



Prepared for

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2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

PLANT HAMMOND ASH POND 4 (AP-4)

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CERTIFICATION STATEMENT

This 2024 Annual Groundwater Monitoring and Corrective Action Report, Plant Hammond – Ash Pond 4 (AP-4) has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.



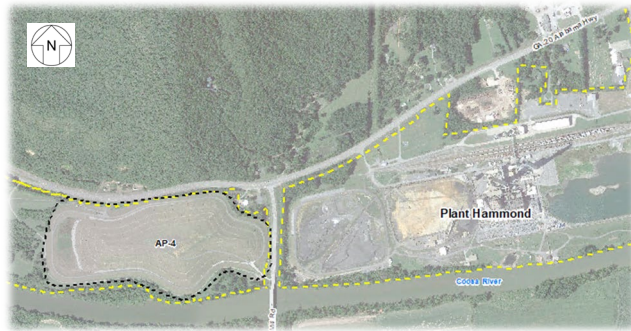
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SUMMARY

This summary of the *2024 Annual Groundwater Monitoring and Corrective Action Report* provides the status of groundwater monitoring and corrective action program for the reporting period of July 2023 through June 2024 (referred herein as the “annual reporting period”) at the Georgia Power Company (Georgia Power) Plant Hammond Ash Pond 4 (AP-4) (the Site). This summary was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Georgia Power to meet the requirements listed in Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, and by reference, Part A, Section 6¹ of the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (federal CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Hammond is located at 5963 Alabama Highway SW, approximately 10 miles west of Rome in Floyd County, Georgia. Dry ash stacking operations in AP-4 began in 1994 and continued until 2010; AP-4 received both fly ash and bottom ash during this period. AP-4 was closed in 2012; therefore, AP-4 is not subject to the federal monitoring requirements, however,



Plant Hammond and the Site

the GA EPD monitoring requirements incorporates by reference the federal regulations on this matter². As such, the federal CCR Rule is referenced in lieu of the GA EPD CCR regulations when discussing aspects of the groundwater monitoring program established for the Site. The Site is located on the western portion of the Plant Hammond property. The GA EPD approved closure permit no. 057-025D(CCR) for AP-4 on January 27, 2021. Georgia Power plans to perform closure by removal of CCR from AP-4.

Groundwater at the Site is monitored using a comprehensive monitoring network that meets federal and state monitoring requirements. Groundwater monitoring-related activities have been performed at AP-4 since August 2016. During the annual reporting period, Geosyntec conducted two groundwater sampling events in August 2023, and February 2024. Groundwater samples were submitted to Pace Analytical Services, LLC,

¹ 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

² GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a)

for analysis. Groundwater data for the event were evaluated in accordance with the certified statistical methods. Statistically significant increases of Appendix III³ constituents above background were observed in select monitoring wells following the August 2023 and February 2024 event, as summarized in the table below.

<i>Appendix III Constituent</i>	<i>August 2023</i>	<i>February 2024</i>
Boron	HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118	HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-118
Calcium	HGWC-102, HGWC-103, HGWC-105, HGWC-118	HGWC-102, HGWC-103, HGWC-105, HGWC-118
Chloride	HGWC-102, HGWC-103	HGWC-102, HGWC-103, HGWC-105
Sulfate	HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118	HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-118
Total Dissolved Solids	HGWC-102, HGWC-103, HGWC-105, HGWC-118	HGWC-102, HGWC-103, HGWC-105, HGWC-118

No statistically significant levels (SSLs) were identified for Appendix IV groundwater data from the August 2023 and February 2024 events⁴.

Based on review of the Appendix III and Appendix IV statistical results completed for the annual reporting period, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power’s CCR Rule Compliance website and provided to GA EPD semiannually.

³ Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

⁴ Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228. A statistically increased level (SSL)-related constituent is determined by comparing the confidence intervals developed to either the constituent’s maximum contaminant level (MCL), if available, the USEPA Rule Specified Level, if no MCL is available, or the calculated background interwell tolerance limit.

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LIST OF ACRONYMS AND ABBREVIATIONS

AP-4	Ash Pond 4
ASD	alternate source demonstration
CCR	coal combustion residuals
CFR	Code of Federal Regulations
cm/sec	centimeters per second
DO	dissolved oxygen
ft/day	feet per day
ft/ft	feet per foot
GA EPD	Georgia Environmental Protection Division
GCL	geosynthetic clay liner
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GSC	Groundwater Stats Consulting
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
i	horizontal hydraulic gradient
K_h	horizontal hydraulic conductivity
MCL	Maximum Contaminant Level
mg/L	milligram per liter
n_e	effective porosity
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity units
ORP	oxidation-reduction potential
Pace Analytical	Pace Analytical Services, LLC.
PE	professional engineer
PL	prediction limit
QA/QC	Quality Assurance/Quality Control
SSI	statistically significant increase
SSL	statistically significant level
s.u.	standard unit
TDS	total dissolved solids
Unified Guidance	Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (federal CCR Rule) [40 Code of Federal Regulations (CFR) Part 257, Subpart D] and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Geosyntec Consultants, Inc. (Geosyntec) has prepared this *2024 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power) Plant Hammond (Site) Ash Pond 4 (AP-4) for the reporting period of July 2023 through June 2024 (referred to herein as the “annual reporting period”).

Groundwater monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements of the GA EPD Rules for Solid Waste Management 391-3-4-.10(6), but also in accordance with the federal CCR Rule, specifically § 257.90 through § 257.95. To specify groundwater monitoring requirements, GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the federal CCR Rule. For ease of reference, the federal CCR rules are cited within this report, in lieu of citing both sets of regulations. Also, the closure permit issued by GA EPD (i.e., no. 057-025D(CCR)) stipulates that groundwater monitoring is required while CCR waste remains in place at the CCR unit and for no less than 5-years after removal of the material.

AP-4 was closed in 2012; therefore, AP-4 is not subject to the federal monitoring requirements, though GA EPD rule 391-3-4-.10(6)(a) promulgates the groundwater monitoring and corrective action regulations stipulated in the federal CCR Rule § 257.90 through § 257.95. A permit application for AP-4 was submitted to GA EPD in November 2018. GA EPD approved closure permit no. 057-025D(CCR) for AP-4 on January 27, 2021.

Due to statistically significant increases (SSIs) of Appendix III constituents identified in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2019), Georgia Power initiated an assessment monitoring program for AP-4 in August 2019. Since then, Georgia Power has routinely sampled the AP-4 monitoring well network in accordance with the assessment monitoring program as outlined in § 257.95. This report includes the results of two semiannual assessment monitoring events conducted in August 2023 and February 2024.

1.1 Site Description and Background

Plant Hammond is located in Floyd County, Georgia, approximately 10 miles west of Rome and is bordered by Georgia Highway 20 (GA-20) on the north, the Coosa River on the south, Cabin Creek and industrial land on the east, and sparsely populated, forested, rural and industrial land on the west (**Figure 1**). The physical address of the plant is 5963 Alabama Highway, Rome, Georgia, 30165.

Plant Hammond was a four-unit, coal-fired electric generating facility. All four units at Plant Hammond were retired in July 2019 and no longer produce electricity.

AP-4 was commissioned in 1986 as a surface impoundment with a corresponding surface area of approximately 54 acres. Dry ash stacking operations in AP-4 began in 1994 and continued until 2010; AP-4 received both fly ash and bottom ash during this period. AP-4 was capped in place in 2011-2012 in accordance with the GA EPD regulations regarding landfill closures. AP-4 was graded, engineered with drainage, and capped with a geosynthetic clay liner (GCL) and soil cover. Georgia Power plans to perform closure by removal of CCR from AP-4. The Closure Plan submitted to GA EPD as part of the closure permit application package describes the closure activities and requirements in accordance with GA EPD rules 391-3-4-.10(7)(a)2. and 391-3-4.10(9)(c)8. Closure permit no. 057-025D(CCR) was approved by GA EPD on January 27, 2021.

1.2 Regional Geology and Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at AP-4 as described in the *Hydrogeologic Assessment Report (Revision 01) – Ash Pond 4, Plant Hammond* (HAR Rev 01) submitted to GA EPD under separate cover in support of the AP-4 closure permit application (Geosyntec, 2020).

1.2.1 Regional and Site Geology

The Site is located within the Great Valley District of the Valley and Ridge Physiographic Province (Valley and Ridge) in northwest Georgia. The Valley and Ridge is characterized by Paleozoic sedimentary rocks that have been folded and faulted into the ridges and valleys that gave this region its name. Geologic mapping performed at the Site by Petrologic Solutions, Inc. under the direction of Golder (Golder, 2018) indicates that AP-4 is underlain by the lower units of the Cambrian age Conasauga Formation, consisting of mostly calcareous shale. Based on review of subsurface investigations, the bedrock underneath AP-4 was described as predominantly shale. AP-4 is underlain primarily by

five lithologic units: (i) terrace alluvium; (ii) colluvium; (iii) residuum; (iv) partially weathered shale bedrock; and (v) unweathered shale bedrock.

Based on subsurface investigations, the alluvial deposits generally grade from a silt and silty clay to a clayey sand and silty sand to a sand and gravelly sand at depth. The colluvium consists of silty sand, silty clay with the presence of angular fragments of rocks/materials not expected in the lower units of the Conasauga, such as chert, sandstone, limestone, or coal. Residual or native soils have been derived from the in-place weathering of the shale bedrock. The residuum is generally described as brown to yellow brown firm clayey silt with weathered shale fragments. The partially weathered shale zone occurs as an intermediate weathering stage between the residuum and the unweathered shale bedrock. The weathered material is described as black to dark gray to dark red hard, fissile shale and claystone. The unweathered shale bedrock was not encountered or directly observed in the historical borings advanced at AP-4. However, based on geologic conditions in the region, weathering, fracturing and jointing decreases with depth and the weathered rock material grades into competent bedrock.

1.2.2 Hydrogeologic Setting

The uppermost aquifer at AP-4 is a regional groundwater aquifer that occurs primarily in the alluvium, colluvium, and residuum, but also to some degree within the weathered and fractured bedrock. Based on observations of alluvium, colluvium, and residuum soil types and horizontal conductivity values, the movement of groundwater in the soil can be characterized as low-to moderate permeability, porous media flow. The groundwater flow in the shallow underlying bedrock is characterized as fracture flow, and due to the preponderance of shale beneath AP-4, is expected to be very low permeability. Groundwater flow direction is generally from north to south.

1.3 Groundwater Monitoring Well Network

In accordance with § 257.91, a groundwater monitoring system was installed at AP-4 that consists of a sufficient number of wells installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer to represent the groundwater quality both upgradient of the unit (i.e., background conditions) and passing the waste boundary of the unit. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site specific hydrogeologic conditions.

A network of piezometers has been installed at the Site that are used to gauge water levels to define groundwater flow direction and gradients. The locations of the detection monitoring well network and piezometers associated with AP-4 are shown on **Figure 2**; well construction details are listed in **Table 1**.

On July 27, 2023, GA EPD approved a minor modification to the closure permit proposing to remove HGWC-117 from the detection monitoring well network via abandonment and replace it with HGWC-117A as the detection monitoring well. The proposal to abandon HGWC-117 was based on the findings presented in an EPD approved Alternate Source Demonstration (ASD) to address the statistically significant level (SSL) of cobalt reported for HGWC-117 (Geosyntec, 2021b). HGWC-117 was abandoned in July, 2023, in accordance with the methods outlined in the approved Groundwater Monitoring Plan (Geosyntec, 2023).

On October 20, 2023, Georgia Power submitted to GA EPD a minor modification request to update the groundwater monitoring network to reflect as-built conditions of the abandonment of HGWC-117 and reclassification of HGWC-117A as a detection monitoring well.

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with § 257.90(e), the following describes groundwater monitoring-related activities performed during the annual reporting period and discusses any change in status of the monitoring program. Groundwater sampling was performed in accordance with § 257.93.

2.1 Monitoring Well Installation and Maintenance

The well and piezometer networks are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In August 2023 and February 2024, the networks were inspected and necessary corrective actions were identified and subsequently completed, as documented in **Appendix A**. This documentation was prepared under the direction of a professional geologist or engineer registered in the State of Georgia.

2.2 Assessment Monitoring

Georgia Power initiated an assessment monitoring program for groundwater at AP-4 in August 2019. No SSLs of Appendix IV constituents were identified during this annual reporting period. Groundwater at AP-4 will continue to be managed under the assessment monitoring program stipulated by § 257.95.

For the annual reporting period, two semiannual assessment monitoring events were conducted in August 2023, and February 2024. The AP-4 wells sampled during these events and the dates associated with them are summarized in **Table 2**. The laboratory reports associated with the August 2023 and February 2024 groundwater sampling events are provided in **Appendix B**. Details of the event and analytical results are discussed in Section 3, while details of the statistical analyses performed are provided in Section 4 of this report.

2.3 Additional Groundwater Evaluations

Supplemental groundwater samples were collected from the entire AP-4 monitoring well network during the August 2023 and February 2024 monitoring events and were analyzed for major ions [magnesium, potassium, sodium, and alkalinity (bicarbonate, carbonate, total)] as well as iron, manganese, and sulfide. The data were collected in support of

evaluating, as necessary, the geochemical composition of the groundwater at the Site. The laboratory reports associated with the data are provided in **Appendix B**.

3.0 SAMPLING METHODOLOGY AND ANALYSES

The following section presents a summary of the field sampling procedures that were implemented, and the groundwater sampling results that were obtained in connection with the assessment monitoring program conducted at AP-4 during the annual reporting period.

3.1 Groundwater and Surface Water Level Measurement

A synoptic round of depth-to-groundwater-level measurements was recorded from the AP-4 wells and piezometers during the August 2023 and February 2024 assessment monitoring events and used to calculate the corresponding groundwater elevations, which are presented in **Table 3**. The August 2023 and February 2024 elevations reported are generally representative of the groundwater elevations reported for prior monitoring events.

A surface water elevation was recorded from the surveyed gauging point located along Unnamed Creek east of AP-4, as shown on **Figure 2**.

The groundwater and surface water elevation data presented in **Table 3** were used to prepare potentiometric surface contour maps for the August 2023 and February 2024 events, which are presented on **Figure 3**, and **Figure 4**, respectively. Groundwater in the AP-4 area flows under the influence of topography from slightly higher ground surface elevations on the northern side of AP-4 toward lower elevations to the south of AP-4 along the Coosa River.

3.2 Groundwater Gradient and Flow Velocity

The horizontal groundwater hydraulic gradients within the uppermost aquifer beneath AP-4 were calculated using the groundwater elevation data from the August 2023 and February 2024 events. The horizontal hydraulic gradient is commonly calculated between two points along the groundwater flow path perpendicular to groundwater elevation contours. Ideally, this flow path originates and concludes with groundwater elevations reported for two wells, but this may not be feasible and still remain perpendicular to the contours. Given the surface area covered by AP-4, horizontal hydraulic gradients were calculated along the eastern, central, and western portions of the unit. The well pairs correlating to these flow areas are, respectively: GWA-14 and GWC 19; HGWA-113 and HGWC-102; and HGWA-111 and HGWC-107/GWC-6. The supporting calculations are presented in **Table 4**. The general trajectory of the flow paths

used in the calculations and associated potentiometric contour lines are shown on **Figure 3** and **Figure 4**, respectively. The presented hydraulic gradients from the three portions were averaged for the annual reporting period to provide a representative gradient of 0.016 feet per foot (ft/ft) across AP-4.

The approximate horizontal flow velocity associated with AP-4 groundwater was calculated using the following derivative of Darcy's Law. The calculations are presented in **Table 4**.

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

where:

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

K_h = Horizontal Hydraulic Conductivity $\left(\frac{\text{feet}}{\text{day}}\right)$

i = Horizontal hydraulic gradient $\left(\frac{\text{feet}}{\text{foot}}\right) = \frac{h_1 - h_2}{L}$

h_1 and h_2 = Groundwater elevation at location 1 and 2

L = distance between location 1 and 2

n_e = Effective porosity

Aquifer testing was conducted by Southern Company Services in 2013 to evaluate hydraulic conditions in the vicinity of AP-4. Results of these field events are discussed in detail in the HAR Rev 01 (Geosyntec, 2020). Horizontal hydraulic conductivity (K_h) was estimated for units above the top of bedrock by performing slug tests. The tests were conducted at wells screened in the terrace alluvium or colluvial material; a geometric mean for K_h of 5.86×10^{-4} centimeters per second (cm/sec) (1.67 feet per day [ft/day]) was calculated from the slug test data for the two units. Since the majority of the wells are screened in either alluvial or alluvial/colluvial materials, no hydraulic conductivity testing was conducted on the residuum, weathered shale, or unweathered shale.

The groundwater flow velocity calculation is performed using the geometric mean for K_h of 1.67 ft/day. An estimated effective porosity (n_e) of 0.15 is used to represent average conditions for the silty clay alluvium/colluvium, derived based on review of literature, observed site lithology, and professional judgement. With these variables assigned, and

accounting for the representative hydraulic gradient discussed above, the representative groundwater flow velocity underneath AP-4 was calculated to be 0.17 ft/day for the annual reporting period.

3.3 Groundwater Sampling Procedures

Groundwater samples were collected from the monitoring network using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using dedicated bladder pumps with dedicated tubing and peristaltic pumps. For wells sampled with peristaltic pumps, the pump intake was lowered to the midpoint of the well screen (or as appropriate based on the groundwater level). Peristaltic pump samples were collected using new disposable polyethylene tubing; all non-dedicated tubing was disposed of following the sampling event. All non-disposable equipment was decontaminated before use and between well locations.

An in-situ water quality field meter (Aqua TROLL 400) was used to monitor and record field water quality parameters (i.e., pH, conductivity, dissolved oxygen (DO), temperature, and oxidation reduction potential [ORP]) during well purging to verify stabilization prior to sampling. Turbidity was monitored using a portable turbidity meter (i.e., LaMotte 2020we or similar). Groundwater samples were collected once the following stabilization criteria were met:

- pH \pm 0.1 standard units (s.u.).
- Conductivity \pm 5%.
- \pm 0.2 milligrams per liter (mg/L) or \pm 10% (whichever is greater) for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measured less than 5 nephelometric turbidity units (NTU), or measured between 5 and 10 NTU following three hours of purging.

Following purging, and once stabilization was achieved, unfiltered samples were collected into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC (Pace Analytical) in Peachtree Corners, Georgia, following chain-of-custody protocol. The field sampling and equipment calibration forms generated during the August 2023 and February 2024 assessment monitoring events are provided in **Appendix B**.

3.4 Laboratory Analyses

Laboratory analyses were performed by Pace Analytical, which is accredited by the National Environmental Laboratory Accreditation Program (NELAP). Pace Analytical maintains a NELAP certification for the Appendix III and Appendix IV constituents and the geochemical parameters analyzed for this project. Analytical methods used for groundwater sample analysis, and the associated results, are listed in the analytical laboratory reports included in **Appendix B**. The groundwater analytical results including the supplementary geochemical ionic data from the August 2023 and February 2024 sampling events are summarized in **Table 5**.

3.5 Quality Assurance and Quality Control Summary

Quality assurance/quality control (QA/QC) samples were collected during the groundwater monitoring event in accordance with the Site's *Groundwater Monitoring Plan* (Geosyntec, 2023), and included the following: field duplicates, equipment blanks, and field blank samples. QA/QC samples were collected in appropriately preserved laboratory-provided containers and submitted under the same chain of custody as the primary samples for analysis of the same constituents by Pace Analytical.

In addition to collecting QA/QC samples, the data were validated based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and applicable federal guidance documents (USEPA, 2011; USEPA, 2017). Where necessary, the data were qualified with supporting documentation and justifications. The validated data are considered usable for meeting project objectives. The associated data validation reports for both semiannual events are provided in **Appendix B**, along with the laboratory reports.

4.0 STATISTICAL ANALYSIS

The following section summarizes the statistical analysis of Appendix III groundwater monitoring data performed pursuant to § 257.93. In addition, pursuant to § 257.95(d)(2), Georgia Power established GWPS for the Appendix IV monitoring constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the annual reporting period. The data were analyzed by Groundwater Stats Consulting (GSC); the reports generated from the analyses are provided in **Appendix C**.

4.1 Statistical Methods

Groundwater data from the annual reporting period were statistically analyzed in accordance with the Professional Engineer-certified (PE-certified) Statistical Analysis Method Certification (October 2017, revised January 2020). The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package, which incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 2009).

Appendix III statistical analysis was performed to determine if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to determine if concentrations statistically exceeded the established GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in statistical analysis packages provided in **Appendix C** and summarized in Sections 4.1.1 and 4.1.2. The GWPS were finalized pursuant to § 257.95(d)(2) and presented in **Table 6**.

4.1.1 Appendix III Statistical Methods

Based on guidance from GA EPD, statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix III constituents. Interwell PLs pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are SSIs. An "initial exceedance" occurs when an Appendix III constituent reported in the groundwater of a downgradient detection monitoring well exceeds the constituent's associated PL. The 1-of-2 resample

plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample confirms the initial exceedance by also exceeding the statistical limit. If the resample falls within its respective prediction limit, no exceedance is declared.

4.1.2 Appendix IV Statistical Methods

To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV constituents in each downgradient detection monitoring well with a minimum of four samples. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSL for Appendix IV constituents.

The confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If a confidence interval exceeds a GWPS, an SSL exceedance is identified.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in § 257.95(h)(1-3), the GWPS is defined by the below criteria. These criteria were adopted into the GA EPD Rules for Solid Waste Management 391-3-4-.10 on February 22, 2022.

- (1) The maximum contaminant level (MCL) established under § 141.62 and § 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L;
 - (ii) Lead 0.015 mg/L;
 - (iii) Lithium 0.040 mg/L; and
 - (iv) Molybdenum 0.1 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule specified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents and are presented in **Table 6**.

4.2 Statistical Analyses Results

Based on review of the Appendix III statistical analyses presented in **Appendix C**, groundwater conditions have not returned to background and assessment monitoring should continue. No SSLs of Appendix IV constituents were identified following statistical analyses of the August 2023 and February 2024 data sets.

5.0 ALTERNATE SOURCE DEMONSTRATION

An ASD was prepared and submitted to GA EPD on October 28, 2021, to address the SSL of cobalt reported for HGWC-117 (Geosyntec, 2021b). The ASD presented multiple lines of evidence that the SSL was not associated with a release from AP-4, but was instead an isolated occurrence unrelated to the unit, and may have been affected by pump/sampling issues. As part of the ASD, HGWC-117A was installed in July 2021 to assess groundwater quality proximal to HGWC-117; the new well was located approximately 30 ft side-gradient to HGWC-117 and within similar lithology. Since August 2021, the groundwater samples collected from HGWC-117A have reported cobalt concentration as estimated below the reporting limit (i.e., “J” qualified) and consequently below the GWPS. GA EPD approved the ASD on July 19, 2023, and HGWC-117 was abandoned following submittal of a minor modification to the site permit. In October 2023, Georgia Power submitted to GA EPD a minor modification request to update the groundwater monitoring network to reflect as-built conditions of the abandonment of HGWC-117 and reclassification of HGWC-117A as a detection monitoring well.

6.0 MONITORING PROGRAM STATUS

Based on the statistical evaluation results presented for the annual reporting period, SSIs of Appendix III constituents have not returned to background levels. Pursuant to § 257.96(b), Georgia Power will continue to monitor the groundwater at AP-4 in accordance with the assessment monitoring program regulations of § 257.95.

7.0 CONCLUSIONS AND FUTURE ACTIONS

This *2024 Annual Groundwater Monitoring and Corrective Action Report* for Plant Hammond AP-4 was prepared to fulfill the requirements of the GA EPD Rules for Solid Waste Management 391-3-4-.10, and indirectly by reference the federal CCR Rule.

Statistical analyses of the groundwater monitoring data for AP-4 for the annual reporting period did not identify any SSLs of Appendix IV constituents and the site will remain in assessment monitoring.

The next routine semiannual assessment monitoring event for AP-4 is scheduled to begin in August 2024.

8.0 REFERENCES

- Geosyntec, 2019. *2019 Annual Groundwater Monitoring & Corrective Action Report – Georgia Power Company, Plant Hammond Ash Pond 4 (AP-4)*. July 2019.
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TABLES

Table 1
Monitoring Well Network Summary
Plant Hammond AP-4, Floyd County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Ground Surface Elevation ⁽²⁾ (ft)	Top of Casing Elevation ⁽²⁾ (ft)	Top of Screen Elevation ⁽²⁾ (ft)	Bottom of Screen Elevation ⁽²⁾ (ft)	Well Depth (ft BTOC) ⁽³⁾	Screen Interval Length (ft)
Detection Monitoring Well										
HGWA-47	Upgradient	8/21/2020	1548990.96	1934171.84	577.39	580.33	546.84	536.84	43.74	10
HGWA-48D	Upgradient	8/20/2020	1548989.39	1934178.15	577.29	580.26	517.54	507.54	72.97	10
HGWA-111	Upgradient	8/21/2012	1548834.26	1935222.81	588.79	591.75	558.48	548.48	43.67	10
HGWA-112	Upgradient	8/21/2012	1548885.63	1935647.00	593.46	596.27	566.52	556.52	40.15	10
HGWA-113	Upgradient	10/2/2012	1548944.62	1935990.09	592.07	594.58	568.87	558.87	36.11	10
HGWC-101	Downgradient	8/7/2012	1547725.50	1936369.58	575.91	578.85	551.31	541.31	37.94	10
HGWC-102	Downgradient	8/7/2012	1547713.50	1936033.33	574.54	577.54	550.51	540.51	37.43	10
HGWC-103	Downgradient	8/8/2012	1547848.88	1935732.96	577.76	580.79	553.51	543.51	37.68	10
HGWC-105	Downgradient	8/8/2012	1547855.56	1935110.36	579.08	582.09	547.72	537.72	44.67	10
HGWC-107	Downgradient	8/8/2012	1547909.99	1934442.24	576.43	579.31	551.51	541.51	38.20	10
HGWC-109	Downgradient	8/15/2012	1548627.41	1934362.77	573.66	576.77	555.81	545.81	31.36	10
HGWC-117A	Downgradient	7/21/2021	1548082.04	1937157.25	578.85	581.76	551.85	541.85	40.31	10
HGWC-118	Downgradient	10/1/2012	1547980.56	1936946.37	576.52	579.02	548.51	538.51	40.91	10
Piezometer										
MW-12	Downgradient	10/21/2014	1547853.78	1937525.46	580.59	583.27	555.84	545.84	37.83	10
GWC-4	Downgradient	8/8/2012	1547898.31	1935398.70	577.73	580.65	543.47	533.47	47.58	10
GWC-6	Downgradient	8/13/2012	1547843.93	1934800.45	578.55	581.63	553.90	543.90	38.13	10
GWC-8	Downgradient	8/9/2012	1548167.13	1934342.94	577.13	579.99	549.47	539.47	40.92	10
GWA-14	Upgradient	10/2/2012	1548982.59	1936642.58	589.70	592.14	561.40	551.40	41.14	10
GWA-15	Upgradient	8/22/2012	1548766.17	1936808.47	588.37	591.56	571.44	561.44	30.52	10
GWA-16	Upgradient	8/21/2012	1548592.74	1937210.99	579.58	582.55	569.94	559.94	23.01	10
GWC-19	Downgradient	8/14/2012	1547892.89	1936572.97	576.90	579.83	554.04	544.04	36.19	10

Notes:

ft = feet

ft BTOC = feet below top of casing

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Survey completed by GEL Solutions dated May 11, 2020, September 10, 2020 (for HGWA-47 and HGWA-48D), and September 8, 2021 (for HGWC-117A).

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88). Survey completed by GEL Solutions dated May 11, 2020, September 10, 2020 (for HGWA-47 and HGWA-48D), and September 8, 2021 (for HGWC-117A).

(3) Total well depth accounts for sump if data provided on well construction logs.

Table 2
Groundwater Sampling Event Summary
Plant Hammond AP-4, Floyd County, Georgia

Well ID	Hydraulic Location	August 7 - 15, 2023	February 12 - 20, 2024	Status of Monitoring Well
Purpose of Sampling Event:		Assessment	Assessment	
<i>Detection Monitoring Well</i>				
HGWA-47	Upgradient	X	X	Assesment
HGWA-48D	Upgradient	X	X	Assesment
HGWA-111	Upgradient	X	X	Assesment
HGWA-112	Upgradient	X	X	Assesment
HGWA-113	Upgradient	X	X	Assesment
HGWC-101	Downgradient	X	X	Assesment
HGWC-102	Downgradient	X	X	Assesment
HGWC-103	Downgradient	X	X	Assesment
HGWC-105	Downgradient	X	X	Assesment
HGWC-107	Downgradient	X	X	Assesment
HGWC-109	Downgradient	X	X	Assesment
HGWC-117A	Downgradient	X	X	Assesment
HGWC-118	Downgradient	X	X	Assesment

Table 3
 Summary of Groundwater and Surface Water Elevations
 Plant Hammond AP-4, Floyd County, Georgia

Well ID	Top of Casing Elevation ⁽¹⁾ (ft)	August 7, 2023		February 12, 2024	
		Depth to Water (ft BTOC)	Groundwater Elevations (ft)	Depth to Water (ft BTOC)	Groundwater Elevations
Detection Monitoring Well					
HGWA-47	580.33	9.11	571.22	7.13	573.20
HGWA-48D	580.26	9.01	571.25	7.10	573.16
HGWA-111	591.75	12.84	578.91	12.30	579.45
HGWA-112	596.27	13.26	583.01	10.70	585.57
HGWA-113	594.58	12.09	582.49	10.38	584.20
HGWC-101	578.85	13.45	565.40	14.10	564.75
HGWC-102	577.54	13.23	564.31	14.35	563.19
HGWC-103	580.79	13.86	566.93	14.10	566.69
HGWC-105	582.09	18.09	564.00	19.21	562.88
HGWC-107	579.31	15.35	563.96	16.80	562.51
HGWC-109	576.77	9.45	567.32	8.10	568.67
HGWC-117A	581.76	17.22	564.54	17.95	563.81
HGWC-118	579.02	13.88	565.14	14.40	564.62
Piezometer					
MW-12	583.27	19.05	564.22	17.40	565.87
GWC-4	580.65	13.66	566.99	13.90	566.75
GWC-6	581.63	17.49	564.14	18.65	562.98
GWC-8	579.99	14.47	565.52	13.67	566.32
GWA-14	592.14	8.43	583.71	6.85	585.29
GWA-15	591.56	10.23	581.33	7.95	583.61
GWA-16	582.55	5.65	576.90	4.60	577.95
GWC-19	579.83	13.28	566.55	13.46	566.37
Surface Water Level Gauge Point					
Unnamed Creek	580.14	15.98	564.16	16.75	563.39

Notes:

-- = not applicable

ft = feet

(1) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

Survey completed by GEL solutions dated May 10, 2020, September 10, 2020 (for

HGWA-47 and HGWA-48D), and September 8, 2021 (for HGWA-117A).

Table 4
Horizontal Groundwater Gradient and Flow Velocity Calculations
Plant Hammond AP-4, Floyd County, Georgia

Flow Path Direction ⁽¹⁾	August 7, 2023				February 12, 2024				Average i (ft/ft)
	h ₁ (ft)	h ₂ (ft)	L (ft)	i (ft/ft)	h ₁ (ft)	h ₂ (ft)	L (ft)	i (ft/ft)	
Eastern Flow Path (GWA-14 to GWC-19)	583.71	566.55	1,100	0.016	585.29	566.37	1,100	0.017	0.016
Central Flow Path (HGWA-113 to HGWC-102)	582.49	564.31	1,235	0.015	584.20	563.19	1,235	0.017	
Western Flow Path (HGWA-111 to HGWC-107/GWC-6)	578.91	563.96	1,210	0.012	579.46	562.98	1,009	0.016	

Flow Path Direction ⁽¹⁾	K _h (ft/day)	n _e	Average i (ft/ft)	V (ft/day) ⁽²⁾
Eastern Flow Path (GWA-14 to GWC-19)	1.67	0.15	0.016	0.17
Central Flow Path (HGWA-113 to HGWC-102)				
Western Flow Path (HGWA-111 to HGWC-107/GWC-6)				

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h₁ and h₂ = groundwater elevation at location 1 and 2

i = h₁-h₂/L = horizontal hydraulic gradient

K_h = horizontal hydraulic conductivity

L = distance between location 1 and 2 along the flow path

n_e = effective porosity

V = groundwater flow velocity

(1) Flow path direction relative to the orientation of AP-4 and illustrated on Figure 3 and Figure 4 of associated report.

(2) Groundwater flow velocity equation: $V = [K_h * i] / n_e$.

Table 5
Summary of Semiannual Groundwater Analytical Data
Plant Hammond AP-4, Floyd County, Georgia

Well ID:	HGWA-47	HGWA-47	HGWA-48D	HGWA-48D	HGWA-111	HGWA-111	HGWA-112	HGWA-112	HGWA-113	HGWA-113	HGWC-101	HGWC-101	HGWC-102	HGWC-102	
Sample Date:	8/8/2023	2/14/2024	8/8/2023	2/13/2024	8/8/2023	2/14/2024	8/8/2023	2/13/2024	8/10/2023	2/14/2024	8/11/2023	2/16/2024	8/11/2023	2/16/2024	
Parameter ^(1,2)															
APPENDIX III	Boron	<0.0086	0.018 J	<0.0086	<0.012	<0.0086	<0.012	<0.0086	<0.012	0.0091 J	0.013 J	0.16	0.14	3.2	2.7
	Calcium	68.0	29.4	58.2	56.0	0.94 J	51.8	6.6	6.5	8.4	7.2	24.1	22.2	134	127
	Chloride	2.7	1.6	2.7	2.6	3.0	3.0	5.1	5.0	1.6	1.5	4.9	5.4	6.7	7.4
	Fluoride	0.072 J	0.23	0.091 J	0.071 J	0.076 J	0.081 J	0.050 J	<0.050	0.19	0.18	<0.0500	<0.050	<0.050	<0.050
	pH ⁽³⁾	7.27	7.93	7.37	7.59	7.01	7.00	5.77	5.64	6.07	6.24	5.44	5.47	5.79	5.88
	Sulfate	2.0	19.7	2.9	2.8	1.5	1.2	0.71 J	0.51 J	5.1	4.9	102	110	370	363
	TDS	214	147	220	242	207	187	57.0	73.0	80.0	93.0	250	222	785	718
APPENDIX IV	Antimony	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	0.00	<0.00054
	Arsenic	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	<0.00084
	Barium	0.026	0.030	0.10	0.12	0.027	0.029	0.025	0.026	0.028	0.029	0.036	0.032	0.028	0.026
	Beryllium	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094	0.000070 J	<0.000094	<0.000054	<0.000094
	Cadmium	<0.00011	<0.00010	<0.00011	<0.00010	<0.00011	<0.00010	<0.00011	<0.00010	<0.00011	<0.00010	0.00015 J	0.00016 J	0.00067	0.00031 J
	Chromium	<0.0011	<0.0019	<0.0011	<0.0019	<0.0011	<0.0019	0.0037 J	0.0053	0.0019 J	0.0023 J	<0.0011	<0.0019	<0.0011	<0.0019
	Cobalt	<0.00039	<0.00032	<0.00039	<0.00032	<0.00039	<0.00032	<0.00039	<0.00032	<0.00039	<0.00032	0.0028 J	0.0026 J	0.0010 J	0.011 J
	Fluoride	0.072 J	0.23	0.091 J	0.071 J	0.076 J	0.081 J	0.050 J	<0.050	0.19	0.18	<0.0500	<0.050	<0.050	<0.050
	Lead	<0.00012	0.00021 J	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016
	Lithium	0.0029 J	<0.0016	0.0040 J	0.0060 J	0.0018 J	0.0020 J	<0.00073	<0.0016	0.0010 J	<0.0016	<0.00073	<0.0016	0.0013 J	<0.0016
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00074	0.0030 J	0.00092 J	0.00068 J	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062
	Comb. Radium 226/228	0.502 U	1.72	0.549 U	0.575 U	0.728 U	0.436 U	0.723 U	0.675 U	0.841 U	0.307 U	0.930 U	0.344 U	1.08	0.498 U
Selenium	<0.0014	<0.00096	<0.0014	<0.00096	<0.0014	<0.00096	<0.0014	<0.00096	0.0027 J	0.0024 J	<0.0014	<0.00096	<0.0014	<0.00096	
Thallium	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	
GEOCHEM	Bicarbonate Alkalinity	212	96.2	222	216	152	150	24.7	23.6	40.3	44.3	21.9	17.0	111	104
	Carbonate Alkalinity	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0
	Total Alkalinity	212	96.2	222	216	152	150	24.7	23.6	40.3	44.3	21.9	17.0	111	104
	Iron	0.033 J	0.22	0.46	0.45	<0.025	< 0.025	0.11	0.29	<0.025	< 0.025	5.4	4.9	1.8	2.3
	Magnesium	5.5	3.3	12.1	11.3	0.46	5.2	2.6	2.5	3.4	3.1	11.6	12.3	32.4	33.8
	Manganese	0.025 J	0.065	0.013 J	< 0.011	0.040	< 0.011	<0.011	< 0.011	<0.011	< 0.011	2.4	2.4	2.1	2.1
	Potassium	0.47 J	6.8	0.63	0.62	0.47 J	0.87	0.87	0.87	0.32 J	0.24 J	0.75	0.80	3.2	2.8
	Sodium	3.6	5.7	11.6	11.6	3.4	5.0	3.6	3.7	9.5	8.1	12.3	11.6	18.9	16.6
Sulfide	<0.022	< 0.022	0.055 J	< 0.022	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

J = Indicates the parameter was estimated and detected between the MDL and the reporting limit (RL).

TDS = Total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228).

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C-2015, and combined radium 226/228 by EPA Methods 9315/9320.

Ions were analyzed by EPA Method 6010D, alkalinity was analyzed by SM2320B-2011, and sulfide was analyzed by SM4500-S2D-2011..

(3) The pH value presented was recorded at the time of sample collection in the field.

Table 5
Summary of Semiannual Groundwater Analytical Data
Plant Hammond AP-4, Floyd County, Georgia

Well ID:		HGWC-103	HGWC-103	HGWC-105	HGWC-105	HGWC-107	HGWC-107	HGWC-109	HGWC-109	HGWC-117A	HGWC-117A	HGWC-118	HGWC-118
Sample Date:		8/11/2023	2/16/2024	8/11/2023	2/17/2024	8/11/2023	2/16/2024	8/11/2023	2/17/2024	8/11/2023	2/17/2024	8/11/2023	2/17/2024
Parameter ^(1,2)													
APPENDIX III	Boron	4.3	3.1	1.4	1.3	0.81	0.87	0.23	0.22	0.31	0.27	0.66	0.68
	Calcium	139	106	129	130	56.0	61.9	44.8	44.3	61.1	63.9	85.5	83.8
	Chloride	7.9	7.5	5.6	6.8	2.7	3.2	3.5	3.9	4.6	4.4	3.8	4.1
	Fluoride	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.086 J	0.094 J	0.057 J	0.055 J	0.070 J	0.068 J
	pH ⁽³⁾	5.80	5.74	6.47	6.46	6.16	6.27	6.80	6.88	7.09	6.70	7.49	6.94
	Sulfate	382	323	237	251	113	130	19.8	22.0	67.7	72.7	64.9	69.7
	TDS	808	640	630	716	296	325	205	265	280	329	346	424
APPENDIX IV	Antimony	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054	<0.0012	<0.00054
	Arsenic	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	<0.00084	<0.0037	0.0013 J	<0.0037	<0.00084	<0.0037	<0.00084
	Barium	0.035	0.031	0.089	0.085	0.032	0.033	0.081	0.078	0.046	0.047	0.040	0.050
	Beryllium	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094	<0.000054	<0.000094
	Cadmium	0.00070	0.00074	<0.00011	<0.00010	<0.00011	<0.00010	<0.00011	<0.00010	<0.00011	<0.00010	<0.00011	<0.00010
	Chromium	<0.0011	<0.0019	<0.0011	<0.0019	<0.0011	<0.0019	<0.0011	<0.0019	<0.0011	<0.0019	<0.0011	<0.0019
	Cobalt	0.0019 J	0.0020 J	0.00047 J	0.00071 J	<0.00039	<0.00032	0.00077 J	0.0011 J	0.00078 J	0.00047 J	<0.00039	0.00042 J
	Fluoride	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.086 J	0.094 J	0.057 J	0.055 J	0.070 J	0.068 J
	Lead	<0.00012	0.00027 J	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016	<0.00012	<0.00016
	Lithium	0.0014 J	<0.0016	0.0044 J	0.0041 J	0.00083 J	<0.0016	0.00076 J	<0.0016	0.0041 J	0.0038 J	0.0023 J	<0.0016
	Mercury	0.00025	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062	<0.00074	<0.00062
	Comb. Radium 226/228	0.849 U	0.810 U	0.292 U	0.888 U	0.314 U	0.845 U	0.105 U	0.388 U	0.822 U	0.629 U	0.806 U	0.000 U
Selenium	<0.0014	<0.00096	<0.0014	<0.00096	<0.0014	<0.00096	<0.0014	<0.00096	<0.0014	<0.00096	<0.0014	<0.00096	
Thallium	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	<0.00018	<0.00038	
GEOCHEM	Bicarbonate Alkalinity	106	73.3	162	150	79.7	79.5	164	152	141	128	217	206
	Carbonate Alkalinity	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0	<5.0	< 5.0
	Total Alkalinity	106	73.3	162	150	79.7	79.5	164	152	141	128	217	206
	Iron	1.6	2.1	7.7	10.7	<0.025	0.18	6.4	4.0	0.13	0.069	<0.025	< 0.025
	Magnesium	33.2	29.6	12.4	14.8	8.5	11.1	8.7	10.3	7.8	9.1	10.4	12.4
	Manganese	1.9	1.9	0.44	0.67	0.22	0.27	0.36	0.52	0.18	0.13	0.13	0.20
	Potassium	3.9	3.3	1.0	1.1	2.4	2.6	0.46 J	0.51	0.56	0.70	0.80	0.73
	Sodium	23.1	19.1	15.5	15.2	7.7	8.9	8.3	9.2	8.9	9.2	8.8	9.5
Sulfide	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	<0.022	< 0.022	

Table 6
 Summary of Background Concentrations and Groundwater Protection Standards
 Plant Hammond AP-4, Floyd County, Georgia

Analyte	Units	MCL	CCR-Rule Specified ⁽¹⁾	Background ⁽²⁾	GWPS ^(3,4)
Antimony	mg/L	0.006	N/A	0.003	0.006
Arsenic	mg/L	0.01	N/A	0.005	0.01
Barium	mg/L	2	N/A	0.11, 0.12	2
Beryllium	mg/L	0.004	N/A	0.0019	0.004
Cadmium	mg/L	0.005	N/A	0.0005	0.005
Chromium	mg/L	0.1	N/A	0.0061	0.1
Cobalt	mg/L	N/A	0.006	0.005	0.006
Fluoride	mg/L	4	N/A	0.17, 0.23	4
Lead	mg/L	N/A	0.015	0.0016	0.015
Lithium	mg/L	N/A	0.040	0.030	0.040
Mercury	mg/L	0.002	N/A	0.0002	0.002
Molybdenum	mg/L	N/A	0.1	0.01	0.1
Selenium	mg/L	0.05	N/A	0.005	0.05
Thallium	mg/L	0.002	N/A	0.001	0.002
Combined Radium-226/228	pCi/L	5	N/A	1.26, 1.29	5

Notes:

CCR = Coal Combustion Residuals

GWPS = Groundwater Protection Standard

MCL = Maximum Contaminant Level

mg/L = milligrams per liter

N/A = Not Applicable

pCi/L = picocuries per liter

- (1) On February 22, 2022, the Georgia Environmental Protection Division (GA EPD) adopted the federally promulgated GWPS for cobalt, lithium, lead, and molybdenum.
- (2) The background limits were used when determining the GWPS under 40 CFR 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a). Where two numbers are present, they denote the different background levels for each of the two semiannual monitoring events in the order that they were determined.
- (3) Under 40 CFR 257.95(h)(1-3) the GWPS is: (i) the maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title; (iii) where and MCL has not been established a rule-specific GWPS; or (iii) background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.
- (4) The GWPS apply to the August 2023 and February 2024 sampling events.

FIGURES

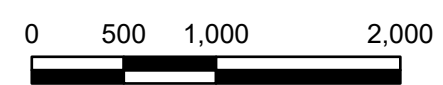


LEGEND

Plant Hammond Property Boundary



Note:
 1. Aerial photograph source: 2024 Microsoft Corporation, 2024 Maxar NES, Distribution Airbus DS, and Georgia Power Company, January 2024.



SCALE IN FEET

SITE LOCATION MAP

GEORGIA POWER COMPANY
 PLANT HAMMOND
 ROME, FLOYD COUNTY, GEORGIA

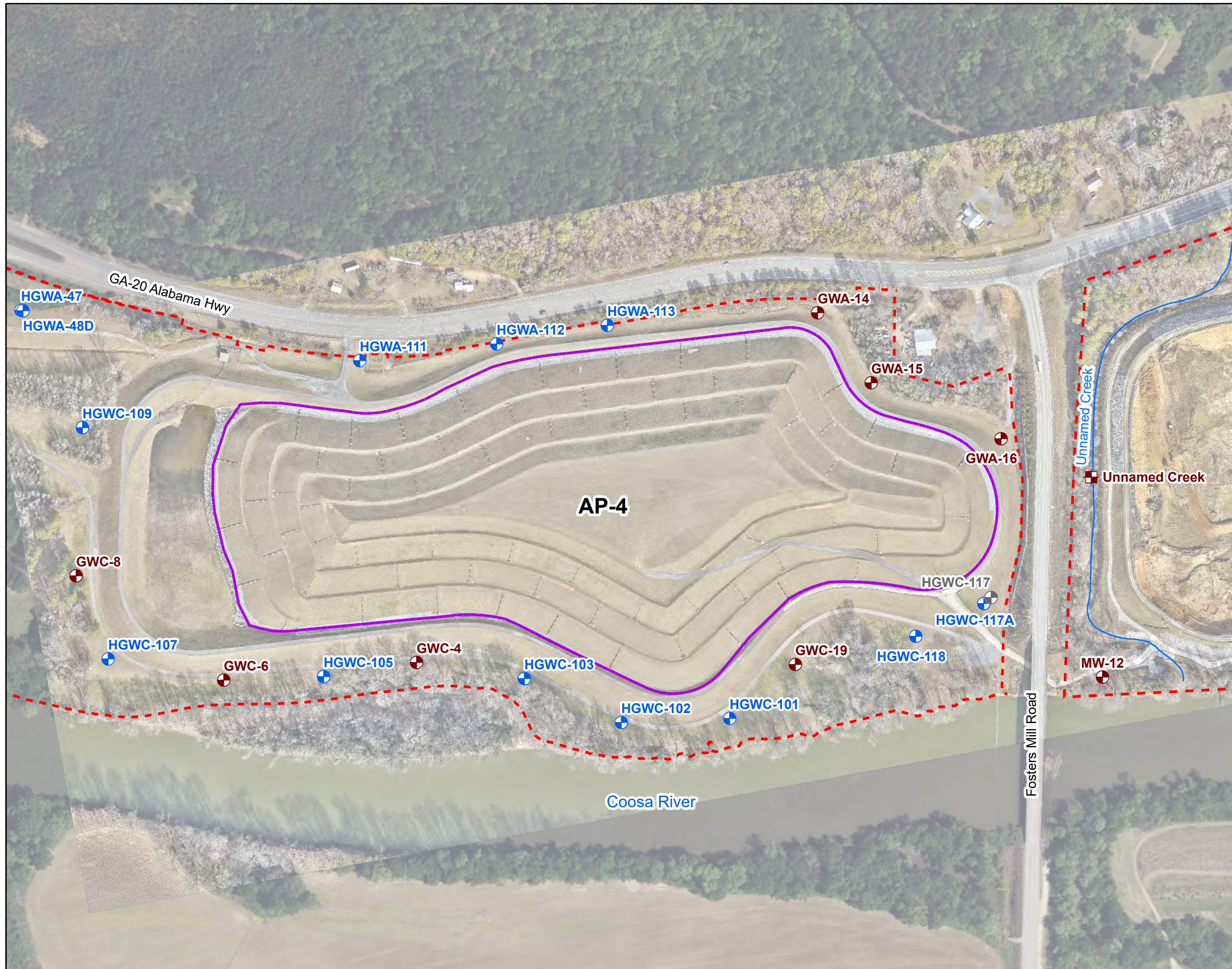
Prepared For: Georgia Power

Prepared By: Geosyntec
 consultants

KENNESAW, GA

JULY 2024

FIGURE
1



LEGEND

- Detection Monitoring Well
- Piezometer
- Abandoned Well
- Surface Water Level Gauge Point
- Unnamed Creek
- Plant Hammond Property Boundary
- Approximate AP-4 Boundary

Notes:
 1. Aerial photograph source: 2024 Microsoft Corporation, 2024 Maxar NES, Distribution Airbus DS, and Georgia Power Company, January 2024.
 2. Former detection monitoring well HGWC-117 was reclassified as a piezometer and replaced with HGWC-117A as proposed in the April 2023 minor modification to the closure permit. HGWC-117 was abandoned in July 2023.



SCALE IN FEET

MONITORING WELL AND SURFACE WATER GAUGE LOCATION NETWORK MAP

GEORGIA POWER
 PLANT HAMMOND
 FLOYD COUNTY, GEORGIA

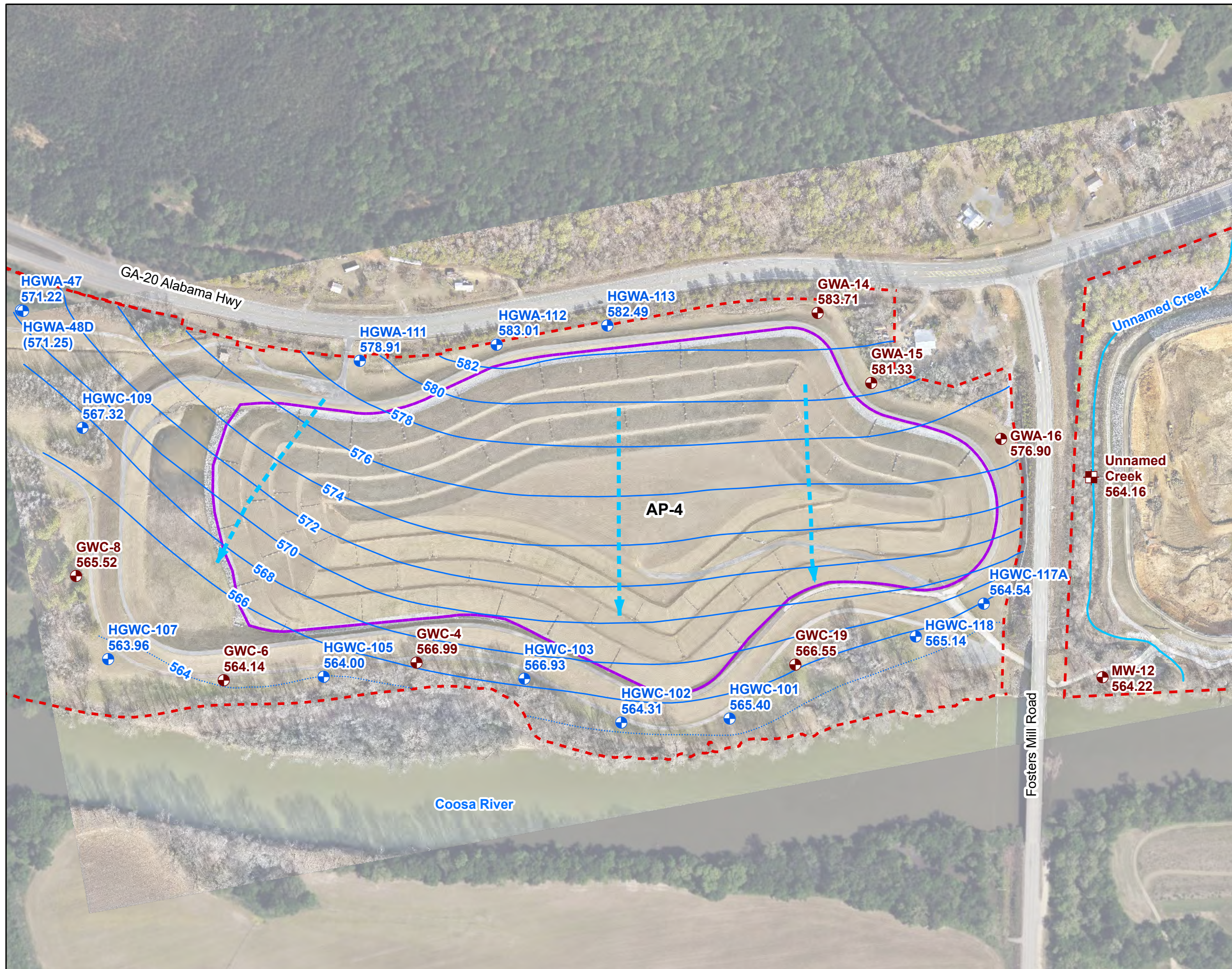
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

FIGURE
2

KENNESAW, GA

JULY 2024



LEGEND

- Detection Monitoring Well
- Piezometer
- Surface Water Level Gauge Point
- GWE Inferred
- GWE August 2023
- Approximate Groundwater Flow Direction
- Unnamed Creek
- Approximate AP-4 Boundary
- Plant Hammond Property Boundary



- Notes:
1. Water level elevation recorded on August 7, 2023. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
 2. Groundwater elevation in parentheses was not used in development of groundwater contours due to well being screened at a different elevation in the formation/aquifer.
 3. Aerial photograph source: 2024 Microsoft Corporation, 2024 Maxar NES, Distribution Airbus DS, and Georgia Power Company, January 2024.



SCALE IN FEET

**POTENTIOMETRIC SURFACE
CONTOUR MAP - AUGUST 2023**

GEORGIA POWER COMPANY
PLANT HAMMOND AP-4
FLOYD COUNTY, GEORGIA

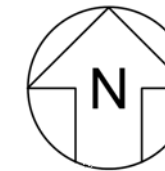
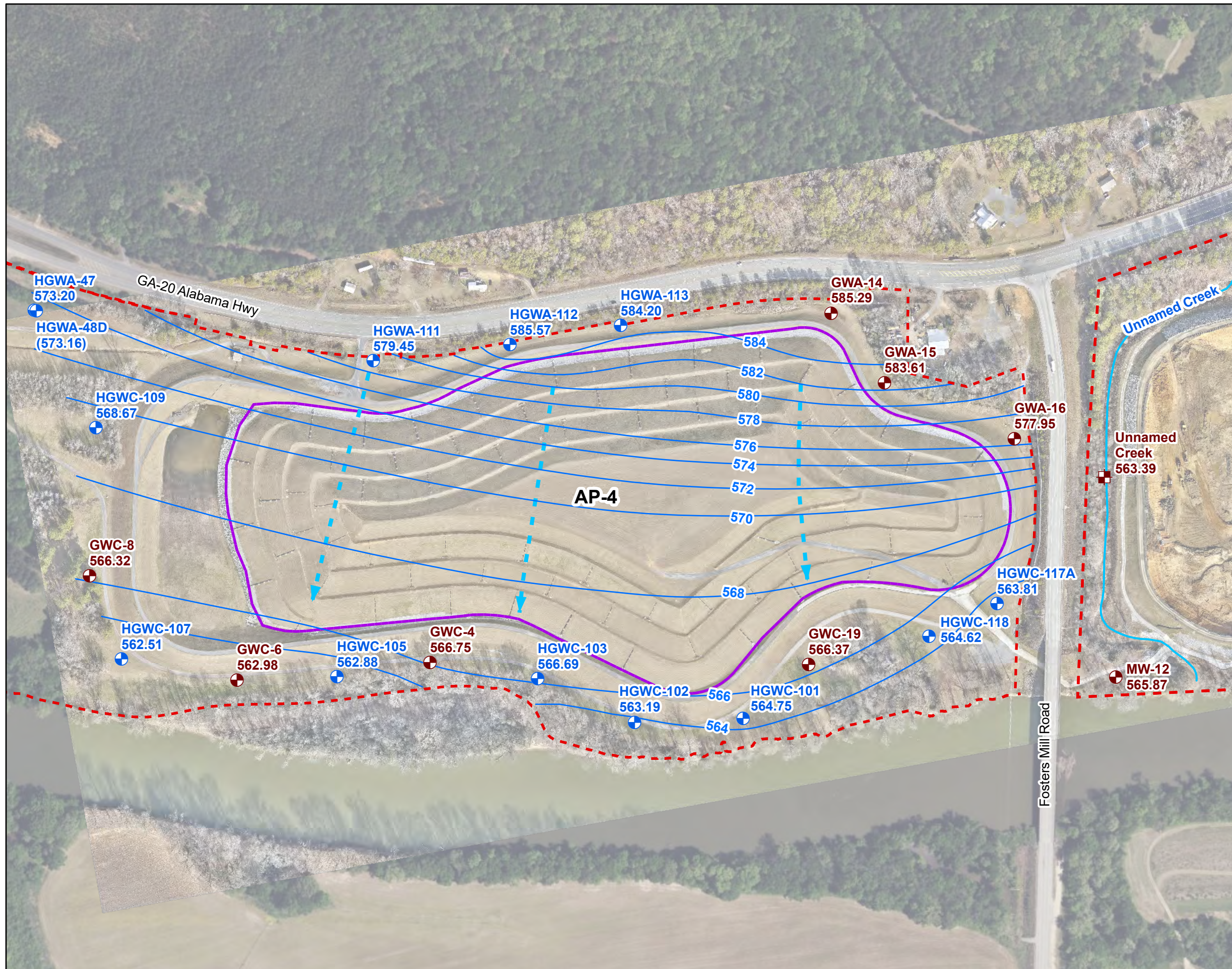
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA

JULY 2024

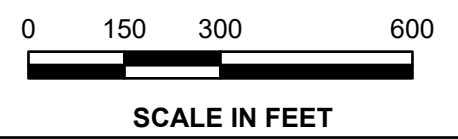
**FIGURE
3**



- LEGEND**
- ⊕ Detection Monitoring Well
 - ⊕ Piezometer
 - ⊕ Surface Water Level Gauge Point
 - Groundwater Elevation Contour
 - ▶ Approximate Groundwater Flow Direction
 - Unnamed Creek
 - ▭ Approximate AP-4 Boundary
 - - - Plant Hammond Property Boundary



- Notes:**
1. Water level elevation recorded on February 12, 2024. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
 2. Groundwater elevations in parentheses were not used to make the groundwater contours because these wells are screened at a different elevation in the formation/aquifer.
 3. Aerial photograph source: 2024 Microsoft Corporation, 2024 Maxar NES, Distribution Airbus DS, and Georgia Power Company, January 2024.



