6/28/2018									
8/6/2018								11.4 (J)	
8/7/2018							4.7		26.2
8/8/2018									
9/19/2018						11.1 (J)			
9/24/2018									
9/25/2018	1	4.6	2.1	2.3	10.4 (J)				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								12.7 (J)	
2/26/2019							7.1		24.7 (J)
3/26/2019									
3/27/2019						10.8 (J)			
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			2.5		8.8				
4/3/2019	1.2	5.3		2.9					
6/12/2019								18.9	
6/13/2019							15.7		33.8
9/24/2019					7.7				
9/25/2019			2.6	2.4					
9/26/2019	1.1	4.9							
10/8/2019						9.7		28.3	



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/1/2016							
6/2/2016							
6/6/2016							
6/7/2016							
7/25/2016							
7/26/2016							
7/27/2016							
7/28/2016							
8/30/2016							
8/31/2016	19.9						
9/1/2016		113	56.8	37.1			
9/13/2016							
9/14/2016					23.5		
9/15/2016							
9/16/2016							
9/19/2016							
11/1/2016							
11/2/2016							
11/3/2016							
11/4/2016					23.7		
11/14/2016							
11/28/2016	17.7 (B)						
11/29/2016			50.7 (B)				
11/30/2016				13.4 (B)			
12/1/2016		141 (B)					
12/15/2016					23.1		
1/10/2017							
1/11/2017							
1/12/2017							
1/13/2017							
1/16/2017					23.3		
2/21/2017							
2/22/2017	16.2						
2/23/2017			63.5				
2/24/2017		118		29.5			
3/1/2017							
3/2/2017							
3/3/2017					25.1		
3/6/2017							
3/7/2017							
3/8/2017							
4/26/2017							
4/27/2017							
4/28/2017					30.7		
5/1/2017							
5/2/2017							
5/8/2017							
5/9/2017							
5/10/2017	11.8	136	105	17			
5/26/2017					26.2		
6/27/2017							
6/28/2017					26.1		

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/29/2017							
6/30/2017							
7/11/2017							
7/17/2017		125					
7/18/2017	8.69		157	16.8			
10/3/2017					26.7		
10/4/2017							
10/5/2017							
10/10/2017							
10/11/2017						2.74	
10/12/2017							2.9
10/16/2017		78.2					
10/17/2017	9.77			14.3			
10/18/2017			118				
11/20/2017						1.81	10.4
1/10/2018							10.2
1/11/2018						1.54	
2/19/2018			124				<25
2/20/2018	<25			<25		1.71	
2/21/2018		64					
4/2/2018							
4/3/2018						1.4	6.3
6/5/2018							
6/6/2018							
6/7/2018					25		
6/8/2018							
6/11/2018							
6/28/2018						1.4	6.7
8/6/2018			173				
8/7/2018		83				1.2	6.3
8/8/2018	13.4 (J)			22.1 (J)			
9/19/2018							
9/24/2018						1.1	5.7
9/25/2018							
9/26/2018							
10/1/2018					25		
10/2/2018							
2/25/2019			143				
2/26/2019	20.9 (J)	94.4		15.1 (J)			
3/26/2019							5.6
3/27/2019						1.5	
3/28/2019							
3/29/2019					23.5 (J)		
4/1/2019							
4/2/2019							
4/3/2019							
6/12/2019	26.6			24.2			
6/13/2019		127	146				
9/24/2019					26.4		
9/25/2019							
9/26/2019							
10/8/2019			115				

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
10/9/2019	27.8	128				2.4	4.9
10/10/2019				18			
3/17/2020			66.8				
3/18/2020	34.5	149		76.6			
3/19/2020					27.4		
3/24/2020							4.8
3/25/2020						2.7	
9/22/2020	40.5			21.8			
9/23/2020		144	103		26.3		
9/24/2020						3.7	4.4
9/25/2020							





# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-30I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
10/9/2019									
10/10/2019									
3/17/2020									
3/18/2020			1.4		5.2				
3/19/2020	1.1	1.1		1.8					1.2
3/24/2020						4.3	3.5		
3/25/2020								3.9	
9/22/2020						4.2	3.6	4.5	
9/23/2020	1	0.99 (J)	1.2						1.1
9/24/2020				1.5					
9/25/2020					5.3				



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/1/2016									
6/2/2016									
6/6/2016	6.4	6.8							
6/7/2016			4.5	1.9	2.8				
7/25/2016									
7/26/2016									
7/27/2016	6.2	6.7	4.5	1.9					
7/28/2016					2.6				
8/30/2016						5.2			
8/31/2016							6.7	4	7.6
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	6.1		4.5						
9/19/2016		7		1.9	2.4				
11/1/2016									
11/2/2016				2.6					
11/3/2016	7.4	7.5	5.4		2.9				
11/4/2016									
11/14/2016						6.4			
11/28/2016								4.2	
11/29/2016									5.8
11/30/2016							7.8		
12/1/2016									
12/15/2016									
1/10/2017									
1/11/2017	6.1	6.5	4.7						
1/12/2017									
1/13/2017				2.3	2.5				
1/16/2017									
2/21/2017									
2/22/2017								3.7	
2/23/2017							6.5		6.2
2/24/2017						5.5			
3/1/2017	6	6.9							
3/2/2017			4.8						
3/3/2017									
3/6/2017				1.9	2.1				
3/7/2017									
3/8/2017									
4/26/2017	6.5	7		2	2.1				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			4.6						
5/8/2017						5.8		4.2	
5/9/2017							7.2		16
5/10/2017									
5/26/2017									
6/27/2017									
6/28/2017	6.4	7							

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/29/2017			4.5	2.6	2.8				
6/30/2017									
7/11/2017						5.8			
7/17/2017								3.8	
7/18/2017							7.7		18
10/3/2017					2.2				
10/4/2017	6.8		4.7	2.6					
10/5/2017		7							
10/10/2017						5.9			
10/11/2017									
10/12/2017									
10/16/2017								4.2	
10/17/2017									31
10/18/2017							6.5		
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								4.3	
2/20/2018									
2/21/2018							6.7		27
4/2/2018						4.8			
4/3/2018									
6/5/2018					1.7				
6/6/2018				2.7					
6/7/2018		6.8							
6/8/2018									
6/11/2018	6.8		4.9						
6/28/2018									
8/6/2018								3.8	
8/7/2018							6.3		35.4
8/8/2018									
9/19/2018						4			
9/24/2018									
9/25/2018	7.8	7.9	5.6	3.6	2.2				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								4.1	
2/26/2019							5.7		20
3/26/2019									
3/27/2019						4.3			
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			4.8		2.5				
4/3/2019	6.3	6.9		3.1					
6/12/2019								4.7	
6/13/2019							5		16.4
9/24/2019					3.1				
9/25/2019			5.7	2.8					
9/26/2019	7.1	7							
10/8/2019						4.4		5.1	



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/1/2016							
6/2/2016							
6/6/2016							
6/7/2016							
7/25/2016							
7/26/2016							
7/27/2016							
7/28/2016							
8/30/2016							
8/31/2016	6.3						
9/1/2016		6.6	4.4	190			
9/13/2016							
9/14/2016					1.1		
9/15/2016							
9/16/2016							
9/19/2016							
11/1/2016							
11/2/2016							
11/3/2016							
11/4/2016					1.4		
11/14/2016							
11/28/2016	6.7						
11/29/2016			4.8				
11/30/2016				48			
12/1/2016		6					
12/15/2016					2.9		
1/10/2017							
1/11/2017							
1/12/2017							
1/13/2017							
1/16/2017					0.98		
2/21/2017							
2/22/2017	5.7						
2/23/2017			4.4				
2/24/2017		3.4		130			
3/1/2017							
3/2/2017							
3/3/2017					1.1		
3/6/2017							
3/7/2017							
3/8/2017							
4/26/2017							
4/27/2017							
4/28/2017					0.91		
5/1/2017							
5/2/2017							
5/8/2017							
5/9/2017							
5/10/2017	7.1	4.5	3.9	71			
5/26/2017					0.93		
6/27/2017							
6/28/2017					1		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/29/2017							
6/30/2017							
7/11/2017							
7/17/2017		3.2					
7/18/2017	6		4	46			
10/3/2017					1.2		
10/4/2017							
10/5/2017							
10/10/2017							
10/11/2017						2.4	
10/12/2017							3.8
10/16/2017		9					
10/17/2017	6.1			50			
10/18/2017			4.1				
11/20/2017						1.8	4.4
1/10/2018							4.6
1/11/2018						1.6	
2/19/2018			4.4				4.6
2/20/2018	5.8			53.1		2	
2/21/2018		5.6					
4/2/2018							
4/3/2018						3.3	5.9
6/5/2018							
6/6/2018							
6/7/2018					1		
6/8/2018							
6/11/2018							
6/28/2018						2.1	5
8/6/2018			3.9				
8/7/2018		4.7				1.2	4.3
8/8/2018	4.7			69.3			
9/19/2018							
9/24/2018						1.3	4.9
9/25/2018							
9/26/2018							
10/1/2018					1.1		
10/2/2018							
2/25/2019			4.4				
2/26/2019	5.7	4.2		42.2			
3/26/2019							4.4
3/27/2019						1.4	
3/28/2019							
3/29/2019					1.2		
4/1/2019							
4/2/2019							
4/3/2019							
6/12/2019	9.1			69.5			
6/13/2019		5.5	6.2				
9/24/2019					0.95 (J)		
9/25/2019							
9/26/2019							
10/8/2019			4.9				

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
10/9/2019	9.8	4.5				2.1	5.1
10/10/2019				42.8			
3/17/2020			4.4				
3/18/2020	11.7	3.8		233			
3/19/2020					0.97 (J)		
3/24/2020							4.7
3/25/2020						1.9	
9/22/2020	24.7			60.2			
9/23/2020		3	4.7		0.88 (J)		
9/24/2020						2.7	5
9/25/2020							







# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-30I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
10/9/2019									
10/10/2019									
3/17/2020									
3/18/2020			5.3		8.1				
3/19/2020	12.9	10		1.6					9
3/24/2020						2.1	5.9		
3/25/2020								8.8	
9/22/2020						2.1	5.5	8.2	
9/23/2020	16.8	8.1	3.4						6.9
9/24/2020				0.69 (J)					
9/25/2020					6.1				

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/1/2016									
6/2/2016									
6/6/2016	1.8	1.2							
6/7/2016			4.4	<1	5.2				
7/25/2016									
7/26/2016									
7/27/2016	1.9	1.7	4.7	0.08 (J)					
7/28/2016					5.1				
8/30/2016						160			
8/31/2016							87	29	410
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	1.7		4.8						
9/19/2016		1.8		0.08 (J)	4.8				
11/1/2016									
11/2/2016				0.1 (J)					
11/3/2016	1.9	0.69 (J)	5.3		5				
11/4/2016									
11/14/2016						150			
11/28/2016								36	
11/29/2016									450
11/30/2016							76		
12/1/2016									
12/15/2016									
1/10/2017									
1/11/2017	1.7	<1	5.2						
1/12/2017									
1/13/2017				<1	4.3				
1/16/2017									
2/21/2017									
2/22/2017								43	
2/23/2017							47		390
2/24/2017						120			
3/1/2017	<1	1.8							
3/2/2017			5						
3/3/2017									
3/6/2017				<1	4.5				
3/7/2017									
3/8/2017									
4/26/2017	1.9	1.6		<1	4.9				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			5						
5/8/2017						120		60	
5/9/2017							41		280
5/10/2017									
5/26/2017									
6/27/2017									
6/28/2017	<1	<1							

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/29/2017			5.2	<1	5.5				
6/30/2017									
7/11/2017						110			
7/17/2017								63	
7/18/2017							44		200
10/3/2017					5.8				
10/4/2017	1.7		5.3	<1					
10/5/2017		1.6							
10/10/2017						93			
10/11/2017									
10/12/2017									
10/16/2017								62	
10/17/2017									180
10/18/2017							53		
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								64.6	
2/20/2018									
2/21/2018							46.7		146
4/2/2018						88.8			
4/3/2018									
6/5/2018					6.1				
6/6/2018				0.049 (J)					
6/7/2018		0.68 (J)							
6/8/2018									
6/11/2018	0.95 (J)		5.2						
6/28/2018									
8/6/2018								42.1	
8/7/2018							38.8		100
8/8/2018									
9/19/2018						75			
9/24/2018									
9/25/2018	1.5	1	6.1	0.13 (J)	7				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								42.1	
2/26/2019							49.3		118
3/26/2019									
3/27/2019						65.9			
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			5.1		3.8				
4/3/2019	1.3	0.82 (J)		0.12 (J)					
6/12/2019								83.4	
6/13/2019							77.1		163
9/24/2019					1				
9/25/2019			5.5	<1					
9/26/2019	1	0.64 (J)							
10/8/2019						52.3		128	



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/1/2016							
6/2/2016							
6/6/2016							
6/7/2016							
7/25/2016							
7/26/2016							
7/27/2016							
7/28/2016							
8/30/2016							
8/31/2016	140						
9/1/2016		990	360	150			
9/13/2016							
9/14/2016					9.4		
9/15/2016							
9/16/2016							
9/19/2016							
11/1/2016							
11/2/2016							
11/3/2016							
11/4/2016					13		
11/14/2016							
11/28/2016	120						
11/29/2016			320				
11/30/2016				50			
12/1/2016		1100					
12/15/2016					1.8		
1/10/2017							
1/11/2017							
1/12/2017							
1/13/2017							
1/16/2017					11		
2/21/2017							
2/22/2017	100						
2/23/2017			380				
2/24/2017		850		110			
3/1/2017							
3/2/2017							
3/3/2017					8.8		
3/6/2017							
3/7/2017							
3/8/2017							
4/26/2017							
4/27/2017							
4/28/2017					10		
5/1/2017							
5/2/2017							
5/8/2017							
5/9/2017							
5/10/2017	80	1000	660	70			
5/26/2017					12		
6/27/2017							
6/28/2017					11		

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/29/2017							
6/30/2017							
7/11/2017							
7/17/2017		830					
7/18/2017	57		880	50			
10/3/2017					7.9		
10/4/2017							
10/5/2017							
10/10/2017							
10/11/2017						20	
10/12/2017							17
10/16/2017		720					
10/17/2017	59			58			
10/18/2017			760				
11/20/2017						24	71
1/10/2018							66
1/11/2018						23	
2/19/2018			718				57.2
2/20/2018	55.9			64.6		20.6	
2/21/2018		533					
4/2/2018							
4/3/2018						24.5	49.4
6/5/2018							
6/6/2018							
6/7/2018					8.8		
6/8/2018							
6/11/2018							
6/28/2018						22	43.8
8/6/2018			797				
8/7/2018		784				20.7	40.5
8/8/2018	81.1			79.5			
9/19/2018							
9/24/2018						21.2	39.7
9/25/2018							
9/26/2018							
10/1/2018					9.1		
10/2/2018							
2/25/2019			763				
2/26/2019	129	742		55.8			
3/26/2019							34.3
3/27/2019						17.7	
3/28/2019							
3/29/2019					9		
4/1/2019							
4/2/2019							
4/3/2019							
6/12/2019	180			92.8			
6/13/2019		976	918				
9/24/2019					9.1		
9/25/2019							
9/26/2019							
10/8/2019			664				

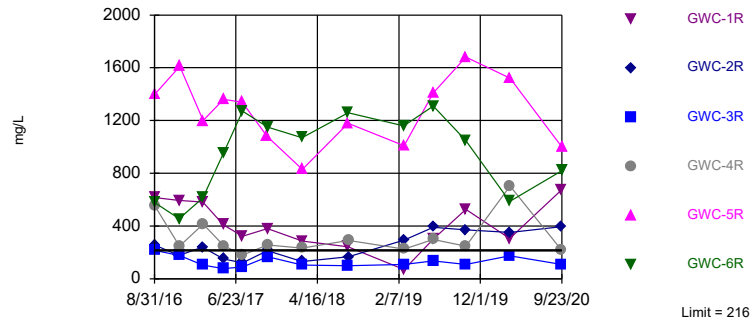
# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
10/9/2019	91.2	1180				15	27.9
10/10/2019				68.7			
3/17/2020			303				
3/18/2020	200	960		199			
3/19/2020					12.4		
3/24/2020							25.2
3/25/2020						14.3	
9/22/2020	216			72.1			
9/23/2020		992	518		11.8		
9/24/2020						11.7	22.9
9/25/2020							

Exceeds Limit: GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R

Prediction Limit  
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=10.05, Std. Dev.=2.547, n=274, 0.7299% NDs. Normality test: Chi Squared @alpha = 0.01, calculated = 12.86, critical = 14.07. Kappa = 1.823 (c=7, w=6, 1 of 2, event alpha = 0.05132). N exceeds UG tables; Kappa based on n=150. Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 11/23/2020 8:10 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill







# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-30I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
10/9/2019									
10/10/2019									
3/17/2020									
3/18/2020			35		57				
3/19/2020	148	116		47					146
3/24/2020						68	139		
3/25/2020								146	
9/22/2020						75	104	83	
9/23/2020	155	108	15						157
9/24/2020				51					
9/25/2020					54				

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/1/2016									
6/2/2016									
6/6/2016	58	120							
6/7/2016			28	38	60				
7/25/2016									
7/26/2016									
7/27/2016	35	94	74	74					
7/28/2016					81				
8/30/2016						319			
8/31/2016							216	209	616
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	35		67						
9/19/2016		92		45	68				
11/1/2016									
11/2/2016				53					
11/3/2016	48	104	41		61				
11/4/2016									
11/14/2016						280			
11/28/2016								102	
11/29/2016									594
11/30/2016							177 (B)		
12/1/2016									
12/15/2016									
1/10/2017									
1/11/2017	95	133	104						
1/12/2017									
1/13/2017				46	76				
1/16/2017									
2/21/2017									
2/22/2017								164	
2/23/2017							105		581
2/24/2017						162			
3/1/2017	79	119							
3/2/2017			77						
3/3/2017									
3/6/2017				164	167				
3/7/2017									
3/8/2017									
4/26/2017	36	162		34	50				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			142						
5/8/2017						194		145	
5/9/2017							77		410
5/10/2017									
5/26/2017									
6/27/2017									
6/28/2017	45	98							

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	GWC-3R	GWA-2 (bg)	GWC-1R
6/29/2017			53	68	94				
6/30/2017									
7/11/2017						193			
7/17/2017								185	
7/18/2017							89		322
10/3/2017					149				
10/4/2017	45		61	54					
10/5/2017		104							
10/10/2017						175			
10/11/2017									
10/12/2017									
10/16/2017								218	
10/17/2017									381
10/18/2017							166		
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								173	
2/20/2018									
2/21/2018							105		285
4/2/2018						192			
4/3/2018									
6/5/2018					109				
6/6/2018				79					
6/7/2018		68							
6/8/2018									
6/11/2018	74		70						
6/28/2018									
8/6/2018								158	
8/7/2018							99		242
8/8/2018									
9/19/2018						186			
9/24/2018									
9/25/2018	63	109	86	73	122				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								92	
2/26/2019							109		69
3/26/2019									
3/27/2019						170			
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			72		134				
4/3/2019	63	89		57					
6/12/2019								226	
6/13/2019							136		301
9/24/2019					157				
9/25/2019			81	75					
9/26/2019	72	126							
10/8/2019						172		276	



# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/1/2016							
6/2/2016							
6/6/2016							
6/7/2016							
7/25/2016							
7/26/2016							
7/27/2016							
7/28/2016							
8/30/2016							
8/31/2016	257						
9/1/2016		1400	578	553			
9/13/2016							
9/14/2016					152		
9/15/2016							
9/16/2016							
9/19/2016							
11/1/2016							
11/2/2016							
11/3/2016							
11/4/2016					148		
11/14/2016							
11/28/2016	177						
11/29/2016			455				
11/30/2016				247 (B)			
12/1/2016		1610 (B)					
12/15/2016					191		
1/10/2017							
1/11/2017							
1/12/2017							
1/13/2017							
1/16/2017					180		
2/21/2017							
2/22/2017	240						
2/23/2017			614				
2/24/2017		1200		414			
3/1/2017							
3/2/2017							
3/3/2017					156		
3/6/2017							
3/7/2017							
3/8/2017							
4/26/2017							
4/27/2017							
4/28/2017					130		
5/1/2017							
5/2/2017							
5/8/2017							
5/9/2017							
5/10/2017	149	1360	955	251			
5/26/2017					223		
6/27/2017							
6/28/2017					166		

# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
6/29/2017							
6/30/2017							
7/11/2017							
7/17/2017		1340					
7/18/2017	122		1270	179			
10/3/2017					153		
10/4/2017							
10/5/2017							
10/10/2017							
10/11/2017						68	
10/12/2017							74
10/16/2017		1080					
10/17/2017	214			256			
10/18/2017			1150				
11/20/2017						139	179
1/10/2018							140
1/11/2018						153	
2/19/2018			1070				119
2/20/2018	131			233		87	
2/21/2018		830					
4/2/2018							
4/3/2018						85	106
6/5/2018							
6/6/2018							
6/7/2018					146		
6/8/2018							
6/11/2018							
6/28/2018						88	112
8/6/2018			1260				
8/7/2018		1180				89	103
8/8/2018	166			292			
9/19/2018							
9/24/2018						82	107
9/25/2018							
9/26/2018							
10/1/2018					155		
10/2/2018							
2/25/2019			1160				
2/26/2019	293	1010		226			
3/26/2019							90
3/27/2019						75	
3/28/2019							
3/29/2019					150		
4/1/2019							
4/2/2019							
4/3/2019							
6/12/2019	391			298			
6/13/2019		1410	1310				
9/24/2019					146		
9/25/2019							
9/26/2019							
10/8/2019			1050				



# Prediction Limit

Constituent: TDS (mg/L) Analysis Run 11/23/2020 8:11 PM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-5R	GWC-6R	GWC-4R	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)
10/9/2019	372	1680				119	98
10/10/2019				247			
3/17/2020			588				
3/18/2020	351	1520		703			
3/19/2020					148		
3/24/2020							84
3/25/2020						158	
9/22/2020	394			217			
9/23/2020		1000	820		161		
9/24/2020						170	77
9/25/2020							

FIGURE H.

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:51 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	GWA-2 (bg)	4.326	50	43	Yes	13	7.692	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-2 (bg)	22.54	53	43	Yes	13	0	n/a	n/a	0.01	NP

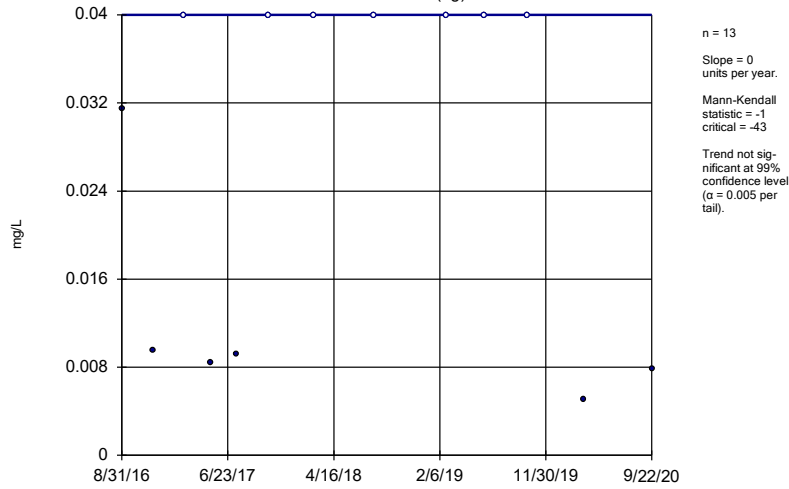
# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 2/12/2021, 10:51 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GWA-2 (bg)	0	-1	-43	No	13	53.85	n/a	n/a	0.01	NP
Boron (mg/L)	GWC-4R	-0.02011	-8	-43	No	13	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWA-2 (bg)</b>	<b>4.326</b>	<b>50</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>7.692</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-1R	-5.883	-18	-43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-2R	5.077	38	43	No	13	7.692	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-5R	4.691	18	43	No	13	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-6R	15.99	20	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-2 (bg)	0.1924	33	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-2R	1.318	25	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-4R	-2.088	-8	-43	No	13	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWA-2 (bg)</b>	<b>22.54</b>	<b>53</b>	<b>43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-1R	-49.07	-26	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-2R	17.81	20	43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-5R	-3.702	-2	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-6R	45.26	14	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWA-2 (bg)	21.56	27	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-1R	-69.17	-24	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-2R	52.15	32	43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-4R	-6.533	-9	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-5R	-53.58	-10	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	GWC-6R	81.82	18	43	No	13	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

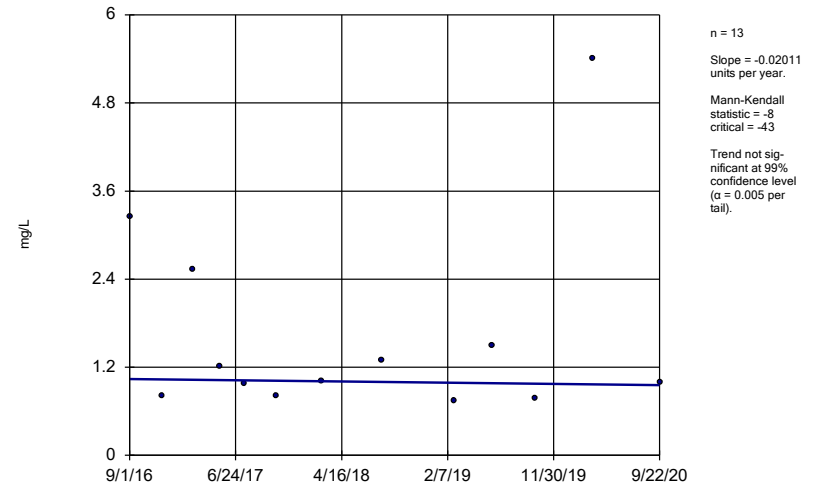
GWA-2 (bg)



Constituent: Boron Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Sen's Slope Estimator

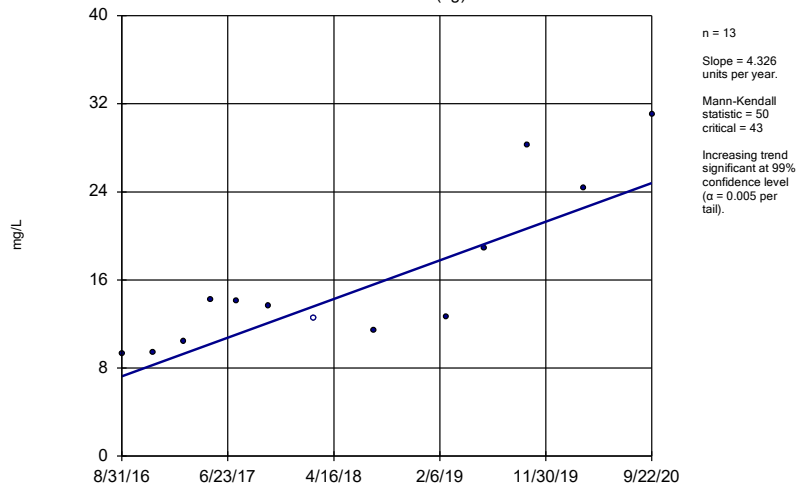
GWC-4R



Constituent: Boron Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Sen's Slope Estimator

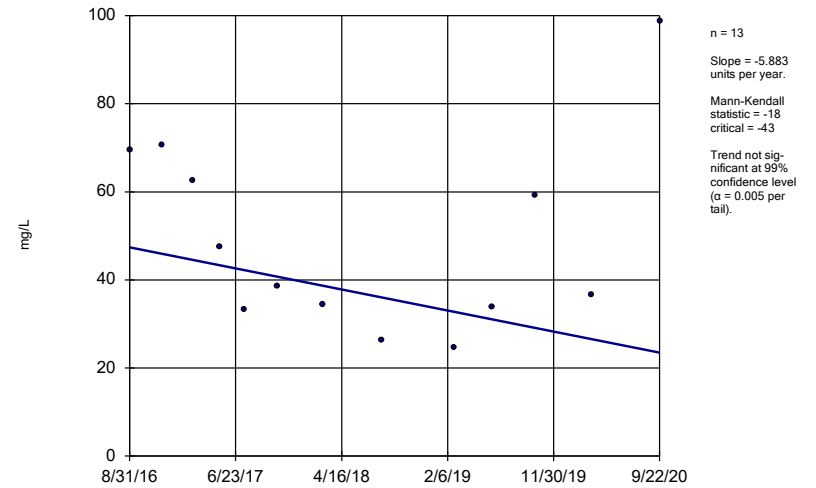
GWA-2 (bg)