**POTENTIOMETRIC SURFACE
CONTOUR MAP - FEBRUARY 2024**

GEORGIA POWER COMPANY
PLANT HAMMOND AP-4
FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

**FIGURE
4**

KENNESAW, GA

JULY 2024

APPENDIX A

Well Maintenance and Repair Documentation Memoranda

August 2023

MEMORANDUM

DATE: November 3, 2023

TO: Kristen Jurinko, P.G., Southern Company Services, Inc.

CC: Ben Hodges, P.G. Georgia Power Company

FROM: Geosyntec Consultants

SUBJECT: Plant Hammond Ash Pond 4 (AP-4) – Well Maintenance and Repair Documentation, Georgia Power Company

Geosyntec Consultants has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Hammond Ash Pond 4 (AP-4) during the August 2023 sampling event. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells. Documentation of the well inspections are provided as an attachment to this memorandum.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Hammond/AP-4	8/7/2023 -8/8/2023	All Wells	Checked and cleared weep holes of debris.

Attachment

Well Inspection Summary Table

Well Inspection

Site Name: Plant Hammond AP-4

Date: 08/07/2023

Permit Number: 057-025D (CCR)

Field Conditions: Sunny, 70° F

Well ID:	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
HGWA-47	Yes	Yes	No	Yes
HGWA-48D	Yes	Yes	No	Yes
HGWA-111	Yes	Yes	No	Yes
HGWA-112	Yes	Yes	No	Yes
HGWA-113	Yes	Yes	No	Yes
HGWC-101	Yes	Yes	No	Yes
HGWC-102	Yes	Yes	No	Yes
HGWC-103	Yes	Yes	No	Yes
HGWC-105	Yes	Yes	No	Yes
HGWC-107	Yes	Yes	No	Yes
HGWC-109	Yes	Yes	No	Yes
HGWC-117A	Yes	Yes	No	Yes
HGWC-118	Yes	Yes	No	Yes
GWC-4	Yes	Yes	No	Yes
GWC-6	Yes	Yes	No	Yes
GWC-8	Yes	Yes	No	Yes
GWA-14	Yes	Yes	No	Yes
GWA-15	Yes	Yes	No	Yes
GWC-16	Yes	Yes	No	Yes
GWC-19	Yes	Yes	No	Yes
MW-12	Yes	Yes	No	Yes

Well Inspection

Site Name: Plant Hammond AP-4

Date: 08/07/2023

Permit Number: 057-025D (CCR)

Field Conditions: Sunny, 70° F

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
HGWA-47	Yes	Yes	Yes	Yes	Yes
HGWA-48D	Yes	Yes	Yes	Yes	Yes
HGWA-111	Yes	Yes	Yes	Yes	Yes
HGWA-112	Yes	Yes	Yes	Yes	Yes
HGWA-113	Yes	Yes	Yes	Yes	Yes
HGWC-101	Yes	Yes	Yes	Yes	Yes
HGWC-102	Yes	Yes	Yes	Yes	Yes
HGWC-103	Yes	Yes	Yes	Yes	Yes
HGWC-105	Yes	Yes	Yes	Yes	Yes
HGWC-107	Yes	Yes	Yes	Yes	Yes
HGWC-109	Yes	Yes	Yes	Yes	Yes
HGWC-117A	Yes	Yes	Yes	Yes	Yes
HGWC-118	Yes	Yes	Yes	Yes	Yes
GWC-4	Yes	Yes	Yes	Yes	Yes
GWC-6	Yes	Yes	Yes	Yes	Yes
GWC-8	Yes	Yes	Yes	Yes	Yes
GWA-14	Yes	Yes	Yes	Yes	Yes
GWA-15	Yes	Yes	Yes	Yes	Yes
GWC-16	Yes	Yes	Yes	Yes	Yes
GWC-19	Yes	Yes	Yes	Yes	Yes
MW-12	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Hammond AP-4

Date: 08/07/2023

Permit Number: 057-025D (CCR)

Field Conditions: Sunny, 70° F

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
HGWA-47	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-48D	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-111	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-112	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-113	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-101	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-102	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-103	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-105	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-107	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-109	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-117A	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-118	Yes	Yes	Yes	Yes	Yes	Yes
GWC-4	Yes	Yes	Yes	Yes	Yes	Yes
GWC-6	Yes	Yes	Yes	Yes	Yes	Yes
GWC-8	Yes	Yes	Yes	Yes	Yes	Yes
GWA-14	Yes	Yes	Yes	Yes	Yes	Yes
GWA-15	Yes	Yes	Yes	Yes	Yes	Yes
GWC-16	Yes	Yes	Yes	Yes	Yes	Yes
GWC-19	Yes	Yes	Yes	Yes	Yes	Yes
MW-12	Yes	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Hammond AP-4

Date: 08/07/2023

Permit Number: 057-025D (CCR)

Field Conditions: Sunny, 70° F

Well ID:	Corrective actions as needed, by date:
HGWA-47	N/A
HGWA-48D	N/A
HGWA-111	N/A
HGWA-112	N/A
HGWA-113	N/A
HGWC-101	N/A
HGWC-102	N/A
HGWC-103	N/A
HGWC-105	N/A
HGWC-107	N/A
HGWC-109	N/A
HGWC-117A	N/A
HGWC-118	N/A
GWC-4	N/A
GWC-6	N/A
GWC-8	N/A
GWA-14	N/A
GWA-15	N/A
GWC-16	N/A
GWC-19	N/A
MW-12	N/A

February 2024

MEMORANDUM

DATE: May 15, 2024

TO: Kristen Jurinko, P.G., Southern Company Services, Inc.

CC: Ben Hodges, P.G. Georgia Power Company

FROM: Geosyntec Consultants

SUBJECT: Plant Hammond Ash Pond 4 (AP-4) – Well Maintenance and Repair Documentation, Georgia Power Company

Geosyntec Consultants has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Hammond Ash Pond 4 (AP-4) during the February 2024 sampling event. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells. Documentation of the well inspections are provided as an attachment to this memorandum.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Hammond/AP-4	2/12/2024	All Wells	Checked and cleared weep holes of debris.

Attachment

Well Inspection Summary Table

Well Inspection

Site Name: Plant Hammond AP-4

Date: 02/12/2024

Permit Number: 057-025D (CCR)

Field Conditions: Cloudy, 50° F

	Location/Identification			
	Visible and accessible	Properly identified with correct well ID	Located in high traffic area; does the well require protection from traffic	Acceptable drainage around well (no standing water, not located in obvious drainage flow path)
Well ID:				
HGWA-47	Yes	Yes	No	Yes
HGWA-48D	Yes	Yes	No	Yes
HGWA-111	Yes	Yes	No	Yes
HGWA-112	Yes	Yes	No	Yes
HGWA-113	Yes	Yes	No	Yes
HGWC-101	Yes	Yes	No	Yes
HGWC-102	Yes	Yes	No	Yes
HGWC-103	Yes	Yes	No	Yes
HGWC-105	Yes	Yes	No	Yes
HGWC-107	Yes	Yes	No	Yes
HGWC-109	Yes	Yes	No	Yes
HGWC-117A	Yes	Yes	No	Yes
HGWC-118	Yes	Yes	No	Yes
GWC-4	Yes	Yes	No	Yes
GWC-6	Yes	Yes	No	Yes
GWC-8	Yes	Yes	No	Yes
GWA-14	Yes	Yes	No	Yes
GWA-15	Yes	Yes	No	Yes
GWC-16	Yes	Yes	No	Yes
GWC-19	Yes	Yes	No	Yes
MW-12	Yes	Yes	No	Yes

Well Inspection

Site Name: Plant Hammond AP-4

Date: 02/12/2024

Permit Number: 057-025D (CCR)

Field Conditions: Cloudy, 50° F

Well ID:	Protective Casing				
	Free from apparent damage and able to be secured	No degradation or deterioration	Functioning weep hole	Annular space clear of debris and water, or filled with pea gravel/sand	Locked and is the lock in good condition
HGWA-47	Yes	Yes	Yes	Yes	Yes
HGWA-48D	Yes	Yes	Yes	Yes	Yes
HGWA-111	Yes	Yes	Yes	Yes	Yes
HGWA-112	Yes	Yes	Yes	Yes	Yes
HGWA-113	Yes	Yes	Yes	Yes	Yes
HGWC-101	Yes	Yes	Yes	Yes	Yes
HGWC-102	Yes	Yes	Yes	Yes	Yes
HGWC-103	Yes	Yes	Yes	Yes	Yes
HGWC-105	Yes	Yes	Yes	Yes	Yes
HGWC-107	Yes	Yes	Yes	Yes	Yes
HGWC-109	Yes	Yes	Yes	Yes	Yes
HGWC-117A	Yes	Yes	Yes	Yes	Yes
HGWC-118	Yes	Yes	Yes	Yes	Yes
GWC-4	Yes	Yes	Yes	Yes	Yes
GWC-6	Yes	Yes	Yes	Yes	Yes
GWC-8	Yes	Yes	Yes	Yes	Yes
GWA-14	Yes	Yes	Yes	Yes	Yes
GWA-15	Yes	Yes	Yes	Yes	Yes
GWC-16	Yes	Yes	Yes	Yes	Yes
GWC-19	Yes	Yes	Yes	Yes	Yes
MW-12	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Hammond AP-4

Date: 02/12/2024

Permit Number: 057-025D (CCR)

Field Conditions: Cloudy, 50° F

Well ID:	Surface Pad			Internal Casing		
	Good condition (not cracked/ broken)	Sloped away from the protective casing	In complete contact with the ground surface and stable	Cap prevents entry of foreign material into the well	Free of kinks/bends, or any obstructions from foreign objects (such as bailers)	Properly vented for equilibration of air pressure
HGWA-47	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-48D	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-111	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-112	Yes	Yes	Yes	Yes	Yes	Yes
HGWA-113	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-101	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-102	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-103	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-105	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-107	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-109	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-117A	Yes	Yes	Yes	Yes	Yes	Yes
HGWC-118	Yes	Yes	Yes	Yes	Yes	Yes
GWC-4	Yes	Yes	Yes	Yes	Yes	Yes
GWC-6	Yes	Yes	Yes	Yes	Yes	Yes
GWC-8	Yes	Yes	Yes	Yes	Yes	Yes
GWA-14	Yes	Yes	Yes	Yes	Yes	Yes
GWA-15	Yes	Yes	Yes	Yes	Yes	Yes
GWC-16	Yes	Yes	Yes	Yes	Yes	Yes
GWC-19	Yes	Yes	Yes	Yes	Yes	Yes
MW-12	Yes	Yes	Yes	Yes	Yes	Yes

Well Inspection

Site Name: Plant Hammond AP-4

Date: 02/12/2024

Permit Number: 057-025D (CCR)

Field Conditions: Cloudy, 50° F

Well ID:	Corrective actions as needed, by date:
HGWA-47	N/A
HGWA-48D	N/A
HGWA-111	N/A
HGWA-112	N/A
HGWA-113	N/A
HGWC-101	N/A
HGWC-102	N/A
HGWC-103	N/A
HGWC-105	N/A
HGWC-107	N/A
HGWC-109	N/A
HGWC-117A	N/A
HGWC-118	N/A
GWC-4	N/A
GWC-6	N/A
GWC-8	N/A
GWA-14	N/A
GWA-15	N/A
GWC-16	N/A
GWC-19	N/A
MW-12	N/A

APPENDIX B

Laboratory Analytical and Field Sampling Reports

LABORATORY ANALYTICAL RESULTS

August 2023



August 25, 2023

Kristen Jurinko
Southern Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, GA 30308

RE: Project: Hammond AP-4
Pace Project No.: 92681884

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory between August 09, 2023 and August 14, 2023. 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 - Peachtree Corners, GA

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Kip Gray, Geosyntec
Christine Hug, Geosyntec Consultants, Inc.
Whitney Law, Geosyntec Consultants
Laura Midkiff, Southern Company
Caroline Nelson, Geosyntec



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Hammond AP-4

Pace Project No.: 92681884

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Hammond AP-4

Pace Project No.: 92681884

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92681884001	HAM-HGWA-47	Water	08/08/23 16:25	08/09/23 11:40
92681884002	HAM-HGWA-48D	Water	08/08/23 17:37	08/09/23 11:40
92681884003	HAM-HGWA-111	Water	08/08/23 18:53	08/09/23 11:40
92681884004	HAM-HGWA-112	Water	08/08/23 17:35	08/09/23 11:40
92682576001	HAM-HGWC-101	Water	08/11/23 11:55	08/14/23 11:15
92682576002	HAM-HGWC-102	Water	08/11/23 16:25	08/14/23 11:15
92682576003	HAM-HGWC-103	Water	08/11/23 14:25	08/14/23 11:15
92682576004	HAM-HGWC-105	Water	08/11/23 11:02	08/14/23 11:15
92682576005	HAM-HGWC-107	Water	08/11/23 14:40	08/14/23 11:15
92682576006	HAM-HGWC-109	Water	08/11/23 11:32	08/14/23 11:15
92682576007	HAM-HGWC-117A	Water	08/11/23 16:50	08/14/23 11:15
92682576008	HAM-HGWC-118	Water	08/11/23 15:09	08/14/23 11:15
92682576009	HAM-AP4-EB-04	Water	08/11/23 16:45	08/14/23 11:15
92682576010	HAM-AP4-FB-04	Water	08/11/23 16:40	08/14/23 11:15
92682576011	HAM-AP4-FD-04	Water	08/11/23 00:00	08/14/23 11:15
92682392001	HAM-HGWA-113	Water	08/10/23 16:22	08/11/23 13:12

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hammond AP-4

Pace Project No.: 92681884

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92681884001	HAM-HGWA-47	EPA 6010D	MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92681884002	HAM-HGWA-48D	EPA 6010D	MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92681884003	HAM-HGWA-111	EPA 6010D	MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92681884004	HAM-HGWA-112	EPA 6010D	MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92682576001	HAM-HGWC-101	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92682576002	HAM-HGWC-102	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hammond AP-4

Pace Project No.: 92681884

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92682576003	HAM-HGWC-103	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92682576004	HAM-HGWC-105	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92682576005	HAM-HGWC-107	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92682576006	HAM-HGWC-109	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92682576007	HAM-HGWC-117A	EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hammond AP-4
 Pace Project No.: 92681884

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92682576008	HAM-HGWC-118	SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
92682576009	HAM-AP4-EB-04	SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
92682576010	HAM-AP4-FB-04	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
92682576011	HAM-AP4-FD-04	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB, MS	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
92682392001	HAM-HGWA-113	SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
EPA 300.0 Rev 2.1 1993	JCM	3		

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

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4

Pace Project No.: 92681884

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92681884001	HAM-HGWA-47					
EPA 6010D	Iron	0.033J	mg/L	0.040	08/12/23 06:04	
EPA 6010D	Manganese	0.025J	mg/L	0.040	08/12/23 06:04	
EPA 6010D	Potassium	0.47J	mg/L	0.50	08/12/23 06:04	
EPA 6010D	Sodium	3.6	mg/L	1.0	08/12/23 06:04	
EPA 6010D	Calcium	68.0	mg/L	1.0	08/12/23 06:04	
EPA 6010D	Magnesium	5.5	mg/L	0.050	08/12/23 06:04	
EPA 6020B	Barium	0.026	mg/L	0.0050	08/17/23 20:14	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	08/17/23 20:14	
SM 2540C-2015	Total Dissolved Solids	214	mg/L	25.0	08/11/23 13:59	D6
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	212	mg/L	5.0	08/15/23 21:01	
SM 2320B-2011	Alkalinity, Total as CaCO3	212	mg/L	5.0	08/15/23 21:01	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	08/12/23 18:55	
EPA 300.0 Rev 2.1 1993	Fluoride	0.072J	mg/L	0.10	08/12/23 18:55	
EPA 300.0 Rev 2.1 1993	Sulfate	2.0	mg/L	1.0	08/12/23 18:55	
92681884002	HAM-HGWA-48D					
EPA 6010D	Iron	0.46	mg/L	0.040	08/12/23 05:59	
EPA 6010D	Manganese	0.013J	mg/L	0.040	08/12/23 05:59	
EPA 6010D	Potassium	0.63	mg/L	0.50	08/12/23 05:59	
EPA 6010D	Sodium	11.6	mg/L	1.0	08/12/23 05:59	
EPA 6010D	Calcium	58.2	mg/L	1.0	08/12/23 05:59	
EPA 6010D	Magnesium	12.1	mg/L	0.050	08/12/23 05:59	
EPA 6020B	Barium	0.10	mg/L	0.0050	08/17/23 20:20	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	08/17/23 20:20	
EPA 6020B	Molybdenum	0.00092J	mg/L	0.010	08/17/23 20:20	
SM 2540C-2015	Total Dissolved Solids	220	mg/L	25.0	08/11/23 14:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	222	mg/L	5.0	08/15/23 21:13	
SM 2320B-2011	Alkalinity, Total as CaCO3	222	mg/L	5.0	08/15/23 21:13	
SM 4500-S2D-2011	Sulfide	0.055J	mg/L	0.10	08/15/23 06:14	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	08/12/23 19:09	
EPA 300.0 Rev 2.1 1993	Fluoride	0.091J	mg/L	0.10	08/12/23 19:09	
EPA 300.0 Rev 2.1 1993	Sulfate	2.9	mg/L	1.0	08/12/23 19:09	
92681884003	HAM-HGWA-111					
EPA 6010D	Manganese	0.040	mg/L	0.040	08/12/23 05:54	
EPA 6010D	Potassium	0.47J	mg/L	0.50	08/12/23 05:54	
EPA 6010D	Sodium	3.4	mg/L	1.0	08/12/23 05:54	
EPA 6010D	Calcium	0.94J	mg/L	1.0	08/12/23 05:54	
EPA 6010D	Magnesium	0.46	mg/L	0.050	08/12/23 05:54	
EPA 6020B	Barium	0.027	mg/L	0.0050	08/18/23 19:55	
EPA 6020B	Lithium	0.0018J	mg/L	0.030	08/17/23 20:26	
SM 2540C-2015	Total Dissolved Solids	207	mg/L	25.0	08/11/23 14:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	152	mg/L	5.0	08/15/23 21:26	
SM 2320B-2011	Alkalinity, Total as CaCO3	152	mg/L	5.0	08/15/23 21:26	
EPA 300.0 Rev 2.1 1993	Chloride	3.0	mg/L	1.0	08/12/23 19:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.076J	mg/L	0.10	08/12/23 19:24	
EPA 300.0 Rev 2.1 1993	Sulfate	1.5	mg/L	1.0	08/12/23 19:24	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4

Pace Project No.: 92681884

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92681884004	HAM-HGWA-112					
EPA 6010D	Iron	0.11	mg/L	0.040	08/12/23 06:09	
EPA 6010D	Potassium	0.87	mg/L	0.50	08/12/23 06:09	
EPA 6010D	Sodium	3.6	mg/L	1.0	08/12/23 06:09	
EPA 6010D	Calcium	6.6	mg/L	1.0	08/12/23 06:09	
EPA 6010D	Magnesium	2.6	mg/L	0.050	08/12/23 06:09	
EPA 6020B	Barium	0.025	mg/L	0.0050	08/17/23 20:32	
EPA 6020B	Chromium	0.0037J	mg/L	0.0050	08/17/23 20:32	
SM 2540C-2015	Total Dissolved Solids	57.0	mg/L	25.0	08/11/23 14:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	24.7	mg/L	5.0	08/15/23 21:36	
SM 2320B-2011	Alkalinity, Total as CaCO3	24.7	mg/L	5.0	08/15/23 21:36	
EPA 300.0 Rev 2.1 1993	Chloride	5.1	mg/L	1.0	08/12/23 19:39	
EPA 300.0 Rev 2.1 1993	Fluoride	0.050J	mg/L	0.10	08/12/23 19:39	
EPA 300.0 Rev 2.1 1993	Sulfate	0.71J	mg/L	1.0	08/12/23 19:39	
92682576001	HAM-HGWC-101					
EPA 6010D	Manganese	2.4	mg/L	0.040	08/17/23 22:49	
EPA 6010D	Potassium	0.75	mg/L	0.50	08/17/23 22:49	
EPA 6010D	Sodium	12.3	mg/L	1.0	08/17/23 22:49	
EPA 6010D	Magnesium	11.6	mg/L	0.050	08/17/23 22:49	
EPA 6010D	Iron	5.4	mg/L	0.040	08/18/23 17:58	
EPA 6010D	Calcium	24.1	mg/L	1.0	08/18/23 17:58	
EPA 6020B	Barium	0.036	mg/L	0.0050	08/22/23 15:18	
EPA 6020B	Beryllium	0.000070J	mg/L	0.00050	08/22/23 15:18	
EPA 6020B	Boron	0.16	mg/L	0.040	08/22/23 15:18	
EPA 6020B	Cadmium	0.00015J	mg/L	0.00050	08/22/23 15:18	
EPA 6020B	Cobalt	0.0028J	mg/L	0.0050	08/22/23 15:18	
SM 2540C-2015	Total Dissolved Solids	250	mg/L	25.0	08/17/23 11:12	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	21.9	mg/L	5.0	08/17/23 18:05	
SM 2320B-2011	Alkalinity, Total as CaCO3	21.9	mg/L	5.0	08/17/23 18:05	
EPA 300.0 Rev 2.1 1993	Chloride	4.9	mg/L	1.0	08/15/23 14:01	
EPA 300.0 Rev 2.1 1993	Sulfate	102	mg/L	2.0	08/16/23 04:49	
92682576002	HAM-HGWC-102					
EPA 6010D	Manganese	2.1	mg/L	0.040	08/17/23 22:53	
EPA 6010D	Potassium	3.2	mg/L	0.50	08/17/23 22:53	
EPA 6010D	Sodium	18.9	mg/L	1.0	08/17/23 22:53	
EPA 6010D	Magnesium	32.4	mg/L	0.050	08/17/23 22:53	
EPA 6010D	Iron	1.8	mg/L	0.040	08/18/23 18:03	
EPA 6010D	Calcium	134	mg/L	1.0	08/18/23 18:03	
EPA 6020B	Antimony	0.0030	mg/L	0.0030	08/22/23 15:42	
EPA 6020B	Barium	0.028	mg/L	0.0050	08/22/23 15:42	
EPA 6020B	Boron	3.2	mg/L	0.040	08/22/23 15:42	
EPA 6020B	Cadmium	0.00067	mg/L	0.00050	08/22/23 15:42	
EPA 6020B	Cobalt	0.0010J	mg/L	0.0050	08/22/23 15:42	
EPA 6020B	Lithium	0.0013J	mg/L	0.030	08/22/23 15:42	
SM 2540C-2015	Total Dissolved Solids	785	mg/L	25.0	08/17/23 11:12	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	111	mg/L	5.0	08/17/23 18:11	
SM 2320B-2011	Alkalinity, Total as CaCO3	111	mg/L	5.0	08/17/23 18:11	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4

Pace Project No.: 92681884

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92682576002	HAM-HGWC-102					
EPA 300.0 Rev 2.1 1993	Chloride	6.7	mg/L	1.0	08/15/23 14:16	
EPA 300.0 Rev 2.1 1993	Sulfate	370	mg/L	7.0	08/16/23 05:04	
92682576003	HAM-HGWC-103					
EPA 6010D	Iron	1.6	mg/L	0.040	08/18/23 18:07	
EPA 6010D	Calcium	139	mg/L	1.0	08/18/23 18:07	
EPA 6010D	Manganese	1.9	mg/L	0.040	08/17/23 22:58	
EPA 6010D	Potassium	3.9	mg/L	0.50	08/17/23 22:58	
EPA 6010D	Sodium	23.1	mg/L	1.0	08/17/23 22:58	
EPA 6010D	Magnesium	33.2	mg/L	0.050	08/17/23 22:58	
EPA 6020B	Barium	0.035	mg/L	0.0050	08/22/23 15:48	
EPA 6020B	Boron	4.3	mg/L	0.040	08/22/23 15:48	
EPA 6020B	Cadmium	0.00070	mg/L	0.00050	08/22/23 15:48	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	08/22/23 15:48	
EPA 6020B	Lithium	0.0014J	mg/L	0.030	08/22/23 15:48	
EPA 7470A	Mercury	0.00025	mg/L	0.00020	08/21/23 16:49	
SM 2540C-2015	Total Dissolved Solids	808	mg/L	25.0	08/17/23 11:12	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	106	mg/L	5.0	08/17/23 18:32	
SM 2320B-2011	Alkalinity, Total as CaCO3	106	mg/L	5.0	08/17/23 18:32	
EPA 300.0 Rev 2.1 1993	Chloride	7.9	mg/L	1.0	08/15/23 14:31	
EPA 300.0 Rev 2.1 1993	Sulfate	382	mg/L	8.0	08/16/23 05:18	
92682576004	HAM-HGWC-105					
EPA 6010D	Manganese	0.44	mg/L	0.040	08/17/23 23:03	
EPA 6010D	Potassium	1.0	mg/L	0.50	08/17/23 23:03	
EPA 6010D	Sodium	15.5	mg/L	1.0	08/17/23 23:03	
EPA 6010D	Magnesium	12.4	mg/L	0.050	08/17/23 23:03	
EPA 6010D	Iron	7.7	mg/L	0.040	08/18/23 18:12	
EPA 6010D	Calcium	129	mg/L	1.0	08/18/23 18:12	
EPA 6020B	Barium	0.089	mg/L	0.0050	08/22/23 15:54	
EPA 6020B	Boron	1.4	mg/L	0.040	08/22/23 15:54	
EPA 6020B	Cobalt	0.00047J	mg/L	0.0050	08/22/23 15:54	
EPA 6020B	Lithium	0.0044J	mg/L	0.030	08/22/23 15:54	
SM 2540C-2015	Total Dissolved Solids	630	mg/L	25.0	08/17/23 11:12	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	162	mg/L	5.0	08/17/23 18:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	162	mg/L	5.0	08/17/23 18:43	M1
EPA 300.0 Rev 2.1 1993	Chloride	5.6	mg/L	1.0	08/15/23 15:15	
EPA 300.0 Rev 2.1 1993	Sulfate	237	mg/L	5.0	08/16/23 06:02	
92682576005	HAM-HGWC-107					
EPA 6010D	Manganese	0.22	mg/L	0.040	08/17/23 23:08	
EPA 6010D	Potassium	2.4	mg/L	0.50	08/17/23 23:08	
EPA 6010D	Sodium	7.7	mg/L	1.0	08/17/23 23:08	
EPA 6010D	Magnesium	8.5	mg/L	0.050	08/17/23 23:08	
EPA 6010D	Calcium	56.0	mg/L	1.0	08/18/23 18:17	
EPA 6020B	Barium	0.032	mg/L	0.0050	08/22/23 16:00	
EPA 6020B	Boron	0.81	mg/L	0.040	08/22/23 16:00	
EPA 6020B	Lithium	0.00083J	mg/L	0.030	08/22/23 16:00	
SM 2540C-2015	Total Dissolved Solids	296	mg/L	25.0	08/17/23 11:13	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4

Pace Project No.: 92681884

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92682576005	HAM-HGWC-107					
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	79.7	mg/L	5.0	08/17/23 19:10	
SM 2320B-2011	Alkalinity, Total as CaCO3	79.7	mg/L	5.0	08/17/23 19:10	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	08/15/23 15:30	
EPA 300.0 Rev 2.1 1993	Sulfate	113	mg/L	2.0	08/16/23 06:17	
92682576006	HAM-HGWC-109					
EPA 6010D	Manganese	0.36	mg/L	0.040	08/17/23 23:13	
EPA 6010D	Potassium	0.46J	mg/L	0.50	08/17/23 23:13	
EPA 6010D	Sodium	8.3	mg/L	1.0	08/17/23 23:13	
EPA 6010D	Magnesium	8.7	mg/L	0.050	08/17/23 23:13	
EPA 6010D	Iron	6.4	mg/L	0.040	08/18/23 18:22	
EPA 6010D	Calcium	44.8	mg/L	1.0	08/18/23 18:22	
EPA 6020B	Barium	0.081	mg/L	0.0050	08/22/23 16:26	
EPA 6020B	Boron	0.23	mg/L	0.040	08/22/23 16:26	
EPA 6020B	Cobalt	0.00077J	mg/L	0.0050	08/22/23 16:26	
EPA 6020B	Lithium	0.00076J	mg/L	0.030	08/22/23 16:26	
SM 2540C-2015	Total Dissolved Solids	205	mg/L	25.0	08/17/23 11:13	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	164	mg/L	5.0	08/17/23 20:32	
SM 2320B-2011	Alkalinity, Total as CaCO3	164	mg/L	5.0	08/17/23 20:32	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	08/15/23 15:45	
EPA 300.0 Rev 2.1 1993	Fluoride	0.086J	mg/L	0.10	08/15/23 15:45	
EPA 300.0 Rev 2.1 1993	Sulfate	19.8	mg/L	1.0	08/15/23 15:45	
92682576007	HAM-HGWC-117A					
EPA 6010D	Manganese	0.18	mg/L	0.040	08/17/23 23:18	
EPA 6010D	Potassium	0.56	mg/L	0.50	08/17/23 23:18	
EPA 6010D	Sodium	8.9	mg/L	1.0	08/17/23 23:18	
EPA 6010D	Magnesium	7.8	mg/L	0.050	08/17/23 23:18	
EPA 6010D	Iron	0.13	mg/L	0.040	08/18/23 18:27	
EPA 6010D	Calcium	61.1	mg/L	1.0	08/18/23 18:27	
EPA 6020B	Barium	0.046	mg/L	0.0050	08/22/23 16:32	
EPA 6020B	Boron	0.31	mg/L	0.040	08/22/23 16:32	
EPA 6020B	Cobalt	0.00078J	mg/L	0.0050	08/22/23 16:32	
EPA 6020B	Lithium	0.0041J	mg/L	0.030	08/22/23 16:32	
SM 2540C-2015	Total Dissolved Solids	280	mg/L	25.0	08/17/23 11:13	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	141	mg/L	5.0	08/17/23 20:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	141	mg/L	5.0	08/17/23 20:43	
EPA 300.0 Rev 2.1 1993	Chloride	4.6	mg/L	1.0	08/15/23 16:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.057J	mg/L	0.10	08/15/23 16:00	
EPA 300.0 Rev 2.1 1993	Sulfate	67.7	mg/L	1.0	08/15/23 16:00	
92682576008	HAM-HGWC-118					
EPA 6010D	Manganese	0.13	mg/L	0.040	08/17/23 23:22	
EPA 6010D	Potassium	0.80	mg/L	0.50	08/17/23 23:22	
EPA 6010D	Sodium	8.8	mg/L	1.0	08/17/23 23:22	
EPA 6010D	Magnesium	10.4	mg/L	0.050	08/17/23 23:22	
EPA 6010D	Calcium	85.5	mg/L	1.0	08/18/23 18:31	
EPA 6020B	Barium	0.040	mg/L	0.0050	08/22/23 16:38	
EPA 6020B	Boron	0.66	mg/L	0.040	08/22/23 16:38	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4

Pace Project No.: 92681884

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92682576008	HAM-HGWC-118					
EPA 6020B	Lithium	0.0023J	mg/L	0.030	08/22/23 16:38	
SM 2540C-2015	Total Dissolved Solids	346	mg/L	25.0	08/17/23 11:13	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	217	mg/L	5.0	08/17/23 20:53	
SM 2320B-2011	Alkalinity, Total as CaCO3	217	mg/L	5.0	08/17/23 20:53	
EPA 300.0 Rev 2.1 1993	Chloride	3.8	mg/L	1.0	08/15/23 16:15	
EPA 300.0 Rev 2.1 1993	Fluoride	0.070J	mg/L	0.10	08/15/23 16:15	
EPA 300.0 Rev 2.1 1993	Sulfate	64.9	mg/L	1.0	08/15/23 16:15	M1
92682576011	HAM-AP4-FD-04					
EPA 6010D	Manganese	0.52	mg/L	0.040	08/17/23 23:46	
EPA 6010D	Potassium	1.0	mg/L	0.50	08/17/23 23:46	
EPA 6010D	Sodium	15.4	mg/L	1.0	08/17/23 23:46	
EPA 6010D	Magnesium	12.6	mg/L	0.050	08/17/23 23:46	
EPA 6010D	Iron	8.9	mg/L	0.040	08/18/23 18:55	
EPA 6010D	Calcium	125	mg/L	1.0	08/18/23 18:55	
EPA 6020B	Barium	0.095	mg/L	0.0050	08/22/23 16:56	
EPA 6020B	Boron	1.4	mg/L	0.040	08/22/23 16:56	
EPA 6020B	Cobalt	0.00051J	mg/L	0.0050	08/22/23 16:56	
EPA 6020B	Lithium	0.0043J	mg/L	0.030	08/22/23 16:56	
SM 2540C-2015	Total Dissolved Solids	579	mg/L	25.0	08/17/23 11:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	153	mg/L	5.0	08/17/23 21:14	
SM 2320B-2011	Alkalinity, Total as CaCO3	153	mg/L	5.0	08/17/23 21:14	
EPA 300.0 Rev 2.1 1993	Chloride	5.8	mg/L	1.0	08/15/23 17:29	
EPA 300.0 Rev 2.1 1993	Sulfate	226	mg/L	5.0	08/16/23 07:01	
92682392001	HAM-HGWA-113					
EPA 6010D	Potassium	0.32J	mg/L	0.50	08/18/23 19:10	
EPA 6010D	Sodium	9.5	mg/L	1.0	08/18/23 19:10	M1
EPA 6010D	Calcium	8.4	mg/L	1.0	08/18/23 19:10	M1
EPA 6010D	Magnesium	3.4	mg/L	0.050	08/18/23 19:10	M1
EPA 6020B	Barium	0.028	mg/L	0.0050	08/22/23 19:35	
EPA 6020B	Boron	0.0091J	mg/L	0.040	08/22/23 19:35	
EPA 6020B	Chromium	0.0019J	mg/L	0.0050	08/23/23 16:58	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	08/22/23 19:35	
EPA 6020B	Selenium	0.0027J	mg/L	0.0050	08/22/23 19:35	
SM 2540C-2015	Total Dissolved Solids	80.0	mg/L	25.0	08/16/23 14:47	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	40.3	mg/L	5.0	08/16/23 20:04	
SM 2320B-2011	Alkalinity, Total as CaCO3	40.3	mg/L	5.0	08/16/23 20:04	
EPA 300.0 Rev 2.1 1993	Chloride	1.6	mg/L	1.0	08/12/23 17:02	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	08/12/23 17:02	
EPA 300.0 Rev 2.1 1993	Sulfate	5.1	mg/L	1.0	08/12/23 17:02	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-47		Lab ID: 92681884001		Collected: 08/08/23 16:25		Received: 08/09/23 11:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Iron	0.033J	mg/L	0.040	0.025	1	08/11/23 14:21	08/12/23 06:04	7439-89-6	
Manganese	0.025J	mg/L	0.040	0.011	1	08/11/23 14:21	08/12/23 06:04	7439-96-5	
Potassium	0.47J	mg/L	0.50	0.15	1	08/11/23 14:21	08/12/23 06:04	7440-09-7	
Sodium	3.6	mg/L	1.0	0.58	1	08/11/23 14:21	08/12/23 06:04	7440-23-5	
Calcium	68.0	mg/L	1.0	0.12	1	08/11/23 14:21	08/12/23 06:04	7440-70-2	
Magnesium	5.5	mg/L	0.050	0.012	1	08/11/23 14:21	08/12/23 06:04	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/12/23 12:00	08/17/23 20:14	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/12/23 12:00	08/17/23 20:14	7440-38-2	
Barium	0.026	mg/L	0.0050	0.00067	1	08/12/23 12:00	08/17/23 20:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/12/23 12:00	08/17/23 20:14	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/12/23 12:00	08/17/23 20:14	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/12/23 12:00	08/17/23 20:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/12/23 12:00	08/17/23 20:14	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/12/23 12:00	08/17/23 20:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/12/23 12:00	08/17/23 20:14	7439-92-1	
Lithium	0.0029J	mg/L	0.030	0.00073	1	08/12/23 12:00	08/17/23 20:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/12/23 12:00	08/17/23 20:14	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/12/23 12:00	08/17/23 20:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/12/23 12:00	08/17/23 20:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/15/23 11:30	08/15/23 15:48	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	214	mg/L	25.0	25.0	1		08/11/23 13:59		D6
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	212	mg/L	5.0	5.0	1		08/15/23 21:01		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/15/23 21:01		
Alkalinity, Total as CaCO3	212	mg/L	5.0	5.0	1		08/15/23 21:01		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:13	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	2.7	mg/L	1.0	0.60	1		08/12/23 18:55	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-47 Lab ID: 92681884001 Collected: 08/08/23 16:25 Received: 08/09/23 11:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.072J	mg/L	0.10	0.050	1		08/12/23 18:55	16984-48-8	
Sulfate	2.0	mg/L	1.0	0.50	1		08/12/23 18:55	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-48D **Lab ID: 92681884002** Collected: 08/08/23 17:37 Received: 08/09/23 11:40 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	0.46	mg/L	0.040	0.025	1	08/11/23 14:21	08/12/23 05:59	7439-89-6	
Manganese	0.013J	mg/L	0.040	0.011	1	08/11/23 14:21	08/12/23 05:59	7439-96-5	
Potassium	0.63	mg/L	0.50	0.15	1	08/11/23 14:21	08/12/23 05:59	7440-09-7	
Sodium	11.6	mg/L	1.0	0.58	1	08/11/23 14:21	08/12/23 05:59	7440-23-5	
Calcium	58.2	mg/L	1.0	0.12	1	08/11/23 14:21	08/12/23 05:59	7440-70-2	
Magnesium	12.1	mg/L	0.050	0.012	1	08/11/23 14:21	08/12/23 05:59	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/12/23 12:00	08/17/23 20:20	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/12/23 12:00	08/17/23 20:20	7440-38-2	
Barium	0.10	mg/L	0.0050	0.00067	1	08/12/23 12:00	08/17/23 20:20	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/12/23 12:00	08/17/23 20:20	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/12/23 12:00	08/17/23 20:20	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/12/23 12:00	08/17/23 20:20	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/12/23 12:00	08/17/23 20:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/12/23 12:00	08/17/23 20:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/12/23 12:00	08/17/23 20:20	7439-92-1	
Lithium	0.0040J	mg/L	0.030	0.00073	1	08/12/23 12:00	08/17/23 20:20	7439-93-2	
Molybdenum	0.00092J	mg/L	0.010	0.00074	1	08/12/23 12:00	08/17/23 20:20	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/12/23 12:00	08/17/23 20:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/12/23 12:00	08/17/23 20:20	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/15/23 11:30	08/15/23 15:51	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	220	mg/L	25.0	25.0	1		08/11/23 14:00		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	222	mg/L	5.0	5.0	1		08/15/23 21:13		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/15/23 21:13		
Alkalinity, Total as CaCO3	222	mg/L	5.0	5.0	1		08/15/23 21:13		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	0.055J	mg/L	0.10	0.022	1		08/15/23 06:14	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	2.7	mg/L	1.0	0.60	1		08/12/23 19:09	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-48D Lab ID: 92681884002 Collected: 08/08/23 17:37 Received: 08/09/23 11:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.091J	mg/L	0.10	0.050	1		08/12/23 19:09	16984-48-8	
Sulfate	2.9	mg/L	1.0	0.50	1		08/12/23 19:09	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-111		Lab ID: 92681884003		Collected: 08/08/23 18:53		Received: 08/09/23 11:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	ND	mg/L	0.040	0.025	1	08/11/23 14:21	08/12/23 05:54	7439-89-6	
Manganese	0.040	mg/L	0.040	0.011	1	08/11/23 14:21	08/12/23 05:54	7439-96-5	
Potassium	0.47J	mg/L	0.50	0.15	1	08/11/23 14:21	08/12/23 05:54	7440-09-7	
Sodium	3.4	mg/L	1.0	0.58	1	08/11/23 14:21	08/12/23 05:54	7440-23-5	
Calcium	0.94J	mg/L	1.0	0.12	1	08/11/23 14:21	08/12/23 05:54	7440-70-2	
Magnesium	0.46	mg/L	0.050	0.012	1	08/11/23 14:21	08/12/23 05:54	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/12/23 12:00	08/18/23 19:55	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/12/23 12:00	08/17/23 20:26	7440-38-2	
Barium	0.027	mg/L	0.0050	0.00067	1	08/12/23 12:00	08/18/23 19:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/12/23 12:00	08/17/23 20:26	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/12/23 12:00	08/17/23 20:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/12/23 12:00	08/18/23 19:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/12/23 12:00	08/17/23 20:26	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/12/23 12:00	08/17/23 20:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/12/23 12:00	08/17/23 20:26	7439-92-1	
Lithium	0.0018J	mg/L	0.030	0.00073	1	08/12/23 12:00	08/17/23 20:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/12/23 12:00	08/18/23 19:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/12/23 12:00	08/17/23 20:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/12/23 12:00	08/17/23 20:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/15/23 11:30	08/15/23 15:53	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	207	mg/L	25.0	25.0	1		08/11/23 14:00		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	152	mg/L	5.0	5.0	1		08/15/23 21:26		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/15/23 21:26		
Alkalinity, Total as CaCO3	152	mg/L	5.0	5.0	1		08/15/23 21:26		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:14	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.0	mg/L	1.0	0.60	1		08/12/23 19:24	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-111 Lab ID: 92681884003 Collected: 08/08/23 18:53 Received: 08/09/23 11:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.076J	mg/L	0.10	0.050	1		08/12/23 19:24	16984-48-8	
Sulfate	1.5	mg/L	1.0	0.50	1		08/12/23 19:24	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-112		Lab ID: 92681884004		Collected: 08/08/23 17:35		Received: 08/09/23 11:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Iron	0.11	mg/L	0.040	0.025	1	08/11/23 14:21	08/12/23 06:09	7439-89-6	
Manganese	ND	mg/L	0.040	0.011	1	08/11/23 14:21	08/12/23 06:09	7439-96-5	
Potassium	0.87	mg/L	0.50	0.15	1	08/11/23 14:21	08/12/23 06:09	7440-09-7	
Sodium	3.6	mg/L	1.0	0.58	1	08/11/23 14:21	08/12/23 06:09	7440-23-5	
Calcium	6.6	mg/L	1.0	0.12	1	08/11/23 14:21	08/12/23 06:09	7440-70-2	
Magnesium	2.6	mg/L	0.050	0.012	1	08/11/23 14:21	08/12/23 06:09	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/12/23 12:00	08/17/23 20:32	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/12/23 12:00	08/17/23 20:32	7440-38-2	
Barium	0.025	mg/L	0.0050	0.00067	1	08/12/23 12:00	08/17/23 20:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/12/23 12:00	08/17/23 20:32	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/12/23 12:00	08/17/23 20:32	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/12/23 12:00	08/17/23 20:32	7440-43-9	
Chromium	0.0037J	mg/L	0.0050	0.0011	1	08/12/23 12:00	08/17/23 20:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/12/23 12:00	08/17/23 20:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/12/23 12:00	08/17/23 20:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/12/23 12:00	08/17/23 20:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/12/23 12:00	08/17/23 20:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/12/23 12:00	08/17/23 20:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/12/23 12:00	08/17/23 20:32	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/15/23 11:30	08/15/23 15:56	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	57.0	mg/L	25.0	25.0	1		08/11/23 14:00		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	24.7	mg/L	5.0	5.0	1		08/15/23 21:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/15/23 21:36		
Alkalinity, Total as CaCO3	24.7	mg/L	5.0	5.0	1		08/15/23 21:36		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:14	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	5.1	mg/L	1.0	0.60	1		08/12/23 19:39	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-112 Lab ID: 92681884004 Collected: 08/08/23 17:35 Received: 08/09/23 11:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.050J	mg/L	0.10	0.050	1		08/12/23 19:39	16984-48-8	
Sulfate	0.71J	mg/L	1.0	0.50	1		08/12/23 19:39	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-101		Lab ID: 92682576001		Collected: 08/11/23 11:55		Received: 08/14/23 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Manganese	2.4	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 22:49	7439-96-5	
Potassium	0.75	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 22:49	7440-09-7	
Sodium	12.3	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 22:49	7440-23-5	
Magnesium	11.6	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 22:49	7439-95-4	
Iron	5.4	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 17:58	7439-89-6	
Calcium	24.1	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 17:58	7440-70-2	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 15:18	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 15:18	7440-38-2	
Barium	0.036	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 15:18	7440-39-3	
Beryllium	0.000070J	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 15:18	7440-41-7	
Boron	0.16	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 15:18	7440-42-8	
Cadmium	0.00015J	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 15:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 15:18	7440-47-3	
Cobalt	0.0028J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 15:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 15:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 15:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 15:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 15:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 15:18	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:30	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	250	mg/L	25.0	25.0	1		08/17/23 11:12		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	21.9	mg/L	5.0	5.0	1		08/17/23 18:05		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 18:05		
Alkalinity, Total as CaCO3	21.9	mg/L	5.0	5.0	1		08/17/23 18:05		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:50	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	4.9	mg/L	1.0	0.60	1		08/15/23 14:01	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-101 Lab ID: 92682576001 Collected: 08/11/23 11:55 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 14:01	16984-48-8	
Sulfate	102	mg/L	2.0	1.0	2		08/16/23 04:49	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-102		Lab ID: 92682576002		Collected: 08/11/23 16:25		Received: 08/14/23 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Manganese	2.1	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 22:53	7439-96-5	
Potassium	3.2	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 22:53	7440-09-7	
Sodium	18.9	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 22:53	7440-23-5	
Magnesium	32.4	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 22:53	7439-95-4	
Iron	1.8	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:03	7439-89-6	
Calcium	134	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:03	7440-70-2	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	0.0030	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 15:42	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 15:42	7440-38-2	
Barium	0.028	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 15:42	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 15:42	7440-41-7	
Boron	3.2	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 15:42	7440-42-8	
Cadmium	0.00067	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 15:42	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 15:42	7440-47-3	
Cobalt	0.0010J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 15:42	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 15:42	7439-92-1	
Lithium	0.0013J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 15:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 15:42	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 15:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 15:42	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:33	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	785	mg/L	25.0	25.0	1		08/17/23 11:12		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	111	mg/L	5.0	5.0	1		08/17/23 18:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 18:11		
Alkalinity, Total as CaCO3	111	mg/L	5.0	5.0	1		08/17/23 18:11		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:51	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	6.7	mg/L	1.0	0.60	1		08/15/23 14:16	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4
 Pace Project No.: 92681884

Sample: HAM-HGWC-102 **Lab ID: 92682576002** Collected: 08/11/23 16:25 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 14:16	16984-48-8	
Sulfate	370	mg/L	7.0	3.5	7		08/16/23 05:04	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-103		Lab ID: 92682576003		Collected: 08/11/23 14:25		Received: 08/14/23 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Iron	1.6	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:07	7439-89-6	
Calcium	139	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:07	7440-70-2	
Manganese	1.9	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 22:58	7439-96-5	
Potassium	3.9	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 22:58	7440-09-7	
Sodium	23.1	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 22:58	7440-23-5	
Magnesium	33.2	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 22:58	7439-95-4	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 15:48	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 15:48	7440-38-2	
Barium	0.035	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 15:48	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 15:48	7440-41-7	
Boron	4.3	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 15:48	7440-42-8	
Cadmium	0.00070	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 15:48	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 15:48	7440-47-3	
Cobalt	0.0019J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 15:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 15:48	7439-92-1	
Lithium	0.0014J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 15:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 15:48	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 15:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 15:48	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	0.00025	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:49	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	808	mg/L	25.0	25.0	1		08/17/23 11:12		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	106	mg/L	5.0	5.0	1		08/17/23 18:32		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 18:32		
Alkalinity, Total as CaCO3	106	mg/L	5.0	5.0	1		08/17/23 18:32		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:51	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	7.9	mg/L	1.0	0.60	1		08/15/23 14:31	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-103 Lab ID: 92682576003 Collected: 08/11/23 14:25 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 14:31	16984-48-8	
Sulfate	382	mg/L	8.0	4.0	8		08/16/23 05:18	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-105 **Lab ID: 92682576004** Collected: 08/11/23 11:02 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Manganese	0.44	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 23:03	7439-96-5	
Potassium	1.0	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 23:03	7440-09-7	
Sodium	15.5	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 23:03	7440-23-5	
Magnesium	12.4	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 23:03	7439-95-4	
Iron	7.7	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:12	7439-89-6	
Calcium	129	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:12	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 15:54	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 15:54	7440-38-2	
Barium	0.089	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 15:54	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 15:54	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 15:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 15:54	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 15:54	7440-47-3	
Cobalt	0.00047J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 15:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 15:54	7439-92-1	
Lithium	0.0044J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 15:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 15:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 15:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 15:54	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:51	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	630	mg/L	25.0	25.0	1		08/17/23 11:12		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	162	mg/L	5.0	5.0	1		08/17/23 18:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 18:43		
Alkalinity, Total as CaCO3	162	mg/L	5.0	5.0	1		08/17/23 18:43		M1
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		08/18/23 04:26	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	5.6	mg/L	1.0	0.60	1		08/15/23 15:15	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-105 Lab ID: 92682576004 Collected: 08/11/23 11:02 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 15:15	16984-48-8	
Sulfate	237	mg/L	5.0	2.5	5		08/16/23 06:02	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-107		Lab ID: 92682576005		Collected: 08/11/23 14:40		Received: 08/14/23 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Manganese	0.22	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 23:08	7439-96-5	
Potassium	2.4	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 23:08	7440-09-7	
Sodium	7.7	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 23:08	7440-23-5	
Magnesium	8.5	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 23:08	7439-95-4	
Iron	ND	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:17	7439-89-6	
Calcium	56.0	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:17	7440-70-2	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:00	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:00	7440-38-2	
Barium	0.032	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:00	7440-41-7	
Boron	0.81	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:00	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:00	7439-92-1	
Lithium	0.00083J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:00	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:54	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	296	mg/L	25.0	25.0	1		08/17/23 11:13		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	79.7	mg/L	5.0	5.0	1		08/17/23 19:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 19:10		
Alkalinity, Total as CaCO3	79.7	mg/L	5.0	5.0	1		08/17/23 19:10		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/18/23 04:26	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	2.7	mg/L	1.0	0.60	1		08/15/23 15:30	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-107 Lab ID: 92682576005 Collected: 08/11/23 14:40 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 15:30	16984-48-8	
Sulfate	113	mg/L	2.0	1.0	2		08/16/23 06:17	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-109		Lab ID: 92682576006		Collected: 08/11/23 11:32		Received: 08/14/23 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Manganese	0.36	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 23:13	7439-96-5	
Potassium	0.46J	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 23:13	7440-09-7	
Sodium	8.3	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 23:13	7440-23-5	
Magnesium	8.7	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 23:13	7439-95-4	
Iron	6.4	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:22	7439-89-6	
Calcium	44.8	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:22	7440-70-2	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:26	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:26	7440-38-2	
Barium	0.081	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:26	7440-41-7	
Boron	0.23	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:26	7440-47-3	
Cobalt	0.00077J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:26	7439-92-1	
Lithium	0.00076J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:26	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:57	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	205	mg/L	25.0	25.0	1		08/17/23 11:13		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	164	mg/L	5.0	5.0	1		08/17/23 20:32		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 20:32		
Alkalinity, Total as CaCO3	164	mg/L	5.0	5.0	1		08/17/23 20:32		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/18/23 04:27	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	3.5	mg/L	1.0	0.60	1		08/15/23 15:45	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4
 Pace Project No.: 92681884

Sample: HAM-HGWC-109 **Lab ID: 92682576006** Collected: 08/11/23 11:32 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.086J	mg/L	0.10	0.050	1		08/15/23 15:45	16984-48-8	
Sulfate	19.8	mg/L	1.0	0.50	1		08/15/23 15:45	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-117A **Lab ID: 92682576007** Collected: 08/11/23 16:50 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Manganese	0.18	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 23:18	7439-96-5	
Potassium	0.56	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 23:18	7440-09-7	
Sodium	8.9	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 23:18	7440-23-5	
Magnesium	7.8	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 23:18	7439-95-4	
Iron	0.13	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:27	7439-89-6	
Calcium	61.1	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:27	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:32	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:32	7440-38-2	
Barium	0.046	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:32	7440-41-7	
Boron	0.31	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:32	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:32	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:32	7440-47-3	
Cobalt	0.00078J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:32	7439-92-1	
Lithium	0.0041J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:32	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 16:59	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	280	mg/L	25.0	25.0	1		08/17/23 11:13		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	141	mg/L	5.0	5.0	1		08/17/23 20:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 20:43		
Alkalinity, Total as CaCO3	141	mg/L	5.0	5.0	1		08/17/23 20:43		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		08/18/23 04:27	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.6	mg/L	1.0	0.60	1		08/15/23 16:00	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-117A Lab ID: 92682576007 Collected: 08/11/23 16:50 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.057J	mg/L	0.10	0.050	1		08/15/23 16:00	16984-48-8	
Sulfate	67.7	mg/L	1.0	0.50	1		08/15/23 16:00	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-118		Lab ID: 92682576008		Collected: 08/11/23 15:09		Received: 08/14/23 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Manganese	0.13	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 23:22	7439-96-5	
Potassium	0.80	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 23:22	7440-09-7	
Sodium	8.8	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 23:22	7440-23-5	
Magnesium	10.4	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 23:22	7439-95-4	
Iron	ND	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:31	7439-89-6	
Calcium	85.5	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:31	7440-70-2	
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:38	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:38	7440-38-2	
Barium	0.040	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:38	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:38	7440-41-7	
Boron	0.66	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:38	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:38	7439-92-1	
Lithium	0.0023J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:38	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:38	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 17:02	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	346	mg/L	25.0	25.0	1		08/17/23 11:13		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	217	mg/L	5.0	5.0	1		08/17/23 20:53		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 20:53		
Alkalinity, Total as CaCO3	217	mg/L	5.0	5.0	1		08/17/23 20:53		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/18/23 04:28	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	3.8	mg/L	1.0	0.60	1		08/15/23 16:15	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWC-118 Lab ID: 92682576008 Collected: 08/11/23 15:09 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.070J	mg/L	0.10	0.050	1		08/15/23 16:15	16984-48-8	
Sulfate	64.9	mg/L	1.0	0.50	1		08/15/23 16:15	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-AP4-EB-04 **Lab ID: 92682576009** Collected: 08/11/23 16:45 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:36	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:44	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:44	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:44	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:44	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:44	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:44	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 17:04	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		08/17/23 11:15		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		08/15/23 16:59	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 16:59	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		08/15/23 16:59	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-AP4-FB-04 **Lab ID: 92682576010** Collected: 08/11/23 16:40 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:51	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:50	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:50	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:50	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:50	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:50	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 17:07	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		08/17/23 11:17		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		08/15/23 17:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 17:14	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		08/15/23 17:14	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-AP4-FD-04 **Lab ID:** 92682576011 Collected: 08/11/23 00:00 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Manganese	0.52	mg/L	0.040	0.011	1	08/16/23 11:06	08/17/23 23:46	7439-96-5	
Potassium	1.0	mg/L	0.50	0.15	1	08/16/23 11:06	08/17/23 23:46	7440-09-7	
Sodium	15.4	mg/L	1.0	0.58	1	08/16/23 11:06	08/17/23 23:46	7440-23-5	
Magnesium	12.6	mg/L	0.050	0.012	1	08/16/23 11:06	08/17/23 23:46	7439-95-4	
Iron	8.9	mg/L	0.040	0.025	1	08/16/23 11:06	08/18/23 18:55	7439-89-6	
Calcium	125	mg/L	1.0	0.12	1	08/16/23 11:06	08/18/23 18:55	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 11:45	08/22/23 16:56	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 11:45	08/22/23 16:56	7440-38-2	
Barium	0.095	mg/L	0.0050	0.00067	1	08/17/23 11:45	08/22/23 16:56	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 11:45	08/22/23 16:56	7440-41-7	
Boron	1.4	mg/L	0.040	0.0086	1	08/17/23 11:45	08/22/23 16:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 11:45	08/22/23 16:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/17/23 11:45	08/22/23 16:56	7440-47-3	
Cobalt	0.00051J	mg/L	0.0050	0.00039	1	08/17/23 11:45	08/22/23 16:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 11:45	08/22/23 16:56	7439-92-1	
Lithium	0.0043J	mg/L	0.030	0.00073	1	08/17/23 11:45	08/22/23 16:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 11:45	08/22/23 16:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/17/23 11:45	08/22/23 16:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 11:45	08/22/23 16:56	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	08/21/23 14:15	08/21/23 17:15	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	579	mg/L	25.0	25.0	1		08/17/23 11:18		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	153	mg/L	5.0	5.0	1		08/17/23 21:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/23 21:14		
Alkalinity, Total as CaCO3	153	mg/L	5.0	5.0	1		08/17/23 21:14		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		08/18/23 04:29	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	5.8	mg/L	1.0	0.60	1		08/15/23 17:29	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-AP4-FD-04 Lab ID: 92682576011 Collected: 08/11/23 00:00 Received: 08/14/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/15/23 17:29	16984-48-8	
Sulfate	226	mg/L	5.0	2.5	5		08/16/23 07:01	14808-79-8	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-113		Lab ID: 92682392001		Collected: 08/10/23 16:22		Received: 08/11/23 13:12		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Iron	ND	mg/L	0.040	0.025	1	08/18/23 10:36	08/18/23 19:10	7439-89-6	
Manganese	ND	mg/L	0.040	0.011	1	08/18/23 10:36	08/18/23 19:10	7439-96-5	
Potassium	0.32J	mg/L	0.50	0.15	1	08/18/23 10:36	08/18/23 19:10	7440-09-7	
Sodium	9.5	mg/L	1.0	0.58	1	08/18/23 10:36	08/18/23 19:10	7440-23-5	M1
Calcium	8.4	mg/L	1.0	0.12	1	08/18/23 10:36	08/18/23 19:10	7440-70-2	M1
Magnesium	3.4	mg/L	0.050	0.012	1	08/18/23 10:36	08/18/23 19:10	7439-95-4	M1
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.0012	1	08/17/23 10:25	08/22/23 19:35	7440-36-0	
Arsenic	ND	mg/L	0.010	0.0037	1	08/17/23 10:25	08/22/23 19:35	7440-38-2	
Barium	0.028	mg/L	0.0050	0.00067	1	08/17/23 10:25	08/22/23 19:35	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/17/23 10:25	08/22/23 19:35	7440-41-7	
Boron	0.0091J	mg/L	0.040	0.0086	1	08/17/23 10:25	08/22/23 19:35	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/17/23 10:25	08/22/23 19:35	7440-43-9	
Chromium	0.0019J	mg/L	0.0050	0.0011	1	08/17/23 10:25	08/23/23 16:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/17/23 10:25	08/22/23 19:35	7440-48-4	
Lead	ND	mg/L	0.0010	0.00012	1	08/17/23 10:25	08/22/23 19:35	7439-92-1	
Lithium	0.0010J	mg/L	0.030	0.00073	1	08/17/23 10:25	08/22/23 19:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/17/23 10:25	08/22/23 19:35	7439-98-7	
Selenium	0.0027J	mg/L	0.0050	0.0014	1	08/17/23 10:25	08/22/23 19:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/17/23 10:25	08/22/23 19:35	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00020	0.00013	1	08/15/23 11:30	08/15/23 15:59	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	80.0	mg/L	25.0	25.0	1		08/16/23 14:47		
2320B Alkalinity		Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville							
Alkalinity,Bicarbonate (CaCO3)	40.3	mg/L	5.0	5.0	1		08/16/23 20:04		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/16/23 20:04		
Alkalinity, Total as CaCO3	40.3	mg/L	5.0	5.0	1		08/16/23 20:04		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville							
Sulfide	ND	mg/L	0.10	0.022	1		08/15/23 06:36	18496-25-8	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	1.6	mg/L	1.0	0.60	1		08/12/23 17:02	16887-00-6	

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ANALYTICAL RESULTS

Project: Hammond AP-4

Pace Project No.: 92681884

Sample: HAM-HGWA-113 Lab ID: 92682392001 Collected: 08/10/23 16:22 Received: 08/11/23 13:12 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.19	mg/L	0.10	0.050	1		08/12/23 17:02	16984-48-8	
Sulfate	5.1	mg/L	1.0	0.50	1		08/12/23 17:02	14808-79-8	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	792418	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

METHOD BLANK: 4106293 Matrix: Water
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/12/23 04:46	
Iron	mg/L	ND	0.040	0.025	08/12/23 04:46	
Magnesium	mg/L	ND	0.050	0.012	08/12/23 04:46	
Manganese	mg/L	ND	0.040	0.011	08/12/23 04:46	
Potassium	mg/L	ND	0.50	0.15	08/12/23 04:46	
Sodium	mg/L	ND	1.0	0.58	08/12/23 04:46	

LABORATORY CONTROL SAMPLE: 4106294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.98J	98	80-120	
Iron	mg/L	1	1.0	103	80-120	
Magnesium	mg/L	1	1.0	105	80-120	
Manganese	mg/L	1	1.0	105	80-120	
Potassium	mg/L	1	1.1	111	80-120	
Sodium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4106295 4106296

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		92680804001	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	mg/L	40.7	1	1	41.4	41.0	71	33	75-125	1	20	M1	
Iron	mg/L	0.13	1	1	1.2	1.1	111	102	75-125	8	20		
Magnesium	mg/L	22.1	1	1	22.9	22.8	81	67	75-125	1	20	M1	
Manganese	mg/L	0.020J	1	1	1.1	1.1	106	105	75-125	1	20		
Potassium	mg/L	1.3	1	1	2.3	2.3	108	102	75-125	3	20		
Sodium	mg/L	1.8	1	1	2.8	2.8	100	97	75-125	1	20		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793618

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92682392001

METHOD BLANK: 4112489

Matrix: Water

Associated Lab Samples: 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/18/23 19:00	
Iron	mg/L	ND	0.040	0.025	08/18/23 19:00	
Magnesium	mg/L	ND	0.050	0.012	08/18/23 19:00	
Manganese	mg/L	ND	0.040	0.011	08/18/23 19:00	
Potassium	mg/L	ND	0.50	0.15	08/18/23 19:00	
Sodium	mg/L	ND	1.0	0.58	08/18/23 19:00	

LABORATORY CONTROL SAMPLE: 4112490

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.0	101	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	1.1	106	80-120	
Sodium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4112491 4112492

Parameter	Units	92682392001		4112492		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	8.4	1	1	8.8	9.3	35	92	75-125	6	20 M1
Iron	mg/L	ND	1	1	1.0	1.0	100	100	75-125	0	20
Magnesium	mg/L	3.4	1	1	4.1	4.3	72	92	75-125	5	20 M1
Manganese	mg/L	ND	1	1	0.98	0.99	97	98	75-125	1	20
Potassium	mg/L	0.32J	1	1	1.3	1.5	102	113	75-125	8	20
Sodium	mg/L	9.5	1	1	10	10.5	44	103	75-125	6	20 M1

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	793869	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011		

METHOD BLANK:	4113555	Matrix:	Water
Associated Lab Samples:	92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/18/23 15:12	
Iron	mg/L	ND	0.040	0.025	08/18/23 15:12	
Magnesium	mg/L	ND	0.050	0.012	08/18/23 15:12	
Manganese	mg/L	ND	0.040	0.011	08/17/23 21:21	
Potassium	mg/L	ND	0.50	0.15	08/18/23 15:12	
Sodium	mg/L	ND	1.0	0.58	08/17/23 21:21	

LABORATORY CONTROL SAMPLE: 4113556						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	0.96	96	80-120	
Manganese	mg/L	1	0.98	98	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.2	118	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4113557												4113558	
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92682398002 Result	Spike Conc.	Spike Conc.	Conc.								
Calcium	mg/L	100	1	1	101	100	7	-30	75-125	0	20	M1	
Iron	mg/L	ND	1	1	0.95	0.98	93	96	75-125	3	20		
Magnesium	mg/L	11.8	1	1	12.4	12.4	66	62	75-125	0	20	M1	
Manganese	mg/L	ND	1	1	0.95	0.96	94	96	75-125	1	20		
Potassium	mg/L	2.6	1	1	3.6	3.7	104	117	75-125	4	20		
Sodium	mg/L	5.9	1	1	7.0	7.0	109	106	75-125	0	20		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	793217	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

METHOD BLANK: 4110532 Matrix: Water

Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	08/17/23 17:51	
Arsenic	mg/L	ND	0.010	0.0037	08/17/23 17:51	
Barium	mg/L	ND	0.0050	0.00067	08/17/23 17:51	
Beryllium	mg/L	ND	0.00050	0.000054	08/17/23 17:51	
Boron	mg/L	ND	0.040	0.0086	08/17/23 17:51	
Cadmium	mg/L	ND	0.00050	0.00011	08/17/23 17:51	
Chromium	mg/L	ND	0.0050	0.0011	08/17/23 17:51	
Cobalt	mg/L	ND	0.0050	0.00039	08/17/23 17:51	
Lead	mg/L	ND	0.0010	0.00012	08/17/23 17:51	
Lithium	mg/L	ND	0.030	0.00073	08/17/23 17:51	
Molybdenum	mg/L	ND	0.010	0.00074	08/17/23 17:51	
Selenium	mg/L	ND	0.0050	0.0014	08/17/23 17:51	
Thallium	mg/L	ND	0.0010	0.00018	08/17/23 17:51	

LABORATORY CONTROL SAMPLE: 4110533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	112	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	108	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.11	109	80-120	
Cobalt	mg/L	0.1	0.11	111	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.12	118	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.11	105	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4110534 4110535

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92680804006	Result	Spike Conc.	Spike Conc.							Result
Antimony	mg/L	ND	0.1	0.1	0.1	0.11	0.11	109	111	75-125	2	20
Arsenic	mg/L	ND	0.1	0.1	0.1	0.10	0.10	101	102	75-125	1	20

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

Parameter	Units	4110534		4110535		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92680804006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.033	0.1	0.1	0.13	0.14	97	106	75-125	7	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20		
Boron	mg/L	0.018J	1	1	1.0	1.0	100	102	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	103	108	75-125	4	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	103	108	75-125	5	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20		
Lithium	mg/L	0.00083J	0.1	0.1	0.11	0.11	106	106	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	105	109	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.10	96	100	75-125	4	20		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 794177

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92682392001

METHOD BLANK: 4115107

Matrix: Water

Associated Lab Samples: 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	08/22/23 18:42	
Arsenic	mg/L	ND	0.010	0.0037	08/22/23 18:42	
Barium	mg/L	ND	0.0050	0.00067	08/22/23 18:42	
Beryllium	mg/L	ND	0.00050	0.000054	08/22/23 18:42	
Boron	mg/L	ND	0.040	0.0086	08/22/23 18:42	
Cadmium	mg/L	ND	0.00050	0.00011	08/22/23 18:42	
Chromium	mg/L	ND	0.0050	0.0011	08/23/23 16:28	
Cobalt	mg/L	ND	0.0050	0.00039	08/22/23 18:42	
Lead	mg/L	ND	0.0010	0.00012	08/22/23 18:42	
Lithium	mg/L	ND	0.030	0.00073	08/22/23 18:42	
Molybdenum	mg/L	ND	0.010	0.00074	08/22/23 18:42	
Selenium	mg/L	ND	0.0050	0.0014	08/22/23 18:42	
Thallium	mg/L	ND	0.0010	0.00018	08/22/23 18:42	

LABORATORY CONTROL SAMPLE: 4115108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.094	94	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	0.94	94	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.094	94	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115109 4115110

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92681886001	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	1	20		
Arsenic	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

Parameter	Units	4115109		4115110		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92681886001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.039	0.1	0.1	0.14	0.14	103	103	75-125	1	20		
Beryllium	mg/L	0.000067J	0.1	0.1	0.094	0.091	94	91	75-125	4	20		
Boron	mg/L	0.029J	1	1	0.97	0.94	94	91	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Cobalt	mg/L	0.00041J	0.1	0.1	0.092	0.091	91	91	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.093	0.092	93	92	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.095	0.094	95	93	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.096	0.096	96	95	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.092	0.092	92	92	75-125	0	20		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	794178	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011		

METHOD BLANK:	4115112	Matrix:	Water
Associated Lab Samples:	92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.0012	08/22/23 15:06	
Arsenic	mg/L	ND	0.010	0.0037	08/22/23 15:06	
Barium	mg/L	ND	0.0050	0.00067	08/22/23 15:06	
Beryllium	mg/L	ND	0.00050	0.000054	08/22/23 15:06	
Boron	mg/L	ND	0.040	0.0086	08/22/23 15:06	
Cadmium	mg/L	ND	0.00050	0.00011	08/22/23 15:06	
Chromium	mg/L	ND	0.0050	0.0011	08/22/23 15:06	
Cobalt	mg/L	ND	0.0050	0.00039	08/22/23 15:06	
Lead	mg/L	ND	0.0010	0.00012	08/22/23 15:06	
Lithium	mg/L	ND	0.030	0.00073	08/22/23 15:06	
Molybdenum	mg/L	ND	0.010	0.00074	08/22/23 15:06	
Selenium	mg/L	ND	0.0050	0.0014	08/22/23 15:06	
Thallium	mg/L	ND	0.0010	0.00018	08/22/23 15:06	

LABORATORY CONTROL SAMPLE: 4115113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115114 4115115

Parameter	Units	92682576001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	109	107	75-125	2	20	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115114												4115115	
Parameter	Units	92682576001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	99	75-125	3	20		
Barium	mg/L	0.036	0.1	0.1	0.14	0.14	105	104	75-125	1	20		
Beryllium	mg/L	0.000070J	0.1	0.1	0.10	0.098	100	98	75-125	1	20		
Boron	mg/L	0.16	1	1	1.2	1.2	104	102	75-125	2	20		
Cadmium	mg/L	0.00015J	0.1	0.1	0.10	0.099	103	99	75-125	4	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	104	98	75-125	6	20		
Cobalt	mg/L	0.0028J	0.1	0.1	0.11	0.10	103	98	75-125	5	20		
Lead	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	104	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	102	100	75-125	2	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	793573	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004, 92682392001

METHOD BLANK: 4112218 Matrix: Water
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004, 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	08/15/23 15:25	

LABORATORY CONTROL SAMPLE: 4112219

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4112220 4112221

Parameter	Units	4112220		4112221		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92681883001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0023	0.0021	88	81	75-125	8	20

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 794875 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Laboratory: Pace Analytical Services - Peachtree Corners, GA
 Associated Lab Samples: 92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011

METHOD BLANK: 4118595 Matrix: Water
 Associated Lab Samples: 92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	08/21/23 16:22	

LABORATORY CONTROL SAMPLE: 4118596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4118597 4118598

Parameter	Units	92682576002 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	0.0023	0.0021	92	84	75-125	9	20	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	793055	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

METHOD BLANK: 4109645 Matrix: Water
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	08/11/23 13:55	

LABORATORY CONTROL SAMPLE: 4109646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	430	108	80-120	

SAMPLE DUPLICATE: 4109647

Parameter	Units	92682122001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	184	194	5	10	

SAMPLE DUPLICATE: 4109648

Parameter	Units	92681884001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	214	264	21	10	D6

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	793918	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92682392001		

METHOD BLANK: 4113746 Matrix: Water
 Associated Lab Samples: 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	08/16/23 14:47	

LABORATORY CONTROL SAMPLE: 4113747

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	379	95	80-120	

SAMPLE DUPLICATE: 4113748

Parameter	Units	92682392001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	80.0	75.0	6	10	

SAMPLE DUPLICATE: 4113749

Parameter	Units	92682398005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	626	638	2	10	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 794085

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011

METHOD BLANK: 4114862

Matrix: Water

Associated Lab Samples: 92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	08/17/23 11:09	

LABORATORY CONTROL SAMPLE: 4114863

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	80-120	

SAMPLE DUPLICATE: 4114864

Parameter	Units	92682552001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	361	382	6	10	

SAMPLE DUPLICATE: 4114865

Parameter	Units	92682576008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	346	340	2	10	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793564 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

METHOD BLANK: 4112177 Matrix: Water
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/15/23 19:14	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/15/23 19:14	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/15/23 19:14	

LABORATORY CONTROL SAMPLE: 4112178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.7	105	80-120	

LABORATORY CONTROL SAMPLE: 4112179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.3	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4112180 4112181

Parameter	Units	92681885003		4112180		4112181		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Alkalinity, Total as CaCO3	mg/L	212	50	50	267	273	109	122	80-120	2	25 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4112182 4112183

Parameter	Units	92681885004		4112182		4112183		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Alkalinity, Total as CaCO3	mg/L	251	50	50	308	301	114	100	80-120	2	25

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793988

Analysis Method: SM 2320B-2011

QC Batch Method: SM 2320B-2011

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92682392001

METHOD BLANK: 4114120

Matrix: Water

Associated Lab Samples: 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/16/23 18:28	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/16/23 18:28	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/16/23 18:28	

LABORATORY CONTROL SAMPLE: 4114121

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.3	105	80-120	

LABORATORY CONTROL SAMPLE: 4114122

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.6	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4114123 4114124

Parameter	Units	92682398004		4114123		4114124		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result					
Alkalinity, Total as CaCO3	mg/L	179	179	50	50	238	240	116	121	80-120	1	25 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4114125 4114126

Parameter	Units	92682398005		4114125		4114126		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Result	MSD Result	MS Result	MSD Result					
Alkalinity, Total as CaCO3	mg/L	298	298	50	50	339	344	82	92	80-120	1	25

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 794234 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92682576001, 92682576002, 92682576003, 92682576004, 92682576005

METHOD BLANK: 4115455 Matrix: Water
 Associated Lab Samples: 92682576001, 92682576002, 92682576003, 92682576004, 92682576005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/17/23 15:14	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/17/23 15:14	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/17/23 15:14	

LABORATORY CONTROL SAMPLE: 4115456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.9	106	80-120	

LABORATORY CONTROL SAMPLE: 4115457

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115458 4115459

Parameter	Units	92682576004		4115458		4115459		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Alkalinity, Total as CaCO3	mg/L	162	162	50	50	221	225	117	125	80-120	2	25 M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115460 4115461

Parameter	Units	92682576005		4115460		4115461		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Alkalinity, Total as CaCO3	mg/L	79.7	79.7	50	50	135	134	110	108	80-120	1	25

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 794235 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92682576006, 92682576007, 92682576008, 92682576011

METHOD BLANK: 4115463 Matrix: Water
 Associated Lab Samples: 92682576006, 92682576007, 92682576008, 92682576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/17/23 20:06	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/17/23 20:06	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/17/23 20:06	

LABORATORY CONTROL SAMPLE: 4115464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	80-120	

LABORATORY CONTROL SAMPLE: 4115465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.4	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115466 4115467

Parameter	Units	4115466		4115467		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92681886006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	246	50	50	291	299	90	106	3	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4115468 4115469

Parameter	Units	4115468		4115469		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92681886007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	210	50	50	271	274	122	128	1	25 M1	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793499 Analysis Method: SM 4500-S2D-2011
 QC Batch Method: SM 4500-S2D-2011 Analysis Description: 4500S2D Sulfide Water
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

METHOD BLANK: 4111952 Matrix: Water
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	08/15/23 06:10	

LABORATORY CONTROL SAMPLE: 4111953

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4111954 4111955

Parameter	Units	92681883001		4111954		4111955		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Sulfide	mg/L	0.16	0.5	0.5	0.5	0.68	0.59	102	84	80-120	14	10	R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4111956 4111957

Parameter	Units	92681885005		4111956		4111957		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Sulfide	mg/L	0.14	0.5	0.5	0.5	0.53	0.60	79	93	80-120	12	10	M1,R1

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793500

Analysis Method: SM 4500-S2D-2011

QC Batch Method: SM 4500-S2D-2011

Analysis Description: 4500S2D Sulfide Water

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92682392001

METHOD BLANK: 4111958

Matrix: Water

Associated Lab Samples: 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	08/15/23 06:24	

LABORATORY CONTROL SAMPLE: 4111959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4111960 4111961

Parameter	Units	92682396005		4111961		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Sulfide	mg/L	ND	0.5	0.5	0.50	0.45	99	89	80-120	11	10	R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4111962 4111963

Parameter	Units	92682397007		4111963		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.							
Sulfide	mg/L	ND	0.5	0.5	0.53	0.55	104	108	80-120	4	10	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793501 Analysis Method: SM 4500-S2D-2011
 QC Batch Method: SM 4500-S2D-2011 Analysis Description: 4500S2D Sulfide Water
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92682576001, 92682576002, 92682576003

METHOD BLANK: 4111964 Matrix: Water
 Associated Lab Samples: 92682576001, 92682576002, 92682576003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	08/15/23 06:38	

LABORATORY CONTROL SAMPLE: 4111965

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4111966 4111967

Parameter	Units	92682393002		4111967		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Sulfide	mg/L	ND	0.5	0.5	0.39	0.42	77	83	80-120	7	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4111968 4111969

Parameter	Units	92682398007		4111969		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Sulfide	mg/L	ND	0.5	0.5	0.46	0.48	92	94	80-120	3	10	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 794102 Analysis Method: SM 4500-S2D-2011
 QC Batch Method: SM 4500-S2D-2011 Analysis Description: 4500S2D Sulfide Water
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576011

METHOD BLANK: 4114896 Matrix: Water
 Associated Lab Samples: 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	08/18/23 04:23	

LABORATORY CONTROL SAMPLE: 4114897

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4114898 4114899

Parameter	Units	92682834002		4114898		4114899		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Sulfide	mg/L	ND	0.5	0.5	0.47	0.44	93	87	80-120	6	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4114900 4114901

Parameter	Units	92682576011		4114900		4114901		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS % Rec	MSD % Rec				
Sulfide	mg/L	ND	0.5	0.5	0.50	0.50	98	98	80-120	1	10

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793207 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: 92681884001, 92681884002, 92681884003, 92681884004

METHOD BLANK: 4110503 Matrix: Water
 Associated Lab Samples: 92681884001, 92681884002, 92681884003, 92681884004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/12/23 16:56	
Fluoride	mg/L	ND	0.10	0.050	08/12/23 16:56	
Sulfate	mg/L	ND	1.0	0.50	08/12/23 16:56	

LABORATORY CONTROL SAMPLE: 4110504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	49.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4110505 4110506

Parameter	Units	92681883001		4110505		4110506		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	3.6	50	50	51.2	52.5	95	98	90-110	3	10		
Fluoride	mg/L	0.19	2.5	2.5	2.4	2.5	90	92	90-110	2	10		
Sulfate	mg/L	2.2	50	50	49.7	51.1	95	98	90-110	3	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4110507 4110508

Parameter	Units	92681885005		4110507		4110508		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	27.0	50	50	71.4	72.9	89	92	90-110	2	10	M1	
Fluoride	mg/L	1.3	2.5	2.5	3.3	3.4	83	86	90-110	2	10	M1	
Sulfate	mg/L	1.3	50	50	47.3	48.3	92	94	90-110	2	10		

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch: 793229	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: 92682392001

METHOD BLANK: 4110600 Matrix: Water

Associated Lab Samples: 92682392001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/12/23 14:53	
Fluoride	mg/L	ND	0.10	0.050	08/12/23 14:53	
Sulfate	mg/L	ND	1.0	0.50	08/12/23 14:53	

LABORATORY CONTROL SAMPLE: 4110601

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.8	98	90-110	
Fluoride	mg/L	2.5	2.5	98	90-110	
Sulfate	mg/L	50	48.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4110602 4110603

Parameter	Units	92682203010		4110603		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	2.7	50	49.7	50.7	94	96	90-110	2	10	
Fluoride	mg/L	0.12	2.5	2.3	2.4	88	90	90-110	2	10	M1
Sulfate	mg/L	3.6	50	50.8	51.9	94	97	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4110604 4110605

Parameter	Units	92682393005		4110605		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Chloride	mg/L	ND	50	47.9	48.1	96	96	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.4	2.3	95	93	90-110	1	10	
Sulfate	mg/L	ND	50	47.8	47.9	96	96	90-110	0	10	

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QUALITY CONTROL DATA

Project: Hammond AP-4

Pace Project No.: 92681884

QC Batch:	793554	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:	92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011		

METHOD BLANK:	4112141	Matrix:	Water
Associated Lab Samples:	92682576001, 92682576002, 92682576003, 92682576004, 92682576005, 92682576006, 92682576007, 92682576008, 92682576009, 92682576010, 92682576011		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/15/23 12:18	
Fluoride	mg/L	ND	0.10	0.050	08/15/23 12:18	
Sulfate	mg/L	ND	1.0	0.50	08/15/23 12:18	

LABORATORY CONTROL SAMPLE: 4112142						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.6	97	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	48.6	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4112143												4112144	
Parameter	Units	92682572002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	157	50	50	193	200	71	86	90-110	4	10	M1	
Fluoride	mg/L	0.062J	2.5	2.5	2.3	2.3	90	90	90-110	0	10		
Sulfate	mg/L	948	50	50	947	983	-1	70	90-110	4	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4112145												4112146	
Parameter	Units	92682576008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	3.8	50	50	53.6	51.7	100	96	90-110	4	10		
Fluoride	mg/L	0.070J	2.5	2.5	2.4	2.3	94	90	90-110	4	10		
Sulfate	mg/L	64.9	50	50	104	106	78	82	90-110	2	10	M1	

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: Hammond AP-4

Pace Project No.: 92681884

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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: Hammond AP-4

Pace Project No.: 92681884

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92681884001	HAM-HGWA-47	EPA 3010A	792418	EPA 6010D	793158
92681884002	HAM-HGWA-48D	EPA 3010A	792418	EPA 6010D	793158
92681884003	HAM-HGWA-111	EPA 3010A	792418	EPA 6010D	793158
92681884004	HAM-HGWA-112	EPA 3010A	792418	EPA 6010D	793158
92682392001	HAM-HGWA-113	EPA 3010A	793618	EPA 6010D	794582
92682576001	HAM-HGWC-101	EPA 3010A	793869	EPA 6010D	793991
92682576002	HAM-HGWC-102	EPA 3010A	793869	EPA 6010D	793991
92682576003	HAM-HGWC-103	EPA 3010A	793869	EPA 6010D	793991
92682576004	HAM-HGWC-105	EPA 3010A	793869	EPA 6010D	793991
92682576005	HAM-HGWC-107	EPA 3010A	793869	EPA 6010D	793991
92682576006	HAM-HGWC-109	EPA 3010A	793869	EPA 6010D	793991
92682576007	HAM-HGWC-117A	EPA 3010A	793869	EPA 6010D	793991
92682576008	HAM-HGWC-118	EPA 3010A	793869	EPA 6010D	793991
92682576009	HAM-AP4-EB-04	EPA 3010A	793869	EPA 6010D	793991
92682576010	HAM-AP4-FB-04	EPA 3010A	793869	EPA 6010D	793991
92682576011	HAM-AP4-FD-04	EPA 3010A	793869	EPA 6010D	793991
92681884001	HAM-HGWA-47	EPA 3005A	793217	EPA 6020B	793278
92681884002	HAM-HGWA-48D	EPA 3005A	793217	EPA 6020B	793278
92681884003	HAM-HGWA-111	EPA 3005A	793217	EPA 6020B	793278
92681884004	HAM-HGWA-112	EPA 3005A	793217	EPA 6020B	793278
92682392001	HAM-HGWA-113	EPA 3005A	794177	EPA 6020B	794304
92682576001	HAM-HGWC-101	EPA 3005A	794178	EPA 6020B	794303
92682576002	HAM-HGWC-102	EPA 3005A	794178	EPA 6020B	794303
92682576003	HAM-HGWC-103	EPA 3005A	794178	EPA 6020B	794303
92682576004	HAM-HGWC-105	EPA 3005A	794178	EPA 6020B	794303
92682576005	HAM-HGWC-107	EPA 3005A	794178	EPA 6020B	794303
92682576006	HAM-HGWC-109	EPA 3005A	794178	EPA 6020B	794303
92682576007	HAM-HGWC-117A	EPA 3005A	794178	EPA 6020B	794303
92682576008	HAM-HGWC-118	EPA 3005A	794178	EPA 6020B	794303
92682576009	HAM-AP4-EB-04	EPA 3005A	794178	EPA 6020B	794303
92682576010	HAM-AP4-FB-04	EPA 3005A	794178	EPA 6020B	794303
92682576011	HAM-AP4-FD-04	EPA 3005A	794178	EPA 6020B	794303
92681884001	HAM-HGWA-47	EPA 7470A	793573	EPA 7470A	793628
92681884002	HAM-HGWA-48D	EPA 7470A	793573	EPA 7470A	793628
92681884003	HAM-HGWA-111	EPA 7470A	793573	EPA 7470A	793628
92681884004	HAM-HGWA-112	EPA 7470A	793573	EPA 7470A	793628
92682392001	HAM-HGWA-113	EPA 7470A	793573	EPA 7470A	793628
92682576001	HAM-HGWC-101	EPA 7470A	794875	EPA 7470A	794979
92682576002	HAM-HGWC-102	EPA 7470A	794875	EPA 7470A	794979
92682576003	HAM-HGWC-103	EPA 7470A	794875	EPA 7470A	794979
92682576004	HAM-HGWC-105	EPA 7470A	794875	EPA 7470A	794979
92682576005	HAM-HGWC-107	EPA 7470A	794875	EPA 7470A	794979
92682576006	HAM-HGWC-109	EPA 7470A	794875	EPA 7470A	794979
92682576007	HAM-HGWC-117A	EPA 7470A	794875	EPA 7470A	794979
92682576008	HAM-HGWC-118	EPA 7470A	794875	EPA 7470A	794979

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hammond AP-4

Pace Project No.: 92681884

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92682576009	HAM-AP4-EB-04	EPA 7470A	794875	EPA 7470A	794979
92682576010	HAM-AP4-FB-04	EPA 7470A	794875	EPA 7470A	794979
92682576011	HAM-AP4-FD-04	EPA 7470A	794875	EPA 7470A	794979
92681884001	HAM-HGWA-47	SM 2540C-2015	793055		
92681884002	HAM-HGWA-48D	SM 2540C-2015	793055		
92681884003	HAM-HGWA-111	SM 2540C-2015	793055		
92681884004	HAM-HGWA-112	SM 2540C-2015	793055		
92682392001	HAM-HGWA-113	SM 2540C-2015	793918		
92682576001	HAM-HGWC-101	SM 2540C-2015	794085		
92682576002	HAM-HGWC-102	SM 2540C-2015	794085		
92682576003	HAM-HGWC-103	SM 2540C-2015	794085		
92682576004	HAM-HGWC-105	SM 2540C-2015	794085		
92682576005	HAM-HGWC-107	SM 2540C-2015	794085		
92682576006	HAM-HGWC-109	SM 2540C-2015	794085		
92682576007	HAM-HGWC-117A	SM 2540C-2015	794085		
92682576008	HAM-HGWC-118	SM 2540C-2015	794085		
92682576009	HAM-AP4-EB-04	SM 2540C-2015	794085		
92682576010	HAM-AP4-FB-04	SM 2540C-2015	794085		
92682576011	HAM-AP4-FD-04	SM 2540C-2015	794085		
92681884001	HAM-HGWA-47	SM 2320B-2011	793564		
92681884002	HAM-HGWA-48D	SM 2320B-2011	793564		
92681884003	HAM-HGWA-111	SM 2320B-2011	793564		
92681884004	HAM-HGWA-112	SM 2320B-2011	793564		
92682392001	HAM-HGWA-113	SM 2320B-2011	793988		
92682576001	HAM-HGWC-101	SM 2320B-2011	794234		
92682576002	HAM-HGWC-102	SM 2320B-2011	794234		
92682576003	HAM-HGWC-103	SM 2320B-2011	794234		
92682576004	HAM-HGWC-105	SM 2320B-2011	794234		
92682576005	HAM-HGWC-107	SM 2320B-2011	794234		
92682576006	HAM-HGWC-109	SM 2320B-2011	794235		
92682576007	HAM-HGWC-117A	SM 2320B-2011	794235		
92682576008	HAM-HGWC-118	SM 2320B-2011	794235		
92682576011	HAM-AP4-FD-04	SM 2320B-2011	794235		
92681884001	HAM-HGWA-47	SM 4500-S2D-2011	793499		
92681884002	HAM-HGWA-48D	SM 4500-S2D-2011	793499		
92681884003	HAM-HGWA-111	SM 4500-S2D-2011	793499		
92681884004	HAM-HGWA-112	SM 4500-S2D-2011	793499		
92682392001	HAM-HGWA-113	SM 4500-S2D-2011	793500		
92682576001	HAM-HGWC-101	SM 4500-S2D-2011	793501		
92682576002	HAM-HGWC-102	SM 4500-S2D-2011	793501		
92682576003	HAM-HGWC-103	SM 4500-S2D-2011	793501		
92682576004	HAM-HGWC-105	SM 4500-S2D-2011	794102		
92682576005	HAM-HGWC-107	SM 4500-S2D-2011	794102		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hammond AP-4
 Pace Project No.: 92681884

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92682576006	HAM-HGWC-109	SM 4500-S2D-2011	794102		
92682576007	HAM-HGWC-117A	SM 4500-S2D-2011	794102		
92682576008	HAM-HGWC-118	SM 4500-S2D-2011	794102		
92682576011	HAM-AP4-FD-04	SM 4500-S2D-2011	794102		
92681884001	HAM-HGWA-47	EPA 300.0 Rev 2.1 1993	793207		
92681884002	HAM-HGWA-48D	EPA 300.0 Rev 2.1 1993	793207		
92681884003	HAM-HGWA-111	EPA 300.0 Rev 2.1 1993	793207		
92681884004	HAM-HGWA-112	EPA 300.0 Rev 2.1 1993	793207		
92682392001	HAM-HGWA-113	EPA 300.0 Rev 2.1 1993	793229		
92682576001	HAM-HGWC-101	EPA 300.0 Rev 2.1 1993	793554		
92682576002	HAM-HGWC-102	EPA 300.0 Rev 2.1 1993	793554		
92682576003	HAM-HGWC-103	EPA 300.0 Rev 2.1 1993	793554		
92682576004	HAM-HGWC-105	EPA 300.0 Rev 2.1 1993	793554		
92682576005	HAM-HGWC-107	EPA 300.0 Rev 2.1 1993	793554		
92682576006	HAM-HGWC-109	EPA 300.0 Rev 2.1 1993	793554		
92682576007	HAM-HGWC-117A	EPA 300.0 Rev 2.1 1993	793554		
92682576008	HAM-HGWC-118	EPA 300.0 Rev 2.1 1993	793554		
92682576009	HAM-AP4-EB-04	EPA 300.0 Rev 2.1 1993	793554		
92682576010	HAM-AP4-FB-04	EPA 300.0 Rev 2.1 1993	793554		
92682576011	HAM-AP4-FD-04	EPA 300.0 Rev 2.1 1993	793554		

REPORT OF LABORATORY ANALYSIS

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DC#_ Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

G A Power

Project #:

WO#: 92681884



Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *8/9/23*
COE

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID:

2/4

Type of Ice:

Wet

Blue

None

Cooler Temp:

2.1

Correction Factor: Add/Subtract (°C)

0.0

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

2.1

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>W</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____

Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

*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, DRD/8015 (water) DOC, LLHG

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO# 92681884

PH BV Due Date: 08/23/23
GL TENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		2	1																										
2		2	1																										
3		2	1																										
4		2	1																										
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	Lot #

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

Section A
Required Client Information:

Company: **GA Power**
Address: **Atlanta, GA**
Email To: **SCS Contacts**
Phone: _____ Fax: _____
Requested Due Date (FAT): **18 Day**

Section B
Required Project Information:

Report To: **SCS Contacts**
Copy To: **Geosyntec Contacts**
Purchase Order No.: _____
Project Name: **Hammond AP-4**
Project Number: _____

Section C
Invoice Information:

Attention: **Southern Co.**
Company Name: _____
Address: _____
Phone: _____
Reference: **Bonnie Vang**
Project: _____
Manager: _____
Face Profile #: **48839-16465-9, 20**

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER CCR
Site Location: **GA**
STATE: _____

Page: _____ of _____

ITEM #	Section ID Required Client Information	Valid Matrix Codes MATRIX CODE SEE VALID CODES TO LEFT	MATRIX CODE	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives		Analysis Test				Residual Chlorine (Y/N)	Face Project No./ Lab I.D.					
					DATE	TIME			DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl			NaOH	Na ₂ S ₂ O ₃	Methanol	Other	Chloride, Fluoride, Sulfate
1	HAM-HGWA-47	WT G	8/8/23	1626	19	7	3	3	3	1	X	X	X	X	X	N	N	N	N	N	U1
2	HAM-HGWA-48D	WT G	8/8/23	1737	20	7	3	3	1	X	X	X	X	X	X	N	N	N	N	N	U2
3	HAM-HGWA-111	WT G	8/8/23	1853	20	7	3	3	1	X	X	X	X	X	X	N	N	N	N	N	U3
4	HAM-HGWA-112	WT G	8/8/23	1736	20	7	3	3	1	X	X	X	X	X	X	N	N	N	N	N	U4

REQUISITIONED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<i>Thomas Foster / Geosyntec</i>	8/9/23	0900	<i>Elizabeth McQuinn / GA Power</i>	8/9/23	800	Temp in °C
<i>Susan Owen / Hammond (Gen)</i>	8/9/23	1190	<i>Ryan William / Pave</i>	8/9/23	8140	Received on Ice (Y/N)
<i>Ryan William / Pave</i>	8/9/23	1415	<i>Charles Parks / GA Power</i>	8/9/23	1415	Custody Sealed Cooler (Y/N)
						Samples Intact (Y/N)

Mark Code: HAM-COR-ASSMRT-2023ST

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: _____
SIGNATURE of SAMPLER: _____
DATE Signed (MM/DD/YY): _____
/ Geosyntec Consultants, Inc.

*Important Note: By signing this form you are accepting Face's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.
F-ALL-Q-020(rev. 07.15) Feb-2007



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO#: 92681884

Courier: Commercial Fed Ex Pace UPS USPS Other: Client

PM: BV Due Date: 08/23/23
CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 8/14/23 [initials]

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer:

IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp:

Correction Factor: Add/Subtract (°C) 0.0
Cooler Temp: 4.5

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	W	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



DC#_ Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

*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, LHg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92681884

PM: BV

Due Date: 08/23/23

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1M-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1		2	1																									
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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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).



DC#_ Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

B.A. Power

Project #:

WO#: 92681884

Courier: Commercial Fed Ex UPS USPS Other: Client

PM: BV Due Date: 08/23/23
CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *8/11/23*
TPH

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: *230*

Type of Ice: Wet Blue None

Cooler Temp: *3.1* Correction Factor: Add/Subtract (°C) *0.0*

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *3.1*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Chain of Custody Present?	Samples Arrived within Hold Time?	Short Hold Time Analysis (<72 hr.)?	Rush Turn Around Time Requested?	Sufficient Volume?	Correct Containers Used? -Pace Containers Used?	Containers Intact?	Dissolved analysis: Samples Field Filtered?	Sample Labels Match COC?	-Includes Date/Time/ID/Analysis Matrix:	Headspace in VOA Vials (>5-6mm)?	Trip Blank Present?	Trip Blank Custody Seals Present?	Comments/Discrepancy:
1.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<i>W</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
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6.														
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8.														
9.														
10.														
11.														

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: *[Signature]* Date: *8/14/23*

Project Manager SRF Review: *[Signature]* Date: *8/14/23*



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

*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 bottles

***Check all unpreserved Nitrates for chlorine

Project :

WO#: 92681884

PM: BV

Due Date: 08/23/23

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WG7U-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1M-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGDU-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1		21																										
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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 DENR Certification Office (i.e. 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 Required Client Information:
 Company: **GA Power** Address: **Atlanta, GA**
 Email To: **SCS Contacts** Project Name: **Hammond AP-4**
 Phone: _____ Project Number: _____
 Requested Date/Deliverable: **10 Day**

Section B Required Project Information:
 Report To: **SCS Contacts** Copy To: **Geosynthetic Contacts**
 Purchase Order No.: _____
 Reference: _____
 Price Project Manager: **Bonnie Yang**
 Pace Profile #: **10839**

Section C Invoice Information:
 Attention: **Southern Co.** Company Name: _____
 Address: _____
 Regulatory Agency: _____
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER
 Site Location: _____ STATE: **GA**

Page: **1** of **1**

ITEM #	Valid Matrix Codes MATERIAL CODE DRINKING WATER DW WATER WW WASTE WATER WWT PRODUCT P SOIL/SOLID S DIE DC WIPE WIP AIR AG OTHER OT TSSIE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analyte Filtered (Y/N)	Residual Chlorine (Y/N)									
				COMPOSITE	COMPOSITE															
				DATE	TIME	DATE	TIME													
1		HAM-HGWA-113	WG G	8/10/2023	1822		25	7	3	3	1									
2	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE																			
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

92682392
Pace Project No./ Lab I.D.

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION: *Ally Swant / Geosynthetic* DATE: *8/11/2023* TIME: *1312*

ACCEPTED BY / AFFILIATION: *Ryan William Pace* DATE: *8/11/2023* TIME: *1539*

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: *Ally Swant* DATE Signed: *8/10/2023*

SIGNATURE of SAMPLER: *Ally Swant* (HANDWRITTEN): *08/10/2023*

PRINT Name of SAMPLER: *Ryan William Pace* DATE Signed: *8/11/2023*

SIGNATURE of SAMPLER: *Ryan William Pace* (HANDWRITTEN): *08/11/2023*

Temp in °C: _____ Received on ice (Y/N): _____ Custody Sealed Cooler (Y/N): _____ Samples Intact (Y/N): _____

Important Note: By returning this form you are accepting Pace's NET 30 day payment terms and agreeing to the charges of 1.5% per month for any invoices not paid within 30 days.



September 15, 2023

Kristen Jurinko
Southern Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, GA 30308

RE: Project: Hammond AP-4- RADs
Pace Project No.: 92681880

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory between August 09, 2023 and August 14, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Kip Gray, Geosyntec
Christine Hug, Geosyntec Consultants, Inc.
Thomas Kessler, Geosyntec Consultants
Whitney Law, Geosyntec Consultants
Laura Midkiff, Southern Company
Caroline Nelson, Geosyntec



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

ANABISO/IEC 17025:2017 Rad Cert#: L24170

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 2950

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA010

Louisiana DEQ/TNI Certification #: 04086

Maine Certification #: 2023021

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 #: PA014572023-03

New Hampshire/TNI Certification #: 297622

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 #: PA200002-015

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN02867

Texas/TNI Certification #: T104704188-22-18

Utah/TNI Certification #: PA014572223-14

USDA Soil Permit #: 525-23-67-77263

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92681880001	HAM-HGWA-47	Water	08/08/23 16:25	08/09/23 11:40
92681880002	HAM-HGWA-48D	Water	08/08/23 17:37	08/09/23 11:40
92681880003	HAM-HGWA-111	Water	08/08/23 18:53	08/09/23 11:40
92681880004	HAM-HGWA-112	Water	08/08/23 17:35	08/09/23 11:40
92681880005	HAM-HGWC-101	Water	08/11/23 11:55	08/14/23 11:15
92681880006	HAM-HGWC-102	Water	08/11/23 16:25	08/14/23 11:15
92681880007	HAM-HGWC-103	Water	08/11/23 14:25	08/14/23 11:15
92681880008	HAM-HGWC-105	Water	08/11/23 11:02	08/14/23 11:15
92681880009	HAM-HGWC-107	Water	08/11/23 14:40	08/14/23 11:15
92681880010	HAM-HGWC-109	Water	08/11/23 11:32	08/14/23 11:15
92681880011	HAM-HGWC-117A	Water	08/11/23 16:50	08/14/23 11:15
92681880012	HAM-HGWC-118	Water	08/11/23 15:09	08/14/23 11:15
92681880013	HAM-AP4-EB-04	Water	08/11/23 16:45	08/14/23 11:15
92681880014	HAM-AP4-FB-04	Water	08/11/23 16:40	08/14/23 11:15
92681880015	HAM-AP4-FD-04	Water	08/11/23 00:00	08/14/23 11:15
92682400001	HAM-HGWA-113	Water	08/10/23 16:22	08/11/23 13:12

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92681880001	HAM-HGWA-47	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92681880002	HAM-HGWA-48D	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880003	HAM-HGWA-111	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880004	HAM-HGWA-112	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880005	HAM-HGWC-101	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880006	HAM-HGWC-102	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880007	HAM-HGWC-103	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880008	HAM-HGWC-105	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880009	HAM-HGWC-107	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880010	HAM-HGWC-109	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880011	HAM-HGWC-117A	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880012	HAM-HGWC-118	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92681880013	HAM-AP4-EB-04	EPA 9315	SLC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92681880014	HAM-AP4-FB-04	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92681880015	HAM-AP4-FD-04	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92682400001	HAM-HGWA-113	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	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: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92681880001	HAM-HGWA-47					
EPA 9315	Radium-226	0.352U ± 0.302 (0.570) C:81% T:NA	pCi/L		09/13/23 10:05	
EPA 9320	Radium-228	0.150U ± 0.291 (0.642) C:82% T:88%	pCi/L		09/05/23 12:31	
Total Radium Calculation	Total Radium	0.502U ± 0.593 (1.21)	pCi/L		09/13/23 14:31	
92681880002	HAM-HGWA-48D					
EPA 9315	Radium-226	0.0755U ± 0.130 (0.295) C:88% T:NA	pCi/L		09/08/23 08:27	
EPA 9320	Radium-228	0.473U ± 0.389 (0.784) C:84% T:91%	pCi/L		09/05/23 12:32	
Total Radium Calculation	Total Radium	0.549U ± 0.519 (1.08)	pCi/L		09/08/23 17:15	
92681880003	HAM-HGWA-111					
EPA 9315	Radium-226	0.0915U ± 0.129 (0.280) C:86% T:NA	pCi/L		09/08/23 08:27	
EPA 9320	Radium-228	0.636U ± 0.386 (0.721) C:82% T:88%	pCi/L		09/05/23 12:32	
Total Radium Calculation	Total Radium	0.728U ± 0.515 (1.00)	pCi/L		09/08/23 17:15	
92681880004	HAM-HGWA-112					
EPA 9315	Radium-226	0.169U ± 0.143 (0.259) C:87% T:NA	pCi/L		09/08/23 08:26	
EPA 9320	Radium-228	0.554U ± 0.363 (0.697) C:84% T:93%	pCi/L		09/05/23 12:32	
Total Radium Calculation	Total Radium	0.723U ± 0.506 (0.956)	pCi/L		09/08/23 17:15	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92681880005	HAM-HGWC-101					
EPA 9315	Radium-226	0.118U ± 0.124 (0.246) C:94% T:NA	pCi/L		09/08/23 08:28	
EPA 9320	Radium-228	0.812U ± 0.473 (0.886) C:82% T:81%	pCi/L		09/05/23 12:32	
Total Radium Calculation	Total Radium	0.930U ± 0.597 (1.13)	pCi/L		09/08/23 17:15	
92681880006	HAM-HGWC-102					
EPA 9315	Radium-226	0.119U ± 0.130 (0.263) C:91% T:NA	pCi/L		09/08/23 10:05	
EPA 9320	Radium-228	0.959 ± 0.464 (0.818) C:87% T:86%	pCi/L		09/05/23 15:35	
Total Radium Calculation	Total Radium	1.08U ± 0.594 (1.08)	pCi/L		09/08/23 17:15	
92681880007	HAM-HGWC-103					
EPA 9315	Radium-226	0.191U ± 0.138 (0.232) C:97% T:NA	pCi/L		09/08/23 10:06	
EPA 9320	Radium-228	0.658U ± 0.417 (0.787) C:82% T:83%	pCi/L		09/05/23 15:35	
Total Radium Calculation	Total Radium	0.849U ± 0.555 (1.02)	pCi/L		09/08/23 17:15	
92681880008	HAM-HGWC-105					
EPA 9315	Radium-226	0.292U ± 0.182 (0.297) C:87% T:NA	pCi/L		09/08/23 10:06	
EPA 9320	Radium-228	-0.0225U ± 0.343 (0.800) C:86% T:80%	pCi/L		09/05/23 15:36	
Total Radium Calculation	Total Radium	0.292U ± 0.525 (1.10)	pCi/L		09/08/23 17:15	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92681880009	HAM-HGWC-107					
EPA 9315	Radium-226	0.166U ± 0.159 (0.312) C:84% T:NA	pCi/L		09/08/23 10:06	
EPA 9320	Radium-228	0.148U ± 0.418 (0.932) C:80% T:80%	pCi/L		09/05/23 15:36	
Total Radium Calculation	Total Radium	0.314U ± 0.577 (1.24)	pCi/L		09/08/23 17:15	
92681880010	HAM-HGWC-109					
EPA 9315	Radium-226	0.105U ± 0.127 (0.262) C:79% T:NA	pCi/L		09/08/23 10:07	
EPA 9320	Radium-228	-0.00707U ± 0.579 (1.34) C:81% T:83%	pCi/L		09/05/23 19:04	
Total Radium Calculation	Total Radium	0.105U ± 0.706 (1.60)	pCi/L		09/08/23 17:15	
92681880011	HAM-HGWC-117A					
EPA 9315	Radium-226	0.0573U ± 0.101 (0.229) C:93% T:NA	pCi/L		09/08/23 10:07	
EPA 9320	Radium-228	0.765 ± 0.395 (0.677) C:81% T:83%	pCi/L		09/05/23 15:34	
Total Radium Calculation	Total Radium	0.822U ± 0.496 (0.906)	pCi/L		09/08/23 17:15	
92681880012	HAM-HGWC-118					
EPA 9315	Radium-226	0.0521U ± 0.118 (0.280) C:82% T:NA	pCi/L		09/08/23 10:07	
EPA 9320	Radium-228	0.754 ± 0.404 (0.715) C:84% T:82%	pCi/L		09/05/23 15:34	
Total Radium Calculation	Total Radium	0.806U ± 0.522 (0.995)	pCi/L		09/08/23 17:15	

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SUMMARY OF DETECTION

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92681880013	HAM-AP4-EB-04					
EPA 9315	Radium-226	0.137U ± 0.135 (0.268) C:87% T:NA	pCi/L		09/08/23 10:07	
EPA 9320	Radium-228	0.582U ± 0.354 (0.654) C:85% T:88%	pCi/L		09/05/23 15:34	
Total Radium Calculation	Total Radium	0.719U ± 0.489 (0.922)	pCi/L		09/08/23 17:15	
92681880014	HAM-AP4-FB-04					
EPA 9315	Radium-226	0.0807U ± 0.132 (0.296) C:94% T:NA	pCi/L		09/08/23 10:07	
EPA 9320	Radium-228	-0.0242U ± 0.290 (0.686) C:82% T:89%	pCi/L		09/05/23 15:34	
Total Radium Calculation	Total Radium	0.0807U ± 0.422 (0.982)	pCi/L		09/08/23 17:15	
92681880015	HAM-AP4-FD-04					
EPA 9315	Radium-226	0.0952U ± 0.122 (0.257) C:90% T:NA	pCi/L		09/08/23 10:01	
EPA 9320	Radium-228	1.31 ± 0.436 (0.572) C:90% T:88%	pCi/L		09/05/23 15:34	
Total Radium Calculation	Total Radium	1.41 ± 0.558 (0.829)	pCi/L		09/08/23 17:23	
92682400001	HAM-HGWA-113					
EPA 9315	Radium-226	0.244 ± 0.154 (0.214) C:92% T:NA	pCi/L		09/06/23 10:19	
EPA 9320	Radium-228	0.597U ± 0.374 (0.705) C:85% T:89%	pCi/L		08/31/23 12:14	
Total Radium Calculation	Total Radium	0.841U ± 0.528 (0.919)	pCi/L		09/06/23 15:35	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWA-47 **Lab ID: 92681880001** Collected: 08/08/23 16:25 Received: 08/09/23 11:40 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	0.352U ± 0.302 (0.570) C:81% T:NA	pCi/L	09/13/23 10:05	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.150U ± 0.291 (0.642) C:82% T:88%	pCi/L	09/05/23 12:31	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.502U ± 0.593 (1.21)	pCi/L	09/13/23 14:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWA-48D Lab ID: 92681880002 Collected: 08/08/23 17:37 Received: 08/09/23 11:40 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0755U ± 0.130 (0.295) C:88% T:NA	pCi/L	09/08/23 08:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.473U ± 0.389 (0.784) C:84% T:91%	pCi/L	09/05/23 12:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.549U ± 0.519 (1.08)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWA-111 **Lab ID: 92681880003** Collected: 08/08/23 18:53 Received: 08/09/23 11:40 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	0.0915U ± 0.129 (0.280) C:86% T:NA	pCi/L	09/08/23 08:27	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.636U ± 0.386 (0.721) C:82% T:88%	pCi/L	09/05/23 12:32	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.728U ± 0.515 (1.00)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWA-112 **Lab ID: 92681880004** Collected: 08/08/23 17:35 Received: 08/09/23 11:40 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	0.169U ± 0.143 (0.259) C:87% T:NA	pCi/L	09/08/23 08:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.554U ± 0.363 (0.697) C:84% T:93%	pCi/L	09/05/23 12:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.723U ± 0.506 (0.956)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWC-101 Lab ID: 92681880005 Collected: 08/11/23 11:55 Received: 08/14/23 11:15 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.118U ± 0.124 (0.246) C:94% T:NA	pCi/L	09/08/23 08:28	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.812U ± 0.473 (0.886) C:82% T:81%	pCi/L	09/05/23 12:32	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.930U ± 0.597 (1.13)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWC-102 **Lab ID: 92681880006** Collected: 08/11/23 16:25 Received: 08/14/23 11:15 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	0.119U ± 0.130 (0.263) C:91% T:NA	pCi/L	09/08/23 10:05	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.959 ± 0.464 (0.818) C:87% T:86%	pCi/L	09/05/23 15:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.08U ± 0.594 (1.08)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWC-103 **Lab ID: 92681880007** Collected: 08/11/23 14:25 Received: 08/14/23 11:15 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	0.191U ± 0.138 (0.232) C:97% T:NA	pCi/L	09/08/23 10:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.658U ± 0.417 (0.787) C:82% T:83%	pCi/L	09/05/23 15:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.849U ± 0.555 (1.02)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWC-105 Lab ID: 92681880008 Collected: 08/11/23 11:02 Received: 08/14/23 11:15 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.292U ± 0.182 (0.297) C:87% T:NA	pCi/L	09/08/23 10:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.0225U ± 0.343 (0.800) C:86% T:80%	pCi/L	09/05/23 15:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.292U ± 0.525 (1.10)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWC-107 Lab ID: 92681880009 Collected: 08/11/23 14:40 Received: 08/14/23 11:15 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.166U ± 0.159 (0.312) C:84% T:NA	pCi/L	09/08/23 10:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.148U ± 0.418 (0.932) C:80% T:80%	pCi/L	09/05/23 15:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.314U ± 0.577 (1.24)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWC-109 Lab ID: 92681880010 Collected: 08/11/23 11:32 Received: 08/14/23 11:15 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.105U ± 0.127 (0.262) C:79% T:NA	pCi/L	09/08/23 10:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.00707U ± 0.579 (1.34) C:81% T:83%	pCi/L	09/05/23 19:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.105U ± 0.706 (1.60)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWC-117A **Lab ID: 92681880011** Collected: 08/11/23 16:50 Received: 08/14/23 11:15 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	0.0573U ± 0.101 (0.229) C:93% T:NA	pCi/L	09/08/23 10:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.765 ± 0.395 (0.677) C:81% T:83%	pCi/L	09/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.822U ± 0.496 (0.906)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-HGWC-118 **Lab ID: 92681880012** Collected: 08/11/23 15:09 Received: 08/14/23 11:15 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	0.0521U ± 0.118 (0.280) C:82% T:NA	pCi/L	09/08/23 10:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.754 ± 0.404 (0.715) C:84% T:82%	pCi/L	09/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.806U ± 0.522 (0.995)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Sample: HAM-AP4-EB-04 **Lab ID: 92681880013** Collected: 08/11/23 16:45 Received: 08/14/23 11:15 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	0.137U ± 0.135 (0.268) C:87% T:NA	pCi/L	09/08/23 10:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.582U ± 0.354 (0.654) C:85% T:88%	pCi/L	09/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.719U ± 0.489 (0.922)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-AP4-FB-04 Lab ID: 92681880014 Collected: 08/11/23 16:40 Received: 08/14/23 11:15 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0807U ± 0.132 (0.296) C:94% T:NA	pCi/L	09/08/23 10:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.0242U ± 0.290 (0.686) C:82% T:89%	pCi/L	09/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.0807U ± 0.422 (0.982)	pCi/L	09/08/23 17:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-AP4-FD-04 Lab ID: 92681880015 Collected: 08/11/23 00:00 Received: 08/14/23 11:15 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0952U ± 0.122 (0.257) C:90% T:NA	pCi/L	09/08/23 10:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.31 ± 0.436 (0.572) C:90% T:88%	pCi/L	09/05/23 15:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.41 ± 0.558 (0.829)	pCi/L	09/08/23 17:23	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWA-113 Lab ID: 92682400001 Collected: 08/10/23 16:22 Received: 08/11/23 13:12 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.244 ± 0.154 (0.214) C:92% T:NA	pCi/L	09/06/23 10:19	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.597U ± 0.374 (0.705) C:85% T:89%	pCi/L	08/31/23 12:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.841U ± 0.528 (0.919)	pCi/L	09/06/23 15:35	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