Constituent: Calcium Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

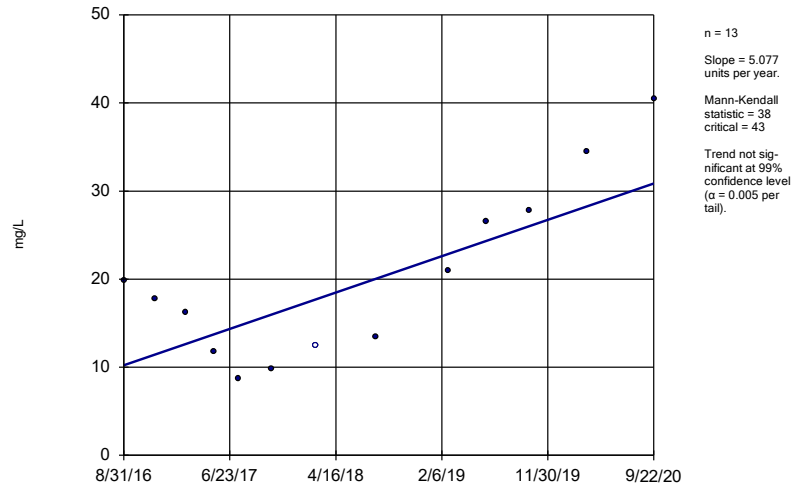
### Sen's Slope Estimator

GWC-1R



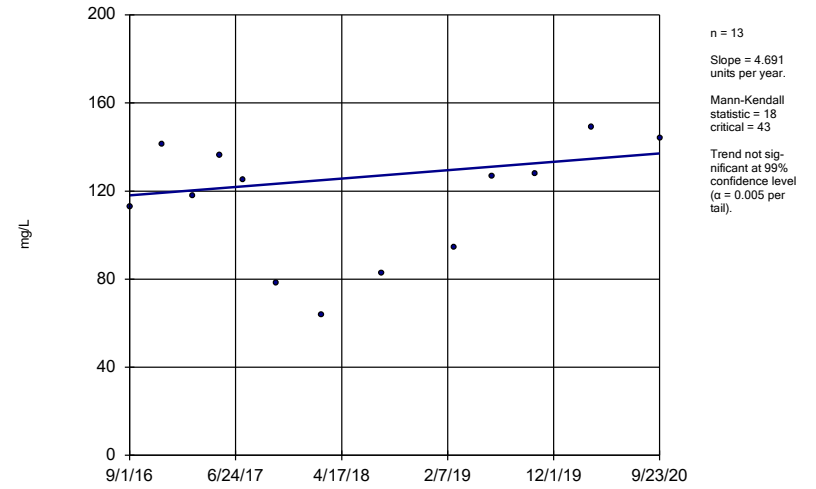
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
 GWC-2R



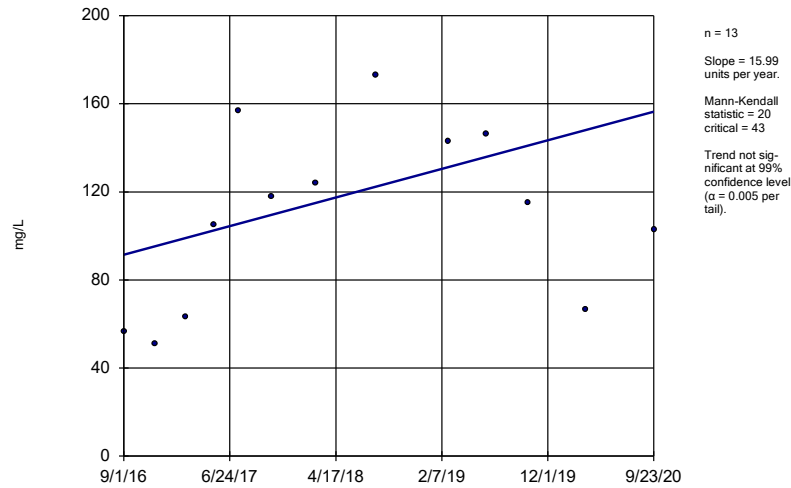
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
 GWC-5R



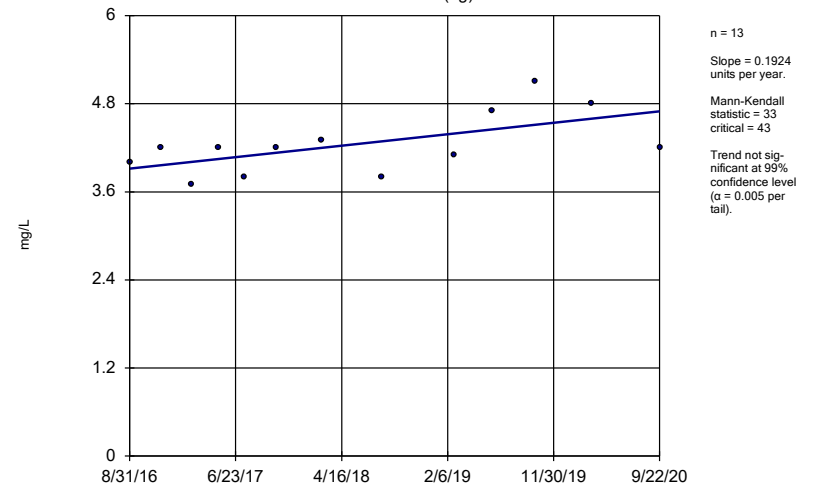
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
 GWC-6R



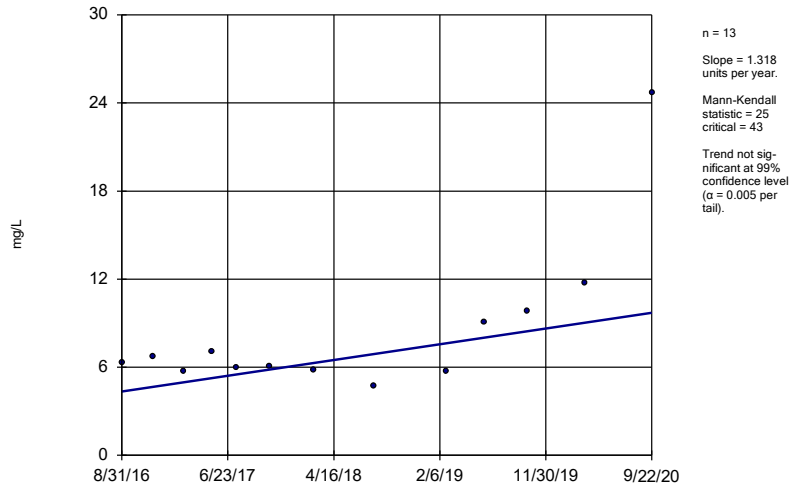
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 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
 GWA-2 (bg)



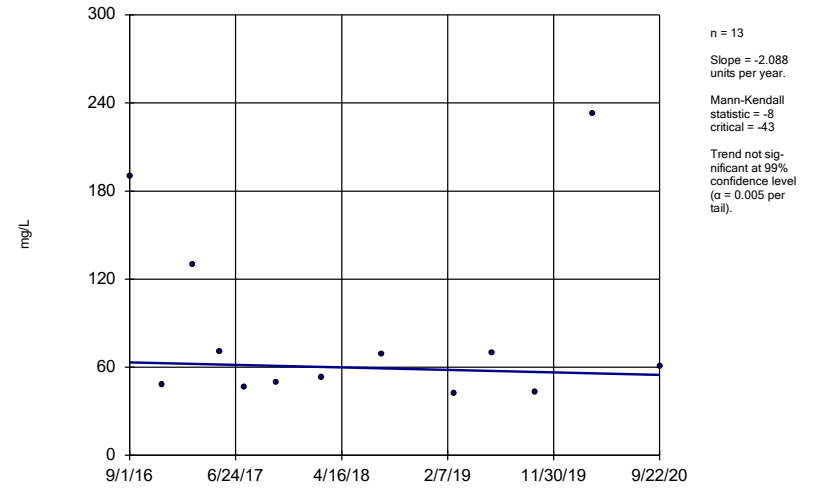
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Sen's Slope Estimator  
GWC-2R



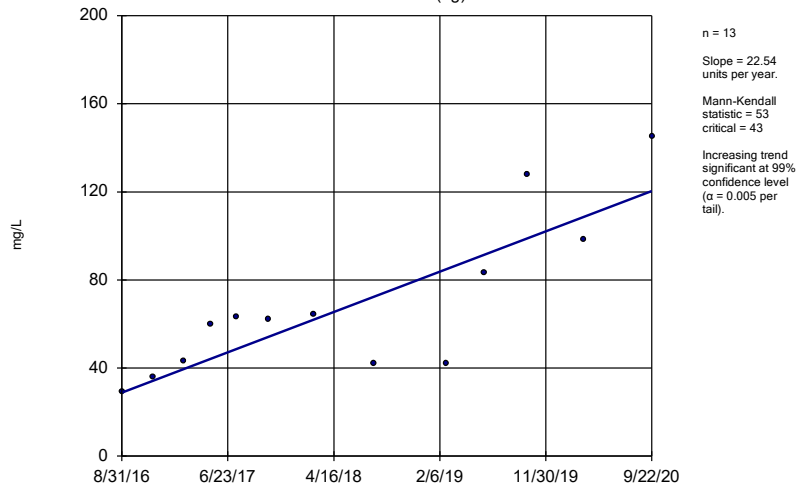
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-4R