QC Batch: 612653

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92681880001

METHOD BLANK: 2982188

Matrix: Water

Associated Lab Samples: 92681880001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.265 ± 0.268 (0.528) C:84% T:NA	pCi/L	09/13/23 10:05	

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 - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

QC Batch: 610549

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92682400001

METHOD BLANK: 2971498

Matrix: Water

Associated Lab Samples: 92682400001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.453 ± 0.248 (0.409) C:88% T:87%	pCi/L	08/31/23 12:16	

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 - RADIOCHEMISTRY

Project: Hammond AP-4- RADs

Pace Project No.: 92681880

QC Batch:	611582	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92681880001, 92681880002, 92681880003, 92681880004, 92681880005, 92681880006, 92681880007, 92681880008, 92681880009, 92681880010, 92681880011, 92681880012, 92681880013, 92681880014, 92681880015

METHOD BLANK:	2976831	Matrix:	Water
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Associated Lab Samples: 92681880001, 92681880002, 92681880003, 92681880004, 92681880005, 92681880006, 92681880007, 92681880008, 92681880009, 92681880010, 92681880011, 92681880012, 92681880013, 92681880014, 92681880015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.560 ± 0.317 (0.565) C:85% T:93%	pCi/L	09/05/23 12:32	

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: Hammond AP-4- RADs

Pace Project No.: 92681880

QC Batch:	611645	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92681880002, 92681880003, 92681880004, 92681880005, 92681880006, 92681880007, 92681880008, 92681880009, 92681880010, 92681880011, 92681880012, 92681880013, 92681880014

METHOD BLANK:	2977130	Matrix:	Water
---------------	---------	---------	-------

Associated Lab Samples: 92681880002, 92681880003, 92681880004, 92681880005, 92681880006, 92681880007, 92681880008, 92681880009, 92681880010, 92681880011, 92681880012, 92681880013, 92681880014

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0856 ± 0.0973 (0.188) C:95% T:NA	pCi/L	09/07/23 15:00	

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: Hammond AP-4- RADs

Pace Project No.: 92681880

QC Batch: 611647

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92681880015

METHOD BLANK: 2977138

Matrix: Water

Associated Lab Samples: 92681880015

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0931 ± 0.137 (0.301) C:88% T:NA	pCi/L	09/08/23 10:01	

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: Hammond AP-4- RADs
 Pace Project No.: 92681880

QC Batch: 610646	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92682400001

METHOD BLANK: 2971911 Matrix: Water

Associated Lab Samples: 92682400001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0783 ± 0.129 (0.288) C:89% T:NA	pCi/L	09/06/23 10:17	

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: Hammond AP-4- RADs

Pace Project No.: 92681880

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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: Hammond AP-4- RADs

Pace Project No.: 92681880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92681880001	HAM-HGWA-47	EPA 9315	612653		
92681880002	HAM-HGWA-48D	EPA 9315	611645		
92681880003	HAM-HGWA-111	EPA 9315	611645		
92681880004	HAM-HGWA-112	EPA 9315	611645		
92682400001	HAM-HGWA-113	EPA 9315	610646		
92681880005	HAM-HGWC-101	EPA 9315	611645		
92681880006	HAM-HGWC-102	EPA 9315	611645		
92681880007	HAM-HGWC-103	EPA 9315	611645		
92681880008	HAM-HGWC-105	EPA 9315	611645		
92681880009	HAM-HGWC-107	EPA 9315	611645		
92681880010	HAM-HGWC-109	EPA 9315	611645		
92681880011	HAM-HGWC-117A	EPA 9315	611645		
92681880012	HAM-HGWC-118	EPA 9315	611645		
92681880013	HAM-AP4-EB-04	EPA 9315	611645		
92681880014	HAM-AP4-FB-04	EPA 9315	611645		
92681880015	HAM-AP4-FD-04	EPA 9315	611647		
92681880001	HAM-HGWA-47	EPA 9320	611582		
92681880002	HAM-HGWA-48D	EPA 9320	611582		
92681880003	HAM-HGWA-111	EPA 9320	611582		
92681880004	HAM-HGWA-112	EPA 9320	611582		
92682400001	HAM-HGWA-113	EPA 9320	610549		
92681880005	HAM-HGWC-101	EPA 9320	611582		
92681880006	HAM-HGWC-102	EPA 9320	611582		
92681880007	HAM-HGWC-103	EPA 9320	611582		
92681880008	HAM-HGWC-105	EPA 9320	611582		
92681880009	HAM-HGWC-107	EPA 9320	611582		
92681880010	HAM-HGWC-109	EPA 9320	611582		
92681880011	HAM-HGWC-117A	EPA 9320	611582		
92681880012	HAM-HGWC-118	EPA 9320	611582		
92681880013	HAM-AP4-EB-04	EPA 9320	611582		
92681880014	HAM-AP4-FB-04	EPA 9320	611582		
92681880015	HAM-AP4-FD-04	EPA 9320	611582		
92681880001	HAM-HGWA-47	Total Radium Calculation	615224		
92681880002	HAM-HGWA-48D	Total Radium Calculation	614326		
92681880003	HAM-HGWA-111	Total Radium Calculation	614326		
92681880004	HAM-HGWA-112	Total Radium Calculation	614326		
92682400001	HAM-HGWA-113	Total Radium Calculation	613658		
92681880005	HAM-HGWC-101	Total Radium Calculation	614326		
92681880006	HAM-HGWC-102	Total Radium Calculation	614326		
92681880007	HAM-HGWC-103	Total Radium Calculation	614326		
92681880008	HAM-HGWC-105	Total Radium Calculation	614326		
92681880009	HAM-HGWC-107	Total Radium Calculation	614326		
92681880010	HAM-HGWC-109	Total Radium Calculation	614326		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hammond AP-4- RADs
Pace Project No.: 92681880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92681880011	HAM-HGWC-117A	Total Radium Calculation	614326		
92681880012	HAM-HGWC-118	Total Radium Calculation	614326		
92681880013	HAM-AP4-EB-04	Total Radium Calculation	614326		
92681880014	HAM-AP4-FB-04	Total Radium Calculation	614326		
92681880015	HAM-AP4-FD-04	Total Radium Calculation	614331		

REPORT OF LABORATORY ANALYSIS

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DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

GA Power

Project #:

WO#: 92681880



Courier: Fed Ex UPS USPS Client Commercial Pace Other:

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 8/9/23 CMC

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Correction Factor: Add/Subtract (°C) 0.0 Type of Ice: Wet Blue None

Cooler Temp: 2.1 Cooler Temp Corrected (°C): 2.1

Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Chain of Custody Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	1.	Comments/Discrepancy:
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.	
Sufficient Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Containers Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Dissoived analysis: Samples Field Filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9.	
Sample Labels Match COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
-Includes Date/Time/ID/Analysis Matrix:	W				
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10.	
Trip Blank Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

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

Project #

WO# : 92681880

PM: BV Due Date: 08/30/23

CLIENT: 92- GP-HAM

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

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (N/A)	V/SK (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1	2	1																											
2	2	1																											
3	2	1																											
4	2	1																											
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	Lot #

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

Section A
Required Client Information:

Company: **GA Power**
Address: **Atlanta, GA**
Email for: **SCS Contacts**
Phone: **Fac**
Requested Due Date/TAT: **18 Day**

Section B
Required Project Information:

Report to: **SCS Contacts**
Copy to: **Geosyntec Contacts**
Purchase Order No.:
Project Name: **Hammond AP-4**
Project Number:

Section C
Invoicing Information:

Attention: **Southern Co.**
Company Name:
Address:
Purchase Order No.:
Reference:
Purchase Project Manager:
Face Profile #: **10839-1050-3.0**

REGULATORY AGENCY
NPDES GROUND WATER
LIST RCRA
Site Location: **GA**
STATE: **GA**
DRINKING WATER
OTHER USE:

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DM WT WW P SL DL WIP AM MT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
					DATE	TIME						
1	HAM-HGWA-47		WT G	G	8/8/23	1625	19	7	3	3		
2	HAM-HGWA-48D		WT G	G	8/8/23	1737	20	7	3	3		
3	HAM-HGWA-111		WT G	G	8/8/23	1853	20	7	3	3		
4	HAM-HGWA-112		WT G	G	8/8/23	1735	20	7	3	3		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DM WT WW P SL DL WIP AM MT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
					DATE	TIME						
5												
6												
7												
8												
9												
10												
11												
12												

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION: **Hammond Keeler Geosyntec** DATE: **8/13/23** TIME: **0900**

ACCEPTED BY / AFFILIATION: **Erin Roberts McDaniel (gas)** DATE: **8/13/23** TIME: **800**

RELINQUISHED BY / AFFILIATION: **Stephen Williams (gas)** DATE: **8/9/23** TIME: **1100**

ACCEPTED BY / AFFILIATION: **Ryan William Price** DATE: **8/9/23** TIME: **1415**

RELINQUISHED BY / AFFILIATION: **Ryan William Price** DATE: **8/9/23** TIME: **1415**

ACCEPTED BY / AFFILIATION: **Charles Fiedler** DATE: **8/13/23** TIME: **1415**

SAMPLER NAME AND SIGNATURE

PRINT NAME OF SAMPLER: _____

SIGNATURE OF SAMPLER: _____

DATE SIGNED (MM/DD/YY): _____

Geosyntec Consultants, Inc.

Temp in °C

Received on Ics (Y/N)

Custody Sealed Cooler (Y/N)

Samples Intact (Y/N)

Page: _____ of _____



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

GA Power

Project #:

WO#: 92681880

Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

PM: BV Due Date: 08/30/23 CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 8/14/23 VSP

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID:

214

Type of Ice:

Wet

Blue

None

Cooler Temp:

4.5

Correction Factor:

Add/Subtract (°C)

0.0

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

4.5

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-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		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix: W			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

WO#: 92681880

Project #

PM: BV

Due Date: 08/30/23

CLIENT: 92- GP-HAM

*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 bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WG7U-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1M-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	2	1																										
2	2	1																										
3	2	1																										
4	2	1																										
5	2	1																										
6	2	1																										
7	2	1																										
8	2	1																										
9	2	1																										
10	2	1																										
11	2	1																										
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 DENR Certification Office (i.e. 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 Requested Client Information: Company: GA Power Address: Atlanta, GA Email To: SCS Contacts Phone: [] Requested Due Date/TAT: 15 Day		Section B Requested Project Information: Report To: SCS Contacts Copy To: Geosynthetic Contacts Purchase Order No.: Project Name: Hammond AP-4 Project Number:		Section C Analytical Information: Attention: Southern Co. Company Name: Address: POC Name: POC Phone #: 10839	
REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER		STATE: GA		Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)	

ITEM #	Section D Requested Client Information Matrix Code Sample ID (A-Z, 0-9, /) Sample IDs MUST BE UNIQUE	Valid Matrix Codes DROPPED WATER WATER WASTE WATER POTABLE WATER RO/ULTRAC CO WIRE AN OTHER TISSUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pass Project No./ Lab ID.						
					DATE	TIME								DATE	TIME				
1	HAM-HGWC-101		WG G	G	8/11/2023	1455	TK 8/11/2023	20	7	3	3	3	1						
2	HAM-HGWC-102		WG G	G	8/11/2023	1625		22	7	3	3	3	1						
3	HAM-HGWC-103		WG G	G	8/11/2023	1425		19	7	3	3	3	1						
4	HAM-HGWC-105		WG G	G	8/11/2023	1102		19	7	3	3	3	1						
5	HAM-HGWC-107		WG G	G	8/11/2023	1440		22	7	3	3	3	1						
6	HAM-HGWC-109		WG G	G	8/11/2023	1132		20	7	3	3	3	1						
7	HAM-HGWC-117A		WG G	G	8/11/2023	1850		23	7	3	3	3	1						
8	HAM-HGWC-118		WG G	G	8/11/2023	1508		22	7	3	3	3	1						
9	HAM-AP4-EB-04		WG G	G	8/11/2023	1645		21	7	3	3	3	1						
10	HAM-AP4-EB-04		WG G	G	8/11/2023	1640		21	7	3	3	3	1						
11	HAM-AP4-FD-04		WG G	G	8/11/2023	0000	TK 8/11/2023	21	7	3	3	3	1						
12																			

ADDITIONAL COMMENTS Task Code: HAM-COR-ASSIST-20235271 REWORKED BY / AFFILIATION Date: 8/14/23 Time: 1332 ACCEPTED BY / AFFILIATION Date: 8/14/23 Time: 1332		SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>Theresa Kessler, Geosynthetic Controls, Inc.</i> SIGNATURE OF SAMPLER: <i>[Signature]</i> DATE SIGNED: 8/14/23 INDUSTRY: CE/11/23	
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Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020/rw-07, 15-Feb-2007



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

B A Power

Project #:

WO#: 92681880

Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

PM: BV Due Date: 08/30/23
CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: *Y/11/23*
TP

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer:

IR Gun ID: *230*

Type of Ice: Wet Blue None

Cooler Temp: *3.1* Correction Factor: Add/Subtract (°C) *0.0*

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): *3.1*

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>W</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

WO#: 92681880

Project #

PM: BV

Due Date: 08/30/23

CLIENT: 92- GP-HAM

*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 bottles

***Check all unpreserved Nitrates for chlorine

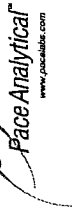
Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation Vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																												
2																												
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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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Quality Control Sample Performance Assessment



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

Test: Ra-228
Analyst: JJS1
Date: 8/26/2023
Worklist: 74945
Matrix: WT

Method Blank Assessment	
MB Sample ID	2971498
MB concentration:	0.453
M/B 2 Sigma CSU:	0.248
MB MDC:	0.409
MB Numerical Performance Indicator:	3.58
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCS D (Y or N)?	Y
Count Date:	8/31/2023	LCS D74945	8/31/2023
Spike I.D.:	23-043		23-043
Decay Corrected Spike Concentration (pCi/mL):	40.012		40.012
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.818		0.818
Target Conc. (pCi/L, g, F):	4.890		4.890
Uncertainty (Calculated):	0.240		0.240
Result (pCi/L, g, F):	3.106		4.025
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.732		0.889
Numerical Performance Indicator:	-4.54		-1.84
Percent Recovery:	63.51%		82.32%
Status vs Numerical Indicator:	N/A		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.:	LCS74945		
Duplicate Sample I.D.:	LCS D74945		
Sample Result (pCi/L, g, F):	3.106		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.732		
Sample Duplicate Result (pCi/L, g, F):	4.025		
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.889		
Are sample and/or duplicate results below RL?	NO		
Duplicate Numerical Performance Indicator:	-1.565		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.80%		
Duplicate Status vs Numerical Indicator:	Pass		
Duplicate Status vs RPD:	Pass		
% RPD Limit:	36%		

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.

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:			
Sample 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):			
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 Result 2 Sigma CSU (pCi/L, g, F):	
Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Matrix Spike 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:	

7/15/23

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: VAL
Date: 8/31/2023
Worklist: 75027
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2976831
MB concentration:	0.560
MB 2 Sigma CSU:	0.317
MB MDC:	0.565
MB Numerical Performance Indicator:	3.47
MB Status vs Numerical Indicator:	Fail*
MB Status vs MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?
		LCSD75027
Count Date:	9/5/2023	
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.944	39.944
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.817	0.816
Target Conc. (pCi/L, g, F):	4.886	4.896
Uncertainty (Calculated):	0.239	0.240
Result (pCi/L, g, F):	5.058	4.517
LCSD 2 Sigma CSU (pCi/L, g, F):	1.099	1.018
Numerical Performance Indicator:	0.30	-0.71
Percent Recovery:	103.51%	92.25%
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		LCSD (Y or N)?
		LCSD75027
Sample I.D.:	Duplicate Sample I.D.:	LCSD75027
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):	5.058
Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	4.517
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.018
Are sample and/or duplicate results below RL?	Duplicate Numerical Performance Indicator:	NO
Duplicate Numerical Performance Indicator:	Duplicate Percent Recoveries) Duplicate RPD:	0.708
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	Duplicate Status vs Numerical Indicator:	11.51%
Duplicate Status vs RPD:	Duplicate Status vs RPD:	Pass
% RPD Limit:	% RPD Limit:	36%

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

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

Comments: *MS activity < MDC Pass*

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

VAL 8/31/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JJS1
Date: 8/31/2023
Worklist: 75028
Matrix: WT

Method Blank Assessment	
MB Sample ID	2976835
MB concentration:	0.100
MB 2 Sigma CSU:	0.312
MB MDC:	0.703
MB Numerical Performance Indicator:	0.63
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD75028	LCSD75028
Count Date:	9/6/2023	9/6/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.931	39.931
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.820	0.817
Target Conc. (pCi/L, g, F):	4.871	4.885
Uncertainty (Calculated):	0.239	0.239
Result (pCi/L, g, F):	4.767	3.683
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	1.036	0.867
Numerical Performance Indicator:	-0.19	-2.62
Percent Recovery:	97.85%	75.39%
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	LCSD (Y or N)?
Sample I.D.:	LCSD75028
Duplicate Sample I.D.:	LCSD75028
Sample Result (pCi/L, g, F):	4.767
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.036
Sample Duplicate Result (pCi/L, g, F):	3.683
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.867
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	1.573
(Based on the LCSD/LCSD Percent Recoveries) Duplicate RPD:	25.93%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

Comments:

[Handwritten signature]

VAL
9/18/23

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: Sample Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): 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/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 Result 2 Sigma CSU (pCi/L, g, F): 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:



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/12/2023
Worklist: 74954
Matrix: WT

Method Blank Assessment	
MB Sample ID	2971911
MB concentration:	0.078
MB 2 Sigma CSU:	0.129
MB MDC:	0.288
MB Numerical Performance Indicator:	1.19
MB Status vs Numerical Indicator:	Pass
MB Status vs MDC:	N/A

Laboratory Control Sample Assessment		
Count Date:	LCS# (Y or N)?	Y
9/6/2023	LCS74954	LCS#74954
Decay Corrected Spike Concentration (pCi/mL):	19.033	19.033
Volume Used (mL):	24.014	24.014
Alliquot Volume (L, g, F):	0.10	0.503
Target Conc. (pCi/L, g, F):	4.775	4.753
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.365	5.002
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.001	0.935
Numerical Performance Indicator:	1.15	0.52
Percent Recovery:	112.37%	105.23%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment		
Sample I.D.:	LCS#74954	92681881004
Duplicate Sample I.D.	LCS#74954	92681881004DUP
Sample Result (pCi/L, g, F):	5.365	0.377
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.001	0.213
Sample Duplicate Result (pCi/L, g, F):	5.002	0.203
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.935	0.178
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.520	1.231
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	6.56%	60.17%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	25%

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

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

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

Comments:

MM 9/1/23



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
 Analyst: SLC
 Date: 9/12/2023
 Worklist: 75040
 Matrix: WT

Method Blank Assessment	
MB Sample ID	2977130
MB concentration:	0.086
MB 2 Sigma CSU:	0.097
MB MDC:	0.188
MB Numerical Performance Indicator:	1.72
MB Status vs Numerical Indicator:	Pass
MB Status vs MDC:	N/A

Laboratory Control Sample Assessment		
	LCS0 (Y or N)?	Y
	LCS75040	LCS075040
Count Date:	9/8/2023	9/8/2023
Spike ID:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.013	24.013
Volume Used (mL):	0.10	0.10
Alliquot Volume (L, g, F):	0.503	0.503
Target Conc. (pCi/L, g, F):	4.779	4.771
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.033	5.858
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.911	1.031
Numerical Performance Indicator:	0.55	2.06
Percent Recovery:	105.33%	122.77%
Status vs Numerical Indicator:	Pass	Warning
Status vs Recovery:	N/A	N/A
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment		
Sample I.D.:	LCS75040	92681890014
Duplicate Sample I.D.:	LCS075040	92681890014DUP
Sample Result (pCi/L, g, F):	5.033	0.081
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.911	0.132
Sample Duplicate Result (pCi/L, g, F):	5.858	0.046
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.031	0.115
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	-1.175	0.388
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	15.30%	54.79%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	25%

Sample Matrix Spike Control Assessment		
Sample Collection Date:	MS/MSD 1	MS/MSD 2
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 Alliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Alliquot (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:		
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 1	MS/MSD 2
Sample MS I.D.:		
Sample MSD I.D.:		
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):		
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:

M 9/8/23

W 9/18/23



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
 Analyst: SLC
 Date: 9/2/2023
 Worklist: 75041
 Matrix: W/T

Method Blank Assessment	
MB Sample ID	2977138
MB Concentration:	0.093
MB 2 Sigma CSU:	0.137
MB MDC:	0.301
MB Numerical Performance Indicator:	1.33
MB Status vs Numerical Indicator:	Pass
MB Status vs MDC:	N/A

Laboratory Control Sample Assessment		
Count Date:	LCSD (Y or N)?	Y
9/8/2023	LCSD75041	LCSD75041
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.013	24.013
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.509
Target Conc. (pCi/L, g, F):	4.723	4.719
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	6.089	5.435
LCSLCSD 2 Sigma CSU (pCi/L, g, F):	1.073	0.974
Numerical Performance Indicator:	2.49	1.44
Percent Recovery:	128.92%	115.19%
Status vs Numerical Indicator:	Warning	Pass
Status vs Recovery:	N/A	N/A
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment		
Sample I.D.:	Duplicate Sample I.D.:	RPD Limit:
LCSD75041	92683138001	25%
Duplicate Sample I.D.:	LCSD75041	25%
Sample Result (pCi/L, g, F):	6.089	0.119
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.073	0.138
Sample Duplicate Result (pCi/L, g, F):	5.435	0.263
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.974	0.147
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.884	-1.390
Duplicate Percent Recoveries): Duplicate RPD:	11.25%	74.93%
Duplicate Status vs Numerical Indicator:	Pass	Pass
Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	25%

Sample Matrix Spike Control Assessment		
Sample Collection Date:	MS/MSD 1	MS/MSD 2
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):		
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:		
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 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:		
Duplicate Percent Recoveries): 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:

MPA 9/8/23

Ume 9/18/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow

Test: Ra-226
Analyst: SLC
Date: 9/12/2023
Worklist: 75104
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982188
MB concentration:	0.265
M/B 2 Sigma CSU:	0.268
MB MDC:	0.528
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	LCS (Y or N)?	
	LCS75104	LCS075104
Count Date:	9/13/2023	9/13/2023
Spike I.D.:	23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.031	25.031
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.502
Target Conc. (pCi/L, g, F):	4.980	4.989
Uncertainty (Calculated):	0.234	0.234
Result (pCi/L, g, F):	5.174	4.966
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.095	1.046
Numerical Performance Indicator:	0.34	-0.04
Percent Recovery:	103.89%	99.54%
Status vs Numerical Indicator:	Pass	Pass
Status vs Recovery:	N/A	N/A
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Duplicate Sample Assessment	Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:	Sample I.D.
Duplicate Sample I.D.:	Sample MS I.D.
Sample Result 2 Sigma CSU (pCi/L, g, F):	Sample MSD I.D.
Sample Duplicate Result (pCi/L, g, F):	Sample Matrix Spike Result:
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Sample Spike Result 2 Sigma CSU (pCi/L, g, F):
Are sample and/or duplicate results below RL?	Sample Matrix Spike Duplicate Result:
Duplicate Numerical Performance Indicator:	Sample Matrix Spike Duplicate Result:
Duplicate Status vs Numerical Indicator:	Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Duplicate Status vs RPD:	Duplicate Numerical Performance Indicator:
% RPD Limit:	(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:

[Handwritten signature]

ARM 9/13/23

February 2024



May 07, 2024

Kristen Jurinko
Southern Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, GA 30308

RE: Project: Plant Hammond AP-4
Pace Project No.: 92713577

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory between February 14, 2024 and February 19, 2024. 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 - Peachtree Corners, GA

Revision 1: Amend collected time for HGWA-113.

Revision 2: Arsenic RDL limit was updated to report 0.005 mg/L.

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

Sincerely,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Kip Gray, Geosyntec
Christine Hug, Geosyntec Consultants, Inc.
Thomas Kessler, Geosyntec Consultants
Whitney Law, Geosyntec Consultants
Laura Midkiff, Southern Company

Caroline Nelson, Geosyntec Consultants, Inc
Anthony Szwast, Geosyntec Consultants



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92713577001	HAM-HGWA-48D	Water	02/13/24 18:37	02/14/24 14:50
92713577002	HAM-HGWA-112	Water	02/13/24 11:55	02/14/24 14:50
92713577003	HAM-HGWA-47	Water	02/14/24 11:18	02/16/24 16:00
92713577004	HAM-HGWA-111	Water	02/14/24 12:40	02/16/24 16:00
92713577005	HAM-HGWA-113	Water	02/14/24 13:23	02/16/24 16:00
92713577006	HAM-HGWC-101	Water	02/16/24 12:45	02/19/24 13:25
92713577007	HAM-HGWC-102	Water	02/16/24 14:25	02/19/24 13:25
92713577008	HAM-HGWC-103	Water	02/16/24 16:32	02/19/24 13:25
92713577009	HAM-HGWC-107	Water	02/16/24 16:58	02/19/24 13:25
92713577010	HAM-AP4-EB-01	Water	02/16/24 15:10	02/19/24 13:25
92713577011	HAM-AP4-FB-01	Water	02/16/24 15:17	02/19/24 13:25
92713577012	HAM-AP4-FD-01	Water	02/16/24 00:00	02/19/24 13:25
92713577013	HAM-HGWC-105	Water	02/17/24 15:25	02/19/24 13:25
92713577014	HAM-HGWC-109	Water	02/17/24 13:51	02/19/24 13:25
92713577015	HAM-HGWC-117A	Water	02/17/24 17:17	02/19/24 13:25
92713577016	HAM-HGWC-118	Water	02/17/24 10:16	02/19/24 13:25
92713577017	HAM-AP4-EB-02	Water	02/17/24 17:00	02/19/24 13:25
92713577018	HAM-AP4-FB-02	Water	02/17/24 17:05	02/19/24 13:25
92713577019	HAM-AP4-FD-02	Water	02/17/24 00:00	02/19/24 13:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92713577001	HAM-HGWA-48D	EPA 6010D	AJM	6
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2320B-2011	YEG	3
		SM 2540C-2015	JAY	1
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577002	HAM-HGWA-112	EPA 6010D	AJM	6
		EPA 6020B	MT1	13
		EPA 7470A	VB	1
		SM 2320B-2011	YEG	3
		SM 2540C-2015	JAY	1
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577003	HAM-HGWA-47	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577004	HAM-HGWA-111	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577005	HAM-HGWA-113	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	YEG	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577006	HAM-HGWC-101	EPA 6010D	DRB	6
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP-4
 Pace Project No.: 92713577

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577007	HAM-HGWC-102	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577008	HAM-HGWC-103	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577009	HAM-HGWC-107	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577010	HAM-AP4-EB-01	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577011	HAM-AP4-FB-01	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577012	HAM-AP4-FD-01	EPA 6010D	DRB	6

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP-4
 Pace Project No.: 92713577

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92713577013	HAM-HGWC-105	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577014	HAM-HGWC-109	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577015	HAM-HGWC-117A	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577016	HAM-HGWC-118	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92713577017	HAM-AP4-EB-02	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92713577018	HAM-AP4-FB-02	SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
92713577019	HAM-AP4-FD-02	SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
EPA 300.0 Rev 2.1 1993	CDC	3		

PASI-A = Pace Analytical Services - Asheville

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

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92713577001	HAM-HGWA-48D					
EPA 6010D	Iron	0.45	mg/L	0.040	02/26/24 02:30	
EPA 6010D	Potassium	0.62	mg/L	0.50	02/26/24 02:30	
EPA 6010D	Sodium	11.6	mg/L	1.0	02/26/24 02:30	
EPA 6010D	Calcium	56.0	mg/L	1.0	02/26/24 02:30	
EPA 6010D	Magnesium	11.3	mg/L	0.050	02/26/24 02:30	
EPA 6020B	Barium	0.12	mg/L	0.0050	02/20/24 16:50	
EPA 6020B	Lithium	0.0060J	mg/L	0.030	02/20/24 16:50	
EPA 6020B	Molybdenum	0.00068J	mg/L	0.010	02/20/24 16:50	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	216	mg/L	5.0	02/19/24 17:54	
SM 2320B-2011	Alkalinity, Total as CaCO3	216	mg/L	5.0	02/19/24 17:54	
SM 2540C-2015	Total Dissolved Solids	242	mg/L	25.0	02/20/24 11:28	
EPA 300.0 Rev 2.1 1993	Chloride	2.6	mg/L	1.0	02/16/24 06:54	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.10	02/16/24 06:54	
EPA 300.0 Rev 2.1 1993	Sulfate	2.8	mg/L	1.0	02/16/24 06:54	
92713577002	HAM-HGWA-112					
EPA 6010D	Iron	0.29	mg/L	0.040	02/26/24 02:44	
EPA 6010D	Potassium	0.87	mg/L	0.50	02/26/24 02:44	
EPA 6010D	Sodium	3.7	mg/L	1.0	02/26/24 02:44	
EPA 6010D	Calcium	6.5	mg/L	1.0	02/26/24 02:44	
EPA 6010D	Magnesium	2.5	mg/L	0.050	02/26/24 02:44	
EPA 6020B	Barium	0.026	mg/L	0.0050	02/20/24 17:02	
EPA 6020B	Chromium	0.0053	mg/L	0.0050	02/20/24 17:02	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	23.6	mg/L	5.0	02/19/24 18:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	23.6	mg/L	5.0	02/19/24 18:02	
SM 2540C-2015	Total Dissolved Solids	73.0	mg/L	25.0	02/20/24 11:28	
EPA 300.0 Rev 2.1 1993	Chloride	5.0	mg/L	1.0	02/16/24 07:09	
EPA 300.0 Rev 2.1 1993	Sulfate	0.51J	mg/L	1.0	02/16/24 07:09	
92713577003	HAM-HGWA-47					
EPA 6010D	Iron	0.22	mg/L	0.040	02/26/24 18:40	
EPA 6010D	Manganese	0.065	mg/L	0.040	02/26/24 18:40	
EPA 6010D	Potassium	6.8	mg/L	0.50	02/26/24 18:40	M1
EPA 6010D	Sodium	5.7	mg/L	1.0	02/26/24 18:40	M1
EPA 6010D	Calcium	29.4	mg/L	1.0	02/26/24 18:40	M1
EPA 6010D	Magnesium	3.3	mg/L	0.050	02/26/24 18:40	M1
EPA 6020B	Barium	0.030	mg/L	0.0050	02/21/24 17:59	
EPA 6020B	Boron	0.018J	mg/L	0.040	02/21/24 17:59	
EPA 6020B	Lead	0.00021J	mg/L	0.0010	02/21/24 17:59	
EPA 6020B	Molybdenum	0.0030J	mg/L	0.010	02/21/24 17:59	
SM 2540C-2015	Total Dissolved Solids	147	mg/L	25.0	02/19/24 17:44	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	96.2	mg/L	5.0	02/20/24 18:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	96.2	mg/L	5.0	02/20/24 18:43	
EPA 300.0 Rev 2.1 1993	Chloride	1.6	mg/L	1.0	02/20/24 02:31	
EPA 300.0 Rev 2.1 1993	Fluoride	0.23	mg/L	0.10	02/20/24 02:31	
EPA 300.0 Rev 2.1 1993	Sulfate	19.7	mg/L	1.0	02/20/24 02:31	
92713577004	HAM-HGWA-111					
EPA 6010D	Potassium	0.87	mg/L	0.50	02/26/24 18:48	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92713577004	HAM-HGWA-111					
EPA 6010D	Sodium	5.0	mg/L	1.0	02/26/24 18:48	
EPA 6010D	Calcium	51.8	mg/L	1.0	02/26/24 18:48	
EPA 6010D	Magnesium	5.2	mg/L	0.050	02/26/24 18:48	
EPA 6020B	Barium	0.029	mg/L	0.0050	02/21/24 18:03	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	02/21/24 18:03	
SM 2540C-2015	Total Dissolved Solids	187	mg/L	25.0	02/19/24 17:45	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	150	mg/L	5.0	02/20/24 18:52	
SM 2320B-2011	Alkalinity, Total as CaCO3	150	mg/L	5.0	02/20/24 18:52	
EPA 300.0 Rev 2.1 1993	Chloride	3.0	mg/L	1.0	02/20/24 03:17	
EPA 300.0 Rev 2.1 1993	Fluoride	0.081J	mg/L	0.10	02/20/24 03:17	
EPA 300.0 Rev 2.1 1993	Sulfate	1.2	mg/L	1.0	02/20/24 03:17	
92713577005	HAM-HGWA-113					
EPA 6010D	Potassium	0.24J	mg/L	0.50	02/26/24 18:50	
EPA 6010D	Sodium	8.1	mg/L	1.0	02/26/24 18:50	
EPA 6010D	Calcium	7.2	mg/L	1.0	02/26/24 18:50	
EPA 6010D	Magnesium	3.1	mg/L	0.050	02/26/24 18:50	
EPA 6020B	Barium	0.029	mg/L	0.0050	02/21/24 18:18	
EPA 6020B	Boron	0.013J	mg/L	0.040	02/21/24 18:18	
EPA 6020B	Chromium	0.0023J	mg/L	0.0050	02/21/24 18:18	
EPA 6020B	Selenium	0.0024J	mg/L	0.0050	02/21/24 18:18	
SM 2540C-2015	Total Dissolved Solids	93.0	mg/L	25.0	02/19/24 17:45	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	44.3	mg/L	5.0	02/20/24 19:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	44.3	mg/L	5.0	02/20/24 19:02	
EPA 300.0 Rev 2.1 1993	Chloride	1.5	mg/L	1.0	02/20/24 03:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	02/20/24 03:33	
EPA 300.0 Rev 2.1 1993	Sulfate	4.9	mg/L	1.0	02/20/24 03:33	
92713577006	HAM-HGWC-101					
EPA 6010D	Iron	4.9	mg/L	0.040	02/28/24 17:02	
EPA 6010D	Manganese	2.4	mg/L	0.040	02/28/24 17:02	
EPA 6010D	Potassium	0.80	mg/L	0.50	02/28/24 17:02	
EPA 6010D	Sodium	11.6	mg/L	1.0	02/28/24 17:02	
EPA 6010D	Calcium	22.2	mg/L	1.0	02/28/24 17:02	
EPA 6010D	Magnesium	12.3	mg/L	0.050	02/28/24 17:02	
EPA 6020B	Barium	0.032	mg/L	0.0050	02/26/24 19:22	
EPA 6020B	Boron	0.14	mg/L	0.040	02/26/24 19:22	BC
EPA 6020B	Cadmium	0.00016J	mg/L	0.00050	02/26/24 19:22	
EPA 6020B	Cobalt	0.0026J	mg/L	0.0050	02/26/24 19:22	
SM 2540C-2015	Total Dissolved Solids	222	mg/L	25.0	02/21/24 18:05	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	17.0	mg/L	5.0	02/22/24 22:09	
SM 2320B-2011	Alkalinity, Total as CaCO3	17.0	mg/L	5.0	02/22/24 22:09	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	02/21/24 13:29	
EPA 300.0 Rev 2.1 1993	Sulfate	110	mg/L	2.0	02/22/24 17:34	
92713577007	HAM-HGWC-102					
EPA 6010D	Iron	2.3	mg/L	0.040	02/28/24 17:04	
EPA 6010D	Manganese	2.1	mg/L	0.040	02/28/24 17:04	
EPA 6010D	Potassium	2.8	mg/L	0.50	02/28/24 17:04	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713577007		HAM-HGWC-102				
EPA 6010D	Sodium	16.6	mg/L	1.0	02/28/24 17:04	
EPA 6010D	Calcium	127	mg/L	1.0	02/28/24 17:04	
EPA 6010D	Magnesium	33.8	mg/L	0.050	02/28/24 17:04	
EPA 6020B	Barium	0.026	mg/L	0.0050	02/26/24 19:26	
EPA 6020B	Boron	2.7	mg/L	0.040	02/26/24 19:26	
EPA 6020B	Cadmium	0.00031J	mg/L	0.00050	02/26/24 19:26	
EPA 6020B	Cobalt	0.0011J	mg/L	0.0050	02/26/24 19:26	
SM 2540C-2015	Total Dissolved Solids	718	mg/L	25.0	02/21/24 18:05	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	104	mg/L	5.0	02/22/24 22:15	
SM 2320B-2011	Alkalinity, Total as CaCO3	104	mg/L	5.0	02/22/24 22:15	
EPA 300.0 Rev 2.1 1993	Chloride	7.4	mg/L	1.0	02/21/24 13:44	
EPA 300.0 Rev 2.1 1993	Sulfate	363	mg/L	8.0	02/22/24 17:50	
92713577008		HAM-HGWC-103				
EPA 6010D	Iron	2.1	mg/L	0.040	02/28/24 17:06	
EPA 6010D	Manganese	1.9	mg/L	0.040	02/28/24 17:06	
EPA 6010D	Potassium	3.3	mg/L	0.50	02/28/24 17:06	
EPA 6010D	Sodium	19.1	mg/L	1.0	02/28/24 17:06	
EPA 6010D	Calcium	106	mg/L	1.0	02/28/24 17:06	
EPA 6010D	Magnesium	29.6	mg/L	0.050	02/28/24 17:06	
EPA 6020B	Barium	0.031	mg/L	0.0050	02/26/24 19:29	
EPA 6020B	Boron	3.1	mg/L	0.040	02/26/24 19:29	
EPA 6020B	Cadmium	0.00074	mg/L	0.00050	02/26/24 19:29	
EPA 6020B	Cobalt	0.0020J	mg/L	0.0050	02/26/24 19:29	
EPA 6020B	Lead	0.00027J	mg/L	0.0010	02/26/24 19:29	
SM 2540C-2015	Total Dissolved Solids	640	mg/L	25.0	02/23/24 13:30	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	73.3	mg/L	5.0	02/22/24 22:25	
SM 2320B-2011	Alkalinity, Total as CaCO3	73.3	mg/L	5.0	02/22/24 22:25	
EPA 300.0 Rev 2.1 1993	Chloride	7.5	mg/L	1.0	02/21/24 14:00	
EPA 300.0 Rev 2.1 1993	Sulfate	323	mg/L	7.0	02/22/24 18:05	
92713577009		HAM-HGWC-107				
EPA 6010D	Iron	0.18	mg/L	0.040	02/28/24 17:14	
EPA 6010D	Manganese	0.27	mg/L	0.040	02/28/24 17:14	
EPA 6010D	Potassium	2.6	mg/L	0.50	02/28/24 17:14	
EPA 6010D	Sodium	8.9	mg/L	1.0	02/28/24 17:14	
EPA 6010D	Calcium	61.9	mg/L	1.0	02/28/24 17:14	
EPA 6010D	Magnesium	11.1	mg/L	0.050	02/28/24 17:14	
EPA 6020B	Barium	0.033	mg/L	0.0050	02/26/24 19:41	
EPA 6020B	Boron	0.87	mg/L	0.040	02/26/24 19:41	
SM 2540C-2015	Total Dissolved Solids	325	mg/L	25.0	02/23/24 13:31	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	79.5	mg/L	5.0	02/22/24 22:34	
SM 2320B-2011	Alkalinity, Total as CaCO3	79.5	mg/L	5.0	02/22/24 22:34	
EPA 300.0 Rev 2.1 1993	Chloride	3.2	mg/L	1.0	02/21/24 14:15	
EPA 300.0 Rev 2.1 1993	Sulfate	130	mg/L	3.0	02/22/24 18:21	
92713577010		HAM-AP4-EB-01				
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	02/26/24 19:44	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713577011	HAM-AP4-FB-01					
EPA 6020B	Molybdenum	0.0016J	mg/L	0.010	02/26/24 19:48	
92713577012	HAM-AP4-FD-01					
EPA 6010D	Iron	2.0	mg/L	0.040	02/28/24 17:22	
EPA 6010D	Manganese	2.1	mg/L	0.040	02/28/24 17:22	
EPA 6010D	Potassium	2.8	mg/L	0.50	02/28/24 17:22	
EPA 6010D	Sodium	17.0	mg/L	1.0	02/28/24 17:22	
EPA 6010D	Calcium	127	mg/L	1.0	02/28/24 17:22	
EPA 6010D	Magnesium	34.5	mg/L	0.050	02/28/24 17:22	
EPA 6020B	Barium	0.026	mg/L	0.0050	02/26/24 19:52	
EPA 6020B	Boron	2.8	mg/L	0.040	02/26/24 19:52	
EPA 6020B	Cadmium	0.00037J	mg/L	0.00050	02/26/24 19:52	
EPA 6020B	Cobalt	0.0012J	mg/L	0.0050	02/26/24 19:52	
SM 2540C-2015	Total Dissolved Solids	729	mg/L	25.0	02/23/24 13:31	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	102	mg/L	5.0	02/22/24 22:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	102	mg/L	5.0	02/22/24 22:43	
EPA 300.0 Rev 2.1 1993	Chloride	7.5	mg/L	1.0	02/21/24 14:31	
EPA 300.0 Rev 2.1 1993	Sulfate	372	mg/L	8.0	02/22/24 18:37	
92713577013	HAM-HGWC-105					
EPA 6010D	Iron	10.7	mg/L	0.040	02/28/24 17:24	
EPA 6010D	Manganese	0.67	mg/L	0.040	02/28/24 17:24	
EPA 6010D	Potassium	1.1	mg/L	0.50	02/28/24 17:24	
EPA 6010D	Sodium	15.2	mg/L	1.0	02/28/24 17:24	
EPA 6010D	Calcium	130	mg/L	1.0	02/28/24 17:24	
EPA 6010D	Magnesium	14.8	mg/L	0.050	02/28/24 17:24	
EPA 6020B	Barium	0.085	mg/L	0.0050	02/26/24 19:56	
EPA 6020B	Boron	1.3	mg/L	0.040	02/26/24 19:56	
EPA 6020B	Cobalt	0.00071J	mg/L	0.0050	02/26/24 19:56	
EPA 6020B	Lithium	0.0041J	mg/L	0.030	02/26/24 19:56	
SM 2540C-2015	Total Dissolved Solids	716	mg/L	25.0	02/23/24 13:35	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	150	mg/L	5.0	02/22/24 22:53	
SM 2320B-2011	Alkalinity, Total as CaCO3	150	mg/L	5.0	02/22/24 22:53	
EPA 300.0 Rev 2.1 1993	Chloride	6.8	mg/L	1.0	02/22/24 08:02	
EPA 300.0 Rev 2.1 1993	Sulfate	251	mg/L	5.0	02/22/24 13:50	
92713577014	HAM-HGWC-109					
EPA 6010D	Iron	4.0	mg/L	0.040	02/28/24 17:27	
EPA 6010D	Manganese	0.52	mg/L	0.040	02/28/24 17:27	
EPA 6010D	Potassium	0.51	mg/L	0.50	02/28/24 17:27	
EPA 6010D	Sodium	9.2	mg/L	1.0	02/28/24 17:27	
EPA 6010D	Calcium	44.3	mg/L	1.0	02/28/24 17:27	
EPA 6010D	Magnesium	10.3	mg/L	0.050	02/28/24 17:27	
EPA 6020B	Arsenic	0.0013J	mg/L	0.0050	02/26/24 13:29	
EPA 6020B	Barium	0.078	mg/L	0.0050	02/26/24 13:29	
EPA 6020B	Boron	0.22	mg/L	0.040	02/26/24 13:29	
EPA 6020B	Cobalt	0.0011J	mg/L	0.0050	02/26/24 13:29	
SM 2540C-2015	Total Dissolved Solids	265	mg/L	25.0	02/23/24 15:06	D6
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	152	mg/L	5.0	02/22/24 23:05	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
92713577014	HAM-HGWC-109					
SM 2320B-2011	Alkalinity, Total as CaCO3	152	mg/L	5.0	02/22/24 23:05	
EPA 300.0 Rev 2.1 1993	Chloride	3.9	mg/L	1.0	02/22/24 09:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.094J	mg/L	0.10	02/22/24 09:33	
EPA 300.0 Rev 2.1 1993	Sulfate	22.0	mg/L	1.0	02/22/24 09:33	
92713577015	HAM-HGWC-117A					
EPA 6010D	Iron	0.069	mg/L	0.040	02/28/24 17:37	
EPA 6010D	Manganese	0.13	mg/L	0.040	02/28/24 17:37	
EPA 6010D	Potassium	0.70	mg/L	0.50	02/28/24 17:37	
EPA 6010D	Sodium	9.2	mg/L	1.0	02/28/24 17:37	
EPA 6010D	Calcium	63.9	mg/L	1.0	02/28/24 17:37	M1
EPA 6010D	Magnesium	9.1	mg/L	0.050	02/28/24 17:37	
EPA 6020B	Barium	0.047	mg/L	0.0050	02/26/24 13:43	
EPA 6020B	Boron	0.27	mg/L	0.040	02/26/24 13:43	
EPA 6020B	Cobalt	0.00047J	mg/L	0.0050	02/26/24 13:43	
EPA 6020B	Lithium	0.0038J	mg/L	0.030	02/26/24 13:43	
SM 2540C-2015	Total Dissolved Solids	329	mg/L	25.0	02/23/24 15:06	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	128	mg/L	5.0	02/23/24 14:28	
SM 2320B-2011	Alkalinity, Total as CaCO3	128	mg/L	5.0	02/23/24 14:28	
EPA 300.0 Rev 2.1 1993	Chloride	4.4	mg/L	1.0	02/22/24 09:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.055J	mg/L	0.10	02/22/24 09:47	
EPA 300.0 Rev 2.1 1993	Sulfate	72.7	mg/L	1.0	02/22/24 09:47	
92713577016	HAM-HGWC-118					
EPA 6010D	Manganese	0.20	mg/L	0.040	02/28/24 17:52	
EPA 6010D	Potassium	0.73	mg/L	0.50	02/28/24 17:52	
EPA 6010D	Sodium	9.5	mg/L	1.0	02/28/24 17:52	
EPA 6010D	Calcium	83.8	mg/L	1.0	02/28/24 17:52	
EPA 6010D	Magnesium	12.4	mg/L	0.050	02/28/24 17:52	
EPA 6020B	Barium	0.050	mg/L	0.0050	02/26/24 13:47	
EPA 6020B	Boron	0.68	mg/L	0.040	02/26/24 13:47	
EPA 6020B	Cobalt	0.00042J	mg/L	0.0050	02/26/24 13:47	
SM 2540C-2015	Total Dissolved Solids	424	mg/L	25.0	02/23/24 15:07	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	206	mg/L	5.0	02/23/24 14:38	
SM 2320B-2011	Alkalinity, Total as CaCO3	206	mg/L	5.0	02/23/24 14:38	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	02/22/24 10:01	
EPA 300.0 Rev 2.1 1993	Fluoride	0.068J	mg/L	0.10	02/22/24 10:01	
EPA 300.0 Rev 2.1 1993	Sulfate	69.7	mg/L	1.0	02/22/24 10:01	
92713577017	HAM-AP4-EB-02					
EPA 6020B	Molybdenum	0.0017J	mg/L	0.010	02/26/24 13:51	
92713577018	HAM-AP4-FB-02					
SM 2540C-2015	Total Dissolved Solids	33.0	mg/L	25.0	02/23/24 15:13	
92713577019	HAM-AP4-FD-02					
EPA 6010D	Sodium	8.8	mg/L	1.0	03/01/24 16:53	
EPA 6010D	Iron	0.059	mg/L	0.040	02/28/24 18:00	
EPA 6010D	Manganese	0.12	mg/L	0.040	02/28/24 18:00	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713577019	HAM-AP4-FD-02					
EPA 6010D	Potassium	0.70	mg/L	0.50	02/28/24 18:00	
EPA 6010D	Calcium	66.8	mg/L	1.0	02/28/24 18:00	
EPA 6010D	Magnesium	9.1	mg/L	0.050	02/28/24 18:00	
EPA 6020B	Barium	0.046	mg/L	0.0050	02/26/24 14:18	
EPA 6020B	Boron	0.28	mg/L	0.040	02/26/24 14:18	
EPA 6020B	Cobalt	0.00045J	mg/L	0.0050	02/26/24 14:18	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	02/26/24 14:18	
SM 2540C-2015	Total Dissolved Solids	1300	mg/L	25.0	02/23/24 15:14	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	134	mg/L	5.0	02/23/24 14:51	
SM 2320B-2011	Alkalinity, Total as CaCO3	134	mg/L	5.0	02/23/24 14:51	
EPA 300.0 Rev 2.1 1993	Chloride	4.4	mg/L	1.0	02/22/24 10:16	
EPA 300.0 Rev 2.1 1993	Fluoride	0.056J	mg/L	0.10	02/22/24 10:16	
EPA 300.0 Rev 2.1 1993	Sulfate	72.2	mg/L	1.0	02/22/24 10:16	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-48D Lab ID: 92713577001 Collected: 02/13/24 18:37 Received: 02/14/24 14:50 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	0.45	mg/L	0.040	0.025	1	02/16/24 19:24	02/26/24 02:30	7439-89-6	
Manganese	ND	mg/L	0.040	0.011	1	02/16/24 19:24	02/26/24 02:30	7439-96-5	
Potassium	0.62	mg/L	0.50	0.15	1	02/16/24 19:24	02/26/24 02:30	7440-09-7	
Sodium	11.6	mg/L	1.0	0.58	1	02/16/24 19:24	02/26/24 02:30	7440-23-5	
Calcium	56.0	mg/L	1.0	0.12	1	02/16/24 19:24	02/26/24 02:30	7440-70-2	
Magnesium	11.3	mg/L	0.050	0.012	1	02/16/24 19:24	02/26/24 02:30	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/17/24 05:35	02/20/24 16:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/17/24 05:35	02/20/24 16:50	7440-38-2	
Barium	0.12	mg/L	0.0050	0.00047	1	02/17/24 05:35	02/20/24 16:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/17/24 05:35	02/20/24 16:50	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	02/17/24 05:35	02/20/24 16:50	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/17/24 05:35	02/20/24 16:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/17/24 05:35	02/20/24 16:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/17/24 05:35	02/20/24 16:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/17/24 05:35	02/20/24 16:50	7439-92-1	
Lithium	0.0060J	mg/L	0.030	0.0016	1	02/17/24 05:35	02/20/24 16:50	7439-93-2	
Molybdenum	0.00068J	mg/L	0.010	0.00062	1	02/17/24 05:35	02/20/24 16:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/17/24 05:35	02/20/24 16:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/17/24 05:35	02/20/24 16:50	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 08:35	7439-97-6	R1
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	216	mg/L	5.0	5.0	1		02/19/24 17:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/19/24 17:54		
Alkalinity, Total as CaCO3	216	mg/L	5.0	5.0	1		02/19/24 17:54		
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Asheville									
Total Dissolved Solids	242	mg/L	25.0	25.0	1		02/20/24 11:28		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/17/24 01:59	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	2.6	mg/L	1.0	0.60	1		02/16/24 06:54	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-48D Lab ID: 92713577001 Collected: 02/13/24 18:37 Received: 02/14/24 14:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.071J	mg/L	0.10	0.050	1		02/16/24 06:54	16984-48-8	
Sulfate	2.8	mg/L	1.0	0.50	1		02/16/24 06:54	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-112 Lab ID: 92713577002 Collected: 02/13/24 11:55 Received: 02/14/24 14:50 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				

6010D ATL ICP

Analytical Method: EPA 6010D Preparation Method: EPA 3010A
Pace Analytical Services - Peachtree Corners, GA

Iron	0.29	mg/L	0.040	0.025	1	02/16/24 19:24	02/26/24 02:44	7439-89-6
Manganese	ND	mg/L	0.040	0.011	1	02/16/24 19:24	02/26/24 02:44	7439-96-5
Potassium	0.87	mg/L	0.50	0.15	1	02/16/24 19:24	02/26/24 02:44	7440-09-7
Sodium	3.7	mg/L	1.0	0.58	1	02/16/24 19:24	02/26/24 02:44	7440-23-5
Calcium	6.5	mg/L	1.0	0.12	1	02/16/24 19:24	02/26/24 02:44	7440-70-2
Magnesium	2.5	mg/L	0.050	0.012	1	02/16/24 19:24	02/26/24 02:44	7439-95-4

6020 MET ICPMS

Analytical Method: EPA 6020B Preparation Method: EPA 3005A
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.0030	0.00054	1	02/17/24 05:35	02/20/24 17:02	7440-36-0
Arsenic	ND	mg/L	0.0050	0.00084	1	02/17/24 05:35	02/20/24 17:02	7440-38-2
Barium	0.026	mg/L	0.0050	0.00047	1	02/17/24 05:35	02/20/24 17:02	7440-39-3
Beryllium	ND	mg/L	0.00050	0.000094	1	02/17/24 05:35	02/20/24 17:02	7440-41-7
Boron	ND	mg/L	0.040	0.012	1	02/17/24 05:35	02/20/24 17:02	7440-42-8
Cadmium	ND	mg/L	0.00050	0.00010	1	02/17/24 05:35	02/20/24 17:02	7440-43-9
Chromium	0.0053	mg/L	0.0050	0.0019	1	02/17/24 05:35	02/20/24 17:02	7440-47-3
Cobalt	ND	mg/L	0.0050	0.00032	1	02/17/24 05:35	02/20/24 17:02	7440-48-4
Lead	ND	mg/L	0.0010	0.00016	1	02/17/24 05:35	02/20/24 17:02	7439-92-1
Lithium	ND	mg/L	0.030	0.0016	1	02/17/24 05:35	02/20/24 17:02	7439-93-2
Molybdenum	ND	mg/L	0.010	0.00062	1	02/17/24 05:35	02/20/24 17:02	7439-98-7
Selenium	ND	mg/L	0.0050	0.00096	1	02/17/24 05:35	02/20/24 17:02	7782-49-2
Thallium	ND	mg/L	0.0010	0.00038	1	02/17/24 05:35	02/20/24 17:02	7440-28-0

7470 Mercury

Analytical Method: EPA 7470A Preparation Method: EPA 7470A
Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 08:45	7439-97-6
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2320B Alkalinity

Analytical Method: SM 2320B-2011
Pace Analytical Services - Asheville

Alkalinity,Bicarbonate (CaCO3)	23.6	mg/L	5.0	5.0	1	02/19/24 18:02
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1	02/19/24 18:02
Alkalinity, Total as CaCO3	23.6	mg/L	5.0	5.0	1	02/19/24 18:02

2540C Total Dissolved Solids

Analytical Method: SM 2540C-2015
Pace Analytical Services - Asheville

Total Dissolved Solids	73.0	mg/L	25.0	25.0	1	02/20/24 11:28
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4500S2D Sulfide Water

Analytical Method: SM 4500-S2D-2011
Pace Analytical Services - Asheville

Sulfide	ND	mg/L	0.10	0.022	1	02/17/24 01:59	18496-25-8
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Chloride	5.0	mg/L	1.0	0.60	1	02/16/24 07:09	16887-00-6
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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-112 **Lab ID: 92713577002** Collected: 02/13/24 11:55 Received: 02/14/24 14:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		02/16/24 07:09	16984-48-8	
Sulfate	0.51J	mg/L	1.0	0.50	1		02/16/24 07:09	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-47 **Lab ID: 92713577003** Collected: 02/14/24 11:18 Received: 02/16/24 16:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	0.22	mg/L	0.040	0.025	1	02/20/24 19:04	02/26/24 18:40	7439-89-6	
Manganese	0.065	mg/L	0.040	0.011	1	02/20/24 19:04	02/26/24 18:40	7439-96-5	
Potassium	6.8	mg/L	0.50	0.15	1	02/20/24 19:04	02/26/24 18:40	7440-09-7	M1
Sodium	5.7	mg/L	1.0	0.58	1	02/20/24 19:04	02/26/24 18:40	7440-23-5	M1
Calcium	29.4	mg/L	1.0	0.12	1	02/20/24 19:04	02/26/24 18:40	7440-70-2	M1
Magnesium	3.3	mg/L	0.050	0.012	1	02/20/24 19:04	02/26/24 18:40	7439-95-4	M1
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 14:39	02/21/24 17:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 14:39	02/21/24 17:59	7440-38-2	
Barium	0.030	mg/L	0.0050	0.00047	1	02/20/24 14:39	02/21/24 17:59	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 14:39	02/21/24 17:59	7440-41-7	
Boron	0.018J	mg/L	0.040	0.012	1	02/20/24 14:39	02/21/24 17:59	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 14:39	02/21/24 17:59	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 14:39	02/21/24 17:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/20/24 14:39	02/21/24 17:59	7440-48-4	
Lead	0.00021J	mg/L	0.0010	0.00016	1	02/20/24 14:39	02/21/24 17:59	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 14:39	02/21/24 17:59	7439-93-2	
Molybdenum	0.0030J	mg/L	0.010	0.00062	1	02/20/24 14:39	02/21/24 17:59	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 14:39	02/21/24 17:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 14:39	02/21/24 17:59	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 08:48	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	147	mg/L	25.0	25.0	1		02/19/24 17:44		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	96.2	mg/L	5.0	5.0	1		02/20/24 18:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/20/24 18:43		
Alkalinity, Total as CaCO3	96.2	mg/L	5.0	5.0	1		02/20/24 18:43		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:14	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.6	mg/L	1.0	0.60	1		02/20/24 02:31	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4
 Pace Project No.: 92713577

Sample: HAM-HGWA-47 **Lab ID: 92713577003** Collected: 02/14/24 11:18 Received: 02/16/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Rev 2.1 1993
 Pace Analytical Services - Asheville

Fluoride	0.23	mg/L	0.10	0.050	1		02/20/24 02:31	16984-48-8	
Sulfate	19.7	mg/L	1.0	0.50	1		02/20/24 02:31	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-111 Lab ID: 92713577004 Collected: 02/14/24 12:40 Received: 02/16/24 16:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	ND	mg/L	0.040	0.025	1	02/20/24 19:04	02/26/24 18:48	7439-89-6	
Manganese	ND	mg/L	0.040	0.011	1	02/20/24 19:04	02/26/24 18:48	7439-96-5	
Potassium	0.87	mg/L	0.50	0.15	1	02/20/24 19:04	02/26/24 18:48	7440-09-7	
Sodium	5.0	mg/L	1.0	0.58	1	02/20/24 19:04	02/26/24 18:48	7440-23-5	
Calcium	51.8	mg/L	1.0	0.12	1	02/20/24 19:04	02/26/24 18:48	7440-70-2	
Magnesium	5.2	mg/L	0.050	0.012	1	02/20/24 19:04	02/26/24 18:48	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 14:39	02/21/24 18:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 14:39	02/21/24 18:03	7440-38-2	
Barium	0.029	mg/L	0.0050	0.00047	1	02/20/24 14:39	02/21/24 18:03	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 14:39	02/21/24 18:03	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	02/20/24 14:39	02/21/24 18:03	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 14:39	02/21/24 18:03	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 14:39	02/21/24 18:03	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/20/24 14:39	02/21/24 18:03	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 14:39	02/21/24 18:03	7439-92-1	
Lithium	0.0020J	mg/L	0.030	0.0016	1	02/20/24 14:39	02/21/24 18:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 14:39	02/21/24 18:03	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 14:39	02/21/24 18:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 14:39	02/21/24 18:03	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 08:51	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	187	mg/L	25.0	25.0	1		02/19/24 17:45		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	150	mg/L	5.0	5.0	1		02/20/24 18:52		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/20/24 18:52		
Alkalinity, Total as CaCO3	150	mg/L	5.0	5.0	1		02/20/24 18:52		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:16	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.0	mg/L	1.0	0.60	1		02/20/24 03:17	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-111 Lab ID: 92713577004 Collected: 02/14/24 12:40 Received: 02/16/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.081J	mg/L	0.10	0.050	1		02/20/24 03:17	16984-48-8	
Sulfate	1.2	mg/L	1.0	0.50	1		02/20/24 03:17	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-113 Lab ID: 92713577005 Collected: 02/14/24 13:23 Received: 02/16/24 16:00 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	ND	mg/L	0.040	0.025	1	02/20/24 19:04	02/26/24 18:50	7439-89-6	
Manganese	ND	mg/L	0.040	0.011	1	02/20/24 19:04	02/26/24 18:50	7439-96-5	
Potassium	0.24J	mg/L	0.50	0.15	1	02/20/24 19:04	02/26/24 18:50	7440-09-7	
Sodium	8.1	mg/L	1.0	0.58	1	02/20/24 19:04	02/26/24 18:50	7440-23-5	
Calcium	7.2	mg/L	1.0	0.12	1	02/20/24 19:04	02/26/24 18:50	7440-70-2	
Magnesium	3.1	mg/L	0.050	0.012	1	02/20/24 19:04	02/26/24 18:50	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 14:39	02/21/24 18:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 14:39	02/21/24 18:18	7440-38-2	
Barium	0.029	mg/L	0.0050	0.00047	1	02/20/24 14:39	02/21/24 18:18	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 14:39	02/21/24 18:18	7440-41-7	
Boron	0.013J	mg/L	0.040	0.012	1	02/20/24 14:39	02/21/24 18:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 14:39	02/21/24 18:18	7440-43-9	
Chromium	0.0023J	mg/L	0.0050	0.0019	1	02/20/24 14:39	02/21/24 18:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/20/24 14:39	02/21/24 18:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 14:39	02/21/24 18:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 14:39	02/21/24 18:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 14:39	02/21/24 18:18	7439-98-7	
Selenium	0.0024J	mg/L	0.0050	0.00096	1	02/20/24 14:39	02/21/24 18:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 14:39	02/21/24 18:18	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 08:59	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	93.0	mg/L	25.0	25.0	1		02/19/24 17:45		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	44.3	mg/L	5.0	5.0	1		02/20/24 19:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/20/24 19:02		
Alkalinity, Total as CaCO3	44.3	mg/L	5.0	5.0	1		02/20/24 19:02		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:16	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.5	mg/L	1.0	0.60	1		02/20/24 03:33	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWA-113 Lab ID: 92713577005 Collected: 02/14/24 13:23 Received: 02/16/24 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.18	mg/L	0.10	0.050	1		02/20/24 03:33	16984-48-8	
Sulfate	4.9	mg/L	1.0	0.50	1		02/20/24 03:33	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-101 **Lab ID:** 92713577006 Collected: 02/16/24 12:45 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	4.9	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:02	7439-89-6	
Manganese	2.4	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:02	7439-96-5	
Potassium	0.80	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:02	7440-09-7	
Sodium	11.6	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:02	7440-23-5	
Calcium	22.2	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:02	7440-70-2	
Magnesium	12.3	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:02	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:22	7440-38-2	
Barium	0.032	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:22	7440-41-7	
Boron	0.14	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:22	7440-42-8	BC
Cadmium	0.00016J	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:22	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:22	7440-47-3	
Cobalt	0.0026J	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:22	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:22	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:22	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:01	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	222	mg/L	25.0	25.0	1		02/21/24 18:05		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	17.0	mg/L	5.0	5.0	1		02/22/24 22:09		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 22:09		
Alkalinity, Total as CaCO3	17.0	mg/L	5.0	5.0	1		02/22/24 22:09		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:39	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	5.4	mg/L	1.0	0.60	1		02/21/24 13:29	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-101 **Lab ID: 92713577006** Collected: 02/16/24 12:45 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 13:29	16984-48-8	
Sulfate	110	mg/L	2.0	1.0	2		02/22/24 17:34	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-102 Lab ID: 92713577007 Collected: 02/16/24 14:25 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	2.3	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:04	7439-89-6	
Manganese	2.1	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:04	7439-96-5	
Potassium	2.8	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:04	7440-09-7	
Sodium	16.6	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:04	7440-23-5	
Calcium	127	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:04	7440-70-2	
Magnesium	33.8	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:04	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:26	7440-38-2	
Barium	0.026	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:26	7440-41-7	
Boron	2.7	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:26	7440-42-8	
Cadmium	0.00031J	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:26	7440-47-3	
Cobalt	0.0011J	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:26	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:26	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:04	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	718	mg/L	25.0	25.0	1		02/21/24 18:05		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	104	mg/L	5.0	5.0	1		02/22/24 22:15		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 22:15		
Alkalinity, Total as CaCO3	104	mg/L	5.0	5.0	1		02/22/24 22:15		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:39	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	7.4	mg/L	1.0	0.60	1		02/21/24 13:44	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-102 Lab ID: 92713577007 Collected: 02/16/24 14:25 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 13:44	16984-48-8	
Sulfate	363	mg/L	8.0	4.0	8		02/22/24 17:50	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-103 Lab ID: 92713577008 Collected: 02/16/24 16:32 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	2.1	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:06	7439-89-6	
Manganese	1.9	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:06	7439-96-5	
Potassium	3.3	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:06	7440-09-7	
Sodium	19.1	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:06	7440-23-5	
Calcium	106	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:06	7440-70-2	
Magnesium	29.6	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:06	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:29	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:29	7440-38-2	
Barium	0.031	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:29	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:29	7440-41-7	
Boron	3.1	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:29	7440-42-8	
Cadmium	0.00074	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:29	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:29	7440-47-3	
Cobalt	0.0020J	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:29	7440-48-4	
Lead	0.00027J	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:29	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:29	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:29	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:06	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	640	mg/L	25.0	25.0	1		02/23/24 13:30		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	73.3	mg/L	5.0	5.0	1		02/22/24 22:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 22:25		
Alkalinity, Total as CaCO3	73.3	mg/L	5.0	5.0	1		02/22/24 22:25		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:40	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	7.5	mg/L	1.0	0.60	1		02/21/24 14:00	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-103 Lab ID: 92713577008 Collected: 02/16/24 16:32 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 14:00	16984-48-8	
Sulfate	323	mg/L	7.0	3.5	7		02/22/24 18:05	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-107 Lab ID: 92713577009 Collected: 02/16/24 16:58 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	0.18	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:14	7439-89-6	
Manganese	0.27	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:14	7439-96-5	
Potassium	2.6	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:14	7440-09-7	
Sodium	8.9	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:14	7440-23-5	
Calcium	61.9	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:14	7440-70-2	
Magnesium	11.1	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:14	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:41	7440-38-2	
Barium	0.033	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:41	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:41	7440-41-7	
Boron	0.87	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:41	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:41	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:41	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:41	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:41	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:41	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:41	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:09	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	325	mg/L	25.0	25.0	1		02/23/24 13:31		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	79.5	mg/L	5.0	5.0	1		02/22/24 22:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 22:34		
Alkalinity, Total as CaCO3	79.5	mg/L	5.0	5.0	1		02/22/24 22:34		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:40	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.2	mg/L	1.0	0.60	1		02/21/24 14:15	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-107 Lab ID: 92713577009 Collected: 02/16/24 16:58 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 14:15	16984-48-8	
Sulfate	130	mg/L	3.0	1.5	3		02/22/24 18:21	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-EB-01 **Lab ID: 92713577010** Collected: 02/16/24 15:10 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:17	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:44	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:44	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:44	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:44	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:44	7439-93-2	
Molybdenum	0.0015J	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:44	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:12	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		02/23/24 13:31		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		02/21/24 01:38	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 01:38	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/21/24 01:38	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-FB-01 **Lab ID: 92713577011** Collected: 02/16/24 15:17 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	5.0	0.61	5	02/20/24 21:17	02/28/24 17:19	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:48	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:48	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:48	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:48	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:48	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:48	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:48	7439-93-2	
Molybdenum	0.0016J	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:48	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:48	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:14	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		02/23/24 13:31		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		02/21/24 01:53	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 01:53	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/21/24 01:53	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-FD-01 **Lab ID:** 92713577012 Collected: 02/16/24 00:00 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	2.0	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:22	7439-89-6	
Manganese	2.1	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:22	7439-96-5	
Potassium	2.8	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:22	7440-09-7	
Sodium	17.0	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:22	7440-23-5	
Calcium	127	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:22	7440-70-2	
Magnesium	34.5	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:22	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:52	7440-38-2	
Barium	0.026	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:52	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:52	7440-41-7	
Boron	2.8	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:52	7440-42-8	
Cadmium	0.00037J	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:52	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:52	7440-47-3	
Cobalt	0.0012J	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:52	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:52	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:52	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:52	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:17	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	729	mg/L	25.0	25.0	1		02/23/24 13:31		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	102	mg/L	5.0	5.0	1		02/22/24 22:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 22:43		
Alkalinity, Total as CaCO3	102	mg/L	5.0	5.0	1		02/22/24 22:43		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:40	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	7.5	mg/L	1.0	0.60	1		02/21/24 14:31	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-FD-01 Lab ID: 92713577012 Collected: 02/16/24 00:00 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 14:31	16984-48-8	
Sulfate	372	mg/L	8.0	4.0	8		02/22/24 18:37	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-105 Lab ID: 92713577013 Collected: 02/17/24 15:25 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	10.7	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:24	7439-89-6	
Manganese	0.67	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:24	7439-96-5	
Potassium	1.1	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:24	7440-09-7	
Sodium	15.2	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:24	7440-23-5	
Calcium	130	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:24	7440-70-2	
Magnesium	14.8	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:24	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/20/24 16:50	02/26/24 19:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/20/24 16:50	02/26/24 19:56	7440-38-2	
Barium	0.085	mg/L	0.0050	0.00047	1	02/20/24 16:50	02/26/24 19:56	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/20/24 16:50	02/26/24 19:56	7440-41-7	
Boron	1.3	mg/L	0.040	0.012	1	02/20/24 16:50	02/26/24 19:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/20/24 16:50	02/26/24 19:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/20/24 16:50	02/26/24 19:56	7440-47-3	
Cobalt	0.00071J	mg/L	0.0050	0.00032	1	02/20/24 16:50	02/26/24 19:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/20/24 16:50	02/26/24 19:56	7439-92-1	
Lithium	0.0041J	mg/L	0.030	0.0016	1	02/20/24 16:50	02/26/24 19:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/20/24 16:50	02/26/24 19:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/20/24 16:50	02/26/24 19:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/20/24 16:50	02/26/24 19:56	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:20	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	716	mg/L	25.0	25.0	1		02/23/24 13:35		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	150	mg/L	5.0	5.0	1		02/22/24 22:53		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 22:53		
Alkalinity, Total as CaCO3	150	mg/L	5.0	5.0	1		02/22/24 22:53		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:44	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	6.8	mg/L	1.0	0.60	1		02/22/24 08:02	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-105 Lab ID: 92713577013 Collected: 02/17/24 15:25 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	ND	mg/L	0.10	0.050	1		02/22/24 08:02	16984-48-8	
Sulfate	251	mg/L	5.0	2.5	5		02/22/24 13:50	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-109 Lab ID: 92713577014 Collected: 02/17/24 13:51 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	4.0	mg/L	0.040	0.025	1	02/20/24 21:17	02/28/24 17:27	7439-89-6	
Manganese	0.52	mg/L	0.040	0.011	1	02/20/24 21:17	02/28/24 17:27	7439-96-5	
Potassium	0.51	mg/L	0.50	0.15	1	02/20/24 21:17	02/28/24 17:27	7440-09-7	
Sodium	9.2	mg/L	1.0	0.58	1	02/20/24 21:17	02/28/24 17:27	7440-23-5	
Calcium	44.3	mg/L	1.0	0.12	1	02/20/24 21:17	02/28/24 17:27	7440-70-2	
Magnesium	10.3	mg/L	0.050	0.012	1	02/20/24 21:17	02/28/24 17:27	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/23/24 14:10	02/26/24 13:29	7440-36-0	
Arsenic	0.0013J	mg/L	0.0050	0.00084	1	02/23/24 14:10	02/26/24 13:29	7440-38-2	
Barium	0.078	mg/L	0.0050	0.00047	1	02/23/24 14:10	02/26/24 13:29	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/23/24 14:10	02/26/24 13:29	7440-41-7	
Boron	0.22	mg/L	0.040	0.012	1	02/23/24 14:10	02/26/24 13:29	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/23/24 14:10	02/26/24 13:29	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/23/24 14:10	02/26/24 13:29	7440-47-3	
Cobalt	0.0011J	mg/L	0.0050	0.00032	1	02/23/24 14:10	02/26/24 13:29	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/23/24 14:10	02/26/24 13:29	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/23/24 14:10	02/26/24 13:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/23/24 14:10	02/26/24 13:29	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/23/24 14:10	02/26/24 13:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/23/24 14:10	02/26/24 13:29	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:27	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	265	mg/L	25.0	25.0	1		02/23/24 15:06		D6
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	152	mg/L	5.0	5.0	1		02/22/24 23:05		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/22/24 23:05		
Alkalinity, Total as CaCO3	152	mg/L	5.0	5.0	1		02/22/24 23:05		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:44	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.9	mg/L	1.0	0.60	1		02/22/24 09:33	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-109 Lab ID: 92713577014 Collected: 02/17/24 13:51 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.094J	mg/L	0.10	0.050	1		02/22/24 09:33	16984-48-8	
Sulfate	22.0	mg/L	1.0	0.50	1		02/22/24 09:33	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-117A Lab ID: 92713577015 Collected: 02/17/24 17:17 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	0.069	mg/L	0.040	0.025	1	02/26/24 11:29	02/28/24 17:37	7439-89-6	
Manganese	0.13	mg/L	0.040	0.011	1	02/26/24 11:29	02/28/24 17:37	7439-96-5	
Potassium	0.70	mg/L	0.50	0.15	1	02/26/24 11:29	02/28/24 17:37	7440-09-7	
Sodium	9.2	mg/L	1.0	0.58	1	02/26/24 11:29	02/28/24 17:37	7440-23-5	
Calcium	63.9	mg/L	1.0	0.12	1	02/26/24 11:29	02/28/24 17:37	7440-70-2	M1
Magnesium	9.1	mg/L	0.050	0.012	1	02/26/24 11:29	02/28/24 17:37	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/23/24 14:10	02/26/24 13:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/23/24 14:10	02/26/24 13:43	7440-38-2	
Barium	0.047	mg/L	0.0050	0.00047	1	02/23/24 14:10	02/26/24 13:43	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/23/24 14:10	02/26/24 13:43	7440-41-7	
Boron	0.27	mg/L	0.040	0.012	1	02/23/24 14:10	02/26/24 13:43	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/23/24 14:10	02/26/24 13:43	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/23/24 14:10	02/26/24 13:43	7440-47-3	
Cobalt	0.00047J	mg/L	0.0050	0.00032	1	02/23/24 14:10	02/26/24 13:43	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/23/24 14:10	02/26/24 13:43	7439-92-1	
Lithium	0.0038J	mg/L	0.030	0.0016	1	02/23/24 14:10	02/26/24 13:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/23/24 14:10	02/26/24 13:43	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/23/24 14:10	02/26/24 13:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/23/24 14:10	02/26/24 13:43	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:30	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	329	mg/L	25.0	25.0	1		02/23/24 15:06		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	128	mg/L	5.0	5.0	1		02/23/24 14:28		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/23/24 14:28		
Alkalinity, Total as CaCO3	128	mg/L	5.0	5.0	1		02/23/24 14:28		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:45	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.4	mg/L	1.0	0.60	1		02/22/24 09:47	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-117A Lab ID: 92713577015 Collected: 02/17/24 17:17 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.055J	mg/L	0.10	0.050	1		02/22/24 09:47	16984-48-8	
Sulfate	72.7	mg/L	1.0	0.50	1		02/22/24 09:47	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-118 Lab ID: 92713577016 Collected: 02/17/24 10:16 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Iron	ND	mg/L	0.040	0.025	1	02/26/24 11:29	02/28/24 17:52	7439-89-6	
Manganese	0.20	mg/L	0.040	0.011	1	02/26/24 11:29	02/28/24 17:52	7439-96-5	
Potassium	0.73	mg/L	0.50	0.15	1	02/26/24 11:29	02/28/24 17:52	7440-09-7	
Sodium	9.5	mg/L	1.0	0.58	1	02/26/24 11:29	02/28/24 17:52	7440-23-5	
Calcium	83.8	mg/L	1.0	0.12	1	02/26/24 11:29	02/28/24 17:52	7440-70-2	
Magnesium	12.4	mg/L	0.050	0.012	1	02/26/24 11:29	02/28/24 17:52	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/23/24 14:10	02/26/24 13:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/23/24 14:10	02/26/24 13:47	7440-38-2	
Barium	0.050	mg/L	0.0050	0.00047	1	02/23/24 14:10	02/26/24 13:47	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/23/24 14:10	02/26/24 13:47	7440-41-7	
Boron	0.68	mg/L	0.040	0.012	1	02/23/24 14:10	02/26/24 13:47	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/23/24 14:10	02/26/24 13:47	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/23/24 14:10	02/26/24 13:47	7440-47-3	
Cobalt	0.00042J	mg/L	0.0050	0.00032	1	02/23/24 14:10	02/26/24 13:47	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/23/24 14:10	02/26/24 13:47	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/23/24 14:10	02/26/24 13:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/23/24 14:10	02/26/24 13:47	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/23/24 14:10	02/26/24 13:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/23/24 14:10	02/26/24 13:47	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:33	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	424	mg/L	25.0	25.0	1		02/23/24 15:07		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	206	mg/L	5.0	5.0	1		02/23/24 14:38		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/23/24 14:38		
Alkalinity, Total as CaCO3	206	mg/L	5.0	5.0	1		02/23/24 14:38		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:45	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.1	mg/L	1.0	0.60	1		02/22/24 10:01	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-HGWC-118 Lab ID: 92713577016 Collected: 02/17/24 10:16 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.068J	mg/L	0.10	0.050	1		02/22/24 10:01	16984-48-8	
Sulfate	69.7	mg/L	1.0	0.50	1		02/22/24 10:01	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-EB-02 **Lab ID: 92713577017** Collected: 02/17/24 17:00 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	02/26/24 11:29	02/28/24 17:54	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/23/24 14:10	02/26/24 13:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/23/24 14:10	02/26/24 13:51	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	02/23/24 14:10	02/26/24 13:51	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/23/24 14:10	02/26/24 13:51	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	02/23/24 14:10	02/26/24 13:51	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/23/24 14:10	02/26/24 13:51	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/23/24 14:10	02/26/24 13:51	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/23/24 14:10	02/26/24 13:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/23/24 14:10	02/26/24 13:51	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/23/24 14:10	02/26/24 13:51	7439-93-2	
Molybdenum	0.0017J	mg/L	0.010	0.00062	1	02/23/24 14:10	02/26/24 13:51	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/23/24 14:10	02/26/24 13:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/23/24 14:10	02/26/24 13:51	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:35	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		02/23/24 15:13		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		02/21/24 19:38	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 19:38	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/21/24 19:38	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-FB-02 **Lab ID: 92713577018** Collected: 02/17/24 17:05 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	02/26/24 11:29	02/28/24 17:57	7440-70-2	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/23/24 14:10	02/26/24 13:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/23/24 14:10	02/26/24 13:55	7440-38-2	
Barium	ND	mg/L	0.0050	0.00047	1	02/23/24 14:10	02/26/24 13:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/23/24 14:10	02/26/24 13:55	7440-41-7	
Boron	ND	mg/L	0.040	0.012	1	02/23/24 14:10	02/26/24 13:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/23/24 14:10	02/26/24 13:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/23/24 14:10	02/26/24 13:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00032	1	02/23/24 14:10	02/26/24 13:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/23/24 14:10	02/26/24 13:55	7439-92-1	
Lithium	ND	mg/L	0.030	0.0016	1	02/23/24 14:10	02/26/24 13:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/23/24 14:10	02/26/24 13:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/23/24 14:10	02/26/24 13:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/23/24 14:10	02/26/24 13:55	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:38	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	33.0	mg/L	25.0	25.0	1		02/23/24 15:13		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		02/21/24 18:55	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/21/24 18:55	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/21/24 18:55	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-FD-02 **Lab ID:** 92713577019 Collected: 02/17/24 00:00 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6010D ATL ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Sodium	8.8	mg/L	1.0	0.58	1	02/26/24 11:29	03/01/24 16:53	7440-23-5	
Iron	0.059	mg/L	0.040	0.025	1	02/26/24 11:29	02/28/24 18:00	7439-89-6	
Manganese	0.12	mg/L	0.040	0.011	1	02/26/24 11:29	02/28/24 18:00	7439-96-5	
Potassium	0.70	mg/L	0.50	0.15	1	02/26/24 11:29	02/28/24 18:00	7440-09-7	
Calcium	66.8	mg/L	1.0	0.12	1	02/26/24 11:29	02/28/24 18:00	7440-70-2	
Magnesium	9.1	mg/L	0.050	0.012	1	02/26/24 11:29	02/28/24 18:00	7439-95-4	
6020 MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00054	1	02/23/24 14:10	02/26/24 14:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00084	1	02/23/24 14:10	02/26/24 14:18	7440-38-2	
Barium	0.046	mg/L	0.0050	0.00047	1	02/23/24 14:10	02/26/24 14:18	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000094	1	02/23/24 14:10	02/26/24 14:18	7440-41-7	
Boron	0.28	mg/L	0.040	0.012	1	02/23/24 14:10	02/26/24 14:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00010	1	02/23/24 14:10	02/26/24 14:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0019	1	02/23/24 14:10	02/26/24 14:18	7440-47-3	
Cobalt	0.00045J	mg/L	0.0050	0.00032	1	02/23/24 14:10	02/26/24 14:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00016	1	02/23/24 14:10	02/26/24 14:18	7439-92-1	
Lithium	0.0040J	mg/L	0.030	0.0016	1	02/23/24 14:10	02/26/24 14:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00062	1	02/23/24 14:10	02/26/24 14:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.00096	1	02/23/24 14:10	02/26/24 14:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00038	1	02/23/24 14:10	02/26/24 14:18	7440-28-0	
7470 Mercury									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/26/24 18:10	02/27/24 09:41	7439-97-6	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	1300	mg/L	25.0	25.0	1		02/23/24 15:14		
2320B Alkalinity									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity,Bicarbonate (CaCO3)	134	mg/L	5.0	5.0	1		02/23/24 14:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		02/23/24 14:51		
Alkalinity, Total as CaCO3	134	mg/L	5.0	5.0	1		02/23/24 14:51		
4500S2D Sulfide Water									
Analytical Method: SM 4500-S2D-2011									
Pace Analytical Services - Asheville									
Sulfide	ND	mg/L	0.10	0.022	1		02/21/24 03:46	18496-25-8	
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.4	mg/L	1.0	0.60	1		02/22/24 10:16	16887-00-6	

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ANALYTICAL RESULTS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Sample: HAM-AP4-FD-02 Lab ID: 92713577019 Collected: 02/17/24 00:00 Received: 02/19/24 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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300.0 IC Anions 28 Days

Analytical Method: EPA 300.0 Rev 2.1 1993
Pace Analytical Services - Asheville

Fluoride	0.056J	mg/L	0.10	0.050	1		02/22/24 10:16	16984-48-8	
Sulfate	72.2	mg/L	1.0	0.50	1		02/22/24 10:16	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833074

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577001, 92713577002

METHOD BLANK: 4305116

Matrix: Water

Associated Lab Samples: 92713577001, 92713577002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/26/24 00:48	
Iron	mg/L	ND	0.040	0.025	02/26/24 00:48	
Magnesium	mg/L	ND	0.050	0.012	02/26/24 00:48	
Manganese	mg/L	ND	0.040	0.011	02/26/24 00:48	
Potassium	mg/L	ND	0.50	0.15	02/26/24 00:48	
Sodium	mg/L	ND	1.0	0.58	02/26/24 00:48	

LABORATORY CONTROL SAMPLE: 4305117

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.97J	97	80-120	
Iron	mg/L	1	1.1	106	80-120	
Magnesium	mg/L	1	1.0	102	80-120	
Manganese	mg/L	1	1.0	103	80-120	
Potassium	mg/L	1	1.0	104	80-120	
Sodium	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305118 4305119

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		92713556001	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	mg/L	116	1	1	111	111	-492	-467	75-125	0	20	M1	
Iron	mg/L	0.034J	1	1	1.0	1.0	100	99	75-125	0	20		
Magnesium	mg/L	4.8	1	1	5.5	5.6	72	77	75-125	1	20	M1	
Manganese	mg/L	0.12	1	1	1.1	1.1	100	99	75-125	0	20		
Potassium	mg/L	0.59	1	1	1.6	1.7	106	107	75-125	1	20		
Sodium	mg/L	21.2	1	1	21.2	21.2	-6	0	75-125	0	20	M1	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833753	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577003, 92713577004, 92713577005

METHOD BLANK: 4308325 Matrix: Water

Associated Lab Samples: 92713577003, 92713577004, 92713577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/26/24 18:36	
Iron	mg/L	ND	0.040	0.025	02/26/24 18:36	
Magnesium	mg/L	ND	0.050	0.012	02/26/24 18:36	
Manganese	mg/L	ND	0.040	0.011	02/26/24 18:36	
Potassium	mg/L	ND	0.50	0.15	02/26/24 18:36	
Sodium	mg/L	ND	1.0	0.58	02/26/24 18:36	

LABORATORY CONTROL SAMPLE: 4308326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.87J	87	80-120	
Iron	mg/L	1	0.87	87	80-120	
Magnesium	mg/L	1	0.92	92	80-120	
Manganese	mg/L	1	1.0	104	80-120	
Potassium	mg/L	1	1.0	100	80-120	
Sodium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308327 4308328

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713577003 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	29.4	1	1	28.8	26.8	-62	-262	75-125	7	20 M1
Iron	mg/L	0.22	1	1	1.1	1.0	88	83	75-125	4	20
Magnesium	mg/L	3.3	1	1	4.0	3.7	69	40	75-125	8	20 M1
Manganese	mg/L	0.065	1	1	1.0	1.1	96	102	75-125	6	20
Potassium	mg/L	6.8	1	1	7.8	7.3	104	52	75-125	7	20 M1
Sodium	mg/L	5.7	1	1	6.3	5.9	61	15	75-125	8	20 M1

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833757	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013, 92713577014		

METHOD BLANK:	4308343	Matrix:	Water
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013, 92713577014		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	03/01/24 16:09	
Iron	mg/L	ND	0.040	0.025	03/01/24 16:09	
Magnesium	mg/L	ND	0.050	0.012	03/01/24 16:09	
Manganese	mg/L	ND	0.040	0.011	03/01/24 16:09	
Potassium	mg/L	ND	0.50	0.15	03/01/24 16:09	
Sodium	mg/L	ND	1.0	0.58	03/01/24 16:09	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	
Iron	mg/L	1	1.0	104	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Manganese	mg/L	1	1.0	100	80-120	
Potassium	mg/L	1	1.0	104	80-120	
Sodium	mg/L	1	1.0	105	80-120	

Parameter	Units	4308345		4308346		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Calcium	mg/L	286	1	1	282	293	-458	645	75-125	4	20	M1	
Iron	mg/L	0.10	1	1	1.1	1.1	101	105	75-125	3	20		
Magnesium	mg/L	28.4	1	1	28.5	29.8	16	146	75-125	4	20	M1	
Manganese	mg/L	5.2	1	1	6.0	6.2	90	109	75-125	3	20		
Potassium	mg/L	1.9	1	1	2.7	2.8	81	96	75-125	5	20		
Sodium	mg/L	12.1	1	1	12.8	13.4	65	125	75-125	5	20	M1	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 834918 Analysis Method: EPA 6010D
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL
 Laboratory: Pace Analytical Services - Peachtree Corners, GA
 Associated Lab Samples: 92713577015, 92713577016, 92713577017, 92713577018, 92713577019

METHOD BLANK: 4313498 Matrix: Water
 Associated Lab Samples: 92713577015, 92713577016, 92713577017, 92713577018, 92713577019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/28/24 17:32	
Iron	mg/L	ND	0.040	0.025	02/28/24 17:32	
Magnesium	mg/L	ND	0.050	0.012	02/28/24 17:32	
Manganese	mg/L	ND	0.040	0.011	02/28/24 17:32	
Potassium	mg/L	ND	0.50	0.15	02/28/24 17:32	
Sodium	mg/L	ND	1.0	0.58	02/28/24 17:32	

LABORATORY CONTROL SAMPLE: 4313499

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.1	107	80-120	
Manganese	mg/L	1	1.0	104	80-120	
Potassium	mg/L	1	1.1	110	80-120	
Sodium	mg/L	1	1.1	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4313500 4313501

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		92713577015	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Calcium	mg/L	63.9	1	1	64.1	62.6	24	-132	75-125	2	20	M1	
Iron	mg/L	0.069	1	1	1.1	1.1	102	100	75-125	2	20		
Magnesium	mg/L	9.1	1	1	10.1	10	106	89	75-125	2	20		
Manganese	mg/L	0.13	1	1	1.1	1.1	101	99	75-125	2	20		
Potassium	mg/L	0.70	1	1	1.7	1.7	101	96	75-125	3	20		
Sodium	mg/L	9.2	1	1	10.3	10.1	106	92	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833075

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577001, 92713577002

METHOD BLANK: 4305133

Matrix: Water

Associated Lab Samples: 92713577001, 92713577002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	02/20/24 15:31	
Arsenic	mg/L	ND	0.0050	0.00084	02/20/24 15:31	
Barium	mg/L	ND	0.0050	0.00047	02/20/24 15:31	
Beryllium	mg/L	ND	0.00050	0.000094	02/20/24 15:31	
Boron	mg/L	ND	0.040	0.012	02/20/24 15:31	
Cadmium	mg/L	ND	0.00050	0.00010	02/20/24 15:31	
Chromium	mg/L	ND	0.0050	0.0019	02/20/24 15:31	
Cobalt	mg/L	ND	0.0050	0.00032	02/20/24 15:31	
Lead	mg/L	ND	0.0010	0.00016	02/20/24 15:31	
Lithium	mg/L	ND	0.030	0.0016	02/20/24 15:31	
Molybdenum	mg/L	ND	0.010	0.00062	02/20/24 15:31	
Selenium	mg/L	ND	0.0050	0.00096	02/20/24 15:31	
Thallium	mg/L	ND	0.0010	0.00038	02/20/24 15:31	

LABORATORY CONTROL SAMPLE: 4305134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	105	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305135 4305136

Parameter	Units	92713556005 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	105	105	75-125	0	20	
Arsenic	mg/L	0.0014J	0.1	0.1	0.10	0.10	101	100	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305135												4305136	
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713556005 Result	Spike Conc.	Spike Conc.	MS Conc.								
Barium	mg/L	0.12	0.1	0.1	0.21	0.22	94	94	75-125	0	20		
Beryllium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20		
Boron	mg/L	0.49	1	1	1.5	1.5	98	99	75-125	0	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	0	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	0	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20		
Lithium	mg/L	0.088	0.1	0.1	0.18	0.19	95	97	75-125	1	20		
Molybdenum	mg/L	0.0018J	0.1	0.1	0.10	0.10	102	102	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	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: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833641	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577003, 92713577004, 92713577005

METHOD BLANK: 4307651 Matrix: Water

Associated Lab Samples: 92713577003, 92713577004, 92713577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	02/21/24 17:48	
Arsenic	mg/L	ND	0.0050	0.00084	02/21/24 17:48	
Barium	mg/L	ND	0.0050	0.00047	02/21/24 17:48	
Beryllium	mg/L	ND	0.00050	0.000094	02/21/24 17:48	
Boron	mg/L	ND	0.040	0.012	02/21/24 17:48	
Cadmium	mg/L	ND	0.00050	0.00010	02/21/24 17:48	
Chromium	mg/L	ND	0.0050	0.0019	02/21/24 17:48	
Cobalt	mg/L	ND	0.0050	0.00032	02/21/24 17:48	
Lead	mg/L	ND	0.0010	0.00016	02/21/24 17:48	
Lithium	mg/L	ND	0.030	0.0016	02/21/24 17:48	
Molybdenum	mg/L	ND	0.010	0.00062	02/21/24 17:48	
Selenium	mg/L	ND	0.0050	0.00096	02/21/24 17:48	
Thallium	mg/L	ND	0.0010	0.00038	02/21/24 17:48	

LABORATORY CONTROL SAMPLE: 4307652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.11	106	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4307653 4307654

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713577004	Result	Conc.	Conc.						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	1	20
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	103	99	75-125	4	20

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Parameter	Units	4307653		4307654		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713577004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.029	0.1	0.1	0.13	0.13	101	100	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.094	0.091	94	91	75-125	3	20		
Boron	mg/L	ND	1	1	0.94	0.93	94	93	75-125	1	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	105	104	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.099	100	98	75-125	2	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	2	20		
Lithium	mg/L	0.0020J	0.1	0.1	0.097	0.096	95	94	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833679	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013		

METHOD BLANK:	4307881	Matrix:	Water
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	02/26/24 18:11	
Arsenic	mg/L	ND	0.0050	0.00084	02/26/24 18:11	
Barium	mg/L	ND	0.0050	0.00047	02/26/24 18:11	
Beryllium	mg/L	ND	0.00050	0.000094	02/26/24 18:11	
Boron	mg/L	ND	0.040	0.012	02/26/24 18:11	
Cadmium	mg/L	ND	0.00050	0.00010	02/26/24 18:11	
Chromium	mg/L	ND	0.0050	0.0019	02/26/24 18:11	
Cobalt	mg/L	ND	0.0050	0.00032	02/26/24 18:11	
Lead	mg/L	ND	0.0010	0.00016	02/26/24 18:11	
Lithium	mg/L	ND	0.030	0.0016	02/26/24 18:11	
Molybdenum	mg/L	ND	0.010	0.00062	02/26/24 18:11	
Selenium	mg/L	ND	0.0050	0.00096	02/26/24 18:11	
Thallium	mg/L	ND	0.0010	0.00038	02/26/24 18:11	

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.097	97	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.093	93	80-120	
Beryllium	mg/L	0.1	0.090	90	80-120	
Boron	mg/L	1	0.92	92	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.096	96	80-120	
Cobalt	mg/L	0.1	0.093	93	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.092	92	80-120	
Molybdenum	mg/L	0.1	0.093	93	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

Parameter		Units	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony		mg/L	ND	0.1	0.099	0.096	99	96	75-125	4 20

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4307883 4307884												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92713565011 Result	Spike Conc.	Spike Conc.	MS Result							
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	3	20	
Barium	mg/L	0.012	0.1	0.1	0.10	0.10	93	90	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.087	0.084	86	84	75-125	3	20	
Boron	mg/L	2.2	1	1	3.1	3.1	90	91	75-125	0	20	
Cadmium	mg/L	0.0018	0.1	0.1	0.10	0.097	98	95	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.095	99	95	75-125	5	20	
Cobalt	mg/L	0.019	0.1	0.1	0.12	0.11	97	93	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.094	0.090	94	90	75-125	4	20	
Lithium	mg/L	ND	0.1	0.1	0.090	0.088	89	87	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.091	95	91	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.090	93	90	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	834672	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019

METHOD BLANK: 4312318 Matrix: Water

Associated Lab Samples: 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00054	02/26/24 13:21	
Arsenic	mg/L	ND	0.0050	0.00084	02/26/24 13:21	
Barium	mg/L	ND	0.0050	0.00047	02/26/24 13:21	
Beryllium	mg/L	ND	0.00050	0.000094	02/26/24 13:21	
Boron	mg/L	ND	0.040	0.012	02/26/24 13:21	
Cadmium	mg/L	ND	0.00050	0.00010	02/26/24 13:21	
Chromium	mg/L	ND	0.0050	0.0019	02/26/24 13:21	
Cobalt	mg/L	ND	0.0050	0.00032	02/26/24 13:21	
Lead	mg/L	ND	0.0010	0.00016	02/26/24 13:21	
Lithium	mg/L	ND	0.030	0.0016	02/26/24 13:21	
Molybdenum	mg/L	ND	0.010	0.00062	02/26/24 13:21	
Selenium	mg/L	ND	0.0050	0.00096	02/26/24 13:21	
Thallium	mg/L	ND	0.0010	0.00038	02/26/24 13:21	

LABORATORY CONTROL SAMPLE: 4312319

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	0.10	101	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	105	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4312320 4312321

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713577014	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	100	104	75-125	5	20		
Arsenic	mg/L	0.0013J	0.1	0.1	0.10	0.10	100	102	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Parameter	Units	4312320		4312321		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713577014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.078	0.1	0.1	0.17	0.18	97	101	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.089	0.089	89	89	75-125	0	20		
Boron	mg/L	0.22	1	1	1.1	1.2	91	93	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	98	102	75-125	4	20		
Cobalt	mg/L	0.0011J	0.1	0.1	0.099	0.10	98	99	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.089	0.091	89	90	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	835012	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92713577001, 92713577002, 92713577003, 92713577004, 92713577005, 92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013, 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019		

METHOD BLANK:	4313880	Matrix:	Water
Associated Lab Samples:	92713577001, 92713577002, 92713577003, 92713577004, 92713577005, 92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013, 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/27/24 08:26	

LABORATORY CONTROL SAMPLE:	4313881					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	4313882			4313883								
Parameter	Units	92713577001 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	0.0019	96	75	75-125	24	20	R1

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833431	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples:	92713577003, 92713577004, 92713577005		

METHOD BLANK: 4306608 Matrix: Water

Associated Lab Samples: 92713577003, 92713577004, 92713577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/19/24 17:40	

LABORATORY CONTROL SAMPLE: 4306609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	395	99	80-120	

SAMPLE DUPLICATE: 4306610

Parameter	Units	92714171001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	248	244	2	10	

SAMPLE DUPLICATE: 4306611

Parameter	Units	92714158002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	407	434	6	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833913

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577006, 92713577007

METHOD BLANK: 4308816

Matrix: Water

Associated Lab Samples: 92713577006, 92713577007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/21/24 18:05	

LABORATORY CONTROL SAMPLE: 4308817

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	80-120	

SAMPLE DUPLICATE: 4308818

Parameter	Units	92714158018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	334	361	8	10	

SAMPLE DUPLICATE: 4308819

Parameter	Units	92714171012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	224	206	8	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	834581	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013

METHOD BLANK: 4311905 Matrix: Water

Associated Lab Samples: 92713577008, 92713577009, 92713577010, 92713577011, 92713577012, 92713577013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/23/24 13:29	

LABORATORY CONTROL SAMPLE: 4311906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	80-120	

SAMPLE DUPLICATE: 4311908

Parameter	Units	92714158024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	348	219	46	10	D6

SAMPLE DUPLICATE: 4311913

Parameter	Units	92713577008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	640	693	8	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	834650	Analysis Method:	SM 2540C-2015
QC Batch Method:	SM 2540C-2015	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019

METHOD BLANK: 4312258 Matrix: Water

Associated Lab Samples: 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/23/24 15:05	

LABORATORY CONTROL SAMPLE: 4312259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	402	100	80-120	

SAMPLE DUPLICATE: 4312260

Parameter	Units	92713577014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	265	450	52	10	D6

SAMPLE DUPLICATE: 4312261

Parameter	Units	92713565014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2010	1900	6	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833295

Analysis Method: SM 2320B-2011

QC Batch Method: SM 2320B-2011

Analysis Description: 2320B Alkalinity

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92713577001, 92713577002

METHOD BLANK: 4305949

Matrix: Water

Associated Lab Samples: 92713577001, 92713577002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	02/19/24 15:03	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	02/19/24 15:03	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	02/19/24 15:03	

LABORATORY CONTROL SAMPLE: 4305950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.6	101	80-120	

LABORATORY CONTROL SAMPLE: 4305951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.1	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305952 4305953

Parameter	Units	92713311035		4305953		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.1	51.1	101	101	80-120	0	25

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305954 4305955

Parameter	Units	92713311036		4305955		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Alkalinity, Total as CaCO3	mg/L	ND	50	50	51.9	50.2	103	99	80-120	3	25

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833544 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92713577003, 92713577004, 92713577005

METHOD BLANK: 4307055 Matrix: Water

Associated Lab Samples: 92713577003, 92713577004, 92713577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	02/20/24 16:07	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	02/20/24 16:07	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	02/20/24 16:07	

LABORATORY CONTROL SAMPLE: 4307056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.7	101	80-120	

LABORATORY CONTROL SAMPLE: 4307057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.5	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4307058 4307059

Parameter	Units	92713542012		4307059		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.						
Alkalinity, Total as CaCO3	mg/L	ND	50	50	55.2	50.8	110	101	80-120	8	25

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4307060 4307061

Parameter	Units	92713559016		4307061		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.						
Alkalinity, Total as CaCO3	mg/L	11.7	50	50	62.0	74.6	101	126	80-120	18	25 M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	834334	Analysis Method:	SM 2320B-2011
QC Batch Method:	SM 2320B-2011	Analysis Description:	2320B Alkalinity
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577012, 92713577013, 92713577014		

METHOD BLANK:	4310874	Matrix:	Water
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577012, 92713577013, 92713577014		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	02/22/24 19:23	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	02/22/24 19:23	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	02/22/24 19:23	

LABORATORY CONTROL SAMPLE: 4310875						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.2	100	80-120	

LABORATORY CONTROL SAMPLE: 4310876						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.8	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4310877												4310878	
Parameter	Units	92714468009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Alkalinity, Total as CaCO3	mg/L	10.2	50	50	61.3	61.6	102	103	80-120	1	25		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4310879												4310880	
Parameter	Units	92713565015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Alkalinity, Total as CaCO3	mg/L	163	50	50	212	211	97	97	80-120	0	25		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 834611 Analysis Method: SM 2320B-2011
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92713577015, 92713577016, 92713577019

METHOD BLANK: 4312116 Matrix: Water
 Associated Lab Samples: 92713577015, 92713577016, 92713577019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	02/23/24 13:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	02/23/24 13:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	02/23/24 13:34	

LABORATORY CONTROL SAMPLE: 4312117

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	80-120	

LABORATORY CONTROL SAMPLE: 4312118

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4312119 4312120

Parameter	Units	4312119		4312120		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Alkalinity, Total as CaCO3	mg/L	36.4	50	87.1	86.4	101	100	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4312121 4312122

Parameter	Units	4312121		4312122		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Alkalinity, Total as CaCO3	mg/L	73.5	50	120	121	94	95	80-120	1	25	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833516

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92713577001, 92713577002

METHOD BLANK: 4306957

Matrix: Water

Associated Lab Samples: 92713577001, 92713577002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/20/24 11:28	

LABORATORY CONTROL SAMPLE: 4306958

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	268	107	90-110	

SAMPLE DUPLICATE: 4306959

Parameter	Units	92713565003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	240	239	0	25	

SAMPLE DUPLICATE: 4306960

Parameter	Units	92713542001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	116	117	1	25	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833117

Analysis Method: SM 4500-S2D-2011

QC Batch Method: SM 4500-S2D-2011

Analysis Description: 4500S2D Sulfide Water

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92713577001, 92713577002

METHOD BLANK: 4305491

Matrix: Water

Associated Lab Samples: 92713577001, 92713577002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	02/17/24 01:52	

LABORATORY CONTROL SAMPLE: 4305492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305493 4305494

Parameter	Units	92713556001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					RPD	RPD
Sulfide	mg/L	ND	0.5	0.5	0.47	0.55	94	111	80-120	16	10	R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4305519 4305520

Parameter	Units	92713565004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					RPD	RPD
Sulfide	mg/L	ND	0.5	0.5	0.49	0.54	98	107	80-120	9	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833475	Analysis Method:	SM 4500-S2D-2011
QC Batch Method:	SM 4500-S2D-2011	Analysis Description:	4500S2D Sulfide Water
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92713577003, 92713577004, 92713577005		

METHOD BLANK: 4306854 Matrix: Water
 Associated Lab Samples: 92713577003, 92713577004, 92713577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	02/21/24 03:14	

LABORATORY CONTROL SAMPLE: 4306855

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4306856 4306857

Parameter	Units	4306856		4306857		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	ND	0.5	0.50	0.54	98	107	80-120	8	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4306858 4306859

Parameter	Units	4306858		4306859		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Sulfide	mg/L	ND	0.5	0.48	0.51	96	101	80-120	5	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833808 Analysis Method: SM 4500-S2D-2011
 QC Batch Method: SM 4500-S2D-2011 Analysis Description: 4500S2D Sulfide Water
 Laboratory: Pace Analytical Services - Asheville
 Associated Lab Samples: 92713577006, 92713577007, 92713577008, 92713577009, 92713577012, 92713577013, 92713577014, 92713577015, 92713577016, 92713577019

METHOD BLANK: 4308452 Matrix: Water
 Associated Lab Samples: 92713577006, 92713577007, 92713577008, 92713577009, 92713577012, 92713577013, 92713577014, 92713577015, 92713577016, 92713577019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.022	02/21/24 03:37	

LABORATORY CONTROL SAMPLE: 4308453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.52	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308454 4308455

Parameter	Units	92713572008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.50	0.53	100	106	80-120	6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308456 4308457

Parameter	Units	92713565007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.45	0.49	91	98	80-120	7	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	832724	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: 92713577001, 92713577002

METHOD BLANK: 4303397 Matrix: Water

Associated Lab Samples: 92713577001, 92713577002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/15/24 22:02	
Fluoride	mg/L	ND	0.10	0.050	02/15/24 22:02	
Sulfate	mg/L	ND	1.0	0.50	02/15/24 22:02	

LABORATORY CONTROL SAMPLE: 4303398

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.4	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4303399 4303400

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713556001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	10.0	50	50	59.2	60.8	98	102	90-110	3	10		
Fluoride	mg/L	0.071J	2.5	2.5	2.9	3.0	114	118	90-110	3	10	M1	
Sulfate	mg/L	50.4	50	50	92.0	94.1	83	87	90-110	2	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4303401 4303402

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92713565002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	1.8	50	50	51.5	53.2	99	103	90-110	3	10		
Fluoride	mg/L	0.059J	2.5	2.5	2.8	2.9	111	115	90-110	4	10	M1	
Sulfate	mg/L	21.8	50	50	72.4	74.0	101	104	90-110	2	10		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch: 833447 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: 92713577003, 92713577004, 92713577005

METHOD BLANK: 4306763 Matrix: Water
 Associated Lab Samples: 92713577003, 92713577004, 92713577005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/20/24 00:13	
Fluoride	mg/L	ND	0.10	0.050	02/20/24 00:13	
Sulfate	mg/L	ND	1.0	0.50	02/20/24 00:13	

LABORATORY CONTROL SAMPLE: 4306764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.5	103	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	51.7	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4306765 4306766

Parameter	Units	92714116001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	3850	50	50	3880	3870	55	39	90-110	0	10	M1	
Fluoride	mg/L	ND	2.5	2.5	ND	ND	0	0	90-110		10	D3,M1	
Sulfate	mg/L	ND	50	50	97.4J	98.6J	63	66	90-110		10	D3,M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4306767 4306768

Parameter	Units	92713577005		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	1.5	50	50	52.8	53.9	103	105	90-110	2	10		
Fluoride	mg/L	0.18	2.5	2.5	2.7	2.7	100	102	90-110	2	10		
Sulfate	mg/L	4.9	50	50	56.5	57.6	103	105	90-110	2	10		

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833763	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:	92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012		

METHOD BLANK:	4308361	Matrix:	Water
Associated Lab Samples:	92713577006, 92713577007, 92713577008, 92713577009, 92713577010, 92713577011, 92713577012		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/21/24 02:08	
Fluoride	mg/L	ND	0.10	0.050	02/21/24 02:08	
Sulfate	mg/L	ND	1.0	0.50	02/21/24 02:08	

LABORATORY CONTROL SAMPLE: 4308362						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.4	101	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	51.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308363												4308364	
Parameter	Units	92713565010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	29.7	50	50	79.3	80.5	99	102	90-110	2	10		
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	101	107	90-110	6	10		
Sulfate	mg/L	150	50	50	199	200	98	100	90-110	1	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308365												4308366	
Parameter	Units	92713572008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	2.2	50	50	52.0	53.0	100	102	90-110	2	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.8	104	109	90-110	4	10		
Sulfate	mg/L	74.5	50	50	88.6	112	28	76	90-110	24	10	M1, R1	

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QUALITY CONTROL DATA

Project: Plant Hammond AP-4

Pace Project No.: 92713577

QC Batch:	833869	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:	92713577013, 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019		

METHOD BLANK:	4308614	Matrix:	Water
Associated Lab Samples:	92713577013, 92713577014, 92713577015, 92713577016, 92713577017, 92713577018, 92713577019		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/21/24 19:09	
Fluoride	mg/L	ND	0.10	0.050	02/21/24 19:09	
Sulfate	mg/L	ND	1.0	0.50	02/21/24 19:09	

LABORATORY CONTROL SAMPLE: 4308615						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.0	102	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	
Sulfate	mg/L	50	51.4	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308616												4308617	
Parameter	Units	92714251002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	ND	50	50	50.2	52.0	100	104	90-110	3	10		
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	99	90-110	3	10		
Sulfate	mg/L	ND	50	50	50.3	52.0	100	104	90-110	3	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4308618												4308619	
Parameter	Units	92713577013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	6.8	50	50	57.8	58.5	102	103	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.3	2.4	92	95	90-110	3	10		
Sulfate	mg/L	251	50	50	296	300	91	98	90-110	1	10		

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QUALIFIERS

Project: Plant Hammond AP-4

Pace Project No.: 92713577

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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

R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92713577001	HAM-HGWA-48D	EPA 3010A	833074	EPA 6010D	833112
92713577002	HAM-HGWA-112	EPA 3010A	833074	EPA 6010D	833112
92713577003	HAM-HGWA-47	EPA 3010A	833753	EPA 6010D	833785
92713577004	HAM-HGWA-111	EPA 3010A	833753	EPA 6010D	833785
92713577005	HAM-HGWA-113	EPA 3010A	833753	EPA 6010D	833785
92713577006	HAM-HGWC-101	EPA 3010A	833757	EPA 6010D	833991
92713577007	HAM-HGWC-102	EPA 3010A	833757	EPA 6010D	833991
92713577008	HAM-HGWC-103	EPA 3010A	833757	EPA 6010D	833991
92713577009	HAM-HGWC-107	EPA 3010A	833757	EPA 6010D	833991
92713577010	HAM-AP4-EB-01	EPA 3010A	833757	EPA 6010D	833991
92713577011	HAM-AP4-FB-01	EPA 3010A	833757	EPA 6010D	833991
92713577012	HAM-AP4-FD-01	EPA 3010A	833757	EPA 6010D	833991
92713577013	HAM-HGWC-105	EPA 3010A	833757	EPA 6010D	833991
92713577014	HAM-HGWC-109	EPA 3010A	833757	EPA 6010D	833991
92713577015	HAM-HGWC-117A	EPA 3010A	834918	EPA 6010D	835013
92713577016	HAM-HGWC-118	EPA 3010A	834918	EPA 6010D	835013
92713577017	HAM-AP4-EB-02	EPA 3010A	834918	EPA 6010D	835013
92713577018	HAM-AP4-FB-02	EPA 3010A	834918	EPA 6010D	835013
92713577019	HAM-AP4-FD-02	EPA 3010A	834918	EPA 6010D	835013
92713577001	HAM-HGWA-48D	EPA 3005A	833075	EPA 6020B	833154
92713577002	HAM-HGWA-112	EPA 3005A	833075	EPA 6020B	833154
92713577003	HAM-HGWA-47	EPA 3005A	833641	EPA 6020B	833765
92713577004	HAM-HGWA-111	EPA 3005A	833641	EPA 6020B	833765
92713577005	HAM-HGWA-113	EPA 3005A	833641	EPA 6020B	833765
92713577006	HAM-HGWC-101	EPA 3005A	833679	EPA 6020B	833784
92713577007	HAM-HGWC-102	EPA 3005A	833679	EPA 6020B	833784
92713577008	HAM-HGWC-103	EPA 3005A	833679	EPA 6020B	833784
92713577009	HAM-HGWC-107	EPA 3005A	833679	EPA 6020B	833784
92713577010	HAM-AP4-EB-01	EPA 3005A	833679	EPA 6020B	833784
92713577011	HAM-AP4-FB-01	EPA 3005A	833679	EPA 6020B	833784
92713577012	HAM-AP4-FD-01	EPA 3005A	833679	EPA 6020B	833784
92713577013	HAM-HGWC-105	EPA 3005A	833679	EPA 6020B	833784
92713577014	HAM-HGWC-109	EPA 3005A	834672	EPA 6020B	834741
92713577015	HAM-HGWC-117A	EPA 3005A	834672	EPA 6020B	834741
92713577016	HAM-HGWC-118	EPA 3005A	834672	EPA 6020B	834741
92713577017	HAM-AP4-EB-02	EPA 3005A	834672	EPA 6020B	834741
92713577018	HAM-AP4-FB-02	EPA 3005A	834672	EPA 6020B	834741
92713577019	HAM-AP4-FD-02	EPA 3005A	834672	EPA 6020B	834741
92713577001	HAM-HGWA-48D	EPA 7470A	835012	EPA 7470A	835123
92713577002	HAM-HGWA-112	EPA 7470A	835012	EPA 7470A	835123
92713577003	HAM-HGWA-47	EPA 7470A	835012	EPA 7470A	835123
92713577004	HAM-HGWA-111	EPA 7470A	835012	EPA 7470A	835123
92713577005	HAM-HGWA-113	EPA 7470A	835012	EPA 7470A	835123
92713577006	HAM-HGWC-101	EPA 7470A	835012	EPA 7470A	835123
92713577007	HAM-HGWC-102	EPA 7470A	835012	EPA 7470A	835123