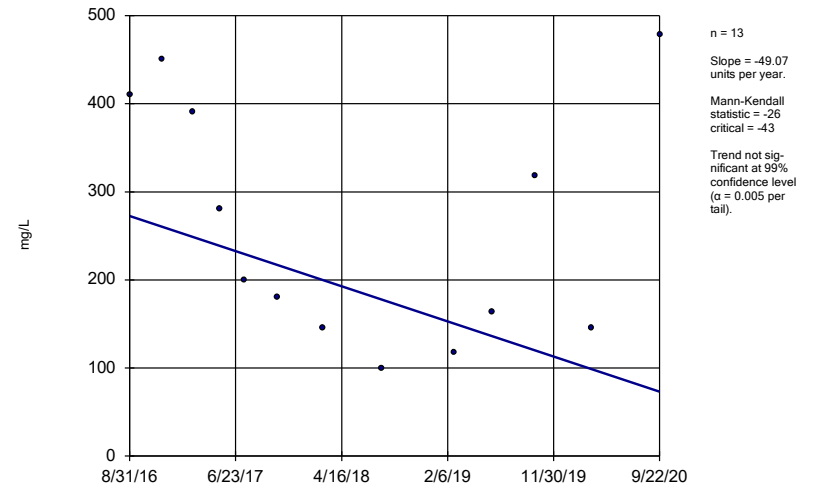
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWA-2 (bg)



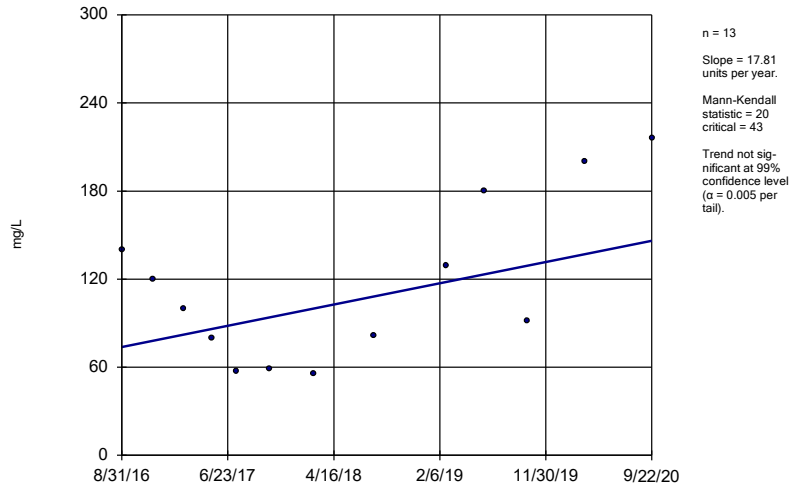
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Sen's Slope Estimator  
GWC-1R



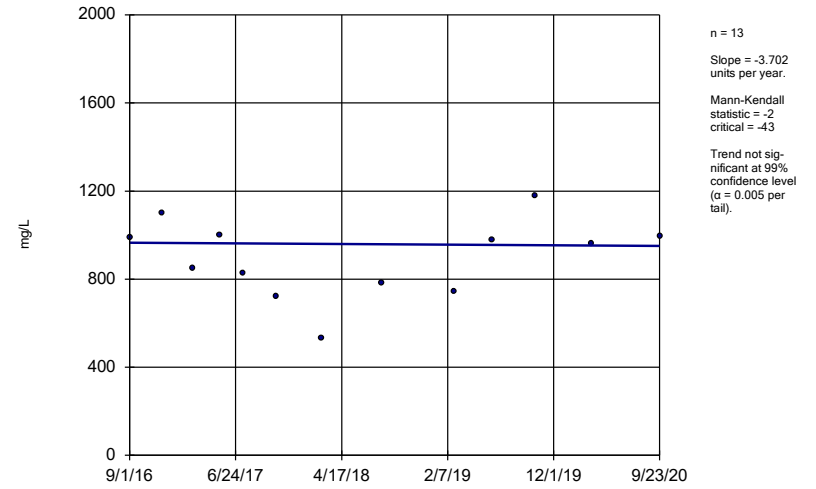
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-2R



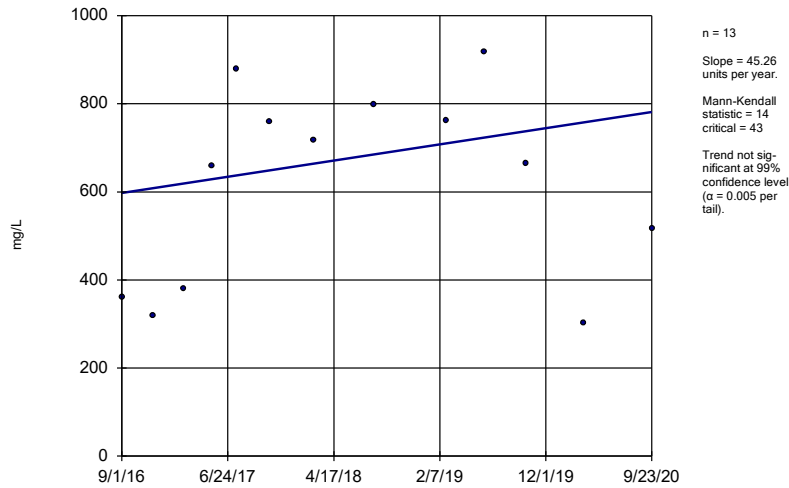
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-5R



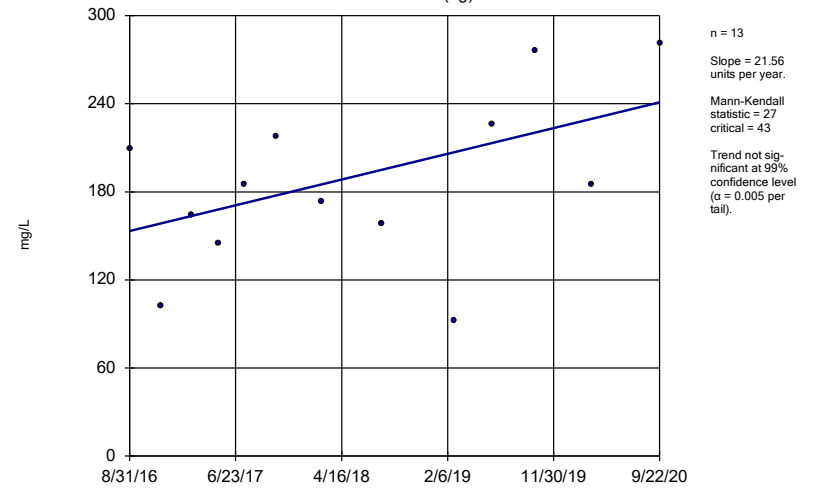
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-6R



Constituent: Sulfate Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

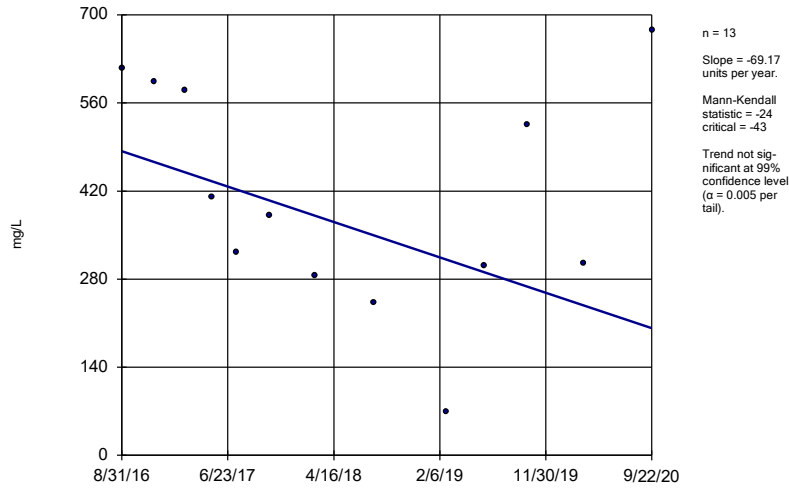
Sen's Slope Estimator  
GWA-2 (bg)



Constituent: TDS Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

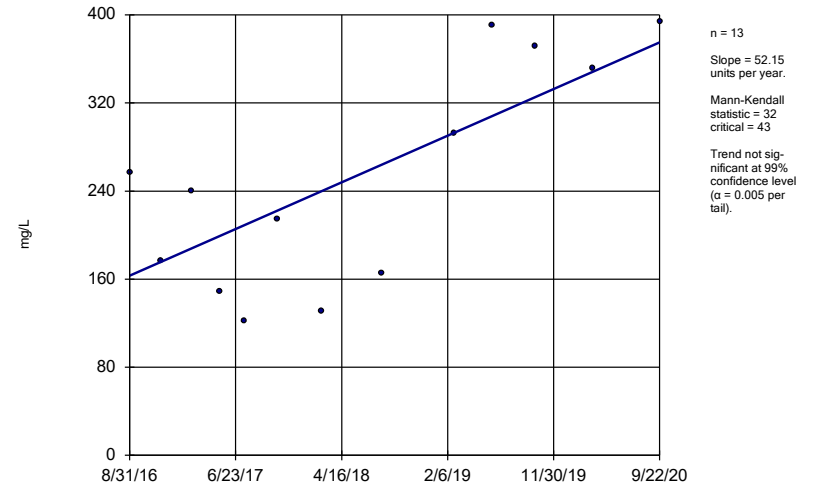


Sen's Slope Estimator  
GWC-1R



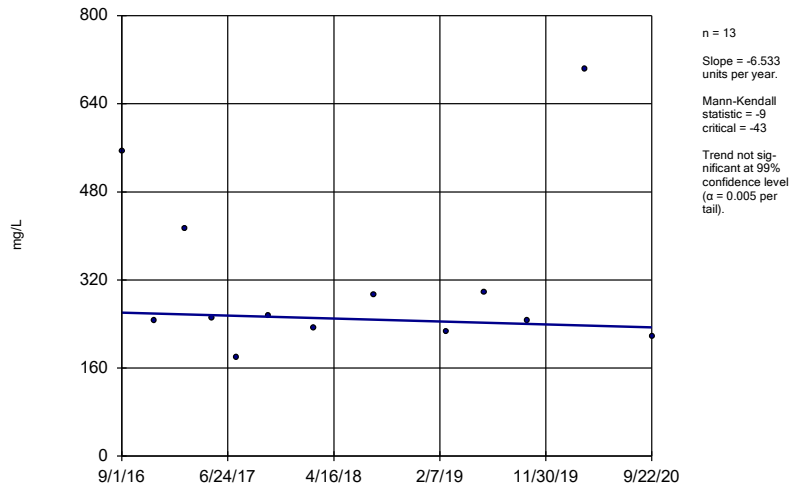
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-2R