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92713577008	HAM-HGWC-103	EPA 7470A	835012	EPA 7470A	835123
92713577009	HAM-HGWC-107	EPA 7470A	835012	EPA 7470A	835123
92713577010	HAM-AP4-EB-01	EPA 7470A	835012	EPA 7470A	835123
92713577011	HAM-AP4-FB-01	EPA 7470A	835012	EPA 7470A	835123
92713577012	HAM-AP4-FD-01	EPA 7470A	835012	EPA 7470A	835123
92713577013	HAM-HGWC-105	EPA 7470A	835012	EPA 7470A	835123
92713577014	HAM-HGWC-109	EPA 7470A	835012	EPA 7470A	835123
92713577015	HAM-HGWC-117A	EPA 7470A	835012	EPA 7470A	835123
92713577016	HAM-HGWC-118	EPA 7470A	835012	EPA 7470A	835123
92713577017	HAM-AP4-EB-02	EPA 7470A	835012	EPA 7470A	835123
92713577018	HAM-AP4-FB-02	EPA 7470A	835012	EPA 7470A	835123
92713577019	HAM-AP4-FD-02	EPA 7470A	835012	EPA 7470A	835123
92713577003	HAM-HGWA-47	SM 2540C-2015	833431		
92713577004	HAM-HGWA-111	SM 2540C-2015	833431		
92713577005	HAM-HGWA-113	SM 2540C-2015	833431		
92713577006	HAM-HGWC-101	SM 2540C-2015	833913		
92713577007	HAM-HGWC-102	SM 2540C-2015	833913		
92713577008	HAM-HGWC-103	SM 2540C-2015	834581		
92713577009	HAM-HGWC-107	SM 2540C-2015	834581		
92713577010	HAM-AP4-EB-01	SM 2540C-2015	834581		
92713577011	HAM-AP4-FB-01	SM 2540C-2015	834581		
92713577012	HAM-AP4-FD-01	SM 2540C-2015	834581		
92713577013	HAM-HGWC-105	SM 2540C-2015	834581		
92713577014	HAM-HGWC-109	SM 2540C-2015	834650		
92713577015	HAM-HGWC-117A	SM 2540C-2015	834650		
92713577016	HAM-HGWC-118	SM 2540C-2015	834650		
92713577017	HAM-AP4-EB-02	SM 2540C-2015	834650		
92713577018	HAM-AP4-FB-02	SM 2540C-2015	834650		
92713577019	HAM-AP4-FD-02	SM 2540C-2015	834650		
92713577001	HAM-HGWA-48D	SM 2320B-2011	833295		
92713577002	HAM-HGWA-112	SM 2320B-2011	833295		
92713577003	HAM-HGWA-47	SM 2320B-2011	833544		
92713577004	HAM-HGWA-111	SM 2320B-2011	833544		
92713577005	HAM-HGWA-113	SM 2320B-2011	833544		
92713577006	HAM-HGWC-101	SM 2320B-2011	834334		
92713577007	HAM-HGWC-102	SM 2320B-2011	834334		
92713577008	HAM-HGWC-103	SM 2320B-2011	834334		
92713577009	HAM-HGWC-107	SM 2320B-2011	834334		
92713577012	HAM-AP4-FD-01	SM 2320B-2011	834334		
92713577013	HAM-HGWC-105	SM 2320B-2011	834334		
92713577014	HAM-HGWC-109	SM 2320B-2011	834334		
92713577015	HAM-HGWC-117A	SM 2320B-2011	834611		
92713577016	HAM-HGWC-118	SM 2320B-2011	834611		
92713577019	HAM-AP4-FD-02	SM 2320B-2011	834611		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP-4

Pace Project No.: 92713577

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92713577001	HAM-HGWA-48D	SM 2540C-2015	833516		
92713577002	HAM-HGWA-112	SM 2540C-2015	833516		
92713577001	HAM-HGWA-48D	SM 4500-S2D-2011	833117		
92713577002	HAM-HGWA-112	SM 4500-S2D-2011	833117		
92713577003	HAM-HGWA-47	SM 4500-S2D-2011	833475		
92713577004	HAM-HGWA-111	SM 4500-S2D-2011	833475		
92713577005	HAM-HGWA-113	SM 4500-S2D-2011	833475		
92713577006	HAM-HGWC-101	SM 4500-S2D-2011	833808		
92713577007	HAM-HGWC-102	SM 4500-S2D-2011	833808		
92713577008	HAM-HGWC-103	SM 4500-S2D-2011	833808		
92713577009	HAM-HGWC-107	SM 4500-S2D-2011	833808		
92713577012	HAM-AP4-FD-01	SM 4500-S2D-2011	833808		
92713577013	HAM-HGWC-105	SM 4500-S2D-2011	833808		
92713577014	HAM-HGWC-109	SM 4500-S2D-2011	833808		
92713577015	HAM-HGWC-117A	SM 4500-S2D-2011	833808		
92713577016	HAM-HGWC-118	SM 4500-S2D-2011	833808		
92713577019	HAM-AP4-FD-02	SM 4500-S2D-2011	833808		
92713577001	HAM-HGWA-48D	EPA 300.0 Rev 2.1 1993	832724		
92713577002	HAM-HGWA-112	EPA 300.0 Rev 2.1 1993	832724		
92713577003	HAM-HGWA-47	EPA 300.0 Rev 2.1 1993	833447		
92713577004	HAM-HGWA-111	EPA 300.0 Rev 2.1 1993	833447		
92713577005	HAM-HGWA-113	EPA 300.0 Rev 2.1 1993	833447		
92713577006	HAM-HGWC-101	EPA 300.0 Rev 2.1 1993	833763		
92713577007	HAM-HGWC-102	EPA 300.0 Rev 2.1 1993	833763		
92713577008	HAM-HGWC-103	EPA 300.0 Rev 2.1 1993	833763		
92713577009	HAM-HGWC-107	EPA 300.0 Rev 2.1 1993	833763		
92713577010	HAM-AP4-EB-01	EPA 300.0 Rev 2.1 1993	833763		
92713577011	HAM-AP4-FB-01	EPA 300.0 Rev 2.1 1993	833763		
92713577012	HAM-AP4-FD-01	EPA 300.0 Rev 2.1 1993	833763		
92713577013	HAM-HGWC-105	EPA 300.0 Rev 2.1 1993	833869		
92713577014	HAM-HGWC-109	EPA 300.0 Rev 2.1 1993	833869		
92713577015	HAM-HGWC-117A	EPA 300.0 Rev 2.1 1993	833869		
92713577016	HAM-HGWC-118	EPA 300.0 Rev 2.1 1993	833869		
92713577017	HAM-AP4-EB-02	EPA 300.0 Rev 2.1 1993	833869		
92713577018	HAM-AP4-FB-02	EPA 300.0 Rev 2.1 1993	833869		
92713577019	HAM-AP4-FD-02	EPA 300.0 Rev 2.1 1993	833869		

REPORT OF LABORATORY ANALYSIS

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Effective Date: 12/01/2023

ratory receiving samples:

eville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Low Power

Project #:

WO#: 92713577



Carrier: Fed Ex UPS USPS Client Pace Other: _____

Body Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: *7/14/22*

Shipping Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer:

IR Gun ID: *730*

Type of Ice: Wet Blue None

Field Temp: *33* Correction Factor: Add/Subtract (°C) *+0.1*

Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process has begun

Field Temp Corrected (°C): *3.4*

QA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>Low</i>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Project #

WO#: 92713577

PM: BV

Due Date: 02/29/24

CLIENT: 92- GP-HAM

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

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

Bottom half of box is to list number of bottles

Check all unpreserved Nitrates for chlorine

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)						
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) (Cl-)						
BP3N-250 mL plastic HNO3 (pH < 2)						
BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)						
BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)						
WGFU-Wide-mouthed Glass jar Unpreserved						
AG1U-1 liter Amber Unpreserved (N/A) (Cl-)						
AG1H-1 liter Amber HCl (pH < 2)						
AG3U-250 mL Amber Unpreserved (N/A) (Cl-)						
AG1S-1 liter Amber H2SO4 (pH < 2)						
AG3S-250 mL Amber H2SO4 (pH < 2)						
DG94-40 mL Amber NH4Cl (N/A)(Cl-)						
DG9H-40 mL VOA HCl (N/A)						
VG9T-40 mL VOA Na2S2O3 (N/A)						
VG9U-40 mL VOA Unpreserved (N/A)						
DG9V-40 mL VOA H3PO4 (N/A)						
KP7U-50 mL Plastic Unpreserved (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)						
BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)						
AG0U-100 mL Amber Unpreserved (N/A) (Cl-)						
VSGU-20 mL Scintillation vials (N/A)						
DG9U-40 mL Amber Unpreserved vials (N/A)						

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 DENR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GA Power	Report To:	SCS Contacts	Attention:	Southern Co.
Address:	Atlanta, GA	Copy To:	Geosyntec Contacts	Company Name:	
Email To:	SCS Contacts	Purchase Order No.:		Address:	
Phone:	Fax	Project Name:	Hartmond AP-4	Price Quote Reference:	Bonnie Yang
Requested Due Date/TAT:	10 Day	Project Number:		Pace Project Manager:	10839
			REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input checked="" type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/>		
			Site Location STATE: GA		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATERIAL CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE	COMPOSITE			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol				
1	HGWA-48D	DW	WG	G	2/13/23	1837	16	7	3	3	3	1					N	001
2	HGWA-112	WT	WG	G	2/13/23	1155	16	7	3	3	1						N	002
3		WW																
4		P																
5		SL																
6		CL																
7		WP																
8		AR																
9		OT																
10																		
11																		
12																		

Task Code: HAM-CGR-ASSM-T-2024S1

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
<i>Deborah Stewart / Geosyntec</i>	2-14-2024	12:30	<i>Kym Williams / Pace</i>	2/14/2024	12:30	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
<i>Kym Williams / Pace</i>	2/14/2024	14:50	<i>SWC</i>	2/14/2024	14:50				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Anthony Sussel-Thomson, James Arnold-Geosyntec Consultants, Inc

SIGNATURE of SAMPLER: *[Signature]*

DATE Signed (MM/DD/YYYY):



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power - GeoSyntec

Project #: WO#: 92713577

Courier: Fed Ex UPS USPS Client Commercial Pace Other:

PM: BV Due Date: 02/29/24 CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: 2/16/24

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer: IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.5 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.0

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

Table with 2 columns: Chain of Custody Present? and Comments/Discrepancy: 1-11

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:



Effective Date: 12/01/2023

*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 bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92713577

PM: BV

Due Date: 02/29/24

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	IG7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1	/	2	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
2	/	2	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
3	/	2	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
4	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/	/
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	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. 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 Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: GA Power	Report To: SCS Contacts	Copy To: Geosyntec Contacts	Attention: Southern Co.	Company Name: Southern Co.	Address:
Address: Atlanta, GA					
Email To: SCS Contacts	Purchase Order No.:	REGULATORY AGENCY			
Phone:	Project Name: Hammond AP-4	<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER	
Requested Due Date/TAT: 10 Day	Project Number:	<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input checked="" type="checkbox"/> OTHER	000
		Site Location:	STATE: GA		
		Reference: Pace Project Manager: Bonnie Vang			
		Pace Profile #: 10839			

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW PRODUCT P SOLID S SLURRY SL OTHER OR TSS TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE	COMPOSITE							
			DATE	TIME	DATE	TIME							
1	HAM-HGWA-47		2/14/2024	1118			16	7	3	3	1		005
2	HAM-HGWA-111		2/14/2024	1240			19	7	3	3	1		004
3	HAM-HGWA-113		2/14/2024	1323			18	7	3	3	1		005
4													
5													
6													
7													
8													
9													
10													
11													
12													

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS					
Task Code: HAM-CCR-ASSMT-2023S1		Thomas Hessler / Pace		2/16/24		1330		Bon William / Pace		2/16/24		1330		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)		
		Bon William / Pace		2/16/24		1600													

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: f. Hessler, A. Savard, C. Emphreasure / Geosyntec Consultants, Inc.

SIGNATURE of SAMPLER: *[Signature]*

DATE Signed (MM/DD/YY): 2/16/2024



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO#: 92713577

PM: BV

Due Date: 02/29/24

CLIENT: 92- GP-HAM

Courier: Fed Ex UPS USPS Client Commercial Pace Other:

Custody Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: 7/19/24 SK

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID: 730

Type of Ice: Wet Blue None

Cooler Temp:

3.2

Correction Factor: Add/Subtract (°C) 10.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 8.3

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		6.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		9.
-Includes Date/Time/ID/Analysis Matrix:			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



DC#_ Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

*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 bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92713577

PM: BV

Due Date: 02/29/24

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		2																											
2		7																											
3		2																											
4		2																											
5		1																											
6		1																											
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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	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. 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 Required Client Information:		Section B Report To: SCS Contacts		Section C Invoice Information:	
Company: GA Power	Address: Atlanta, GA	Report To: SCS Contacts	Copy To: Geosyntec Contacts	Attention: Southern Co.	Company Name: Southern Co.
Phone:	Fac:	Purchase Order No.:	Project Name: Hammond AP-4	Address:	Site Location: <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER
Requested Due Date/TAT: 10 Day	Project Number:	Fac Profile #:	10839	Reference: Bonnie Yang	<input checked="" type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER CCR
			REGULATORY AGENCY		
			STATE: GA		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODES DRINKING WATER DW WATER WT WASTE WATER WW WASTEWATER WWT INDUCTIVE SOIL/SOLID I OIL OI WIRE WP AIR AR OTHER OT TSSU T5	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)						Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE	COMPOSITE					DATE	TIME	DATE	TIME	Chloride, Fluoride, Sulfate	Full App. III and IV metals		
1	HAM-HGWC-101		WG G	2/16/2024	1245	18	7	3	3	3	1	X	X	X	X	X	N	92713572
2	HAM-HGWC-102		WG G	2/16/2024	1425	18	7	3	3	3	1	X	X	X	X	X	N	92713572
3	HAM-HGWC-103		WG G	2/16/2024	1632	17	7	3	3	3	1	X	X	X	X	X	N	92713572
4	HAM-HGWC-107		WG G	2/16/2024	1658	18	7	3	3	3	1	X	X	X	X	X	N	92713572
5	HAM-AP4-EB-01		WG G	2/16/2024	1510	18	5	2	3	3	1	X	X	X	X	X	N	92713572
6	HAM-AP4-FB-01		WG G	2/16/2024	1517	18	5	2	3	3	1	X	X	X	X	X	N	92713572
7	HAM-AP4-FD-01		WG G	2/16/2024	0000	18	7	3	3	3	1	X	X	X	X	X	N	92713572
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS		REMIQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
Task Code: HAM-CGR-ASSMT-2024S1		Thomas Hessler Geosyntec		2/14/2024		1125		Kegan Williams Pace		2/14/2024		1125		Temp in °C	
		Kegan Williams Pace		4/6/2024		1325		SCE		2/19/2024		1325		Received on Ice (Y/N)	
														Custody Sealed Cooler (Y/N)	
														Samples Intact (Y/N)	

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO#: 92713577

Courier: Fed Ex UPS USPS Client Commercial Pace Other:

PM: BV Due Date: 02/29/24

CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: 2/19/24 JML

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID: 730 Type of Ice: Wet Blue None

Cooler Temp: 3.2 Correction Factor: Add/Subtract (°C) 10.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>101</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

*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 bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92713577

PM: BV

Due Date: 02/29/24

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	/	2	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
2	/	2	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
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4	/	2	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
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6	/	1	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
7	/	1	1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	/	/	/
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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 DENR Certification Office (i.e. 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
 Required Client Information:

Section B
 Requested Project Information:

Section C
 Invoice Information:

Company: GA Power
 Address: Atlanta, GA
 Email To: SCS Contacts
 Phone: [] Fax: []
 Requested Due Date/TAT: 10 Day

Report To: SCS Contacts
 Copy To: Geosyntec Contacts
 Purchase Order No.:
 Project Name: Hammond AP-4
 Project Number:

Attention: Southern Co.
 Company Name:
 Address:
 Reference: Pace Quote
 Pace Project Manager: Bonnie Yang
 Pace Profile #: 10839

REGULATORY AGENCY
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER OGB

Site Location: GA
 STATE: GA

Page: 1 of 1

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	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 Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HAM-HGWC-105		WG G	G	2/17/2024	1525			16	7	3	3	1		613
2	HAM-HGWC-109		WG G	G	2/17/2024	1351	TK	2/17/2024	16	7	3	3	1		614
3	HAM-HGWC-117A		WG G	G	2/17/2024	1717			16	7	3	3	1		615
4	HAM-HGWC-118		WG G	G	2/17/2024	1016			16	7	3	3	1		616
5	HAM-AP4-EB-02		WG G	G	2/17/2024	1700			16	5	2	3			617
6	HAM-AP4-FB-02		WG G	G	2/17/2024	1705			16	5	2	3			618
7	HAM-AP4-FD-02		WG G	G	2/17/2024	0000			16	7	3	3	1		619
8															Last sample
9															
10															
11															
12															

Task Code: HAM-CGR-ASSMT-2024SI

RELINQUISHED BY / AFFILIATION: *Flower Kessler Geosyntec* DATE: 2/19/2024 TIME: 1125
 ACCEPTED BY / AFFILIATION: *John Williams Pace* DATE: 2/19/2024 TIME: 1325

SAMPLER NAME AND SIGNATURE: *Flower Kessler*
 PRINT Name of SAMPLER: Flower Kessler
 SIGNATURE of SAMPLER: [Signature]

REGULATORY AGENCY: GA

Temp in °C: []
 Received on Ice (Y/N): []
 Custody Sealed Cooler (Y/N): []
 Samples Intact (Y/N): []

DATE signed (MM/DD/YY): 02/17/2024
 / Geosyntec Consultants, Inc.

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



March 13, 2024

Kristen Jurinko
Southern Company
241 Ralph McGill Blvd NE
Bin 10160
Atlanta, GA 30308

RE: Project: Plant Hammond AP-4-RAD
Pace Project No.: 92713581

Dear Kristen Jurinko:

Enclosed are the analytical results for sample(s) received by the laboratory between February 14, 2024 and February 19, 2024. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
704-977-0968
Project Manager

Enclosures

cc: Kip Gray, Geosyntec
Christine Hug, Geosyntec Consultants, Inc.
Thomas Kessler, Geosyntec Consultants
Whitney Law, Geosyntec Consultants
Laura Midkiff, Southern Company
Caroline Nelson, Geosyntec Consultants, Inc
Anthony Szwast, Geosyntec Consultants



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

ANABISO/IEC 17025:2017 Rad Cert#: L24170

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 2950

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA010

Louisiana DEQ/TNI Certification #: 04086

Maine Certification #: 2023021

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 #: PA014572023-03

New Hampshire/TNI Certification #: 297622

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 #: PA200002-015

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN02867

Texas/TNI Certification #: T104704188-22-18

Utah/TNI Certification #: PA014572223-14

USDA Soil Permit #: 525-23-67-77263

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92713581001	HAM-HGWA-48D	Water	02/13/24 18:37	02/14/24 14:50
92713581002	HAM-HGWA-112	Water	02/13/24 11:55	02/14/24 14:50
92713581003	HAM-HGWA-47	Water	02/14/24 11:18	02/16/24 16:00
92713581004	HAM-HGWA-111	Water	02/14/24 12:40	02/16/24 16:00
92713581005	HAM-HGWA-113	Water	02/14/24 13:23	02/16/24 16:00
92713581006	HAM-HGWC-101	Water	02/16/24 12:45	02/19/24 11:25
92713581007	HAM-HGWC-102	Water	02/16/24 14:25	02/19/24 11:25
92713581008	HAM-HGWC-103	Water	02/16/24 16:32	02/19/24 11:25
92713581009	HAM-HGWC-107	Water	02/16/24 16:58	02/19/24 11:25
92713581010	HAM-AP4-EB-01	Water	02/16/24 15:10	02/19/24 11:25
92713581011	HAM-AP4-FB-01	Water	02/16/24 15:17	02/19/24 11:25
92713581012	HAM-AP4-FD-01	Water	02/16/24 00:00	02/19/24 11:25
92713581013	HAM-HGWC-105	Water	02/17/24 15:25	02/19/24 11:25
92713581014	HAM-HGWC-109	Water	02/17/24 13:51	02/19/24 11:25
92713581015	HAM-HGWC-117A	Water	02/17/24 17:17	02/19/24 11:25
92713581016	HAM-HGWC-118	Water	02/17/24 10:16	02/19/24 11:25
92713581017	HAM-AP4-EB-02	Water	02/17/24 17:00	02/19/24 11:25
92713581018	HAM-AP4-FB-02	Water	02/17/24 17:05	02/19/24 11:25
92713581019	HAM-AP4-FD-02	Water	02/17/24 00:00	02/19/24 11:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92713581001	HAM-HGWA-48D	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92713581002	HAM-HGWA-112	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92713581003	HAM-HGWA-47	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581004	HAM-HGWA-111	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581005	HAM-HGWA-113	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581006	HAM-HGWC-101	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581007	HAM-HGWC-102	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581008	HAM-HGWC-103	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581009	HAM-HGWC-107	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581010	HAM-AP4-EB-01	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581011	HAM-AP4-FB-01	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581012	HAM-AP4-FD-01	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581013	HAM-HGWC-105	EPA 9315	SLC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP-4-RAD
 Pace Project No.: 92713581

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92713581014	HAM-HGWC-109	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92713581015	HAM-HGWC-117A	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581016	HAM-HGWC-118	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
92713581017	HAM-AP4-EB-02	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92713581018	HAM-AP4-FB-02	Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
92713581019	HAM-AP4-FD-02	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
		EPA 9315	SLC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713581001	HAM-HGWA-48D					
EPA 9315	Radium-226	0.139U ± 0.139 (0.279)	pCi/L		02/28/24 08:23	
EPA 9320	Radium-228	C:95% T:NA 0.436U ± 0.341 (0.665)	pCi/L		03/04/24 12:42	
Total Radium Calculation	Total Radium	C:78% T:82% 0.575U ± 0.480 (0.944)	pCi/L		03/05/24 14:33	
92713581002	HAM-HGWA-112					
EPA 9315	Radium-226	0.274 ± 0.154 (0.226)	pCi/L		02/28/24 09:34	
EPA 9320	Radium-228	C:100% T:NA 0.401U ± 0.361 (0.734)	pCi/L		03/04/24 12:42	
Total Radium Calculation	Total Radium	C:81% T:84% 0.675U ± 0.515 (0.960)	pCi/L		03/05/24 14:33	
92713581003	HAM-HGWA-47					
EPA 9315	Radium-226	0.794 ± 0.341 (0.408)	pCi/L		02/28/24 13:46	
EPA 9320	Radium-228	C:98% T:NA 0.923 ± 0.435 (0.728)	pCi/L		03/04/24 12:42	
Total Radium Calculation	Total Radium	C:76% T:85% 1.72 ± 0.776 (1.14)	pCi/L		03/13/24 09:29	
92713581004	HAM-HGWA-111					
EPA 9315	Radium-226	0.136U ± 0.179 (0.381)	pCi/L		02/29/24 08:32	
EPA 9320	Radium-228	C:89% T:NA 0.300U ± 0.315 (0.652)	pCi/L		03/04/24 12:42	
Total Radium Calculation	Total Radium	C:78% T:87% 0.436U ± 0.494 (1.03)	pCi/L		03/13/24 09:29	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713581005						
EPA 9315	Radium-226	-0.0499U ± 0.141 (0.419)	pCi/L		02/29/24 08:32	
EPA 9320	Radium-228	C:92% T:NA 0.307U ± 0.336 (0.702)	pCi/L		03/04/24 12:42	
Total Radium Calculation	Total Radium	C:80% T:85% 0.307U ± 0.477 (1.12)	pCi/L		03/13/24 09:29	
92713581006						
EPA 9315	Radium-226	0.187U ± 0.179 (0.336)	pCi/L		02/29/24 08:32	
EPA 9320	Radium-228	C:92% T:NA 0.157U ± 0.338 (0.750)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:74% T:83% 0.344U ± 0.517 (1.09)	pCi/L		03/13/24 09:29	
92713581007						
EPA 9315	Radium-226	0.201U ± 0.202 (0.400)	pCi/L		02/29/24 08:32	
EPA 9320	Radium-228	C:93% T:NA 0.297U ± 0.319 (0.657)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:75% T:85% 0.498U ± 0.521 (1.06)	pCi/L		03/13/24 09:29	
92713581008						
EPA 9315	Radium-226	0.213U ± 0.192 (0.362)	pCi/L		02/29/24 08:33	
EPA 9320	Radium-228	C:103% T:NA 0.597U ± 0.380 (0.701)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:76% T:82% 0.810U ± 0.572 (1.06)	pCi/L		03/13/24 09:29	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713581009	HAM-HGWC-107					
EPA 9315	Radium-226	0.0597U ± 0.139 (0.331)	pCi/L		02/29/24 08:33	
EPA 9320	Radium-228	C:93% T:NA 0.785 ± 0.408 (0.714)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:81% T:78% 0.845U ± 0.547 (1.05)	pCi/L		03/13/24 09:29	
92713581010	HAM-AP4-EB-01					
EPA 9315	Radium-226	-0.00729U ± 0.136 (0.384)	pCi/L		02/29/24 08:33	
EPA 9320	Radium-228	C:84% T:NA 0.389U ± 0.354 (0.715)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:72% T:83% 0.389U ± 0.490 (1.10)	pCi/L		03/13/24 09:29	
92713581011	HAM-AP4-FB-01					
EPA 9315	Radium-226	0.0617U ± 0.157 (0.376)	pCi/L		02/29/24 08:33	
EPA 9320	Radium-228	C:91% T:NA 0.290U ± 0.335 (0.702)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:78% T:83% 0.352U ± 0.492 (1.08)	pCi/L		03/13/24 09:29	
92713581012	HAM-AP4-FD-01					
EPA 9315	Radium-226	0.142U ± 0.231 (0.519)	pCi/L		02/29/24 08:34	
EPA 9320	Radium-228	C:92% T:NA 0.249U ± 0.314 (0.665)	pCi/L		03/04/24 12:43	
Total Radium Calculation	Total Radium	C:78% T:85% 0.391U ± 0.545 (1.18)	pCi/L		03/13/24 09:29	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713581013	HAM-HGWC-105					
EPA 9315	Radium-226	0.438 ± 0.232 (0.309) C:97% T:NA	pCi/L		02/29/24 08:34	
EPA 9320	Radium-228	0.450U ± 0.344 (0.664) C:74% T:82%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.888U ± 0.576 (0.973)	pCi/L		03/13/24 09:29	
92713581014	HAM-HGWC-109					
EPA 9315	Radium-226	-0.0250U ± 0.152 (0.424) C:94% T:NA	pCi/L		02/29/24 08:34	
EPA 9320	Radium-228	0.388U ± 0.284 (0.540) C:80% T:88%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.388U ± 0.436 (0.964)	pCi/L		03/13/24 09:29	
92713581015	HAM-HGWC-117A					
EPA 9315	Radium-226	0.149U ± 0.157 (0.311) C:93% T:NA	pCi/L		03/01/24 08:34	
EPA 9320	Radium-228	0.480U ± 0.336 (0.635) C:74% T:85%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.629U ± 0.493 (0.946)	pCi/L		03/13/24 09:29	
92713581016	HAM-HGWC-118					
EPA 9315	Radium-226	-0.0552U ± 0.132 (0.393) C:91% T:NA	pCi/L		03/01/24 08:34	
EPA 9320	Radium-228	-0.138U ± 0.329 (0.795) C:77% T:84%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.000U ± 0.461 (1.19)	pCi/L		03/13/24 09:29	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92713581017	HAM-AP4-EB-02					
EPA 9315	Radium-226	0.115U ± 0.163 (0.354) C:94% T:NA	pCi/L		03/01/24 08:34	
EPA 9320	Radium-228	0.117U ± 0.278 (0.620) C:78% T:87%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.232U ± 0.441 (0.974)	pCi/L		03/13/24 09:29	
92713581018	HAM-AP4-FB-02					
EPA 9315	Radium-226	-0.0552U ± 0.116 (0.360) C:89% T:NA	pCi/L		03/01/24 08:34	
EPA 9320	Radium-228	0.183U ± 0.282 (0.609) C:78% T:85%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.183U ± 0.398 (0.969)	pCi/L		03/13/24 09:29	
92713581019	HAM-AP4-FD-02					
EPA 9315	Radium-226	0.311 ± 0.179 (0.250) C:95% T:NA	pCi/L		03/01/24 08:36	
EPA 9320	Radium-228	0.379U ± 0.361 (0.737) C:75% T:84%	pCi/L		03/04/24 12:44	
Total Radium Calculation	Total Radium	0.690U ± 0.540 (0.987)	pCi/L		03/13/24 09:29	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.139U ± 0.139 (0.279) C:95% T:NA	pCi/L	02/28/24 08:23	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.436U ± 0.341 (0.665) C:78% T:82%	pCi/L	03/04/24 12:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.575U ± 0.480 (0.944)	pCi/L	03/05/24 14:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWA-112 Lab ID: 92713581002 Collected: 02/13/24 11:55 Received: 02/14/24 14:50 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.274 ± 0.154 (0.226) C:100% T:NA	pCi/L	02/28/24 09:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.401U ± 0.361 (0.734) C:81% T:84%	pCi/L	03/04/24 12:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.675U ± 0.515 (0.960)	pCi/L	03/05/24 14:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWA-47 **Lab ID: 92713581003** Collected: 02/14/24 11:18 Received: 02/16/24 16:00 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	0.794 ± 0.341 (0.408) C:98% T:NA	pCi/L	02/28/24 13:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.923 ± 0.435 (0.728) C:76% T:85%	pCi/L	03/04/24 12:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.72 ± 0.776 (1.14)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWA-111 **Lab ID: 92713581004** Collected: 02/14/24 12:40 Received: 02/16/24 16:00 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	0.136U ± 0.179 (0.381) C:89% T:NA	pCi/L	02/29/24 08:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.300U ± 0.315 (0.652) C:78% T:87%	pCi/L	03/04/24 12:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.436U ± 0.494 (1.03)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWA-113 **Lab ID: 92713581005** Collected: 02/14/24 13:23 Received: 02/16/24 16:00 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	-0.0499U ± 0.141 (0.419) C:92% T:NA	pCi/L	02/29/24 08:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.307U ± 0.336 (0.702) C:80% T:85%	pCi/L	03/04/24 12:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.307U ± 0.477 (1.12)	pCi/L	03/13/24 09:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-101 **Lab ID: 92713581006** Collected: 02/16/24 12:45 Received: 02/19/24 11:25 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	0.187U ± 0.179 (0.336) C:92% T:NA	pCi/L	02/29/24 08:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.157U ± 0.338 (0.750) C:74% T:83%	pCi/L	03/04/24 12:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.344U ± 0.517 (1.09)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-HGWC-102 Lab ID: 92713581007 Collected: 02/16/24 14:25 Received: 02/19/24 11:25 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.201U ± 0.202 (0.400) C:93% T:NA	pCi/L	02/29/24 08:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.297U ± 0.319 (0.657) C:75% T:85%	pCi/L	03/04/24 12:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.498U ± 0.521 (1.06)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-103 **Lab ID: 92713581008** Collected: 02/16/24 16:32 Received: 02/19/24 11:25 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	0.213U ± 0.192 (0.362) C:103% T:NA	pCi/L	02/29/24 08:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.597U ± 0.380 (0.701) C:76% T:82%	pCi/L	03/04/24 12:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.810U ± 0.572 (1.06)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-107 **Lab ID: 92713581009** Collected: 02/16/24 16:58 Received: 02/19/24 11:25 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	0.0597U ± 0.139 (0.331) C:93% T:NA	pCi/L	02/29/24 08:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.785 ± 0.408 (0.714) C:81% T:78%	pCi/L	03/04/24 12:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.845U ± 0.547 (1.05)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-AP4-EB-01 Lab ID: 92713581010 Collected: 02/16/24 15:10 Received: 02/19/24 11:25 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	-0.00729U ± 0.136 (0.384) C:84% T:NA	pCi/L	02/29/24 08:33	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.389U ± 0.354 (0.715) C:72% T:83%	pCi/L	03/04/24 12:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.389U ± 0.490 (1.10)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-AP4-FB-01 **Lab ID: 92713581011** Collected: 02/16/24 15:17 Received: 02/19/24 11:25 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	0.0617U ± 0.157 (0.376) C:91% T:NA	pCi/L	02/29/24 08:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.290U ± 0.335 (0.702) C:78% T:83%	pCi/L	03/04/24 12:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.352U ± 0.492 (1.08)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-AP4-FD-01 **Lab ID: 92713581012** Collected: 02/16/24 00:00 Received: 02/19/24 11:25 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	0.142U ± 0.231 (0.519) C:92% T:NA	pCi/L	02/29/24 08:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.249U ± 0.314 (0.665) C:78% T:85%	pCi/L	03/04/24 12:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.391U ± 0.545 (1.18)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-105 **Lab ID: 92713581013** Collected: 02/17/24 15:25 Received: 02/19/24 11:25 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	0.438 ± 0.232 (0.309) C:97% T:NA	pCi/L	02/29/24 08:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.450U ± 0.344 (0.664) C:74% T:82%	pCi/L	03/04/24 12:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.888U ± 0.576 (0.973)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-109 **Lab ID: 92713581014** Collected: 02/17/24 13:51 Received: 02/19/24 11:25 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	-0.0250U ± 0.152 (0.424) C:94% T:NA	pCi/L	02/29/24 08:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.388U ± 0.284 (0.540) C:80% T:88%	pCi/L	03/04/24 12:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.388U ± 0.436 (0.964)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-117A **Lab ID: 92713581015** Collected: 02/17/24 17:17 Received: 02/19/24 11:25 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	0.149U ± 0.157 (0.311) C:93% T:NA	pCi/L	03/01/24 08:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.480U ± 0.336 (0.635) C:74% T:85%	pCi/L	03/04/24 12:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.629U ± 0.493 (0.946)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-HGWC-118 **Lab ID: 92713581016** Collected: 02/17/24 10:16 Received: 02/19/24 11:25 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	-0.0552U ± 0.132 (0.393) C:91% T:NA	pCi/L	03/01/24 08:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	-0.138U ± 0.329 (0.795) C:77% T:84%	pCi/L	03/04/24 12:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.000U ± 0.461 (1.19)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-AP4-EB-02 **Lab ID: 92713581017** Collected: 02/17/24 17:00 Received: 02/19/24 11:25 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	0.115U ± 0.163 (0.354) C:94% T:NA	pCi/L	03/01/24 08:34	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.117U ± 0.278 (0.620) C:78% T:87%	pCi/L	03/04/24 12:44	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.232U ± 0.441 (0.974)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Sample: HAM-AP4-FB-02 **Lab ID: 92713581018** Collected: 02/17/24 17:05 Received: 02/19/24 11:25 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	-0.0552U ± 0.116 (0.360) C:89% T:NA	pCi/L	03/01/24 08:34	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.183U ± 0.282 (0.609) C:78% T:85%	pCi/L	03/04/24 12:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.183U ± 0.398 (0.969)	pCi/L	03/13/24 09:29	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: HAM-AP4-FD-02 Lab ID: 92713581019 Collected: 02/17/24 00:00 Received: 02/19/24 11:25 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.311 ± 0.179 (0.250) C:95% T:NA	pCi/L	03/01/24 08:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.379U ± 0.361 (0.737) C:75% T:84%	pCi/L	03/04/24 12:44	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.690U ± 0.540 (0.987)	pCi/L	03/13/24 09:29	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

QC Batch:	650434	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92713581001, 92713581002, 92713581003, 92713581004, 92713581005, 92713581006, 92713581007, 92713581008, 92713581009, 92713581010, 92713581011, 92713581012, 92713581013, 92713581014, 92713581015, 92713581016, 92713581017, 92713581018, 92713581019

METHOD BLANK:	3169513	Matrix:	Water
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Associated Lab Samples: 92713581001, 92713581002, 92713581003, 92713581004, 92713581005, 92713581006, 92713581007, 92713581008, 92713581009, 92713581010, 92713581011, 92713581012, 92713581013, 92713581014, 92713581015, 92713581016, 92713581017, 92713581018, 92713581019

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.292 ± 0.288 (0.586) C:78% T:89%	pCi/L	03/04/24 12:42	

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.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

QC Batch:	650482	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92713581003, 92713581004, 92713581005, 92713581006, 92713581007, 92713581008, 92713581009, 92713581010, 92713581011, 92713581012, 92713581013, 92713581014, 92713581015, 92713581016, 92713581017, 92713581018, 92713581019

METHOD BLANK:	3169731	Matrix:	Water
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Associated Lab Samples: 92713581003, 92713581004, 92713581005, 92713581006, 92713581007, 92713581008, 92713581009, 92713581010, 92713581011, 92713581012, 92713581013, 92713581014, 92713581015, 92713581016, 92713581017, 92713581018, 92713581019

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00577 ± 0.144 (0.390) C:100% T:NA	pCi/L	02/29/24 08:31	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP-4-RAD
 Pace Project No.: 92713581

QC Batch: 649569	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92713581001, 92713581002

METHOD BLANK: 3165288 Matrix: Water

Associated Lab Samples: 92713581001, 92713581002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0147 ± 0.129 (0.325) C:96% T:NA	pCi/L	02/28/24 07:38	

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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QUALIFIERS

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92713581001	HAM-HGWA-48D	EPA 9315	649569		
92713581002	HAM-HGWA-112	EPA 9315	649569		
92713581003	HAM-HGWA-47	EPA 9315	650482		
92713581004	HAM-HGWA-111	EPA 9315	650482		
92713581005	HAM-HGWA-113	EPA 9315	650482		
92713581006	HAM-HGWC-101	EPA 9315	650482		
92713581007	HAM-HGWC-102	EPA 9315	650482		
92713581008	HAM-HGWC-103	EPA 9315	650482		
92713581009	HAM-HGWC-107	EPA 9315	650482		
92713581010	HAM-AP4-EB-01	EPA 9315	650482		
92713581011	HAM-AP4-FB-01	EPA 9315	650482		
92713581012	HAM-AP4-FD-01	EPA 9315	650482		
92713581013	HAM-HGWC-105	EPA 9315	650482		
92713581014	HAM-HGWC-109	EPA 9315	650482		
92713581015	HAM-HGWC-117A	EPA 9315	650482		
92713581016	HAM-HGWC-118	EPA 9315	650482		
92713581017	HAM-AP4-EB-02	EPA 9315	650482		
92713581018	HAM-AP4-FB-02	EPA 9315	650482		
92713581019	HAM-AP4-FD-02	EPA 9315	650482		
92713581001	HAM-HGWA-48D	EPA 9320	650434		
92713581002	HAM-HGWA-112	EPA 9320	650434		
92713581003	HAM-HGWA-47	EPA 9320	650434		
92713581004	HAM-HGWA-111	EPA 9320	650434		
92713581005	HAM-HGWA-113	EPA 9320	650434		
92713581006	HAM-HGWC-101	EPA 9320	650434		
92713581007	HAM-HGWC-102	EPA 9320	650434		
92713581008	HAM-HGWC-103	EPA 9320	650434		
92713581009	HAM-HGWC-107	EPA 9320	650434		
92713581010	HAM-AP4-EB-01	EPA 9320	650434		
92713581011	HAM-AP4-FB-01	EPA 9320	650434		
92713581012	HAM-AP4-FD-01	EPA 9320	650434		
92713581013	HAM-HGWC-105	EPA 9320	650434		
92713581014	HAM-HGWC-109	EPA 9320	650434		
92713581015	HAM-HGWC-117A	EPA 9320	650434		
92713581016	HAM-HGWC-118	EPA 9320	650434		
92713581017	HAM-AP4-EB-02	EPA 9320	650434		
92713581018	HAM-AP4-FB-02	EPA 9320	650434		
92713581019	HAM-AP4-FD-02	EPA 9320	650434		
92713581001	HAM-HGWA-48D	Total Radium Calculation	652896		
92713581002	HAM-HGWA-112	Total Radium Calculation	652896		
92713581003	HAM-HGWA-47	Total Radium Calculation	654751		
92713581004	HAM-HGWA-111	Total Radium Calculation	654751		
92713581005	HAM-HGWA-113	Total Radium Calculation	654751		
92713581006	HAM-HGWC-101	Total Radium Calculation	654751		
92713581007	HAM-HGWC-102	Total Radium Calculation	654751		
92713581008	HAM-HGWC-103	Total Radium Calculation	654751		
92713581009	HAM-HGWC-107	Total Radium Calculation	654751		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP-4-RAD

Pace Project No.: 92713581

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92713581010	HAM-AP4-EB-01	Total Radium Calculation	654751		
92713581011	HAM-AP4-FB-01	Total Radium Calculation	654751		
92713581012	HAM-AP4-FD-01	Total Radium Calculation	654751		
92713581013	HAM-HGWC-105	Total Radium Calculation	654751		
92713581014	HAM-HGWC-109	Total Radium Calculation	654751		
92713581015	HAM-HGWC-117A	Total Radium Calculation	654751		
92713581016	HAM-HGWC-118	Total Radium Calculation	654751		
92713581017	HAM-AP4-EB-02	Total Radium Calculation	654751		
92713581018	HAM-AP4-FB-02	Total Radium Calculation	654751		
92713581019	HAM-AP4-FD-02	Total Radium Calculation	654751		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Effective Date: 12/01/2023

atory receiving samples:

eville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Low Power

Project #:

WO#: 92713581



Carrier: Fed Ex UPS USPS Client
 Pace Other: _____

Body Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: *7/14/23*

Shipping Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer:

IR Gun ID: *730*

Type of Ice: Wet Blue None

Field Temp: *33* Correction Factor: *0.1*
Add/Subtract (°C)

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Field Temp Corrected (°C): *3.4*

SHA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>Low</i>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

DEFICIENCIES/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____

Effective Date: 12/01/2023

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

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

Bottom half of box is to list number of bottles

Check all unpreserved Nitrates for chlorine

Project #

WO#: 92713581

PM: BV

Due Date: 03/07/24

CLIENT: 92- GP-HAM

BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
	2	1			1	1																						
	2	1			1	1																						

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 DENR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GA Power	Report To:	SCS Contacts	Attention:	Southern Co.
Address:	Atlanta, GA	Copy To:	Geosyntec Contacts	Company Name:	
Email To:	SCS Contacts	Purchase Order No.:		Address:	
Phone:		Project Name:	Hammond AP-4	Price Quote Reference:	Bonnie Vang
Requested Due Date/TAT:	10 Day	Project Number:		Manager:	
				Price Profile #:	10839

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE	COMPOSITE			H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol				
1	HGWA-48D			DATE	TIME	DATE	TIME	16	7	3	3						001
2	HGWA-112			DATE	TIME	DATE	TIME	16	7	3	3						002
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Task Code: HAM-COR-ASSMT-2024S1	Deborah Brown / Geosyntec	2-14-2024	12:30	Ryan Williams / Pace	2/14/2024	12:50	
	Ryan Williams / Pace	2/14/2024	14:58		2/14/2024	14:50	

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER: <i>AP-4</i>	DATE Signed (MM/DD/YY):
SIGNATURE of SAMPLER: <i>[Signature]</i>	DATE Signed (MM/DD/YY):
Temp in °C	Received on Ice (Y/N)
	Custody Sealed Cooler (Y/N)
	Samples Intact (Y/N)



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name: GA Power - GeoSyntec

Project #: WO#: 92713581

Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

PM: BV Due Date: 03/07/24 CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: 2/16/24

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID: 214 Type of Ice: Wet Blue None

Cooler Temp: 5.5 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.0

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <i>WST</i>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____



Effective Date: 12/01/2023

*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 bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO# : 92713581

PM: BV

Due Date: 03/07/24

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KG7U-50 mL Plastic Unpreserved (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)	BPIN	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)		
1		2	1																											
2		2	1																						2					
3		2	1																						2					
4																									2					
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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 DENR Certification Office (i.e. 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	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: GA Power	Address: Atlanta, GA	Report To: SCS Contacts	Copy To: Geosyntec Contacts	Attention: Southern Co.	Company Name: Southern Co.
Email To: SCS Contacts	Phone:	Purchase Order No.:	Project Name: Hammond AP-4	Address: Pace Quote	Reference: Bonnie Yang
Requested Due Date/TAT: 10 Day	Fax:	Project Number:	Requested Due Date/TAT: 10 Day	Pace Project Manager: Pace Profile #: 10839	Site Location STATE: GA
REGULATORY AGENCY			Requested Analysis Filtered (Y/N)		
<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER	<input type="checkbox"/> Chloride, Fluoride, Sulfate	<input type="checkbox"/> Full App. III and IV metals	<input type="checkbox"/> RAD 225/228
<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input type="checkbox"/> OTHER	<input type="checkbox"/> TDS	<input type="checkbox"/> Major Ions (Profile 10839-2)	<input type="checkbox"/> Residual Chlorine (Y/N)
			Pace Project No./ Lab I.D. 02713561		

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test					Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)														
			COMPOSITE	COMPOSITE			DATE	TIME	DATE	TIME	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other					Y	N	Y	N	Y	N								
1	HAM-HGWA-47	WG G	2/14/2024	1118	16	7	3	3	3	1	1	X	X	X	X	X	N	N	N	N	N	N													
2	HAM-HGWA-111	WG G	2/14/2024	1240	19	7	3	3	3	1	1	X	X	X	X	X	N	N	N	N	N	N													
3	HAM-HGWA-113	WG G	2/14/2024	1323	18	7	3	3	3	1	1	X	X	X	X	X	N	N	N	N	N	N													
4																																			
5																																			
6																																			
7																																			
8																																			
9																																			
10																																			
11																																			
12																																			

Task Code: HAM-CR-ASSMT-2024S1U		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
		Hannah Hesselberg		2/16/24		1330		Bon William Pace		2/16/24		1336			
		Bon William Pace		2/16/24		1600				2/16/24		1600			
SAMPLER NAME AND SIGNATURE															
PRINT Name of SAMPLER: <u>Hesselberg, Hannah</u>															
SIGNATURE of SAMPLER: <u>[Signature]</u>															
DATE Signed (MM/DD/YY): <u>2/16/2024</u>															
Temp in °C															
Received on Ice (Y/N)															
Custody Sealed Cooler (Y/N)															
Samples Intact (Y/N)															

Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-Feb-2007



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO#: 92713581

Courier: Fed Ex UPS USPS Client Pace Other:

PM: BV Due Date: 03/07/24

CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: 2/19/24 SK

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?

Yes No N/A

Thermometer:

IR Gun ID: 730

Type of Ice: Wet Blue None

Cooler Temp:

3.2

Correction Factor:

Add/Subtract (°C)

10.1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C):

8.3

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	101	
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted:

Date/Time:

Project Manager SCURF Review:

Date:

Project Manager SRF Review:

Date:



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Project # **WO#: 92713581**

PM: BV

Due Date: 03/07/24

CLIENT: 92- GP-HAM

*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, L/Hg

**Bottom half of box is to list number of bottles

***Check all unpreserved Nitrates for chlorine

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)			
1		2																												
2		2																												
3		2																												
4		2																												
5		1																												
6		1																												
7		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 DENR Certification Office (i.e. 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 Required Client Information: Company: GA Power Address: Atlanta, GA
 Section B Required Project Information: Report To: SCS Contacts Copy To: Geosynthetic Contacts
 Section C Invoice Information: Attention: Southern Co. Company Name: Southern Co. Address:
 Regulatory Agency: NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

Requested Due Date/TAT:	10 Day	Project Name:	Hammond AP-4
Requested Due Date/TAT:	10 Day	Purchase Order No.:	
Requested Due Date/TAT:	10 Day	Project Number:	
Requested Due Date/TAT:	10 Day	Address:	
Requested Due Date/TAT:	10 Day	Reference:	
Requested Due Date/TAT:	10 Day	Price Profile #:	10839
Requested Due Date/TAT:	10 Day	State:	GA

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)		Residual Chlorine (Y/N)	Pace Project No./ Lab ID.		
			COMPOSITE	DATE					COMPOSITE	DATE			Y	N
1	HAM-HGWC-101	WG G	2/16/2024	1245	18	7	3	3	1	X	X	X	X	
2	HAM-HGWC-102	WG G	2/16/2024	1425	18	7	3	3	1	X	X	X	X	006
3	HAM-HGWC-103	WG G	2/16/2024	1632	17	7	3	3	1	X	X	X	X	007
4	HAM-HGWC-107	WG G	2/16/2024	1658	18	7	3	3	1	X	X	X	X	008
5	HAM-AP4-EB-01	WG G	2/16/2024	1510	18	5	2	3	3	X	X	X	X	009
6	HAM-AP4-FB-01	WG G	2/16/2024	1517	18	5	2	3	3	X	X	X	X	010
7	HAM-AP4-FD-01	WG G	2/16/2024	0000	18	7	3	3	1	X	X	X	X	012
8														
9														
10														
11														
12														

ADDITIONAL COMMENTS: Task Code: HAM-COR-ASSMNT-2024-S1 Relinquished by / Affiliation: <i>Thomas Hester / Geosynthetic</i> Date: <i>2/14/2024</i> Time: <i>1125</i>	Accepted by / Affiliation: <i>William Pace</i> Date: <i>2/14/2024</i> Time: <i>1325</i>
Sampler Name and Signature: Print Name of Sampler: <i>Thomas Hester</i> Signature of Sampler: <i>[Signature]</i> Date Signed (MM/DD/YY): <i>02/16/2024</i>	

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville Atlanta Kernersville

Sample Condition Upon Receipt

Client Name:

Project #:

WO#: 92713581

Courier: Fed Ex UPS USPS Client Commercial Pace Other: _____

PM: BV Due Date: 03/07/24
CLIENT: 92- GP-HAM

Custody Seal Present? Yes No Seals Intact? Yes No N/A

Date/Initials Person Examining Contents: 2/19/24 JML

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen? Yes No N/A

Thermometer:

IR Gun ID: 730

Type of Ice: Wet Blue None

Cooler Temp: 3.2 Correction Factor: Add/Subtract (°C) 10.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-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	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: 101	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: _____

Project Manager SRF Review: _____

Date: _____



DC#_Title: ENV-FRM-HUN1-0083 v03_Sample Condition Upon Receipt

Effective Date: 12/01/2023

*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 bottles

***Check all unpreserved Nitrates for chlorine

Project #

WO#: 92713581

PM: BV

Due Date: 03/07/24

CLIENT: 92- GP-HAM

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	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) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGfU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1		2	1																									
2		2	1																									
3		2	1																									
4		2	1																									
5		1	1																									
6		1	1																									
7		1																										
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	Lot #

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



CHAIN-OF-CUSTODY / Analytical Request Document

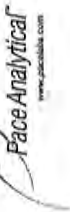
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Company: GA Power Address: Atlanta, GA	Section B Required Project Information: Report To: SCS Contacts Copy To: Geosynetic Contacts
Section C Invoice Information: Attention: Southern Co. Company Name: Address: Purchase Order No.: Project Name: Hammond AP-4 Project Number: Requested Due Date/TAT: 10 Day	Requested Analysis Filtered (Y/N) NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/> Site Location: _____ STATE: GA

ITEM #	Section D Required Client Information	Valid Matrix Codes MATERIAL CODE DRINKING WATER DW WASTE WATER WW WASTE WATER WW PRODUCT P SOLID S OIL OL WIFE WIP WIRE WIR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
					DATE	TIME							
1	HAM-HGWC-105		WG G	21/7/2024	1525		16	7	3	3	1		
2	HAM-HGWC-109		WG G	21/7/2024	1351		16	7	3	3	1		
3	HAM-HGWC-117A		WG G	21/7/2024	1717		16	7	3	3	1		
4	HAM-HGWC-118		WG G	21/7/2024	1016		16	7	3	3	1		
5	HAM-AP4-EB-02		WG G	21/7/2024	1700		16	5	2	3			
6	HAM-AP4-FB-02		WG G	21/7/2024	1705		16	5	2	3			
7	HAM-AP4-FD-02		WG G	21/7/2024	0000		16	7	3	3			
8													
9													
10													
11													
12													

ADDITIONAL COMMENTS Task Code: HAM-COR-ASSMT-2024S1 Relinquished by / Affiliation: <i>Heather Hessler (Geosynetic)</i> Date: <i>2/19/2024</i>	Accepted by / Affiliation: <i>Gene Williams / Pace</i> Date: <i>2/19/2024</i>		
SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <i>J. Hessler</i> SIGNATURE OF SAMPLER: <i>[Signature]</i>			
DATE signed (MM/DD/YY): <i>02/17/2024</i> DATE signed (MM/DD/YY): <i>02/17/2024</i>			
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-228
Analyst: VAL
Date: 2/26/2024
Worklist: 77789
Matrix: WT

Method Blank Assessment	
MB Sample ID	3169513
MB concentration:	0.292
M/B 2 Sigma CSU:	0.288
MB MDC:	0.586
MB Numerical Performance Indicator:	1.99
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD77789	LCSD77789
Count Date:	3/4/2024	3/4/2024
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	37.629	37.629
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.819	0.817
Target Conc. (pCi/L, g, F):	4.593	4.605
Uncertainty (Calculated):	0.225	0.226
Result (pCi/L, g, F):	3.529	3.375
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.835	0.809
Numerical Performance Indicator:	-2.41	-2.87
Percent Recovery:	76.84%	73.29%
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	
Sample I.D.:	LCSD77789
Duplicate Sample I.D.:	LCSD77789
Sample Result (pCi/L, g, F):	3.529
Sample Duplicate Result (pCi/L, g, F):	0.835
Sample Duplicate Result 2 (pCi/L, g, F):	3.375
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.809
Ave sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.260
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	4.72%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

Comments:

VAL
3/5/24
S-T
3-5-24

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: 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: 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:

Quality Control Sample Performance Assessment

Analytist Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-226
Analyst: SLC
Date: 2/22/2024
Worklist: 77730
Matrix: WT

Method Blank Assessment

MB Sample ID: 3165288
MB concentration: 0.015
MB 2 Sigma CSU: 0.129
MB MDC: 0.325

MB Numerical Performance Indicator: 0.22
MB Status vs Numerical Indicator: Pass
MB Status vs. MDC: N/A

Laboratory Control Sample Assessment

LCSID (Y or N)?	Y
LCS77730	2/28/2024
Count Date:	2/28/2024
Spike ID:	23-014
Decay Corrected Spike Concentration (pCi/mL):	25.026
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	4.999
Uncertainty (Calculated):	0.234
Result (pCi/L, g, F):	4.938
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.894
Numerical Performance Indicator:	-0.10
Percent Recovery:	99.07%
Status vs Numerical Indicator:	Pass
Status vs Recovery:	N/A
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment

Sample ID:	92713558008
Duplicate Sample ID:	92713558008DUP
Sample Result (pCi/L, g, F):	-0.015
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.100
Sample Duplicate Result (pCi/L, g, F):	-0.027
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.080
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	0.180
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	-59.07%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Sample Matrix Spike Control Assessment

Sample Collection Date:	MS/MSD 1	MS/MSD 2
Sample ID:		
Sample MS ID:		
Sample MSD ID:		
Spike ID:		
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:		
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 ID:	
Sample MS ID:	
Sample MSD ID:	
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 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:

AM 3/5/24

ET
3-5-24

Quality Control Sample Performance Assessment



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

Test: Ra-226
Analyst: SLC
Date: 2/27/2024
Worklist: 77796
Matrix: WT

Method Blank Assessment	
MB Sample ID	3169731
MB Concentration:	-0.006
MB 2 Sigma CSU:	0.144
MB MDC:	0.390
MB Numerical Performance Indicator:	-0.08
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCS (Y or N)?	Y
Count Date:		LCS077796	2/29/2024
Spike I.D.:		23-014	23-014
Decay Corrected Spike Concentration (pCi/mL):		25.026	25.026
Volume Used (mL):		0.10	0.10
Aliquot Volume (L, g, F):		0.503	0.502
Target Conc. (pCi/L, g, F):		4.978	4.987
Uncertainty (Calculated):		0.234	0.234
Result (pCi/L, g, F):		5.803	4.455
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):		1.130	0.918
Numerical Performance Indicator:		1.40	-1.10
Percent Recovery:		116.58%	89.33%
Status vs Numerical Indicator:		Pass	Pass
Status vs Recovery:		N/A	N/A
Upper % Recovery Limits:		125%	125%
Lower % Recovery Limits:		75%	75%

Duplicate Sample Assessment		LCS077796	92713573005
Sample I.D.:		LCS077796	92713573005DUP
Duplicate Sample I.D.:		5.803	0.233
Sample Result (pCi/L, g, F):		1.130	0.199
Sample Duplicate Result (pCi/L, g, F):		4.455	0.194
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		0.918	0.200
Are sample and/or duplicate results below RL?		NO	See Below ##
Duplicate Numerical Performance Indicator:		1.815	0.272
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:		26.47%	18.31%
Duplicate Status vs Numerical Indicator:		Pass	Pass
Duplicate Status vs RPD:		N/A	N/A
% RPD Limit:		25%	25%

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

Comments:

CEY
3-5-24

VAM 3/5/24

VALIDATION REPORTS

August 2023

Date: 10 January 2024
To: Thomas Kessler
From: Derek Yeadon
CC: Kristoffer Henderson
**Subject: Hammond AP-4 - Stages 2A Validation - Level II Data Deliverable –
Pace Analytical Services, Project Number: 92681884**

SITE: Plant Hammond AP-4

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of thirteen aqueous samples, one field duplicate, one field blank, and one equipment blank, collected 3 and 10-11 August 2023, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services Atlanta, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States Environmental Protection Agency (US EPA) Methods 3010A/6010D
- Metals by USEPA Methods 3005A/6020B
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C

The samples were analyzed at Pace Analytical Services Asheville, North Carolina, for the following analytical test:

- Alkalinity by SM 400-S2D-2011
- Anions (Chloride, Fluoride and Sulfate) by USEPA Method 300.0
- Sulfide by SM 4500-S2D

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92681884001	HAM-HGWA-47
92681884002	HAM-HGWA-48D
92681884003	HAM-HGWA-111
92681884004	HAM-HGWA-112
92682576001	HAM-HGWC-101
92682576002	HAM-HGWC-102
92682576003	HAM-HGWC-103
92682576004	HAM-HGWC-105

Laboratory ID	Client ID
92682576005	HAM-HGWC-107
92682576006	HAM-HGWC-109
92682576007	HAM-HGWC-117A
92682576008	HAM-HGWC-118
92682576009	HAM-AP4-EB-04
92682576010	HAM-AP4-FB-04
92682576011	HAM-AP4-FD-04
92682392001	HAM-HGWA-113

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

Sample HAM-AP4-FD-04 was not listed on the COC; sample was noted on Pace sample receipt form and logged in by the lab with a sampling time of 00:00.

The laboratory report revised on 25 August 2023 was used for data validation.

A stage 1 data validation was completed for the field pH data included in the laboratory report.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3010A/6010D and USEPA methods 3005A/6020B. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time

- ✓ Method Blank Matrix
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The metals were not detected in the method blanks at or above the method detection limit (MDL).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported, using samples HAM-HGWA-113 and HAM-HGWC-101. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of calcium and sodium in the MS/MSD pair using sample HAM-HGWA-113 were low and outside the laboratory specified acceptance criteria. Since the calcium and sodium concentrations in sample HAM-HGWC-113 were greater than four times the spiked amount, no qualifications were applied to the data.

The recovery of magnesium in the MSD for sample HAM-HGWC-113 was low and outside of the laboratory specified acceptance criteria. Therefore, the result for magnesium in sample HAM-HGWC-113 was J- qualified as estimated with low bias.

Four batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-HGWC-113	Magnesium	3.4	M1	3.4	J-	4

mg/L-milligrams per liter

J- analyte concentration is estimated.

M1- Matrix spike recovery exceeded QC limits.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, HAM-AP4-EB-04. Metals were not detected in the equipment blank at or above the MDLs.

1.7 Field Blank

One field blank was collected with the sample set, HAM-AP4-FB-04. Metals were not detected in the field blank above the MDLs. No qualifications were applied to the data.

1.8 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP4-FD-04. Acceptable precision ($RPD \leq 30\%$) was demonstrated between the field duplicate and the original sample, HGWC-105.

1.9 Sensitivity

The samples were reported to the MDLs. No elevated non-detect results were reported.

1.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 **Overall Assessment**

The mercury data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 **Holding Time**

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 **Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Mercury was not detected in the method blanks above the MDL.

2.4 **Matrix Spike/Matrix Spike Duplicate**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pairs was reported, using sample HAM-HGWC-102. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The recovery results were within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, HAM-AP4-EB-04. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank was collected with the sample set, HAM-AP-FB-04. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP-FD-04. Acceptable precision ($RPD \leq 30\%$) was demonstrated between the field duplicate and the original sample, HAM-HGWC-105.

2.9 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for TDS by Standard method 2540C, alkalinity by Standard method 2320B, TDS by Standard method 2540C, sulfides by Standard method 4500-S2D, and anions by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time and Preservation

- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 **Overall Assessment**

The wet chemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this data set is 100%.

3.2 **Holding Time & Preservation**

The holding times for the wet chemistry parameters are listed below.

Analyte	Method	Holding Time
Anions	US EPA Method 300	28 days from collection to analysis
Alkalinity	SM 2320B	14 days from collection to analysis
TDS	SM 2540C	7 days from collection to analysis
Sulfide	SM 4500-S2D	28 days from collection to analysis

The holding times were met for the sample analyses.

3.3 **Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 **Matrix Spike/Matrix Spike Duplicate**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported for alkalinity, using samples HAM-HGWC-105 and HAM-HGWC-107. One sample set specific MS/MSD pair was reported for sulfide, using sample HAM-AP4-FD-04. One sample set specific MS/MSD pair was reported for anions, using samples HAM-HGWC-118. The recovery and RPD results were within the laboratory specified acceptance criteria with the following exceptions:

The recovery of alkalinity in the MSD using sample HAM-HGWC-105 was high and outside of the laboratory specified acceptance criteria. Therefore, the result for alkalinity in sample HAM-HGWC-105 was J+ qualified as estimated with high bias.

The recoveries of sulfate in the MS/MSD pair using sample HAM-HGWC-118 were low and outside of the laboratory specified acceptance criteria. Therefore, the sulfate result in sample HAM-HGWC-118 was J- qualified as estimated with low bias.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-HGWC-105	Alkalinity	162	M1	162	J+	4
HAM-HGWC-118	Sulfate	64.9	M1	64.9	J-	4

mg/L-milligrams per liter

M1- Matrix spike recovery exceeded QC limits.

Batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for TDS, using samples HAM-HGWA-47 and HAM-HGWA-113, were within the laboratory specified acceptance criteria with the following exceptions.

The RPD between the TDS concentration in the laboratory duplicate using sample HAM-HGWA-47 was greater than 10%; therefore, the TDS concentration in sample HAM-HGWA-47 was J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	RPD	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-HGWA-47	TDS	214	D6	21	214	J	7

mg/L-milligrams per liter

D6- The precision between the sample and sample duplicate exceeded laboratory control limits.

Six batch duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank was collected with the sample set, HAM-AP4-EB-04. The wet chemistry parameters were not detected in the equipment blank above the MDLs.

3.8 Field Blank

One field blank was collected with the sample set, HAM-AP4-FB-04. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP4-FD-04. Acceptable precision ($RPD \leq 30\%$) was demonstrated between the field duplicate and the original sample, HAM-HGWC-105.

3.10 Sensitivity

The samples were reported to the MDLs for the anions and the RL for TDS. No elevated non-detect results were reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result.”

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

- UJ The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec’s Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample duplicate

RPD - Relative percent difference

Memorandum

Date: 10 January 2024
To: Whitney Law
From: Matthew Richardson
CC: Kristoffer Henderson
Subject: **Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92681880**

SITE: Plant Hammond AP-4

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of thirteen aqueous samples, one field duplicate sample, one field blank, and one equipment blank, collected 8 and 10-11 August 2023, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by US EPA Method 9320
- Total Radium by Calculation

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92681880001	HAM-HGWA-47
92681880002	HAM-HGWA-48D
92681880003	HAM-HGWA-111
92681880004	HAM-HGWA-112
92681880005	HAM-HGWC-101
92681880006	HAM-HGWC-102
92681880007	HAM-HGWC-103
92681880008	HAM-HGWC-105

Laboratory ID	Client ID
92681880009	HAM-HGWC-107
92681880010	HAM-HGWC-109
92681880011	HAM-HGWC-117A
92681880012	HAM-HGWC-118
92681880013	HAM-AP4-EB-04
92681880014	HAM-AP4-FB-04
92681880015	HAM-AP4-FD-04
92682400001	HAM-HGWA-113

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio

of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for the radium-228 data (batches 610549 and 611582). Four method blanks were reported for the radium-226 data (batches 612653, 611645, 611647 and 610646). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs), with the following exception.

92681880: Radium-228 was detected in the method blank in batch 610549 (0.453 pCi/L) at a concentration greater than the MDC. Since radium-228 was not detected in the associated samples, no qualifications were applied to the data.

1.4 Matrix Spike/Matrix Spike Duplicate

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCS/LCS duplicate (LCSD) pairs were reported for radium-226. Two LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [1 sigma (1σ)] results were within the laboratory specified acceptance criteria, with the following exception.

92681880: The LCS recovery of radium-226 in the LCS/LCSD pair in batch 611647 was high and outside of the laboratory specified acceptance criteria. Since radium-226 was not detected in the associated samples, no qualifications were applied to the data.

1.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for radium-226 using sample HAM-AP4-FB-04. The RER was within the laboratory specified acceptance criteria.

Three batch laboratory duplicates were reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

One equipment blank, HAM-AP4-EB-04, was collected with the sample set. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank, HAM-AP4-FB-04, was collected with the sample set. Radium-226 and radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP4-FD-04. Acceptable precision ($RER (1\sigma) < 3$) was demonstrated between the field duplicate and the original sample, HAM-HGWC-105.

However, radium-228 and combined radium-226 and radium-228 were detected in field duplicate sample HAM-AP4-FD-04 at a concentration greater than the MDA and not detected in the parent sample HAM-HGWC-105, resulting in noncalculable RPDs. Since the RERs were less than three, no qualifications were applied to the data.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result.”
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

RPD - Relative Percent Difference

February 2024

Memorandum

Date: 13 May 2024
To: Caroline Nelson
Christine Hug
From: Ashley Wilson
CC: Kristoffer Henderson
Subject: **Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Project Services, Project Number: 92713577 Revision 2**

SITE: Plant Hammond AP-4

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of thirteen aqueous samples, two field duplicates, two field blanks and two equipment blanks, collected 13-14 and 16-17 February 2024, as part of the Plant Hammond sampling event.

The samples were analyzed at Pace Analytical Services – Peachtree Corners, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Metals by US EPA Method 3010A/6010D
- Mercury by US EPA Method 7470A

The samples were analyzed at Pace Analytical Services - Asheville, Asheville, North Carolina, for the following analytical tests:

- Anions (chloride, fluoride and sulfate) by US EPA Method 300.0 Rev 2.1 1993
- Alkalinity as CaCO₃ (total, bicarbonate and carbonate) by SM 2320B-2011
- Sulfide by SM 4500-S2D-2011
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C-2015

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the

qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS- 41.5-2012).

The following samples were analyzed and reported in the laboratory report:

Laboratory IDs	Client IDs
92713577001	HAM-HGWA-48D
92713577002	HAM-HGWA-112
92713577003	HAM-HGWA-47
92713577004	HAM-HGWA-111
92713577005	HAM-HGWA-113
92713577006	HAM-HGWC-101
92713577007	HAM-HGWC-102
92713577008	HAM-HGWC-103
92713577009	HAM-HGWC-107
92713577010	HAM-AP4-EB-01

Laboratory IDs	Client IDs
92713577011	HAM-AP4-FB-01
92713577012	HAM-AP4-FD-01
92713577013	HAM-HGWC-105
92713577014	HAM-HGWC-109
92713577015	HAM-HGWC-117A
92713577016	HAM-HGWC-118
92713577017	HAM-AP4-EB-02
92713577018	HAM-AP4-FB-02
92713577019	HAM-AP4-FD-02

The chain of custody (COC) indicates the samples were received between 0-6 °C. No preservation issues were noted by the laboratory.

Radium 226/228 was requested on the COC. However, this data was reported separately.

The laboratory report was revised twice; once to correct the collection time for sample HGWA-113 and once to update the reporting limit (RL) for arsenic. The revised report was identified as 92713577 Revision 2.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B and 3010A/6010D.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ⊗ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The metals were not detected in the method blanks at or above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for metals by US EPA methods 6020B and 6010D, using samples HAM-HGWA-47, HAM-HGWC-117A, HAM-HGWA-111 and HAM-HGWC-109. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

One or both recoveries of calcium, magnesium, potassium and sodium in the MS/MSD pair using sample HAM-HGWA-47 were low and outside of laboratory specified acceptance criteria. Since the calcium, potassium and sodium concentrations in sample HAM-HGWA-47 were greater than four times the spiked concentrations, no qualifications were applied to the calcium, potassium and sodium data based on the MS/MSD recovery results. However, the concentration of magnesium in sample HAM-HGWA-47 was J- qualified as estimated with a low bias.

The recoveries of calcium in the MS/MSD pair using sample HAM-HGWC-117A was low and outside of laboratory specified acceptance criteria. Since the calcium concentration in sample HAM-HGWC-117A was greater than four times the spiked concentration, no qualifications were applied to the data based on the MS/MSD recovery results.

Batch MS/MSDs were also reported for both methods. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
HAM-HGWA-47	Magnesium	3.3	M1	3.3	J-	MS1

mg/L- milligram per liter

M1-matrix spike recovery exceeded QC limits

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported with each batch. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

Two equipment blanks were collected with the sample set, HAM-AP4-EB-01 and HAM-AP4-EB-02. Metals were not detected in the equipment blanks at or above the MDLs, with the following exceptions.

Molybdenum (0.0015 and 0.0017 mg/L) was detected at estimated concentrations greater than the MDL and less than the RL in HAM-AP4-EB-01 and HAM-AP4-EB-02, respectively. Since the molybdenum concentrations in HAM-AP4-EB-01 and HAM-AP4-EB-02 were U qualified due to field blank contamination and based on professional and technical judgment, no additional qualifications were applied to the data.

1.7 Field Blank

Two field blanks were collected with the sample set, HAM-AP4-FB-01 and HAM-AP4-FB-02. Metals were not detected in the field blanks at or above the MDLs, with the following exception.

Molybdenum (0.0016 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in HAM-AP4-FB-01. Therefore, the concentrations of molybdenum in HAM-AP4-EB-01, HAM-AP4-EB-02, HAM-HGWA-47 and HAM-HGWA-48D were U qualified as not detected at or above the RL.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-AP4-EB-01	Molybdenum	0.0015	J	0.010	U	BF1
HAM-AP4-EB-02	Molybdenum	0.0017	J	0.010	U	BF1
HAM-HGWA-47	Molybdenum	0.0030	J	0.010	U	BF1
HAM-HGWA-48D	Molybdenum	0.00068	J	0.010	U	BF1

mg/L- milligram per liter

J-the result is less than RL but greater than the MDL and the concentration is an approximate value

1.8 Field Duplicate

Two field duplicate samples were collected with the sample set, HAM-AP4-FD-01 and HAM-AP4-FD-02. Acceptable precision (RPD < 30%) was demonstrated between the field duplicate and the original samples, HAM-HGWC-102 and HAM-HGWC-117A, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. An elevated non-detect result was reported for calcium in sample HAM-AP4-FB-01 due to dilution analyzed.

1.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by US EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues

were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ⊗ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 **Overall Assessment**

The mercury data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 **Holding Time**

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 **Method Blank**

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Mercury was not detected in the method blank at or above the MDL.

2.4 **Matrix Spike/Matrix Spike Duplicate**

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

One sample set specific MS/MSD pair was reported, using sample HAM-HGWA-48D. The recovery and RPD results were within laboratory specified acceptance criteria, with the following exception.

The RPD for mercury in the MS/MSD pair using sample HAM-HGWA-48D was high and outside of laboratory specified acceptance criteria. Since mercury was not detected in sample HAM-HGWA-48D, no qualifications were applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The recovery results were within the laboratory specified acceptance criteria.

2.6 Equipment Blank

Two equipment blanks were collected with the sample set, HAM-AP4-EB-01 and HAM-AP4-EB-02. Mercury was not detected in the equipment blanks at or above the MDLs.

2.7 Field Blank

Two field blanks were collected with the sample set, HAM-AP4-FB-01 and HAM-AP4-FB-02. Mercury not detected in the field blanks at or above the MDLs.

2.8 Field Duplicate

Two field duplicate samples were collected with the sample set, HAM-AP4-FD-01 and HAM-AP4-FD-02. Acceptable precision (RPD < 30%) was demonstrated between the field duplicate and the original samples, HAM-HGWC-102 and HAM-HGWC-117A, respectively.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride, fluoride and sulfate by US EPA method 300.0 Rev 2.1 1993, TDS by SM 2540C-2015, alkalinity as CaCO₃ (total, bicarbonate and carbonate) by SM 2320B-2011 and sulfide by SM 4500-S2D-2011.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Laboratory Duplicate
- ✓ Equipment Blank
- ⊗ Field Blank
- ⊗ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding times for water samples are listed below. The holding times were met for the sample analyses.

Analysis	Holding Time
Anions (fluoride, chloride and sulfate)	28 days from collection to analysis
TDS	7 days from collection to analysis
Alkalinity	14 days from collection to analysis
Sulfide	28 days from collection to analysis

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported for chloride, fluoride and sulfate using samples HAM-HGWA-113 and HAM-HGWC-105. One sample set specific MS/MSD pair was reported for sulfide using sample HAM-HGWA-47. The recovery and RPD results were within the laboratory specified acceptance criteria.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Two laboratory duplicates were reported for TDS using samples HAM-HGWC-103 and HAM-HGWC-109. The RPD results were within the laboratory specified acceptance criteria, with the following exception.

The RPD for TDS in the laboratory duplicate using sample HAM-HGWC-109 was outside of laboratory specified acceptance criteria. Therefore, the concentration of TDS in HAM-HGWC-109 was J qualified as estimated.

Batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-HGWC-109	TDS	265	D6	265	J	RPD5

mg/L- milligram per liter

D6-the precision between the sample and sample duplicate exceeded laboratory control limits

3.7 Equipment Blank

Two equipment blanks were collected with the sample set, HAM-AP4-EB-01 and HAM-AP4-EB-02. The wet chemistry parameters were not detected in the equipment blank at or above the MDLs.

3.8 Field Blank

Two field blanks were collected with the sample set, HAM-AP4-FB-01 and HAM-AP4-FB-02. The wet chemistry parameters were not detected in the field blank at or above the MDLs, with the following exception.

TDS (33.0 mg/L) was detected in HAM-AP4-FB-02 at a concentration greater than the RL. Therefore, the concentrations of TDS in samples HAM-HGWA-111, HAM-HGWA-112, HAM-HGWA-113, HAM-HGWA-47, HAM-HGWA-48D, HAM-HGWC-101, HAM-HGWC-107, HAM-HGWC-109 and HAM-HGWC-117A were J+ qualified as estimated with high bias. Since the concentrations of TDS for samples were also J qualified due to laboratory duplicate RPD and field duplicate RPD exceedances, respectively, the final qualification for these results were J qualified as estimated.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
HAM-HGWA-111	TDS	187	NA	187	J+	FBC2
HAM-HGWA-112	TDS	73.0	NA	73.0	J+	FBC2
HAM-HGWA-113	TDS	93.0	NA	93.0	J+	FBC2
HAM-HGWA-47	TDS	147	NA	147	J+	FBC2
HAM-HGWA-48D	TDS	242	NA	242	J+	FBC2
HAM-HGWC-101	TDS	222	NA	222	J+	FBC2
HAM-HGWC-107	TDS	325	NA	325	J+	FBC2
HAM-HGWC-109	TDS	265	NA	265	J	FBC2
HAM-HGWC-117A	TDS	329	NA	329	J	FBC2

mg/L- milligram per liter

NA-not applicable

3.9 Field Duplicate

Two field duplicate samples were collected with the sample set, HAM-AP4-FD-01 and HAM-AP4-FD-02. Acceptable precision (RPD < 30%) was demonstrated between the field duplicate and the original samples, HAM-HGWC-102 and HAM-HGWC-117A, respectively, with the following exception.

The RPD for TDS in field duplicate pair HAM-AP4-FD-02/HAM-HGWC-117A was greater than 30%. Therefore, the concentrations of TDS in the field duplicate pair were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	RPD	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-AP4-FD-02	TDS	1300	NA	84	1300	J	FD1
HAM-HGWC-117A	TDS	329	NA		329	J	FD1

mg/L- milligram per liter

NA-not applicable

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to “not detected at or above the reported result.”
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.
- J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec’s Data Validation Team

DQM Reason Code	Description
AB1	> Samples in batch
AB2	QC sample missing
AB3	Batch analysis time exceeded
BAH	Contamination detected in the Ambient Blank greater than or equal to the Quantitation Limit.
BAL	Contamination detected in the Ambient Blank less than the Quantitation Limit.
BC	Calibration blank contamination
BC1	assoc. result < RL
BC2	assoc. result > RL < mult.
BC3	assoc. result > RL > mult.
BEH	Contamination detected in the Equipment Blank greater than or equal to the Quantitation Limit.
BEL	Contamination detected in the Equipment Blank less than the Quantitation Limit.
BF	Field blank contamination
BF1	assoc. result < RL
BF2	assoc. result > RL < mult.
BF3	assoc. result > RL > mult.
BFH	Contamination detected in the Field Blank greater than or equal to the Quantitation Limit.
BFL	Contamination detected in the Field Blank less than the Quantitation Limit.
BL	Laboratory blank contamination
BL1	assoc. result < RL
BL2	assoc. result > RL < mult.
BL3	assoc. result > RL > mult.
BLH	Contamination detected in the Lab Blank greater than or equal to the Quantitation Limit.
BLL	Contamination detected in the Lab Blank less than the Quantitation Limit.
BT	Trip blank contamination
BT1	assoc. result < RL
BT2	assoc. result > RL < mult.
BT3	assoc. result > RL > mult.
BTH	Contamination detected in the Trip Blank greater than or equal to the Quantitation Limit.
BTL	Contamination detected in the Trip Blank less than the Quantitation Limit.
CA1	Column difference
CC1	CCV %D
CC2	CCV %R
CC3	CCV RRF
CI1	IC RSD
CI2	IC RRF
CR1	Calibration range

DQM Reason Code	Description
CV1	ICV or CCV %D
CV2	ICV or CCV %R
CV3	ICV CCV RRF
DF1	Dilution Factor > 1
DL	Dilution Factor > 1
DVT1	The Dissolved Result > Total Result and the absolute difference > the AD_MULTIPLIER_CL * Detection Limit
DVT2	The Dissolved Result > Total Result and the absolute difference > AD_MULTIPLIER_UCO * Detection Limit
DVT3	The Dissolved Result > Total Result and the relative percent difference (RPD) > RPD_CL
DVT4	The Dissolved Result > Total Result and the relative percent difference (RPD) > RPD_UCO
ER1	MDL=<RESULT<RL (INORGANIC)
ER2	MDL=<RESULT<RL (ORGANIC)
FBC1	BLANK CONTAMINATION
FBC2	RESULT < BLANK * MULTIPLIER
FBC3	RESULT > BLANK * MULTIPLIER
FD1	Field duplicate RPD
FD2	Field duplicate abs. diff.
GHT1	GROSS_QUALIFIER_HIT
GHT2	GROSS_QUALIFIER_NON_DETECT
HP1	Hydrocarbon pattern
HT1	Holding time samp. to preservation
HT2	Holding time samp. to analysis
HT3	Holding time gros. samp. to pres.
HT4	Holding time gros. samp. to analysis
IS1	Internal standard
LBC1	BLANK CONTAMINATION
LBC2	RESULT < BLANK * MULTIPLIER
LBC3	RESULT > BLANK * MULTIPLIER
LD1	Lab duplicate RPD
LD2	Lab duplicate abs. diff.
LS1	LS %R
LS2	LS RPD
MS1	MS %R
MS2	MS RPD
MS3	Parent >4x spike
MS4	Spike diluted out

DQM Reason Code	Description
NP1	Non-Preferred Result
NR1	NUMERIC RESULTS
OT1	Other quality issue
PS1	BETWEEN CONTROL AND WARNING LIMITS
PS2	INVALID
PS3	LESS THAN LOWER CONTROL LIMIT
PS4	LESS THAN LOWER WARNING LIMIT
PT1	The preservative for this test id does not match the required preservative in RT_HOLDING_TIME.
RDL1	EXCEEDS REQUIRED DETECTION LIMIT
RL1	ND > project limit
RO1	Other rad. issue
RPD1	LCS/LCSD
RPD2	LCS/LCSD_NON_DETECT
RPD3	MS/MSD
RPD4	MS/MSD_NON_DETECT
RPD5	Orig/Dup
RPD6	Orig/Dup_NON_DETECT
RPDF1	FIELD DUPLICATE
RPDF2	FIELD DUPLICATE NON_DETECT
RQ1	Rad. quantitation issue
RR1	Repeated result same method
RR2	Repeated result diff. method
RSD1	RSD exceeds CL for LCS sample
RSD2	RSD exceeds CL for MS sample
RSD3	RSD exceeds CL for Lab sample
RSD4	RSD exceeds CL for Field sample
RY1	Tracer or carrier
SD1	Serial dilution
SO1	High moisture
SO2	Wet weight
SP1	Preservation, temp
SP2	Preservation, pH
SP3	Preservation, headspace
SPR1	BLANK SPIKE > UCL
SPR10	EarthSoft.DQM.SpikeRecovery2
SPR11	EarthSoft.DQM.SpikeRecovery2
SPR12	EarthSoft.DQM.SpikeRecovery2
SPR2	INORGANIC SPIKE > UCL

DQM Reason Code	Description
SPR3	ORGANIC SPIKE > UCL
SPR4	LCL > BLANK > LOW_CUTOFF
SPR5	LCL > INORG > LOW_CUTOFF
SPR6	LCL > ORG > LOW_CUTOFF
SPR7	BLANK SPIKE < LOW_CUTOFF
SPR8	INORGANIC SPIKE < LOW_CUTOFF
SPR9	ORGANIC SPIKE < LOW_CUTOFF
SU	Surrogate outlier
SU1	Surrogate
SU2	Surrogate diluted out
SURR1	ASSO. DETECTS OF LCL > REC > LOW_CUTOFF
SURR10	EarthSoft.DQM.SurrogateRecovery
SURR11	EarthSoft.DQM.SurrogateRecovery
SURR12	EarthSoft.DQM.SurrogateRecovery
SURR2	ASSO. DETECTS OF REC < LOW_CUTOFF
SURR3	ASSO. DETECTS OF REC > UCL
SURR4	ASSO. NDS OF LCL > REC > LOW_CUTOFF
SURR5	ASSO. NDS OF REC < LOW_CUTOFF
SURR6	ASSO. NDS OF REC > UCL
SURR7	LCL > REC > LOW_CUTOFF
SURR8	REC < LOW_CUTOFF
SURR9	REC > UCL
TBC1	BLANK CONTAMINATION
TBC2	RESULT < BLANK * MULTIPLIER
TBC3	RESULT > BLANK * MULTIPLIER
TR	Trace Detection
TR1	Trace detection
TRA1	Tracer is outside of UCL or LCL
TRA2	Associated result of a tracer less than the LCL
TRA3	Associated detect result of a tracer greater than the UCL
VC1	Canister vacuum
VC2	Canister contamination
VSU1	INVALID SAMPLE UNIT TYPE
VSU2	MISSING SAMPLE UNIT TYPE
VSU3	NON-DEFAULT RESULT UNIT

FIELD SAMPLING REPORTS

August 2023

Low-Flow Test Report:

Test Date / Time: 8/8/2023 3:51:27 PM

Project: GP-Plant Hammond Operator

Name: Elisabeth McDonnell

Location Name: HGWA-47 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.74 ft Total Depth: 43.27 ft Initial Depth to Water: 9.10 ft	Pump Type: Peri pump Tubing Type: Poly Pump Intake From TOC: 38.47 ft Estimated Total Volume Pumped: 8.6 Liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989630
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Cloudy, 74 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/8/2023 3:51 PM	00:00	7.25 pH	20.12 °C	382.03 µS/cm	0.40 mg/L	1.71 NTU	60.7 mV	9.15 ft	200.00 ml/min
8/8/2023 3:56 PM	05:00	7.27 pH	19.90 °C	385.42 µS/cm	0.26 mg/L	1.94 NTU	43.4 mV	9.15 ft	200.00 ml/min
8/8/2023 4:01 PM	10:00	7.26 pH	19.77 °C	371.35 µS/cm	0.25 mg/L	3.45 NTU	47.2 mV	9.15 ft	200.00 ml/min
8/8/2023 4:06 PM	15:00	7.28 pH	19.62 °C	378.75 µS/cm	0.29 mg/L	2.59 NTU	46.2 mV	9.15 ft	200.00 ml/min
8/8/2023 4:11 PM	20:00	7.28 pH	19.56 °C	377.79 µS/cm	0.29 mg/L	1.89 NTU	45.2 mV	9.15 ft	200.00 ml/min
8/8/2023 4:16 PM	25:00	7.28 pH	19.54 °C	377.04 µS/cm	0.31 mg/L	1.15 NTU	37.5 mV	9.15 ft	200.00 ml/min
8/8/2023 4:20 PM	28:45	7.27 pH	19.59 °C	381.36 µS/cm	0.25 mg/L	1.34 NTU	37.2 mV	9.15 ft	200.00 ml/min
8/8/2023 4:25 PM	33:45	7.27 pH	19.54 °C	377.60 µS/cm	0.26 mg/L	1.54 NTU	36.0 mV	9.15 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-47	Grab

Low-Flow Test Report:

Test Date / Time: 8/8/2023 4:56:07 PM

Project: GP-Plant Hammond **Operator**

Name: Elisabeth McDonnell

Location Name: HGWA-48D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 62.92 ft Total Depth: 72.95 ft Initial Depth to Water: 9.02 ft	Pump Type: Bladder pump Tubing Type: Poly Pump Intake From TOC: 67.97 ft Estimated Total Volume Pumped: 7.2 Liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 4.89 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989630
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Cloudy, 74 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/8/2023 4:56 PM	00:00	7.34 pH	20.45 °C	384.65 µS/cm	1.21 mg/L	4.97 NTU	-62.9 mV	10.61 ft	200.00 ml/min
8/8/2023 5:01 PM	05:00	7.34 pH	19.94 °C	339.12 µS/cm	1.47 mg/L	0.37 NTU	-65.4 mV	11.70 ft	200.00 ml/min
8/8/2023 5:02 PM	06:11	7.34 pH	19.89 °C	394.80 µS/cm	1.51 mg/L	0.40 NTU	-106.6 mV	11.81 ft	200.00 ml/min
8/8/2023 5:07 PM	11:11	7.34 pH	19.86 °C	401.16 µS/cm	1.07 mg/L	1.37 NTU	-66.4 mV	12.54 ft	200.00 ml/min
8/8/2023 5:12 PM	16:11	7.35 pH	19.72 °C	401.22 µS/cm	1.21 mg/L	1.22 NTU	-66.9 mV	13.28 ft	200.00 ml/min
8/8/2023 5:17 PM	21:11	7.36 pH	19.90 °C	403.02 µS/cm	1.42 mg/L	1.49 NTU	-66.2 mV	13.50 ft	200.00 ml/min
8/8/2023 5:22 PM	26:11	7.36 pH	19.86 °C	398.01 µS/cm	1.44 mg/L	2.67 NTU	-63.2 mV	13.67 ft	200.00 ml/min
8/8/2023 5:27 PM	31:11	7.37 pH	19.77 °C	405.87 µS/cm	1.44 mg/L	2.90 NTU	-61.0 mV	13.79 ft	200.00 ml/min
8/8/2023 5:32 PM	36:11	7.37 pH	19.65 °C	396.81 µS/cm	1.32 mg/L	3.68 NTU	-96.0 mV	13.91 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-48	Grab

Low-Flow Test Report:

Test Date / Time: 8/8/2023 5:35:17 PM

Project: GP-Plant Hammond

Operator Name: Connor Cain

Location Name: HGWA-111 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.67 ft Total Depth: 43.22 ft Initial Depth to Water: 12.77 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 22.95 ft Estimated Total Volume Pumped: 16 Liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 1.25 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883553
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Cloudy, 74 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/8/2023 5:35 PM	00:00	6.09 pH	22.18 °C	114.12 µS/cm	4.34 mg/L	0.29 NTU	127.2 mV	13.36 ft	200.00 ml/min
8/8/2023 5:40 PM	05:00	6.11 pH	21.08 °C	118.15 µS/cm	4.12 mg/L	0.14 NTU	97.7 mV	13.58 ft	200.00 ml/min
8/8/2023 5:41 PM	06:08	6.12 pH	21.03 °C	118.24 µS/cm	4.10 mg/L	0.14 NTU	96.6 mV	13.58 ft	200.00 ml/min
8/8/2023 5:46 PM	11:08	6.15 pH	20.78 °C	121.51 µS/cm	4.06 mg/L	0.09 NTU	93.5 mV	13.70 ft	200.00 ml/min
8/8/2023 5:51 PM	16:08	6.22 pH	20.57 °C	132.28 µS/cm	4.04 mg/L	0.10 NTU	92.9 mV	13.83 ft	200.00 ml/min
8/8/2023 5:56 PM	21:08	6.50 pH	20.41 °C	194.86 µS/cm	3.91 mg/L	0.16 NTU	82.7 mV	13.91 ft	200.00 ml/min
8/8/2023 6:01 PM	26:08	6.58 pH	20.44 °C	205.17 µS/cm	3.78 mg/L	0.20 NTU	78.6 mV	13.93 ft	200.00 ml/min
8/8/2023 6:06 PM	31:08	6.65 pH	20.36 °C	220.49 µS/cm	3.71 mg/L	0.13 NTU	76.0 mV	13.95 ft	200.00 ml/min
8/8/2023 6:10 PM	35:00	6.71 pH	20.53 °C	235.09 µS/cm	3.64 mg/L	0.15 NTU	76.6 mV	13.95 ft	200.00 ml/min
8/8/2023 6:15 PM	40:00	6.74 pH	20.35 °C	238.99 µS/cm	3.60 mg/L	0.12 NTU	106.8 mV	14.02 ft	200.00 ml/min
8/8/2023 6:20 PM	45:00	6.81 pH	20.30 °C	254.97 µS/cm	3.58 mg/L	0.14 NTU	104.5 mV	14.02 ft	200.00 ml/min
8/8/2023 6:25 PM	50:00	6.87 pH	20.40 °C	270.13 µS/cm	3.51 mg/L	0.10 NTU	72.8 mV	14.02 ft	200.00 ml/min
8/8/2023 6:28 PM	53:33	6.88 pH	20.37 °C	274.32 µS/cm	3.49 mg/L	0.12 NTU	76.6 mV	14.02 ft	200.00 ml/min

8/8/2023 6:33 PM	58:33	6.93 pH	20.48 °C	280.15 µS/cm	3.45 mg/L	0.11 NTU	71.4 mV	14.02 ft	200.00 ml/min
8/8/2023 6:38 PM	01:03:25	6.94 pH	20.39 °C	282.25 µS/cm	3.44 mg/L	0.17 NTU	76.3 mV	14.02 ft	200.00 ml/min
8/8/2023 6:43 PM	01:08:25	7.00 pH	20.50 °C	293.96 µS/cm	3.41 mg/L	0.14 NTU	96.9 mV	14.02 ft	200.00 ml/min
8/8/2023 6:48 PM	01:13:25	7.01 pH	20.49 °C	294.01 µS/cm	3.38 mg/L	0.13 NTU	97.6 mV	14.02 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-111	Grab

Low-Flow Test Report:

Test Date / Time: 8/8/2023 4:59:48 PM

Project: GP-Plant Hammond

Operator Name: Thomas Kessler

Location Name: HGWA-112 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.15 ft Total Depth: 39.88 ft Initial Depth to Water: 13.25 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 35.15 ft Estimated Total Volume Pumped: 8 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 1.45 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850724
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Cloudy, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/8/2023 4:59 PM	00:00	6.26 pH	22.07 °C	79.40 µS/cm	2.52 mg/L	3.57 NTU	141.6 mV	14.10 ft	200.00 ml/min
8/8/2023 5:04 PM	05:00	5.85 pH	20.50 °C	80.50 µS/cm	1.63 mg/L	4.52 NTU	150.6 mV	14.40 ft	200.00 ml/min
8/8/2023 5:09 PM	10:00	5.79 pH	20.35 °C	80.28 µS/cm	1.46 mg/L	3.37 NTU	147.9 mV	14.55 ft	200.00 ml/min
8/8/2023 5:14 PM	15:00	5.77 pH	20.30 °C	80.58 µS/cm	1.32 mg/L	2.80 NTU	143.0 mV	14.60 ft	200.00 ml/min
8/8/2023 5:19 PM	20:00	5.75 pH	20.20 °C	80.56 µS/cm	1.35 mg/L	2.21 NTU	139.8 mV	14.65 ft	200.00 ml/min
8/8/2023 5:24 PM	25:00	5.78 pH	20.13 °C	80.76 µS/cm	1.30 mg/L	2.36 NTU	134.3 mV	14.70 ft	200.00 ml/min
8/8/2023 5:29 PM	30:00	5.77 pH	20.03 °C	80.63 µS/cm	1.30 mg/L	1.58 NTU	170.6 mV	14.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-112	Grab

Low-Flow Test Report:

Test Date / Time: 8/10/2023 1:52:06 PM

Project: GP-Plant Hammond

Operator Name: Anthony Szwast

Location Name: HGWA-113 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 26.11 ft Total Depth: 36.11 ft Initial Depth to Water: 12.08 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 31.11 ft Estimated Total Volume Pumped: 16 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 13.94 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Partly cloudy, 70 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
8/10/2023 1:52 PM	00:00	6.06 pH	22.09 °C	102.99 µS/cm	1.29 mg/L	2.73 NTU	157.1 mV	16.70 ft	100.00 ml/min
8/10/2023 1:57 PM	05:00	6.07 pH	22.19 °C	99.73 µS/cm	1.31 mg/L	2.95 NTU	522.1 mV	17.27 ft	100.00 ml/min
8/10/2023 2:02 PM	10:00	6.08 pH	21.99 °C	100.54 µS/cm	1.33 mg/L	3.15 NTU	417.3 mV	17.90 ft	100.00 ml/min
8/10/2023 2:07 PM	15:00	6.08 pH	21.93 °C	101.26 µS/cm	1.31 mg/L	2.95 NTU	434.3 mV	18.52 ft	100.00 ml/min
8/10/2023 2:12 PM	20:00	6.07 pH	23.21 °C	102.36 µS/cm	1.33 mg/L	1.81 NTU	442.3 mV	18.90 ft	100.00 ml/min
8/10/2023 2:17 PM	25:00	6.08 pH	22.37 °C	100.65 µS/cm	1.22 mg/L	4.46 NTU	464.7 mV	19.39 ft	100.00 ml/min
8/10/2023 2:22 PM	30:00	6.08 pH	22.38 °C	102.44 µS/cm	1.19 mg/L	2.43 NTU	473.4 mV	19.81 ft	100.00 ml/min
8/10/2023 2:27 PM	35:00	6.09 pH	22.50 °C	103.26 µS/cm	1.14 mg/L	1.49 NTU	476.5 mV	20.26 ft	100.00 ml/min
8/10/2023 2:32 PM	40:00	6.06 pH	23.03 °C	104.84 µS/cm	1.19 mg/L	1.27 NTU	483.3 mV	20.49 ft	100.00 ml/min
8/10/2023 2:37 PM	45:00	6.07 pH	22.50 °C	101.83 µS/cm	1.19 mg/L	3.15 NTU	626.9 mV	21.05 ft	100.00 ml/min
8/10/2023 2:42 PM	50:00	6.07 pH	22.23 °C	103.67 µS/cm	1.26 mg/L	4.79 NTU	498.7 mV	21.60 ft	100.00 ml/min
8/10/2023 2:47 PM	55:00	6.07 pH	22.36 °C	104.78 µS/cm	1.28 mg/L	0.68 NTU	503.0 mV	22.15 ft	100.00 ml/min
8/10/2023 2:52 PM	01:00:00	6.10 pH	24.16 °C	109.66 µS/cm	5.88 mg/L	1.46 NTU	500.5 mV	22.20 ft	100.00 ml/min

8/10/2023 2:57 PM	01:05:00	6.06 pH	23.53 °C	101.97 µS/cm	1.74 mg/L		513.0 mV	22.51 ft	100.00 ml/min
8/10/2023 3:02 PM	01:10:00	6.07 pH	22.82 °C	103.01 µS/cm	1.38 mg/L	3.76 NTU	654.7 mV	22.85 ft	100.00 ml/min
8/10/2023 3:07 PM	01:15:00	6.07 pH	23.17 °C	105.34 µS/cm	1.38 mg/L	2.40 NTU	532.7 mV	23.18 ft	100.00 ml/min
8/10/2023 3:12 PM	01:20:00	6.07 pH	23.44 °C	105.46 µS/cm	1.42 mg/L	1.73 NTU	531.5 mV	23.44 ft	100.00 ml/min
8/10/2023 3:17 PM	01:25:00	6.06 pH	23.95 °C	104.34 µS/cm	1.40 mg/L	1.38 NTU	665.4 mV	23.61 ft	100.00 ml/min
8/10/2023 3:22 PM	01:30:00	6.06 pH	24.45 °C	105.31 µS/cm	1.46 mg/L	1.62 NTU	544.7 mV	23.74 ft	100.00 ml/min
8/10/2023 3:27 PM	01:35:00	6.07 pH	24.34 °C	104.50 µS/cm	1.12 mg/L	0.72 NTU	547.2 mV	24.02 ft	100.00 ml/min
8/10/2023 3:32 PM	01:40:00	6.08 pH	23.57 °C	105.84 µS/cm	1.14 mg/L	0.04 NTU	558.1 mV	24.24 ft	100.00 ml/min
8/10/2023 3:37 PM	01:45:00	6.08 pH	23.98 °C	106.14 µS/cm	1.16 mg/L	1.68 NTU	561.0 mV	24.45 ft	100.00 ml/min
8/10/2023 3:42 PM	01:50:00	6.07 pH	23.80 °C	104.33 µS/cm	1.18 mg/L	1.84 NTU	571.8 mV	24.66 ft	100.00 ml/min
8/10/2023 3:47 PM	01:55:00	6.07 pH	23.80 °C	104.27 µS/cm	1.20 mg/L	0.98 NTU	577.6 mV	24.92 ft	100.00 ml/min
8/10/2023 3:52 PM	02:00:00	6.07 pH	24.02 °C	104.17 µS/cm	1.22 mg/L	1.62 NTU	578.7 mV	25.17 ft	100.00 ml/min
8/10/2023 3:57 PM	02:05:00	6.07 pH	24.15 °C	103.77 µS/cm	1.22 mg/L	3.67 NTU	706.6 mV	25.38 ft	100.00 ml/min
8/10/2023 4:02 PM	02:10:00	6.07 pH	23.96 °C	103.80 µS/cm	1.22 mg/L	1.77 NTU	595.9 mV	25.57 ft	100.00 ml/min
8/10/2023 4:07 PM	02:15:00	6.08 pH	24.52 °C	103.90 µS/cm	1.22 mg/L	1.77 NTU	598.8 mV	25.73 ft	100.00 ml/min
8/10/2023 4:12 PM	02:20:00	6.06 pH	24.61 °C	102.87 µS/cm	1.21 mg/L	1.79 NTU	718.4 mV	25.89 ft	100.00 ml/min
8/10/2023 4:17 PM	02:25:00	6.07 pH	24.65 °C	103.39 µS/cm	1.23 mg/L	1.68 NTU	610.4 mV	26.02 ft	100.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-113	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 10:45:21 AM

Project: GP-Plant Hammond

Operator Name: Anthony Szwast

Location Name: HGWC-101 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.94 ft Total Depth: 37.95 ft Initial Depth to Water: 13.34 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 32.94 ft Estimated Total Volume Pumped: 14 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 5.94 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Sunny, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
8/11/2023 10:45 AM	00:00	5.38 pH	20.17 °C	269.01 µS/cm	0.53 mg/L	0.85 NTU	176.1 mV	15.32 ft	200.00 ml/min
8/11/2023 10:50 AM	05:00	5.36 pH	20.15 °C	271.24 µS/cm	0.52 mg/L	0.32 NTU	212.2 mV	15.98 ft	200.00 ml/min
8/11/2023 10:55 AM	10:00	5.36 pH	20.11 °C	277.34 µS/cm	0.63 mg/L	0.30 NTU	202.2 mV	16.44 ft	200.00 ml/min
8/11/2023 11:00 AM	15:00	5.37 pH	19.97 °C	290.02 µS/cm	0.47 mg/L	0.56 NTU	190.8 mV	16.96 ft	200.00 ml/min
8/11/2023 11:05 AM	20:00	5.40 pH	19.95 °C	299.22 µS/cm	0.40 mg/L	0.13 NTU	178.8 mV	17.32 ft	200.00 ml/min
8/11/2023 11:10 AM	25:00	5.42 pH	20.05 °C	303.88 µS/cm	0.48 mg/L	2.33 NTU	177.9 mV	17.65 ft	200.00 ml/min
8/11/2023 11:15 AM	30:00	5.43 pH	20.14 °C	307.81 µS/cm	0.36 mg/L	0.23 NTU	175.7 mV	17.95 ft	200.00 ml/min
8/11/2023 11:20 AM	35:00	5.44 pH	20.04 °C	311.60 µS/cm	0.31 mg/L	0.28 NTU	174.5 mV	18.20 ft	200.00 ml/min
8/11/2023 11:25 AM	40:00	5.44 pH	20.02 °C	313.74 µS/cm	0.34 mg/L	0.53 NTU	168.6 mV	18.43 ft	200.00 ml/min
8/11/2023 11:30 AM	45:00	5.45 pH	20.09 °C	314.51 µS/cm	0.31 mg/L	2.05 NTU	168.7 mV	18.68 ft	200.00 ml/min
8/11/2023 11:35 AM	50:00	5.44 pH	20.11 °C	313.31 µS/cm	0.34 mg/L	0.19 NTU	170.8 mV	18.82 ft	200.00 ml/min
8/11/2023 11:40 AM	55:00	5.44 pH	20.17 °C	309.79 µS/cm	0.30 mg/L	0.02 NTU	173.7 mV	19.00 ft	200.00 ml/min
8/11/2023 11:45 AM	01:00:00	5.44 pH	20.09 °C	309.08 µS/cm	0.26 mg/L	0.17 NTU	176.0 mV	19.12 ft	200.00 ml/min

8/11/2023 11:50 AM	01:05:00	5.44 pH	20.14 °C	306.06 µS/cm	0.25 mg/L	0.06 NTU	177.8 mV	19.28 ft	200.00 ml/min
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Samples

Sample ID:	Description:
HAM-HGWC-101	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 3:51:11 PM

Project: GP-Plant Hammond Operator

Name: Elisabeth McDonnell

Location Name: HGWC-102 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.43 ft Total Depth: 36.88 ft Initial Depth to Water: 12.88 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 32.43 ft Estimated Total Volume Pumped: 7 Liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.32 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989630
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Sunny, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/11/2023 3:51 PM	00:00	5.80 pH	21.88 °C	906.49 µS/cm	0.92 mg/L	2.32 NTU	61.7 mV	13.18 ft	200.00 ml/min
8/11/2023 3:56 PM	05:00	5.80 pH	21.73 °C	908.40 µS/cm	1.21 mg/L	1.70 NTU	68.9 mV	13.17 ft	200.00 ml/min
8/11/2023 4:01 PM	10:00	5.80 pH	21.91 °C	911.58 µS/cm	0.78 mg/L	0.00 NTU	57.7 mV	13.20 ft	200.00 ml/min
8/11/2023 4:06 PM	15:00	5.80 pH	22.12 °C	874.21 µS/cm	1.74 mg/L	0.08 NTU	60.6 mV	13.19 ft	200.00 ml/min
8/11/2023 4:11 PM	20:00	5.80 pH	21.46 °C	908.07 µS/cm	0.92 mg/L	2.79 NTU	62.8 mV	13.20 ft	200.00 ml/min
8/11/2023 4:16 PM	25:00	5.79 pH	21.38 °C	907.45 µS/cm	0.74 mg/L	0.00 NTU	64.7 mV	13.20 ft	200.00 ml/min
8/11/2023 4:21 PM	30:00	5.79 pH	21.97 °C	900.57 µS/cm	0.85 mg/L	0.33 NTU	66.0 mV	13.20 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-102	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 12:39:13 PM

Project: GP-Plant Hammond

Operator Name: Elisabeth McDonnell

Location Name: HGWC-103 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.68 ft Total Depth: 37.58 ft Initial Depth to Water: 13.85 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 32.68 ft Estimated Total Volume Pumped: 21 Liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.19 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989630
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Sunny, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/11/2023 12:39 PM	00:00	5.82 pH	19.68 °C	956.25 µS/cm	1.15 mg/L	66.40 NTU	90.9 mV	14.02 ft	200.00 ml/min
8/11/2023 12:44 PM	05:00	5.82 pH	19.66 °C	954.83 µS/cm	1.38 mg/L	91.60 NTU	87.4 mV	14.03 ft	200.00 ml/min
8/11/2023 12:48 PM	09:43	5.80 pH	19.36 °C	948.05 µS/cm	1.45 mg/L	55.20 NTU	90.5 mV	14.05 ft	200.00 ml/min
8/11/2023 12:53 PM	14:43	5.80 pH	19.43 °C	953.67 µS/cm	1.39 mg/L	40.60 NTU	117.0 mV	14.05 ft	200.00 ml/min
8/11/2023 12:58 PM	19:43	5.80 pH	19.44 °C	951.34 µS/cm	1.36 mg/L	25.30 NTU	116.6 mV	14.01 ft	200.00 ml/min
8/11/2023 1:03 PM	24:43	5.80 pH	19.34 °C	664.88 µS/cm	1.26 mg/L	20.40 NTU	118.0 mV	14.04 ft	200.00 ml/min
8/11/2023 1:08 PM	29:43	5.80 pH	19.40 °C	939.10 µS/cm	1.35 mg/L	15.00 NTU	118.0 mV	14.05 ft	200.00 ml/min
8/11/2023 1:13 PM	34:43	5.80 pH	19.50 °C	953.31 µS/cm	1.13 mg/L	13.70 NTU	117.7 mV	14.05 ft	200.00 ml/min
8/11/2023 1:18 PM	39:43	5.79 pH	19.37 °C	952.54 µS/cm	1.39 mg/L	10.50 NTU	90.7 mV	14.05 ft	200.00 ml/min
8/11/2023 1:23 PM	44:43	5.80 pH	19.32 °C	952.99 µS/cm	1.45 mg/L	8.83 NTU	90.7 mV	14.04 ft	200.00 ml/min
8/11/2023 1:28 PM	49:43	5.80 pH	19.31 °C	954.80 µS/cm	1.24 mg/L	7.62 NTU	90.5 mV	14.05 ft	200.00 ml/min
8/11/2023 1:33 PM	54:43	5.81 pH	19.25 °C	958.17 µS/cm	1.19 mg/L	8.61 NTU	90.4 mV	14.05 ft	200.00 ml/min
8/11/2023 1:38 PM	59:43	5.81 pH	19.45 °C	951.22 µS/cm	1.26 mg/L	5.37 NTU	89.4 mV	14.04 ft	200.00 ml/min
8/11/2023 1:43 PM	01:04:43	5.80 pH	19.61 °C	951.89 µS/cm	1.07 mg/L	4.29 NTU	90.6 mV	14.05 ft	200.00 ml/min

8/11/2023 1:48 PM	01:09:43	5.81 pH	19.45 °C	953.33 µS/cm	1.28 mg/L	3.47 NTU	117.3 mV	14.04 ft	200.00 ml/min
8/11/2023 1:53 PM	01:14:43	5.80 pH	19.32 °C	958.43 µS/cm	1.21 mg/L	4.52 NTU	117.6 mV	14.04 ft	200.00 ml/min
8/11/2023 1:58 PM	01:19:43	5.81 pH	19.24 °C	952.99 µS/cm	1.47 mg/L	2.67 NTU	89.8 mV	14.04 ft	200.00 ml/min
8/11/2023 2:03 PM	01:24:43	5.81 pH	19.28 °C	956.35 µS/cm	1.16 mg/L	2.53 NTU	117.9 mV	14.05 ft	200.00 ml/min
8/11/2023 2:08 PM	01:29:43	5.81 pH	19.24 °C	944.58 µS/cm	1.28 mg/L	2.74 NTU	91.6 mV	14.05 ft	200.00 ml/min
8/11/2023 2:13 PM	01:34:43	5.80 pH	19.14 °C	953.42 µS/cm	1.41 mg/L	2.33 NTU	89.9 mV	14.05 ft	200.00 ml/min
8/11/2023 2:18 PM	01:39:43	5.80 pH	19.25 °C	956.72 µS/cm	1.34 mg/L	3.74 NTU	89.4 mV	14.04 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-103	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 10:20:44 AM

Project: GP-Plant Hammond

Operator Name: Elisabeth McDonnell

Location Name: HGWC-105 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 34.67 ft Total Depth: 44.89 ft Initial Depth to Water: 17.80 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 39.67 ft Estimated Total Volume Pumped: 8 Liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.33 ft	Instrument Used: Aqua TROLL 400 Serial Number: 989630
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Sunny, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/11/2023 10:20 AM	00:00	6.77 pH	20.48 °C	3.08 µS/cm	2.24 mg/L	18.20 NTU	54.6 mV	18.12 ft	200.00 ml/min
8/11/2023 10:25 AM	05:00	6.52 pH	19.68 °C	1.99 µS/cm	2.52 mg/L	14.40 NTU	40.5 mV	18.13 ft	200.00 ml/min
8/11/2023 10:30 AM	10:00	6.65 pH	19.53 °C	14.18 µS/cm	2.32 mg/L	4.97 NTU	29.6 mV	18.12 ft	200.00 ml/min
8/11/2023 10:35 AM	15:00	6.62 pH	19.41 °C	5.05 µS/cm	2.16 mg/L	3.65 NTU	26.9 mV	18.13 ft	200.00 ml/min
8/11/2023 10:40 AM	20:00	6.19 pH	19.45 °C	3.73 µS/cm	2.33 mg/L	2.84 NTU	25.9 mV	18.13 ft	200.00 ml/min
8/11/2023 10:45 AM	25:00	6.48 pH	19.28 °C	800.96 µS/cm	0.80 mg/L	2.60 NTU	4.8 mV	18.12 ft	200.00 ml/min
8/11/2023 10:50 AM	30:00	6.47 pH	19.22 °C	798.25 µS/cm	0.95 mg/L	2.01 NTU	-4.7 mV	18.13 ft	200.00 ml/min
8/11/2023 10:55 AM	35:00	6.47 pH	19.37 °C	794.52 µS/cm	0.93 mg/L	3.13 NTU	-7.4 mV	18.13 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-105	Grab
HAM-AP4-FD-04	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 2:05:39 PM

Project: GP-Plant Hammond

Operator Name: C. Cain

Location Name: HGWC-107 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 28.20 ft Total Depth: 38.08 ft Initial Depth to Water: 15.10 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 33.2 ft Estimated Total Volume Pumped: 7 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883553
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Cloudy, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/11/2023 2:05 PM	00:00	6.25 pH	22.27 °C	404.34 µS/cm	1.00 mg/L	1.24 NTU	76.7 mV	15.10 ft	200.00 ml/min
8/11/2023 2:10 PM	05:00	6.23 pH	22.29 °C	401.91 µS/cm	0.76 mg/L	1.28 NTU	72.1 mV	15.10 ft	200.00 ml/min
8/11/2023 2:15 PM	10:00	6.21 pH	22.70 °C	400.19 µS/cm	0.56 mg/L	1.17 NTU	75.8 mV	15.10 ft	200.00 ml/min
8/11/2023 2:20 PM	15:00	6.19 pH	22.85 °C	397.83 µS/cm	0.45 mg/L	1.09 NTU	73.2 mV	15.10 ft	200.00 ml/min
8/11/2023 2:25 PM	20:00	6.17 pH	22.76 °C	395.86 µS/cm	0.39 mg/L	0.87 NTU	105.0 mV	15.10 ft	200.00 ml/min
8/11/2023 2:30 PM	25:00	6.16 pH	22.42 °C	394.18 µS/cm	0.39 mg/L	1.02 NTU	76.5 mV	15.10 ft	200.00 ml/min
8/11/2023 2:35 PM	30:00	6.16 pH	22.33 °C	396.12 µS/cm	0.33 mg/L	1.03 NTU	102.4 mV	15.10 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-107	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 10:22:08 AM

Project: GP-Plant Hammond

Operator Name: Connor Cain

Location Name: HGWC-109 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 21.36 ft Total Depth: 30.99 ft Initial Depth to Water: 9.41 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 26.36 ft Estimated Total Volume Pumped: 14 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.02 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883553
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Cloudy, 75 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/11/2023 10:22 AM	00:00	6.79 pH	20.44 °C	353.27 µS/cm	1.53 mg/L	49.10 NTU	-38.8 mV	9.43 ft	200.00 ml/min
8/11/2023 10:27 AM	05:00	6.83 pH	19.68 °C	363.56 µS/cm	0.85 mg/L	39.70 NTU	-48.3 mV	9.43 ft	200.00 ml/min
8/11/2023 10:32 AM	10:00	6.83 pH	19.77 °C	363.95 µS/cm	0.65 mg/L	34.20 NTU	-52.2 mV	9.43 ft	200.00 ml/min
8/11/2023 10:37 AM	15:00	6.81 pH	20.17 °C	362.23 µS/cm	0.47 mg/L	24.10 NTU	-54.5 mV	9.43 ft	200.00 ml/min
8/11/2023 10:42 AM	20:00	6.81 pH	20.58 °C	359.09 µS/cm	0.61 mg/L	22.60 NTU	-54.6 mV	9.43 ft	200.00 ml/min
8/11/2023 10:47 AM	25:00	6.81 pH	19.84 °C	356.73 µS/cm	0.74 mg/L	15.40 NTU	-54.6 mV	9.43 ft	200.00 ml/min
8/11/2023 10:52 AM	30:00	6.80 pH	19.99 °C	357.34 µS/cm	0.41 mg/L	11.30 NTU	-55.9 mV	9.43 ft	200.00 ml/min
8/11/2023 10:57 AM	35:00	6.79 pH	20.33 °C	355.39 µS/cm	0.60 mg/L	10.28 NTU	-55.9 mV	9.43 ft	200.00 ml/min
8/11/2023 11:02 AM	40:00	6.78 pH	20.57 °C	300.91 µS/cm	0.81 mg/L	8.91 NTU	-57.0 mV	9.43 ft	200.00 ml/min
8/11/2023 11:07 AM	45:00	6.78 pH	21.04 °C	354.52 µS/cm	0.47 mg/L	7.86 NTU	-56.8 mV	9.43 ft	200.00 ml/min
8/11/2023 11:12 AM	50:00	6.78 pH	21.14 °C	355.47 µS/cm	0.67 mg/L	6.73 NTU	-56.2 mV	9.43 ft	200.00 ml/min
8/11/2023 11:17 AM	55:00	6.77 pH	21.44 °C	355.23 µS/cm	0.62 mg/L	6.22 NTU	-56.6 mV	9.43 ft	200.00 ml/min
8/11/2023 11:22 AM	01:00:00	6.77 pH	21.42 °C	355.55 µS/cm	0.69 mg/L	6.49 NTU	-72.9 mV	9.43 ft	200.00 ml/min

8/11/2023 11:27 AM	01:05:00	6.80 pH	20.02 °C	353.81 µS/cm	0.53 mg/L	4.50 NTU	-55.9 mV	9.43 ft	200.00 ml/min
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Samples

Sample ID:	Description:
HAM-HGWC-109	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 4:09:19 PM

Project: GP-Plant Hammond

Operator Name: Anthony Szwast

Location Name: HGWC-117A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.31 ft Total Depth: 40.37 ft Initial Depth to Water: 16.92 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 35.31 ft Estimated Total Volume Pumped: 8.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.02 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Sunny, 80 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
8/11/2023 4:09 PM	00:00	6.23 pH	22.05 °C	246.79 µS/cm	0.10 mg/L	1.43 NTU	194.4 mV	16.94 ft	200.00 ml/min
8/11/2023 4:11 PM	02:09	6.24 pH	21.69 °C	250.67 µS/cm	0.10 mg/L	2.09 NTU	211.1 mV	16.94 ft	200.00 ml/min
8/11/2023 4:15 PM	06:05	6.27 pH	21.88 °C	249.24 µS/cm	0.09 mg/L	0.77 NTU	196.4 mV	16.94 ft	200.00 ml/min
8/11/2023 4:20 PM	11:05	6.40 pH	22.59 °C	258.14 µS/cm	0.07 mg/L	2.92 NTU	214.2 mV	16.94 ft	200.00 ml/min
8/11/2023 4:25 PM	16:05	6.65 pH	22.99 °C	291.94 µS/cm	0.06 mg/L	1.22 NTU	185.9 mV	16.94 ft	200.00 ml/min
8/11/2023 4:30 PM	21:05	6.88 pH	22.22 °C	336.35 µS/cm	0.06 mg/L	1.09 NTU	219.9 mV	16.94 ft	200.00 ml/min
8/11/2023 4:35 PM	26:05	6.99 pH	22.51 °C	348.10 µS/cm	0.05 mg/L	2.39 NTU	204.5 mV	16.94 ft	200.00 ml/min
8/11/2023 4:40 PM	31:05	7.06 pH	22.60 °C	359.55 µS/cm	0.04 mg/L	3.71 NTU	234.2 mV	16.94 ft	200.00 ml/min
8/11/2023 4:45 PM	36:05	7.09 pH	22.82 °C	356.48 µS/cm	0.04 mg/L	3.35 NTU	360.3 mV	16.94 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-117A	Grab

Low-Flow Test Report:

Test Date / Time: 8/11/2023 2:24:15 PM

Project: GP-Plant Hammond

Operator Name: Anthony Szwast

Location Name: HGWC-118 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.91 ft Total Depth: 40.71 ft Initial Depth to Water: 13.67 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 35.91 ft Estimated Total Volume Pumped: 9 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.08 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles: Full app. III and IV and Major Ions.