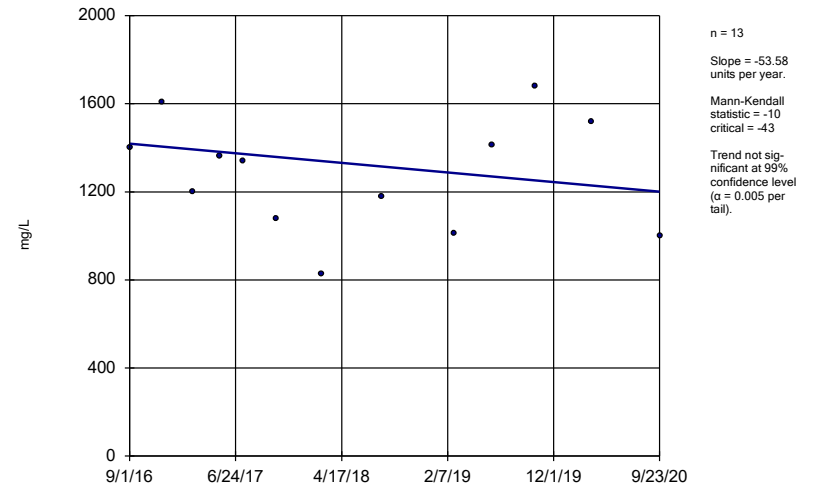
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-4R



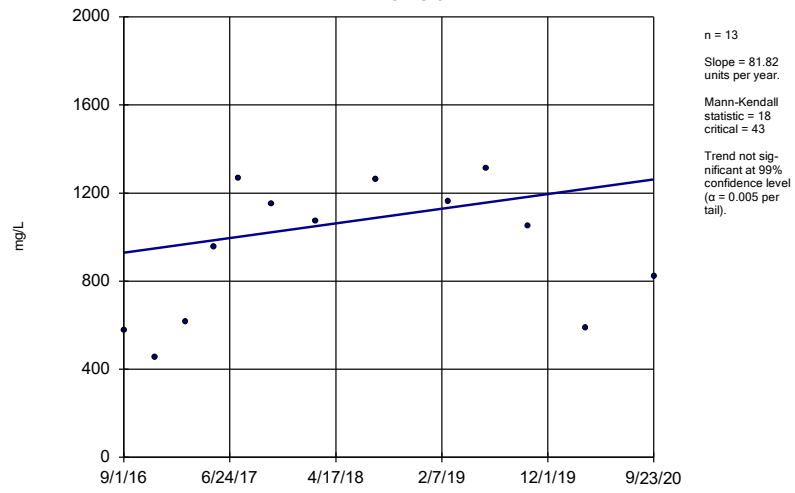
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Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator  
GWC-5R



Constituent: TDS Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Sen's Slope Estimator GWC-6R



Constituent: TDS Analysis Run 2/12/2021 10:48 AM View: Appendix III - Interwell  
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

FIGURE I.

# Upper Tolerance Limit Summary Table

Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill    Printed 12/1/2020, 12:41 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.0047	n/a	n/a	280	n/a	n/a	86.43	n/a	n/a	NaN	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	328	n/a	n/a	77.13	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.071	n/a	n/a	328	n/a	n/a	3.354	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.003	n/a	n/a	312	n/a	n/a	83.01	n/a	n/a	NaN	NP Inter(NDs)
Cadmium (mg/L)	0.0025	n/a	n/a	313	n/a	n/a	96.17	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	280	n/a	n/a	77.14	n/a	n/a	NaN	NP Inter(NDs)
Cobalt (mg/L)	0.035	n/a	n/a	326	n/a	n/a	69.63	n/a	n/a	NaN	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	6.92	n/a	n/a	306	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Fluoride (mg/L)	0.68	n/a	n/a	327	n/a	n/a	68.5	n/a	n/a	NaN	NP Inter(NDs)
Lead (mg/L)	0.005	n/a	n/a	282	n/a	n/a	85.82	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	307	n/a	n/a	28.34	n/a	n/a	NaN	NP Inter(normality)
Mercury (mg/L)	0.0005	n/a	n/a	251	n/a	n/a	92.43	n/a	n/a	NaN	NP Inter(NDs)
Molybdenum (mg/L)	0.014	n/a	n/a	272	n/a	n/a	59.56	n/a	n/a	NaN	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	n/a	311	n/a	n/a	91	n/a	n/a	NaN	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	281	n/a	n/a	96.44	n/a	n/a	NaN	NP Inter(NDs)

FIGURE J.

<b>YATES LANDFILL GYPSUM STACK GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.0047	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.071	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.0025	0.005
Chromium, Total (mg/L)	0.1	0.01	0.1
Cobalt, Total (mg/L)		0.035	0.035
Combined Radium, Total (pCi/L)	5	6.9	6.9
Fluoride, Total (mg/L)	4	0.68	4
Lead, Total (mg/L)		0.005	0.005
Lithium, Total (mg/L)		0.03	0.03
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)		0.014	0.014
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

*\*Grey cell indicates Background Limit is higher than MCL*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

FIGURE K.

# State Confidence Intervals Summary - All Results (No Significant)

Plant Yates    Client: Southern Company    Data: Yates Gypsum Landfill    Printed 12/2/2020, 9:05 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWC-2R	0.003	0.0017	0.006	No	16	0.002919	0.000325	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-4R	0.003	0.0014	0.006	No	16	0.002576	0.0009373	81.25	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-5R	0.003	0.00054	0.006	No	16	0.002678	0.0008805	87.5	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-1R	0.005	0.0009	0.01	No	16	0.003934	0.001913	75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-2R	0.005	0.00075	0.01	No	16	0.004734	0.001062	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-3R	0.005	0.0016	0.01	No	16	0.004301	0.001518	81.25	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-4R	0.005	0.00059	0.01	No	16	0.004435	0.001544	87.5	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-5R	0.005	0.00091	0.01	No	16	0.002116	0.001751	25	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-6R	0.005	0.0007	0.01	No	16	0.002743	0.002092	43.75	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1R	0.06018	0.03661	2	No	16	0.04928	0.01825	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2R	0.05363	0.04542	2	No	16	0.04953	0.006304	0	None	No	0.01	Param.
Barium (mg/L)	GWC-3R	0.03333	0.02107	2	No	16	0.0272	0.009421	0	None	No	0.01	Param.
Barium (mg/L)	GWC-4R	0.032	0.0157	2	No	16	0.02264	0.007834	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-5R	0.0347	0.014	2	No	16	0.02198	0.01037	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-6R	0.07258	0.04933	2	No	16	0.06096	0.01786	0	None	No	0.01	Param.
Beryllium (mg/L)	GWC-1R	0.003	0.000076	0.004	No	16	0.001199	0.001441	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-2R	0.003	0.00012	0.004	No	16	0.001748	0.001467	56.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-3R	0.00084	0.00026	0.004	No	16	0.0005944	0.0006732	6.25	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-4R	0.003	0.000058	0.004	No	16	0.002816	0.0007355	93.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-5R	0.001885	0.0005811	0.004	No	16	0.001384	0.001036	6.25	None	x^(1/3)	0.01	Param.
Cadmium (mg/L)	GWC-1R	0.0025	0.00016	0.005	No	16	0.002054	0.0009595	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-2R	0.0025	0.00015	0.005	No	16	0.001907	0.001061	75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-3R	0.0025	0.00014	0.005	No	16	0.001493	0.001181	56.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-4R	0.0025	0.0001	0.005	No	16	0.00235	0.0006	93.75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-5R	0.001123	0.0005183	0.005	No	16	0.0008556	0.0005334	6.25	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	GWC-1R	0.01	0.0009	0.1	No	16	0.003294	0.004001	25	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2R	0.01	0.00059	0.1	No	16	0.007647	0.004209	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-3R	0.0017	0.0009	0.1	No	16	0.002819	0.003572	18.75	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-4R	0.01	0.0007	0.1	No	16	0.007136	0.004391	68.75	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-5R	0.0024	0.0018	0.1	No	16	0.002637	0.001988	6.25	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-6R	0.0017	0.0012	0.1	No	16	0.002968	0.003496	18.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-1R	0.005	0.0006	0.035	No	16	0.002194	0.002053	31.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-2R	0.02235	0.01282	0.035	No	16	0.01759	0.007326	6.25	None	No	0.01	Param.
Cobalt (mg/L)	GWC-3R	0.01	0.0041	0.035	No	16	0.005237	0.002322	68.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-4R	0.002103	0.0006031	0.035	No	16	0.002353	0.00231	18.75	Kaplan-Meier	x^(1/3)	0.01	Param.
Cobalt (mg/L)	GWC-5R	0.005	0.00044	0.035	No	16	0.004131	0.001869	81.25	Kaplan-Meier	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GWC-1R	1.047	0.5017	6.9	No	12	0.7863	0.369	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2R	1.582	0.6153	6.9	No	12	1.099	0.616	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-3R	1.124	0.1796	6.9	No	12	0.7012	0.7531	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-4R	0.6758	0.2045	6.9	No	12	0.4401	0.3003	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-5R	0.9945	0.2318	6.9	No	12	0.6132	0.486	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-6R	1.235	0.4183	6.9	No	12	0.8532	0.6004	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GWC-1R	0.1	0.06	4	No	15	0.08733	0.02219	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-2R	0.58	0.05	4	No	15	0.1187	0.13	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-3R	0.22	0.04	4	No	15	0.1249	0.1333	46.67	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-4R	0.11	0.08	4	No	15	0.09867	0.02167	73.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-5R	0.35	0.035	4	No	15	0.1186	0.102	60	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-6R	0.28	0.07	4	No	15	0.1013	0.05489	73.33	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-1R	0.005	0.000067	0.005	No	16	0.004382	0.001688	87.5	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-2R	0.005	0.00007	0.005	No	16	0.003153	0.002462	62.5	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-3R	0.005	0.00008	0.005	No	16	0.003158	0.002456	62.5	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-4R	0.005	0.000041	0.005	No	16	0.00469	0.00124	93.75	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-5R	0.005	0.00007	0.005	No	16	0.003465	0.002351	68.75	None	No	0.01	NP (NDs)



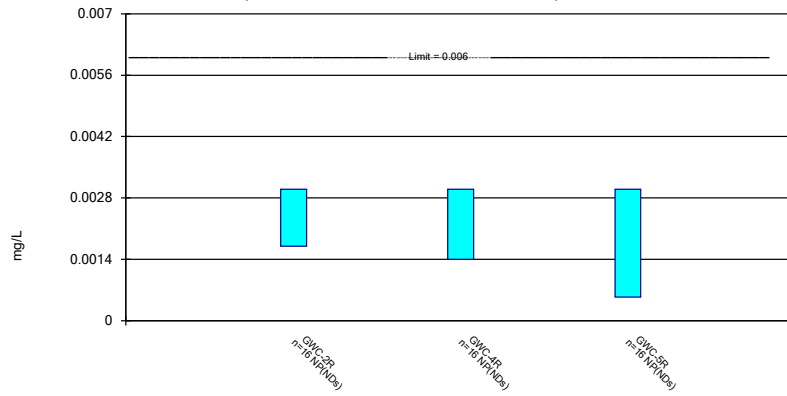
# State Confidence Intervals Summary - All Results (No Significant) <sup>Page 2</sup>

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 12/2/2020, 9:05 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lithium (mg/L)	GWC-1R	0.03	0.001	0.03	No	13	0.00808	0.0125	23.08	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-2R	0.03	0.0035	0.03	No	13	0.01003	0.0114	23.08	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-3R	0.03	0.0012	0.03	No	13	0.02778	0.007988	92.31	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-4R	0.03	0.0011	0.03	No	13	0.02113	0.01385	69.23	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-5R	0.03	0.0013	0.03	No	13	0.01901	0.01447	61.54	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-6R	0.03	0.002	0.03	No	13	0.01148	0.01297	30.77	None	No	0.01	NP (normality)
Mercury (mg/L)	GWC-1R	0.0005	0.000059	0.002	No	16	0.0004724	0.0001103	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2R	0.0005	0.000071	0.002	No	16	0.0004732	0.0001073	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-3R	0.0005	0.00043	0.002	No	16	0.000438	0.0001571	81.25	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-4R	0.0005	0.000058	0.002	No	16	0.0004724	0.0001105	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-5R	0.0005	0.00006	0.002	No	16	0.0004725	0.00011	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-6R	0.0005	0.000067	0.002	No	16	0.0004424	0.0001577	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-1R	0.006121	0.002273	0.05	No	16	0.00495	0.003318	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-2R	0.003921	0.002367	0.05	No	16	0.003144	0.001194	12.5	None	No	0.01	Param.
Selenium (mg/L)	GWC-3R	0.005918	0.002636	0.05	No	16	0.004712	0.002557	18.75	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-4R	0.0054	0.0029	0.05	No	16	0.0049	0.00295	6.25	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-5R	0.02728	0.01843	0.05	No	16	0.02286	0.006805	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-6R	0.004315	0.002697	0.05	No	16	0.003506	0.001243	12.5	None	No	0.01	Param.
Thallium (mg/L)	GWC-2R	0.001	0.00007	0.002	No	16	0.0009419	0.0002325	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-5R	0.001	0.000053	0.002	No	16	0.0009408	0.0002368	93.75	None	No	0.01	NP (NDs)

### Non-Parametric Confidence Interval

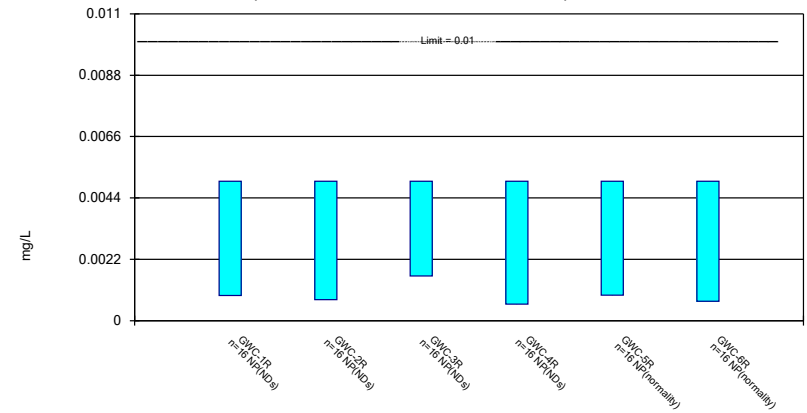
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Non-Parametric Confidence Interval

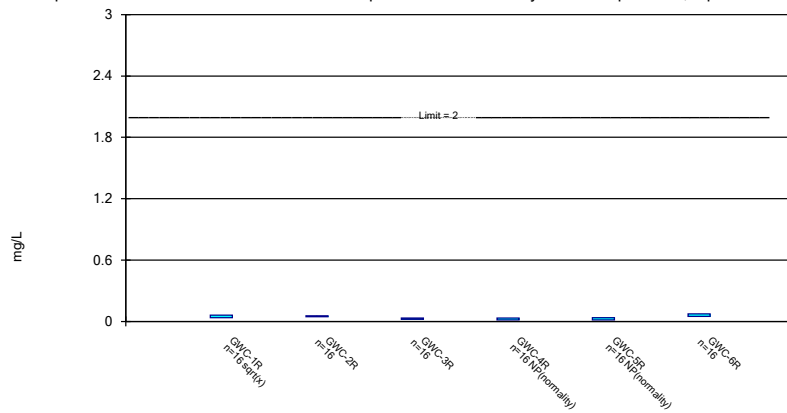
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

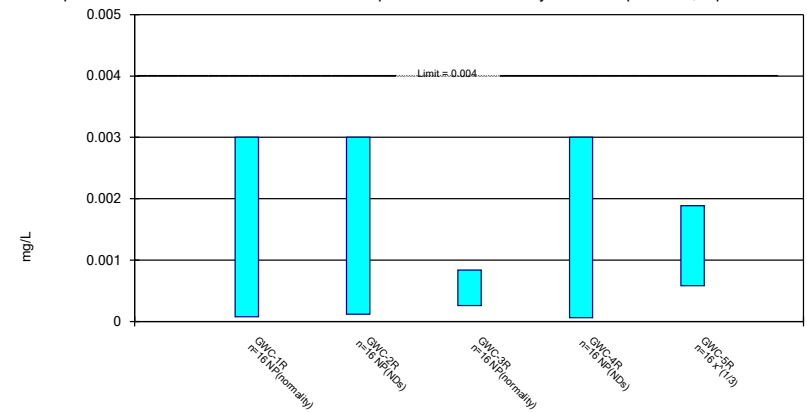
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

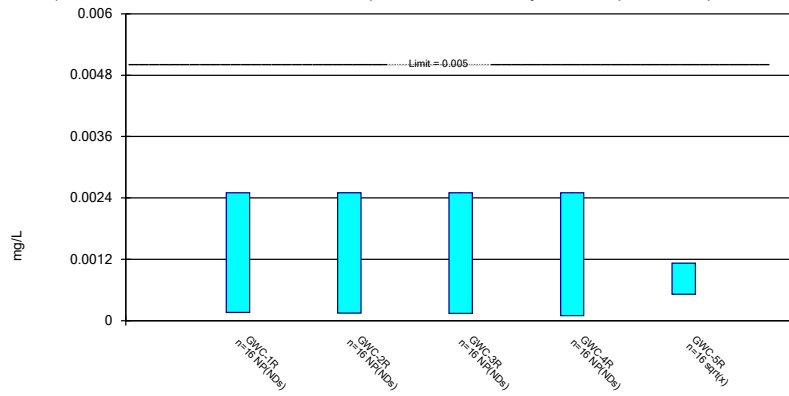
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Constituent: Beryllium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Parametric and Non-Parametric (NP) Confidence Interval

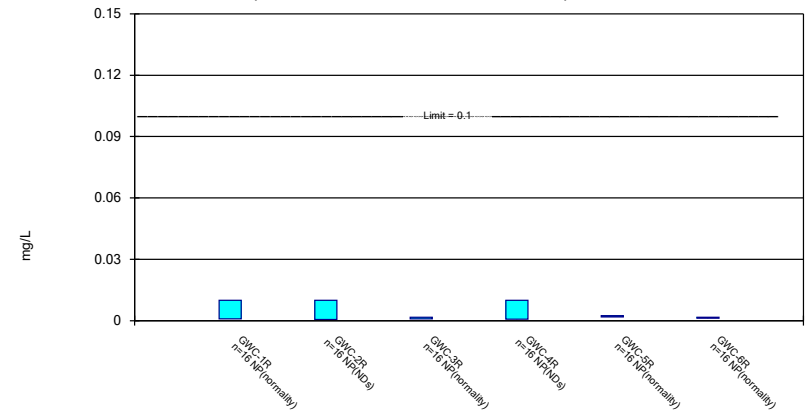
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Constituent: Cadmium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Non-Parametric Confidence Interval

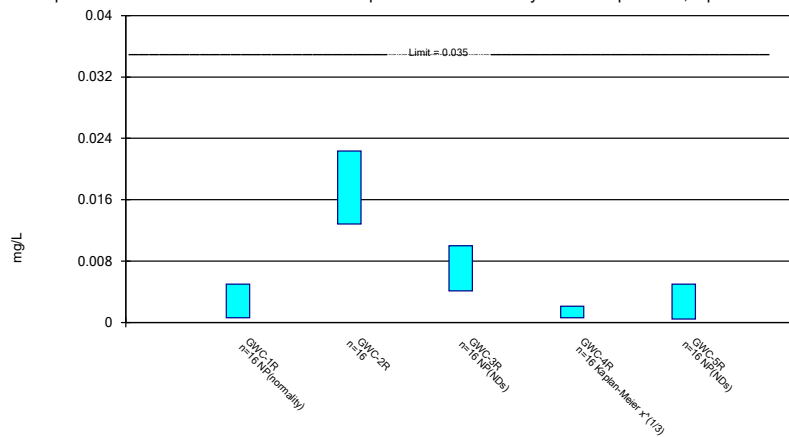
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Parametric and Non-Parametric (NP) Confidence Interval

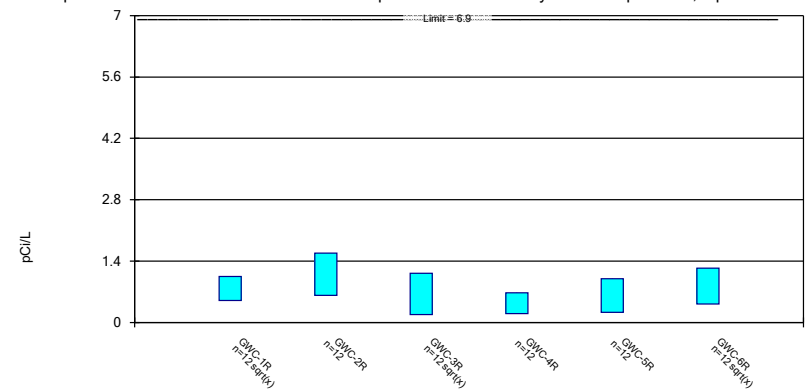
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



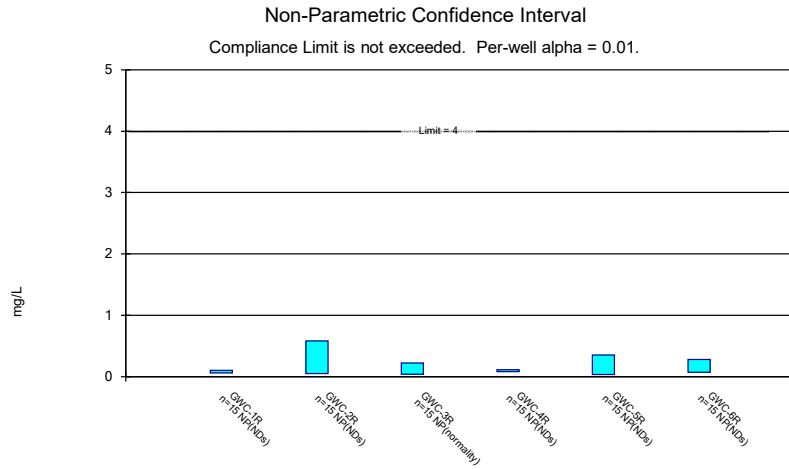
Constituent: Cobalt Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Parametric Confidence Interval

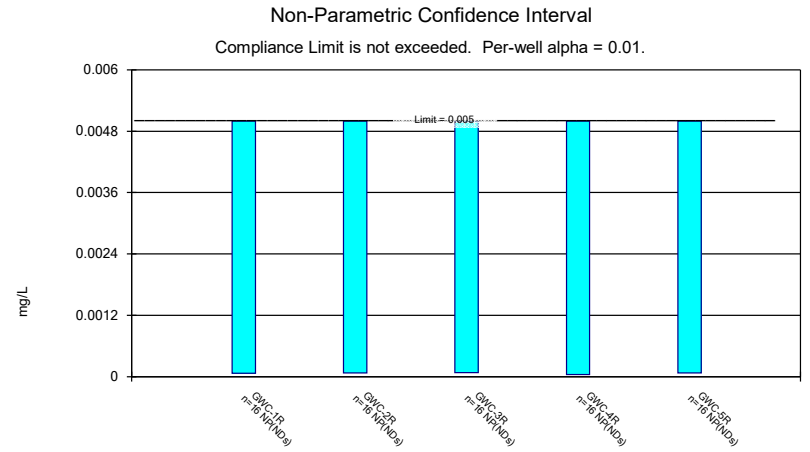
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



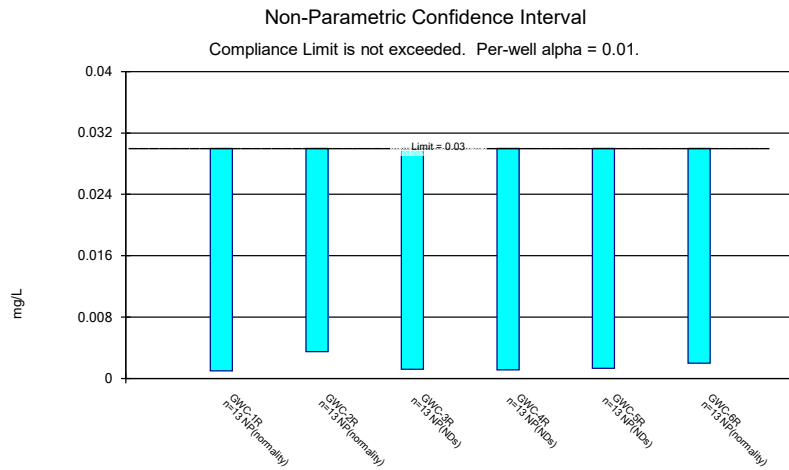
Constituent: Combined Radium 226 + 228 Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



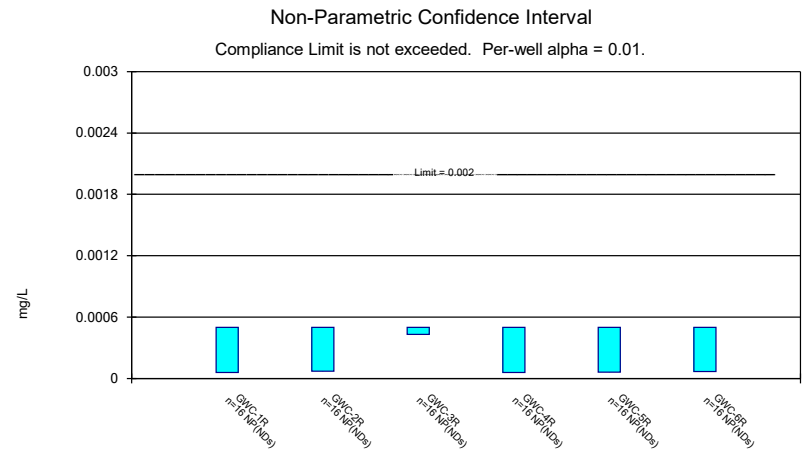
Constituent: Fluoride Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



Constituent: Lead Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



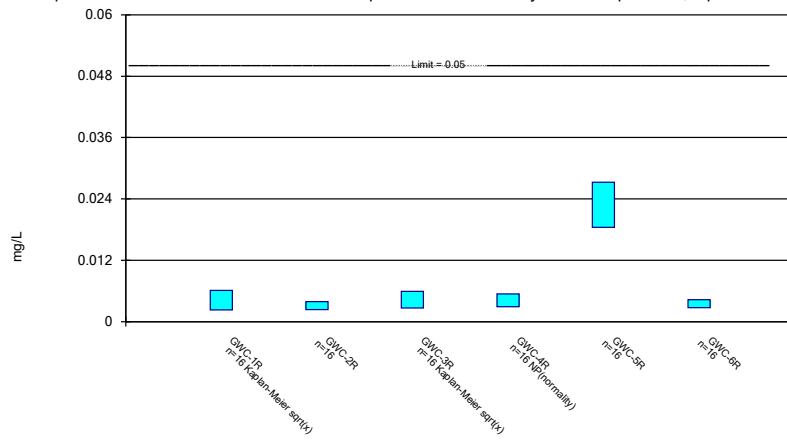
Constituent: Lithium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill



Constituent: Mercury Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

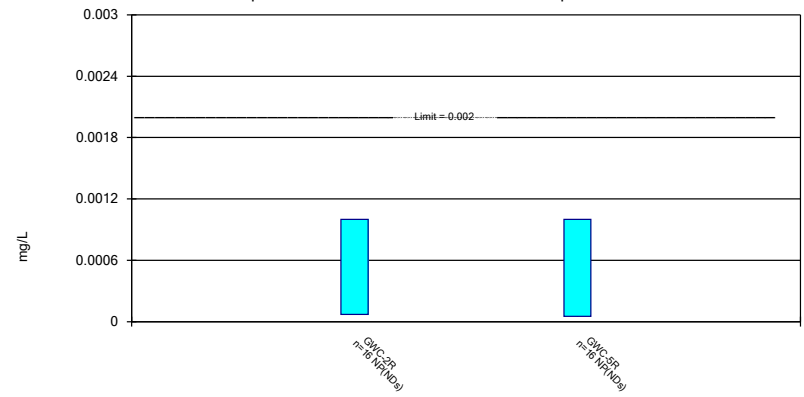
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/2/2020 9:02 AM View: Appendix IV  
 Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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