Weather Conditions:

Sunny, 78 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.3	
8/11/2023 2:24 PM	00:00	7.46 pH	21.61 °C	495.51 µS/cm	0.13 mg/L	0.68 NTU	107.8 mV	13.76 ft	200.00 ml/min
8/11/2023 2:29 PM	05:00	7.48 pH	21.69 °C	504.64 µS/cm	0.10 mg/L	0.64 NTU	468.9 mV	13.75 ft	200.00 ml/min
8/11/2023 2:34 PM	10:00	7.48 pH	22.14 °C	506.35 µS/cm	0.14 mg/L	0.36 NTU	552.7 mV	13.76 ft	200.00 ml/min
8/11/2023 2:39 PM	15:00	7.49 pH	22.46 °C	503.96 µS/cm	0.16 mg/L	0.83 NTU	548.7 mV	13.76 ft	200.00 ml/min
8/11/2023 2:44 PM	20:00	7.49 pH	21.91 °C	500.45 µS/cm	0.28 mg/L	0.40 NTU	516.0 mV	13.75 ft	200.00 ml/min
8/11/2023 2:49 PM	25:00	7.45 pH	22.54 °C	527.68 µS/cm	0.27 mg/L	0.09 NTU	475.4 mV	13.75 ft	200.00 ml/min
8/11/2023 2:54 PM	30:00	7.49 pH	21.74 °C	499.27 µS/cm	0.23 mg/L	1.49 NTU	505.0 mV	13.75 ft	200.00 ml/min
8/11/2023 2:59 PM	35:00	7.49 pH	21.66 °C	505.26 µS/cm	0.19 mg/L	1.02 NTU	465.2 mV	13.75 ft	200.00 ml/min
8/11/2023 3:04 PM	40:00	7.49 pH	21.59 °C	498.59 µS/cm	0.18 mg/L	0.28 NTU	506.2 mV	13.75 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-118	Grab

February 2024

Low-Flow Test Report:

Test Date / Time: 2/14/2024 10:42:58 AM

Project: GP-Plant Hammond

Operator Name: Jamie Newsome

Location Name: HGWA-47 Latitude: 34.25218467138172 Longitude: -85.36591538236044 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.74 ft Total Depth: 43.74 ft Initial Depth to Water: 6.85 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 38.74 ft Estimated Total Volume Pumped: 3000 ml Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.07 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Sunny, 55 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/14/2024 10:42 AM	00:00	7.63 pH	16.47 °C	230.85 µS/cm	8.33 mg/L	12.70 NTU	112.5 mV	6.85 ft	100.00 ml/min
2/14/2024 10:47 AM	05:00	7.84 pH	16.01 °C	241.00 µS/cm	8.40 mg/L	12.90 NTU	77.4 mV	6.85 ft	100.00 ml/min
2/14/2024 10:52 AM	10:00	7.90 pH	16.08 °C	230.43 µS/cm	8.41 mg/L	13.20 NTU	86.3 mV	6.92 ft	100.00 ml/min
2/14/2024 10:57 AM	15:00	7.89 pH	16.15 °C	233.43 µS/cm	8.44 mg/L	14.90 NTU	86.5 mV	6.92 ft	100.00 ml/min
2/14/2024 11:02 AM	20:00	7.90 pH	16.23 °C	234.26 µS/cm	8.37 mg/L	12.70 NTU	67.6 mV	6.92 ft	100.00 ml/min
2/14/2024 11:07 AM	25:00	7.93 pH	16.31 °C	233.02 µS/cm	8.35 mg/L	12.20 NTU	82.2 mV	6.92 ft	100.00 ml/min
2/14/2024 11:12 AM	30:00	7.93 pH	16.24 °C	232.41 µS/cm	8.35 mg/L	11.40 NTU	85.0 mV	6.92 ft	100.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-47	Grab.

Low-Flow Test Report:

Test Date / Time: 2/13/2024 2:12:04 PM

Project: GP-Plant Hammond

Operator Name: Anthony Szwast

Location Name: HGWA-48D Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 62.97 ft Total Depth: 72.97 ft Initial Depth to Water: 6.81 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 67.97 ft Estimated Total Volume Pumped: 30.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 2.83 ft	Instrument Used: Aqua TROLL 400 Serial Number: 843285
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Sunny, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/13/2024 2:12 PM	00:00	7.50 pH	17.83 °C	424.08 µS/cm	0.18 mg/L	15.40 NTU	-100.8 mV	9.69 ft	200.00 ml/min
2/13/2024 2:17 PM	05:00	7.51 pH	17.83 °C	426.16 µS/cm	0.15 mg/L	9.95 NTU	-97.4 mV	10.15 ft	200.00 ml/min
2/13/2024 2:22 PM	10:00	7.52 pH	18.11 °C	422.87 µS/cm	0.13 mg/L	8.03 NTU	-95.5 mV	10.89 ft	200.00 ml/min
2/13/2024 2:27 PM	15:00	7.53 pH	18.15 °C	424.44 µS/cm	0.13 mg/L	8.04 NTU	-93.9 mV	11.24 ft	200.00 ml/min
2/13/2024 2:32 PM	20:00	7.54 pH	18.21 °C	421.74 µS/cm	0.13 mg/L	10.50 NTU	-92.5 mV	11.62 ft	200.00 ml/min
2/13/2024 2:37 PM	25:00	7.55 pH	18.28 °C	421.41 µS/cm	0.13 mg/L	11.90 NTU	-91.2 mV	11.96 ft	200.00 ml/min
2/13/2024 2:42 PM	30:00	7.55 pH	18.07 °C	421.33 µS/cm	0.16 mg/L	12.20 NTU	-111.4 mV	11.63 ft	200.00 ml/min
2/13/2024 2:47 PM	35:00	7.56 pH	18.11 °C	420.00 µS/cm	0.22 mg/L	16.30 NTU	-86.0 mV	11.36 ft	200.00 ml/min
2/13/2024 2:52 PM	40:00	7.57 pH	18.20 °C	419.72 µS/cm	0.24 mg/L	15.70 NTU	-105.3 mV	11.16 ft	200.00 ml/min
2/13/2024 2:57 PM	45:00	7.56 pH	18.28 °C	416.48 µS/cm	0.25 mg/L	17.60 NTU	-82.3 mV	10.96 ft	200.00 ml/min
2/13/2024 3:02 PM	50:00	7.56 pH	18.42 °C	417.89 µS/cm	0.24 mg/L	18.10 NTU	-81.2 mV	10.77 ft	200.00 ml/min
2/13/2024 3:07 PM	55:00	7.57 pH	18.36 °C	417.73 µS/cm	0.25 mg/L	15.10 NTU	-79.7 mV	10.66 ft	200.00 ml/min
2/13/2024 3:12 PM	01:00:00	7.57 pH	18.33 °C	417.59 µS/cm	0.24 mg/L	13.50 NTU	-79.0 mV	10.51 ft	200.00 ml/min

2/13/2024 3:17 PM	01:05:00	7.57 pH	18.35 °C	416.87 µS/cm	0.24 mg/L	12.60 NTU	-79.5 mV	10.42 ft	200.00 ml/min
2/13/2024 3:22 PM	01:10:00	7.57 pH	18.37 °C	416.44 µS/cm	0.24 mg/L	11.50 NTU	-79.4 mV	10.32 ft	200.00 ml/min
2/13/2024 3:27 PM	01:15:00	7.57 pH	18.44 °C	416.62 µS/cm	0.24 mg/L	10.90 NTU	-79.5 mV	10.23 ft	200.00 ml/min
2/13/2024 3:32 PM	01:20:00	7.57 pH	18.50 °C	415.45 µS/cm	0.23 mg/L	10.10 NTU	-79.0 mV	10.18 ft	200.00 ml/min
2/13/2024 3:37 PM	01:25:00	7.57 pH	18.38 °C	415.35 µS/cm	0.23 mg/L	10.50 NTU	-78.4 mV	10.15 ft	200.00 ml/min
2/13/2024 3:42 PM	01:30:00	7.57 pH	18.51 °C	413.43 µS/cm	0.23 mg/L	9.13 NTU	-78.0 mV	10.11 ft	200.00 ml/min
2/13/2024 3:47 PM	01:35:00	7.57 pH	18.33 °C	414.68 µS/cm	0.23 mg/L	8.65 NTU	-77.4 mV	10.08 ft	200.00 ml/min
2/13/2024 3:52 PM	01:40:00	7.57 pH	18.30 °C	414.99 µS/cm	0.22 mg/L	9.19 NTU	-77.7 mV	10.02 ft	200.00 ml/min
2/13/2024 3:57 PM	01:45:00	7.57 pH	18.37 °C	414.61 µS/cm	0.23 mg/L	9.44 NTU	-77.2 mV	9.98 ft	200.00 ml/min
2/13/2024 4:02 PM	01:50:00	7.57 pH	18.42 °C	412.29 µS/cm	0.23 mg/L	9.24 NTU	-76.7 mV	9.95 ft	200.00 ml/min
2/13/2024 4:07 PM	01:55:00	7.57 pH	18.37 °C	413.98 µS/cm	0.23 mg/L	8.45 NTU	-77.2 mV	9.92 ft	200.00 ml/min
2/13/2024 4:12 PM	02:00:00	7.58 pH	18.28 °C	413.10 µS/cm	0.22 mg/L	8.96 NTU	-76.5 mV	9.89 ft	200.00 ml/min
2/13/2024 4:17 PM	02:05:00	7.58 pH	18.13 °C	413.11 µS/cm	0.23 mg/L	8.01 NTU	-76.9 mV	9.86 ft	200.00 ml/min
2/13/2024 4:22 PM	02:10:00	7.58 pH	18.25 °C	412.15 µS/cm	0.23 mg/L	8.16 NTU	-76.8 mV	9.82 ft	200.00 ml/min
2/13/2024 4:27 PM	02:15:00	7.58 pH	18.24 °C	412.54 µS/cm	0.23 mg/L	7.82 NTU	-77.0 mV	9.80 ft	200.00 ml/min
2/13/2024 4:32 PM	02:20:00	7.57 pH	18.06 °C	411.59 µS/cm	0.23 mg/L	6.93 NTU	-76.1 mV	9.74 ft	200.00 ml/min
2/13/2024 4:37 PM	02:25:00	7.58 pH	18.06 °C	411.62 µS/cm	0.24 mg/L	7.19 NTU	-76.1 mV	9.72 ft	200.00 ml/min
2/13/2024 4:42 PM	02:30:00	7.57 pH	17.91 °C	412.19 µS/cm	0.24 mg/L	6.63 NTU	-76.1 mV	9.70 ft	200.00 ml/min
2/13/2024 4:47 PM	02:35:00	7.58 pH	17.61 °C	413.93 µS/cm	0.24 mg/L	7.42 NTU	-76.1 mV	9.68 ft	200.00 ml/min
2/13/2024 4:52 PM	02:40:00	7.58 pH	17.58 °C	413.88 µS/cm	0.23 mg/L	6.91 NTU	-76.0 mV	9.68 ft	200.00 ml/min
2/13/2024 4:57 PM	02:45:00	7.58 pH	17.70 °C	412.95 µS/cm	0.22 mg/L	6.72 NTU	-76.2 mV	9.68 ft	200.00 ml/min
2/13/2024 5:02 PM	02:50:00	7.58 pH	17.53 °C	413.10 µS/cm	0.23 mg/L	6.89 NTU	-75.9 mV	9.62 ft	200.00 ml/min
2/13/2024 5:07 PM	02:55:00	7.58 pH	17.61 °C	411.21 µS/cm	0.23 mg/L	6.53 NTU	-76.1 mV	9.62 ft	100.00 ml/min
2/13/2024 5:12 PM	03:00:00	7.58 pH	17.35 °C	413.44 µS/cm	0.25 mg/L	6.53 NTU	-75.8 mV	9.58 ft	100.00 ml/min
2/13/2024 5:17 PM	03:05:00	7.58 pH	17.26 °C	412.84 µS/cm	0.24 mg/L	6.57 NTU	-75.5 mV	9.58 ft	100.00 ml/min
2/13/2024 5:22 PM	03:10:00	7.58 pH	16.94 °C	414.27 µS/cm	0.24 mg/L	6.68 NTU	-75.3 mV	9.58 ft	100.00 ml/min
2/13/2024 5:27 PM	03:15:00	7.58 pH	17.36 °C	411.53 µS/cm	0.23 mg/L	6.22 NTU	-75.7 mV	9.58 ft	100.00 ml/min
2/13/2024 5:32 PM	03:20:00	7.58 pH	17.39 °C	411.63 µS/cm	0.22 mg/L	5.52 NTU	-75.7 mV	9.58 ft	100.00 ml/min
2/13/2024 5:37 PM	03:25:00	7.58 pH	17.26 °C	412.10 µS/cm	0.23 mg/L	5.89 NTU	-76.1 mV	9.58 ft	100.00 ml/min

2/13/2024 5:42 PM	03:30:00	7.58 pH	17.08 °C	412.25 µS/cm	0.23 mg/L	5.33 NTU	-76.1 mV	9.58 ft	100.00 ml/min
2/13/2024 5:47 PM	03:35:00	7.58 pH	17.08 °C	412.38 µS/cm	0.23 mg/L	5.67 NTU	-76.3 mV	9.58 ft	100.00 ml/min
2/13/2024 5:52 PM	03:40:00	7.58 pH	17.12 °C	412.15 µS/cm	0.22 mg/L	5.61 NTU	-96.1 mV	9.58 ft	100.00 ml/min
2/13/2024 5:57 PM	03:45:00	7.58 pH	17.00 °C	412.28 µS/cm	0.23 mg/L	5.56 NTU	-76.9 mV	9.58 ft	100.00 ml/min
2/13/2024 6:02 PM	03:50:00	7.59 pH	16.74 °C	412.99 µS/cm	0.23 mg/L	5.11 NTU	-76.4 mV	9.58 ft	100.00 ml/min
2/13/2024 6:07 PM	03:55:00	7.59 pH	16.57 °C	413.36 µS/cm	0.23 mg/L	5.74 NTU	-76.5 mV	9.58 ft	100.00 ml/min
2/13/2024 6:12 PM	04:00:00	7.59 pH	16.45 °C	412.96 µS/cm	0.23 mg/L	5.12 NTU	-76.3 mV	9.58 ft	100.00 ml/min
2/13/2024 6:17 PM	04:05:00	7.59 pH	16.31 °C	413.04 µS/cm	0.23 mg/L	5.16 NTU	-95.9 mV	9.58 ft	100.00 ml/min
2/13/2024 6:22 PM	04:10:00	7.59 pH	16.19 °C	412.29 µS/cm	0.23 mg/L	5.35 NTU	-76.5 mV	9.58 ft	100.00 ml/min
2/13/2024 6:27 PM	04:15:00	7.59 pH	16.14 °C	412.24 µS/cm	0.23 mg/L	5.13 NTU	-76.5 mV	9.58 ft	100.00 ml/min
2/13/2024 6:32 PM	04:20:00	7.59 pH	16.12 °C	411.34 µS/cm	0.23 mg/L	4.76 NTU	-76.5 mV	9.64 ft	100.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-48D	Grab.

Low-Flow Test Report:

Test Date / Time: 2/14/2024 11:10:08 AM

Project: GP-Plant Hammond

Operator Name: Connor Cain

Location Name: HGWA-111 Latitude: 34.25185618459643 Longitude: -85.36255247898899 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 33.67 ft Total Depth: 43.67 ft Initial Depth to Water: 11.66 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 38.87 m Estimated Total Volume Pumped: 18 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 1.04 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Sunny, 48 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/14/2024 11:10 AM	00:00	6.32 pH	17.82 °C	110.30 µS/cm	5.12 mg/L	1.66 NTU	64.4 mV	12.31 ft	200.00 ml/min
2/14/2024 11:15 AM	05:00	6.14 pH	17.98 °C	117.74 µS/cm	4.99 mg/L	0.77 NTU	52.4 mV	12.51 ft	200.00 ml/min
2/14/2024 11:20 AM	10:00	6.12 pH	17.91 °C	119.23 µS/cm	5.16 mg/L	0.58 NTU	64.1 mV	12.55 ft	200.00 ml/min
2/14/2024 11:25 AM	15:00	6.15 pH	17.96 °C	127.95 µS/cm	4.98 mg/L	0.29 NTU	45.5 mV	12.60 ft	200.00 ml/min
2/14/2024 11:30 AM	20:00	6.34 pH	18.21 °C	180.79 µS/cm	4.68 mg/L	0.31 NTU	47.8 mV	12.63 ft	200.00 ml/min
2/14/2024 11:35 AM	25:00	6.58 pH	18.17 °C	216.09 µS/cm	4.48 mg/L	0.30 NTU	37.9 mV	12.66 ft	200.00 ml/min
2/14/2024 11:40 AM	30:00	6.65 pH	18.13 °C	241.20 µS/cm	4.48 mg/L	0.27 NTU	33.5 mV	12.68 ft	200.00 ml/min
2/14/2024 11:45 AM	35:00	6.71 pH	18.21 °C	238.88 µS/cm	4.41 mg/L	0.32 NTU	28.1 mV	12.70 ft	200.00 ml/min
2/14/2024 11:50 AM	40:00	6.76 pH	18.46 °C	255.38 µS/cm	4.34 mg/L	0.29 NTU	20.1 mV	12.70 ft	200.00 ml/min
2/14/2024 11:55 AM	45:00	6.80 pH	18.34 °C	275.14 µS/cm	4.35 mg/L	0.31 NTU	26.3 mV	12.70 ft	200.00 ml/min
2/14/2024 12:00 PM	50:00	6.84 pH	18.48 °C	285.25 µS/cm	4.36 mg/L	0.30 NTU	24.1 mV	12.70 ft	200.00 ml/min
2/14/2024 12:05 PM	55:00	6.87 pH	18.61 °C	270.43 µS/cm	4.33 mg/L	0.30 NTU	22.6 mV	12.70 ft	200.00 ml/min
2/14/2024 12:10 PM	01:00:00	6.90 pH	18.61 °C	267.04 µS/cm	4.35 mg/L	0.38 NTU	21.0 mV	12.70 ft	200.00 ml/min

2/14/2024 12:15 PM	01:05:00	6.92 pH	18.70 °C	292.55 µS/cm	4.28 mg/L	0.27 NTU	19.9 mV	12.70 ft	200.00 ml/min
2/14/2024 12:20 PM	01:10:00	6.95 pH	18.64 °C	274.27 µS/cm	4.27 mg/L	0.29 NTU	18.3 mV	12.70 ft	200.00 ml/min
2/14/2024 12:25 PM	01:15:00	6.97 pH	18.73 °C	307.98 µS/cm	4.24 mg/L	0.31 NTU	13.2 mV	12.70 ft	200.00 ml/min
2/14/2024 12:30 PM	01:20:00	6.99 pH	18.73 °C	318.96 µS/cm	4.25 mg/L	0.30 NTU	16.1 mV	12.70 ft	200.00 ml/min
2/14/2024 12:35 PM	01:25:00	7.00 pH	18.73 °C	310.99 µS/cm	4.23 mg/L	0.37 NTU	15.5 mV	12.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-111	Grab.

Low-Flow Test Report:

Test Date / Time: 2/13/2024 9:50:18 AM

Project: GP-Plant Hammond

Operator Name: Connor Cain

Location Name: HGWA-112 Latitude: 34.25205487761111 Longitude: -85.36114180468522 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.15 ft Total Depth: 40.15 ft Initial Depth to Water: 8.43 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 35.15 m Estimated Total Volume Pumped: 12000 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 0.82 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Sunny, 41 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/13/2024 9:50 AM	00:00	5.73 pH	16.02 °C	77.93 µS/cm	4.63 mg/L	20.80 NTU	133.7 mV	8.72 ft	100.00 ml/min
2/13/2024 9:55 AM	05:00	5.68 pH	12.88 °C	77.02 µS/cm	3.12 mg/L	26.20 NTU	114.1 mV	8.98 ft	100.00 ml/min
2/13/2024 10:00 AM	10:00	5.68 pH	14.16 °C	77.13 µS/cm	2.41 mg/L	22.70 NTU	84.5 mV	9.05 ft	100.00 ml/min
2/13/2024 10:05 AM	15:00	5.65 pH	14.58 °C	76.52 µS/cm	2.02 mg/L	20.80 NTU	52.1 mV	9.10 ft	100.00 ml/min
2/13/2024 10:10 AM	20:00	5.65 pH	14.18 °C	76.79 µS/cm	1.68 mg/L	18.00 NTU	58.1 mV	9.13 ft	100.00 ml/min
2/13/2024 10:15 AM	25:00	5.65 pH	14.31 °C	76.50 µS/cm	1.74 mg/L	16.20 NTU	42.7 mV	9.18 ft	100.00 ml/min
2/13/2024 10:20 AM	30:00	5.66 pH	14.60 °C	76.39 µS/cm	1.40 mg/L	15.00 NTU	36.9 mV	9.21 ft	100.00 ml/min
2/13/2024 10:25 AM	35:00	5.65 pH	14.86 °C	76.58 µS/cm	1.34 mg/L	13.30 NTU	46.7 mV	9.23 ft	100.00 ml/min
2/13/2024 10:30 AM	40:00	5.64 pH	15.05 °C	76.34 µS/cm	1.28 mg/L	12.20 NTU	47.1 mV	9.25 ft	100.00 ml/min
2/13/2024 10:35 AM	45:00	5.65 pH	14.90 °C	76.14 µS/cm	1.44 mg/L	11.30 NTU	30.9 mV	9.25 ft	100.00 ml/min
2/13/2024 10:40 AM	50:00	5.64 pH	15.21 °C	76.50 µS/cm	1.57 mg/L	10.60 NTU	44.3 mV	9.25 ft	100.00 ml/min
2/13/2024 10:45 AM	55:00	5.63 pH	15.02 °C	76.57 µS/cm	1.58 mg/L	9.20 NTU	44.4 mV	9.25 ft	100.00 ml/min
2/13/2024 10:50 AM	01:00:00	5.65 pH	15.04 °C	75.99 µS/cm	1.58 mg/L	8.67 NTU	42.9 mV	9.25 ft	100.00 ml/min

2/13/2024 10:55 AM	01:05:00	5.64 pH	14.94 °C	76.23 µS/cm	1.56 mg/L	8.37 NTU	48.3 mV	9.25 ft	100.00 ml/min
2/13/2024 11:00 AM	01:10:00	5.66 pH	15.03 °C	76.28 µS/cm	1.54 mg/L	7.46 NTU	44.7 mV	9.25 ft	100.00 ml/min
2/13/2024 11:05 AM	01:15:00	5.66 pH	15.08 °C	75.82 µS/cm	1.51 mg/L	7.37 NTU	42.7 mV	9.25 ft	100.00 ml/min
2/13/2024 11:10 AM	01:20:00	5.66 pH	15.48 °C	75.57 µS/cm	1.51 mg/L	6.76 NTU	38.8 mV	9.25 ft	100.00 ml/min
2/13/2024 11:15 AM	01:25:00	5.65 pH	15.09 °C	75.48 µS/cm	1.54 mg/L	5.94 NTU	37.9 mV	9.25 ft	100.00 ml/min
2/13/2024 11:20 AM	01:30:00	5.63 pH	16.24 °C	76.43 µS/cm	1.13 mg/L	5.87 NTU	28.7 mV	9.25 ft	100.00 ml/min
2/13/2024 11:25 AM	01:35:00	5.65 pH	16.22 °C	75.86 µS/cm	1.10 mg/L	5.80 NTU	32.2 mV	9.25 ft	100.00 ml/min
2/13/2024 11:30 AM	01:40:00	5.60 pH	16.32 °C	75.83 µS/cm	1.12 mg/L	5.87 NTU	27.6 mV	9.25 ft	100.00 ml/min
2/13/2024 11:35 AM	01:45:00	5.63 pH	16.39 °C	75.26 µS/cm	1.10 mg/L	5.90 NTU	27.5 mV	9.25 ft	100.00 ml/min
2/13/2024 11:40 AM	01:50:00	5.62 pH	16.25 °C	75.74 µS/cm	1.12 mg/L	5.92 NTU	33.5 mV	9.25 ft	100.00 ml/min
2/13/2024 11:45 AM	01:55:00	5.63 pH	16.38 °C	75.65 µS/cm	1.14 mg/L	5.86 NTU	39.9 mV	9.25 ft	100.00 ml/min
2/13/2024 11:50 AM	02:00:00	5.64 pH	16.05 °C	75.23 µS/cm	1.08 mg/L	4.97 NTU	34.9 mV	9.25 ft	100.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-112	Grab

Low-Flow Test Report:

Test Date / Time: 2/14/2024 11:10:55 AM

Project: GP-Plant Hammond

Operator Name: Thomas Kessler

Location Name: HGWA-113 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 26.11 ft Total Depth: 36.11 ft Initial Depth to Water: 9.9 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 31.11 ft Estimated Total Volume Pumped: 13 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 8.78 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Clear, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/14/2024 11:10 AM	00:00	6.42 pH	15.78 °C	111.04 µS/cm	2.31 mg/L	0.56 NTU	145.5 mV	10.17 ft	100.00 ml/min
2/14/2024 11:15 AM	05:00	6.33 pH	15.98 °C	108.40 µS/cm	2.18 mg/L	0.31 NTU	283.1 mV	10.72 ft	100.00 ml/min
2/14/2024 11:20 AM	10:00	6.29 pH	15.76 °C	108.14 µS/cm	2.11 mg/L	0.91 NTU	336.5 mV	11.31 ft	100.00 ml/min
2/14/2024 11:25 AM	15:00	6.27 pH	15.89 °C	109.69 µS/cm	2.11 mg/L	0.51 NTU	352.4 mV	11.95 ft	100.00 ml/min
2/14/2024 11:30 AM	20:00	6.26 pH	16.20 °C	109.90 µS/cm	2.10 mg/L	0.11 NTU	362.4 mV	12.43 ft	100.00 ml/min
2/14/2024 11:35 AM	25:00	6.26 pH	16.43 °C	110.20 µS/cm	1.91 mg/L	0.21 NTU	370.7 mV	13.08 ft	100.00 ml/min
2/14/2024 11:40 AM	30:00	6.26 pH	16.79 °C	111.07 µS/cm	1.79 mg/L	0.97 NTU	381.0 mV	13.60 ft	100.00 ml/min
2/14/2024 11:45 AM	35:00	6.26 pH	16.81 °C	111.14 µS/cm	1.74 mg/L	0.21 NTU	536.4 mV	14.15 ft	100.00 ml/min
2/14/2024 11:50 AM	40:00	6.26 pH	16.97 °C	113.54 µS/cm	1.75 mg/L	0.31 NTU	410.2 mV	14.52 ft	100.00 ml/min
2/14/2024 11:55 AM	45:00	6.27 pH	16.94 °C	112.78 µS/cm	1.73 mg/L	0.11 NTU	420.0 mV	14.87 ft	100.00 ml/min
2/14/2024 12:00 PM	50:00	6.26 pH	16.86 °C	110.98 µS/cm	1.74 mg/L	1.01 NTU	428.0 mV	15.13 ft	100.00 ml/min
2/14/2024 12:05 PM	55:00	6.26 pH	16.92 °C	112.98 µS/cm	1.72 mg/L	0.93 NTU	433.3 mV	15.42 ft	100.00 ml/min
2/14/2024 12:10 PM	01:00:00	6.25 pH	17.19 °C	111.54 µS/cm	1.74 mg/L	1.09 NTU	439.4 mV	15.74 ft	100.00 ml/min

2/14/2024 12:15 PM	01:05:00	6.25 pH	17.41 °C	113.16 µS/cm	1.70 mg/L	0.87 NTU	446.9 mV	16.00 ft	100.00 ml/min
2/14/2024 12:20 PM	01:10:00	6.24 pH	17.30 °C	112.19 µS/cm	1.68 mg/L	0.21 NTU	455.1 mV	16.32 ft	100.00 ml/min
2/14/2024 12:25 PM	01:15:00	6.23 pH	17.48 °C	113.35 µS/cm	1.66 mg/L	0.11 NTU	465.5 mV	16.63 ft	100.00 ml/min
2/14/2024 12:30 PM	01:20:00	6.24 pH	17.30 °C	112.39 µS/cm	1.67 mg/L	0.91 NTU	474.9 mV	16.92 ft	100.00 ml/min
2/14/2024 12:35 PM	01:25:00	6.23 pH	17.59 °C	111.75 µS/cm	1.65 mg/L	0.87 NTU	488.7 mV	17.22 ft	100.00 ml/min
2/14/2024 12:40 PM	01:30:00	6.25 pH	17.53 °C	111.00 µS/cm	1.64 mg/L	0.75 NTU	503.7 mV	17.45 ft	100.00 ml/min
2/14/2024 12:45 PM	01:35:00	6.24 pH	17.78 °C	113.69 µS/cm	1.85 mg/L	0.71 NTU	515.0 mV	17.73 ft	100.00 ml/min
2/14/2024 12:50 PM	01:40:00	6.23 pH	17.77 °C	113.56 µS/cm	1.96 mg/L	1.18 NTU	527.9 mV	17.93 ft	100.00 ml/min
2/14/2024 12:55 PM	01:45:00	6.24 pH	17.62 °C	111.31 µS/cm	1.89 mg/L	0.68 NTU	536.1 mV	18.17 ft	100.00 ml/min
2/14/2024 1:00 PM	01:50:00	6.23 pH	17.95 °C	111.59 µS/cm	1.82 mg/L	0.72 NTU	541.1 mV	18.32 ft	100.00 ml/min
2/14/2024 1:05 PM	01:55:00	6.26 pH	18.17 °C	110.58 µS/cm	1.76 mg/L	0.89 NTU	547.5 mV	18.51 ft	100.00 ml/min
2/14/2024 1:10 PM	02:00:00	6.23 pH	18.17 °C	109.90 µS/cm	1.71 mg/L	0.87 NTU	555.3 mV	18.68 ft	100.00 ml/min
2/14/2024 1:15 PM	02:05:00	6.24 pH	18.45 °C	110.13 µS/cm	1.69 mg/L	1.03 NTU	564.7 mV	18.68 ft	100.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-113	Grab.

Low-Flow Test Report:

Test Date / Time: 2/16/2024 11:05:07 AM

Project: GP-Plant Hammond

Operator Name: Jamie Newsome

Location Name: HGWC-101 Latitude: 34.24890785015584 Longitude: -85.35870577216647 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.94 ft Total Depth: 37.94 ft Initial Depth to Water: 12.48 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 32.94 ft Estimated Total Volume Pumped: 19000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 6.53 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Clear, 44 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/16/2024 11:05 AM	00:00	5.42 pH	17.98 °C	286.51 µS/cm	2.67 mg/L	6.34 NTU	139.3 mV	12.48 ft	200.00 ml/min
2/16/2024 11:10 AM	05:00	5.45 pH	17.98 °C	290.13 µS/cm	2.45 mg/L	2.30 NTU	130.7 mV	16.83 ft	200.00 ml/min
2/16/2024 11:15 AM	10:00	5.49 pH	18.05 °C	320.62 µS/cm	2.20 mg/L	1.35 NTU	117.9 mV	17.15 ft	200.00 ml/min
2/16/2024 11:20 AM	15:00	5.52 pH	18.07 °C	333.04 µS/cm	2.01 mg/L	1.11 NTU	108.1 mV	17.43 ft	200.00 ml/min
2/16/2024 11:25 AM	20:00	5.52 pH	18.10 °C	368.84 µS/cm	1.83 mg/L	0.83 NTU	106.6 mV	17.85 ft	200.00 ml/min
2/16/2024 11:30 AM	25:00	5.50 pH	18.13 °C	342.51 µS/cm	1.78 mg/L	0.85 NTU	92.2 mV	18.10 ft	200.00 ml/min
2/16/2024 11:35 AM	30:00	5.51 pH	18.16 °C	337.04 µS/cm	1.62 mg/L	0.64 NTU	105.1 mV	18.30 ft	200.00 ml/min
2/16/2024 11:40 AM	35:00	5.51 pH	18.20 °C	336.84 µS/cm	1.64 mg/L	0.38 NTU	105.3 mV	18.55 ft	200.00 ml/min
2/16/2024 11:45 AM	40:00	5.51 pH	18.21 °C	335.64 µS/cm	1.47 mg/L	0.55 NTU	105.1 mV	18.62 ft	200.00 ml/min
2/16/2024 11:50 AM	45:00	5.49 pH	18.25 °C	366.49 µS/cm	1.49 mg/L	0.56 NTU	106.4 mV	18.80 ft	200.00 ml/min
2/16/2024 11:55 AM	50:00	5.50 pH	18.24 °C	333.62 µS/cm	1.46 mg/L	0.51 NTU	105.3 mV	18.93 ft	200.00 ml/min
2/16/2024 12:00 PM	55:00	5.50 pH	18.29 °C	333.58 µS/cm	1.38 mg/L	0.84 NTU	104.5 mV	19.01 ft	200.00 ml/min
2/16/2024 12:05 PM	01:00:00	5.50 pH	18.34 °C	339.58 µS/cm	1.16 mg/L	0.58 NTU	103.4 mV	19.01 ft	200.00 ml/min

2/16/2024 12:10 PM	01:05:00	5.49 pH	18.36 °C	360.86 µS/cm	0.73 mg/L	0.26 NTU	101.0 mV	19.01 ft	200.00 ml/min
2/16/2024 12:15 PM	01:10:00	5.49 pH	18.34 °C	362.65 µS/cm	0.66 mg/L	0.37 NTU	99.7 mV	19.01 ft	200.00 ml/min
2/16/2024 12:20 PM	01:15:00	5.48 pH	18.33 °C	318.26 µS/cm	0.97 mg/L	0.50 NTU	106.4 mV	19.01 ft	200.00 ml/min
2/16/2024 12:25 PM	01:20:00	5.49 pH	18.34 °C	328.02 µS/cm	1.05 mg/L	0.60 NTU	104.9 mV	19.01 ft	200.00 ml/min
2/16/2024 12:30 PM	01:25:00	5.47 pH	18.33 °C	342.08 µS/cm	0.71 mg/L	0.35 NTU	101.7 mV	19.01 ft	200.00 ml/min
2/16/2024 12:35 PM	01:30:00	5.47 pH	18.31 °C	338.23 µS/cm	0.75 mg/L	0.49 NTU	85.9 mV	19.01 ft	200.00 ml/min
2/16/2024 12:40 PM	01:35:00	5.47 pH	18.31 °C	332.63 µS/cm	0.76 mg/L	0.36 NTU	101.5 mV	19.01 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-101	Grab.

Low-Flow Test Report:

Test Date / Time: 2/16/2024 1:48:28 PM

Project: GP-Plant Hammond

Operator Name: Jamie Newsome

Location Name: HGWC-102 Latitude: 34.24884741663397 Longitude: -85.35978871405624 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.43 ft Total Depth: 37.43 ft Initial Depth to Water: 11.76 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 32.43 ft Estimated Total Volume Pumped: 7000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.39 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/16/2024 1:48 PM	00:00	5.95 pH	17.88 °C	644.55 µS/cm	5.13 mg/L	1.72 NTU	321.9 mV	11.76 ft	200.00 ml/min
2/16/2024 1:53 PM	05:00	5.95 pH	17.90 °C	632.48 µS/cm	5.07 mg/L	2.62 NTU	328.4 mV	11.95 ft	200.00 ml/min
2/16/2024 1:58 PM	10:00	5.80 pH	17.98 °C	709.28 µS/cm	3.01 mg/L	20.60 NTU	125.0 mV	12.06 ft	200.00 ml/min
2/16/2024 2:03 PM	15:00	5.87 pH	18.16 °C	916.64 µS/cm	1.01 mg/L	6.53 NTU	102.0 mV	12.06 ft	200.00 ml/min
2/16/2024 2:08 PM	20:00	5.87 pH	18.30 °C	920.77 µS/cm	0.71 mg/L	3.08 NTU	114.6 mV	12.06 ft	200.00 ml/min
2/16/2024 2:13 PM	25:00	5.88 pH	18.30 °C	921.15 µS/cm	0.65 mg/L	1.79 NTU	96.3 mV	12.15 ft	200.00 ml/min
2/16/2024 2:18 PM	30:00	5.88 pH	18.34 °C	919.71 µS/cm	0.62 mg/L	0.90 NTU	105.5 mV	12.15 ft	200.00 ml/min
2/16/2024 2:23 PM	35:00	5.88 pH	18.34 °C	912.53 µS/cm	0.60 mg/L	1.28 NTU	86.3 mV	12.15 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-102	Grab.
HAM-AP4-FD-01	Grab.

Low-Flow Test Report:

Test Date / Time: 2/16/2024 3:50:20 PM

Project: GP-Plant Hammond

Operator Name: Jamie Newsome

Location Name: HGWC-103 Latitude: 34.24915918152244 Longitude: -85.36069530070327 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 27.68 ft Total Depth: 37.68 ft Initial Depth to Water: 13.47 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 32.68 ft Estimated Total Volume Pumped: 8000 ml Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.23 ft	Instrument Used: Aqua TROLL 400 Serial Number: 968202
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 55 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/16/2024 3:50 PM	00:00	5.77 pH	17.67 °C	836.00 µS/cm	1.26 mg/L	83.10 NTU	130.1 mV	13.47 ft	200.00 ml/min
2/16/2024 3:55 PM	05:00	5.75 pH	17.21 °C	822.55 µS/cm	0.38 mg/L	51.60 NTU	135.6 mV	13.60 ft	200.00 ml/min
2/16/2024 4:00 PM	10:00	5.76 pH	17.16 °C	842.69 µS/cm	0.39 mg/L	49.70 NTU	179.3 mV	13.60 ft	200.00 ml/min
2/16/2024 4:05 PM	15:00	5.75 pH	17.18 °C	840.13 µS/cm	0.58 mg/L	37.20 NTU	184.6 mV	13.70 ft	200.00 ml/min
2/16/2024 4:10 PM	20:00	5.75 pH	17.18 °C	819.56 µS/cm	0.38 mg/L	36.50 NTU	143.1 mV	13.70 ft	200.00 ml/min
2/16/2024 4:15 PM	25:00	5.76 pH	17.18 °C	819.90 µS/cm	0.80 mg/L	29.40 NTU	139.7 mV	13.70 ft	200.00 ml/min
2/16/2024 4:20 PM	30:00	5.75 pH	17.16 °C	826.73 µS/cm	0.34 mg/L	23.90 NTU	138.6 mV	13.70 ft	200.00 ml/min
2/16/2024 4:25 PM	35:00	5.74 pH	17.18 °C	827.31 µS/cm	0.35 mg/L	22.10 NTU	136.5 mV	13.70 ft	200.00 ml/min
2/16/2024 4:30 PM	40:00	5.74 pH	17.13 °C	829.08 µS/cm	0.51 mg/L	19.40 NTU	170.7 mV	13.70 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-103	Grab.

Low-Flow Test Report:

Test Date / Time: 2/17/2024 2:27:37 PM

Project: GP-Plant Hammond

Operator Name: Thomas Kessler

Location Name: HGWC-105 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 34.67 ft Total Depth: 44.67 ft Initial Depth to Water: 18.4 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 39.67 ft Estimated Total Volume Pumped: 11.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: -0.6 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/17/2024 2:27 PM	00:00	6.61 pH	15.42 °C	891.24 µS/cm	2.00 mg/L	57.70 NTU	77.7 mV	17.80 ft	200.00 ml/min
2/17/2024 2:32 PM	05:00	6.49 pH	16.10 °C	814.86 µS/cm	0.59 mg/L	43.30 NTU	30.6 mV	17.80 ft	200.00 ml/min
2/17/2024 2:37 PM	10:00	6.49 pH	16.07 °C	844.99 µS/cm	0.33 mg/L	23.50 NTU	22.2 mV	17.80 ft	200.00 ml/min
2/17/2024 2:39 PM	12:08	6.49 pH	16.04 °C	844.77 µS/cm	0.29 mg/L	23.50 NTU	19.6 mV	17.80 ft	200.00 ml/min
2/17/2024 2:44 PM	17:08	6.48 pH	16.17 °C	850.63 µS/cm	0.24 mg/L	17.20 NTU	14.1 mV	17.80 ft	200.00 ml/min
2/17/2024 2:49 PM	22:08	6.48 pH	16.14 °C	845.12 µS/cm	0.21 mg/L	13.70 NTU	10.9 mV	17.80 ft	200.00 ml/min
2/17/2024 2:54 PM	27:08	6.47 pH	16.16 °C	840.44 µS/cm	0.17 mg/L	9.96 NTU	7.9 mV	17.80 ft	200.00 ml/min
2/17/2024 2:59 PM	32:08	6.47 pH	16.25 °C	835.58 µS/cm	0.16 mg/L	8.22 NTU	5.9 mV	17.80 ft	200.00 ml/min
2/17/2024 3:04 PM	37:08	6.47 pH	16.21 °C	831.33 µS/cm	0.15 mg/L	7.61 NTU	4.6 mV	17.80 ft	200.00 ml/min
2/17/2024 3:09 PM	42:08	6.46 pH	16.16 °C	826.82 µS/cm	0.14 mg/L	6.13 NTU	3.4 mV	17.80 ft	200.00 ml/min
2/17/2024 3:14 PM	47:08	6.46 pH	16.07 °C	822.24 µS/cm	0.13 mg/L	5.09 NTU	2.1 mV	17.80 ft	200.00 ml/min
2/17/2024 3:19 PM	52:08	6.46 pH	16.11 °C	817.29 µS/cm	0.12 mg/L	4.85 NTU	0.6 mV	17.80 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-105	Grab.

Low-Flow Test Report:

Test Date / Time: 2/16/2024 3:03:27 PM

Project: GP-Plant Hammond

Operator Name: Thomas Kessler

Location Name: HGWC-107 Well Diameter: 2 in Casing Type: PVC Screen Length: 20 ft Top of Screen: 28.2 ft Total Depth: 38.2 ft Initial Depth to Water: 13.75 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 33.2 ft Estimated Total Volume Pumped: 23 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 55 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/16/2024 3:03 PM	00:00	6.38 pH	18.46 °C	462.69 µS/cm	1.05 mg/L	10.60 NTU	188.5 mV	13.80 ft	200.00 ml/min
2/16/2024 3:08 PM	05:00	6.30 pH	18.40 °C	455.04 µS/cm	1.02 mg/L	9.80 NTU	393.7 mV	13.80 ft	200.00 ml/min
2/16/2024 3:13 PM	10:00	6.28 pH	18.43 °C	455.55 µS/cm	0.68 mg/L	12.20 NTU	430.5 mV	13.80 ft	200.00 ml/min
2/16/2024 3:18 PM	15:00	6.28 pH	18.40 °C	456.18 µS/cm	0.61 mg/L	9.77 NTU	450.6 mV	13.80 ft	200.00 ml/min
2/16/2024 3:23 PM	20:00	6.27 pH	18.36 °C	446.72 µS/cm	0.64 mg/L	43.20 NTU	458.2 mV	13.80 ft	200.00 ml/min
2/16/2024 3:28 PM	25:00	6.28 pH	18.35 °C	457.21 µS/cm	0.51 mg/L	48.00 NTU	455.5 mV	13.80 ft	200.00 ml/min
2/16/2024 3:33 PM	30:00	6.28 pH	18.31 °C	457.20 µS/cm	0.20 mg/L	44.10 NTU	454.5 mV	13.80 ft	200.00 ml/min
2/16/2024 3:38 PM	35:00	6.28 pH	18.26 °C	456.69 µS/cm	0.18 mg/L	42.80 NTU	452.6 mV	13.80 ft	200.00 ml/min
2/16/2024 3:43 PM	40:00	6.27 pH	18.22 °C	454.40 µS/cm	0.17 mg/L	32.40 NTU	571.2 mV	13.80 ft	200.00 ml/min
2/16/2024 3:48 PM	45:00	6.27 pH	18.20 °C	455.63 µS/cm	0.17 mg/L	26.40 NTU	462.7 mV	13.80 ft	200.00 ml/min
2/16/2024 3:53 PM	50:00	6.26 pH	18.17 °C	452.65 µS/cm	0.17 mg/L	20.40 NTU	577.3 mV	13.80 ft	200.00 ml/min
2/16/2024 3:58 PM	55:00	6.27 pH	18.17 °C	453.67 µS/cm	0.17 mg/L	19.70 NTU	470.0 mV	13.80 ft	200.00 ml/min
2/16/2024 4:03 PM	01:00:00	6.27 pH	18.17 °C	453.86 µS/cm	0.17 mg/L	14.10 NTU	464.5 mV	13.80 ft	200.00 ml/min

2/16/2024 4:08 PM	01:05:00	6.26 pH	18.13 °C	451.74 µS/cm	0.17 mg/L	11.80 NTU	578.9 mV	13.80 ft	200.00 ml/min
2/16/2024 4:13 PM	01:10:00	6.27 pH	18.11 °C	453.50 µS/cm	0.17 mg/L	9.92 NTU	470.7 mV	13.80 ft	200.00 ml/min
2/16/2024 4:18 PM	01:15:00	6.26 pH	18.08 °C	451.30 µS/cm	0.17 mg/L	9.38 NTU	579.7 mV	13.80 ft	200.00 ml/min
2/16/2024 4:23 PM	01:20:00	6.27 pH	18.04 °C	452.41 µS/cm	0.17 mg/L	7.79 NTU	470.3 mV	13.80 ft	200.00 ml/min
2/16/2024 4:28 PM	01:25:00	6.27 pH	18.04 °C	452.99 µS/cm	0.17 mg/L	6.93 NTU	465.3 mV	13.80 ft	200.00 ml/min
2/16/2024 4:33 PM	01:30:00	6.27 pH	18.02 °C	452.17 µS/cm	0.17 mg/L	5.89 NTU	462.9 mV	13.80 ft	200.00 ml/min
2/16/2024 4:38 PM	01:35:00	6.27 pH	17.99 °C	452.02 µS/cm	0.18 mg/L	5.60 NTU	460.9 mV	13.80 ft	200.00 ml/min
2/16/2024 4:43 PM	01:40:00	6.28 pH	17.97 °C	452.64 µS/cm	0.18 mg/L	5.31 NTU	457.1 mV	13.80 ft	200.00 ml/min
2/16/2024 4:48 PM	01:45:00	6.28 pH	17.95 °C	453.46 µS/cm	0.18 mg/L	5.25 NTU	453.1 mV	13.80 ft	200.00 ml/min
2/16/2024 4:53 PM	01:50:00	6.27 pH	17.95 °C	451.75 µS/cm	0.18 mg/L	4.83 NTU	451.3 mV	13.80 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-107	Grab.

Low-Flow Test Report:

Test Date / Time: 2/17/2024 9:41:18 AM

Project: GP-Plant Hammond

Operator Name: Thomas Kessler

Location Name: HGWC-109 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 21.36 ft Total Depth: 31.36 ft Initial Depth to Water: 8 ft	Pump Type: Bladder Tubing Type: Poly Pump Intake From TOC: 26.36 ft Estimated Total Volume Pumped: 51 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/17/2024 9:41 AM	00:00	6.58 pH	14.90 °C	300.34 µS/cm	0.43 mg/L	Over Range	20.3 mV	8.00 ft	200.00 ml/min
2/17/2024 9:46 AM	05:00	6.58 pH	14.95 °C	302.05 µS/cm	0.40 mg/L	Over Range	16.2 mV	8.00 ft	200.00 ml/min
2/17/2024 9:51 AM	10:00	6.60 pH	15.06 °C	308.32 µS/cm	0.31 mg/L	265.00 NTU	2.6 mV	8.00 ft	200.00 ml/min
2/17/2024 9:56 AM	15:00	6.63 pH	15.04 °C	311.30 µS/cm	0.20 mg/L	190.00 NTU	-3.9 mV	8.00 ft	200.00 ml/min
2/17/2024 10:01 AM	20:00	6.64 pH	14.94 °C	311.09 µS/cm	0.16 mg/L	141.00 NTU	-4.8 mV	8.00 ft	200.00 ml/min
2/17/2024 10:06 AM	25:00	6.65 pH	15.13 °C	312.67 µS/cm	0.14 mg/L	109.00 NTU	-4.8 mV	8.00 ft	200.00 ml/min
2/17/2024 10:11 AM	30:00	6.67 pH	15.19 °C	317.45 µS/cm	0.13 mg/L	97.50 NTU	-9.5 mV	8.00 ft	200.00 ml/min
2/17/2024 10:16 AM	35:00	6.69 pH	15.13 °C	319.41 µS/cm	0.13 mg/L	73.80 NTU	-11.6 mV	8.00 ft	200.00 ml/min
2/17/2024 10:21 AM	40:00	6.71 pH	15.24 °C	322.77 µS/cm	0.12 mg/L	66.80 NTU	-14.3 mV	8.00 ft	200.00 ml/min
2/17/2024 10:26 AM	45:00	6.72 pH	15.04 °C	326.02 µS/cm	0.12 mg/L	43.20 NTU	-17.8 mV	8.00 ft	200.00 ml/min
2/17/2024 10:31 AM	50:00	6.73 pH	15.13 °C	329.11 µS/cm	0.11 mg/L	36.80 NTU	-21.2 mV	8.00 ft	200.00 ml/min
2/17/2024 10:36 AM	55:00	6.75 pH	15.30 °C	330.26 µS/cm	0.11 mg/L	37.40 NTU	-23.6 mV	8.00 ft	200.00 ml/min
2/17/2024 10:41 AM	01:00:00	6.77 pH	15.26 °C	330.53 µS/cm	0.11 mg/L	29.90 NTU	-24.8 mV	8.00 ft	200.00 ml/min

2/17/2024 10:46 AM	01:05:00	6.76 pH	15.41 °C	332.00 µS/cm	0.11 mg/L	27.00 NTU	-24.6 mV	8.00 ft	200.00 ml/min
2/17/2024 10:51 AM	01:10:00	6.78 pH	15.17 °C	332.72 µS/cm	0.11 mg/L	19.60 NTU	-25.9 mV	8.00 ft	200.00 ml/min
2/17/2024 10:56 AM	01:15:00	6.79 pH	15.16 °C	335.14 µS/cm	0.11 mg/L	24.40 NTU	-27.9 mV	8.00 ft	200.00 ml/min
2/17/2024 11:01 AM	01:20:00	6.80 pH	15.25 °C	335.35 µS/cm	0.10 mg/L	19.10 NTU	-32.1 mV	8.00 ft	200.00 ml/min
2/17/2024 11:06 AM	01:25:00	6.79 pH	15.18 °C	334.55 µS/cm	0.10 mg/L	18.80 NTU	-26.9 mV	8.00 ft	200.00 ml/min
2/17/2024 11:11 AM	01:30:00	6.80 pH	15.28 °C	335.45 µS/cm	0.10 mg/L	17.40 NTU	-28.1 mV	8.00 ft	200.00 ml/min
2/17/2024 11:16 AM	01:35:00	6.81 pH	15.31 °C	335.43 µS/cm	0.10 mg/L	14.00 NTU	-29.0 mV	8.00 ft	200.00 ml/min
2/17/2024 11:21 AM	01:40:00	6.81 pH	15.31 °C	337.98 µS/cm	0.10 mg/L	14.50 NTU	-30.0 mV	8.00 ft	200.00 ml/min
2/17/2024 11:26 AM	01:45:00	6.81 pH	15.37 °C	338.61 µS/cm	0.10 mg/L	14.40 NTU	-30.9 mV	8.00 ft	200.00 ml/min
2/17/2024 11:31 AM	01:50:00	6.82 pH	15.24 °C	338.92 µS/cm	0.10 mg/L	13.20 NTU	-31.0 mV	8.00 ft	200.00 ml/min
2/17/2024 11:36 AM	01:55:00	6.82 pH	15.31 °C	340.10 µS/cm	0.10 mg/L	15.40 NTU	-31.3 mV	8.00 ft	200.00 ml/min
2/17/2024 11:41 AM	02:00:00	6.83 pH	15.30 °C	338.88 µS/cm	0.10 mg/L	12.70 NTU	-31.8 mV	8.00 ft	200.00 ml/min
2/17/2024 11:46 AM	02:05:00	6.83 pH	15.40 °C	339.71 µS/cm	0.10 mg/L	12.30 NTU	-32.5 mV	8.00 ft	200.00 ml/min
2/17/2024 11:51 AM	02:10:00	6.83 pH	15.46 °C	340.35 µS/cm	0.10 mg/L	10.70 NTU	-32.9 mV	8.00 ft	200.00 ml/min
2/17/2024 11:56 AM	02:15:00	6.84 pH	15.35 °C	340.57 µS/cm	0.10 mg/L	11.50 NTU	-33.0 mV	8.00 ft	200.00 ml/min
2/17/2024 12:01 PM	02:20:00	6.84 pH	15.47 °C	341.23 µS/cm	0.10 mg/L	10.70 NTU	-33.5 mV	8.00 ft	200.00 ml/min
2/17/2024 12:06 PM	02:25:00	6.84 pH	15.45 °C	342.76 µS/cm	0.10 mg/L	9.28 NTU	-34.0 mV	8.00 ft	200.00 ml/min
2/17/2024 12:11 PM	02:30:00	6.85 pH	15.35 °C	341.48 µS/cm	0.10 mg/L	8.60 NTU	-33.7 mV	8.00 ft	200.00 ml/min
2/17/2024 12:16 PM	02:35:00	6.85 pH	15.49 °C	343.55 µS/cm	0.10 mg/L	8.97 NTU	-35.2 mV	8.00 ft	200.00 ml/min
2/17/2024 12:21 PM	02:40:00	6.85 pH	15.53 °C	342.82 µS/cm	0.10 mg/L	9.01 NTU	-34.7 mV	8.00 ft	200.00 ml/min
2/17/2024 12:26 PM	02:45:00	6.85 pH	15.49 °C	343.55 µS/cm	0.10 mg/L	8.24 NTU	-34.8 mV	8.00 ft	200.00 ml/min
2/17/2024 12:31 PM	02:50:00	6.86 pH	15.56 °C	343.80 µS/cm	0.10 mg/L	7.82 NTU	-35.4 mV	8.00 ft	200.00 ml/min
2/17/2024 12:36 PM	02:55:00	6.86 pH	15.52 °C	344.79 µS/cm	0.10 mg/L	8.33 NTU	-36.1 mV	8.00 ft	200.00 ml/min
2/17/2024 12:41 PM	03:00:00	6.86 pH	15.51 °C	342.87 µS/cm	0.10 mg/L	7.47 NTU	-34.5 mV	8.00 ft	200.00 ml/min
2/17/2024 12:46 PM	03:05:00	6.86 pH	15.58 °C	345.31 µS/cm	0.10 mg/L	7.10 NTU	-35.5 mV	8.00 ft	200.00 ml/min
2/17/2024 12:51 PM	03:10:00	6.86 pH	15.53 °C	343.69 µS/cm	0.10 mg/L	8.00 NTU	-34.6 mV	8.00 ft	200.00 ml/min
2/17/2024 12:56 PM	03:15:00	6.87 pH	15.58 °C	345.02 µS/cm	0.09 mg/L	8.00 NTU	-36.6 mV	8.00 ft	200.00 ml/min
2/17/2024 1:01 PM	03:20:00	6.86 pH	15.67 °C	344.37 µS/cm	0.10 mg/L	6.70 NTU	-35.1 mV	8.00 ft	200.00 ml/min
2/17/2024 1:06 PM	03:25:00	6.87 pH	15.80 °C	346.45 µS/cm	0.08 mg/L	6.89 NTU	-36.8 mV	8.00 ft	200.00 ml/min

2/17/2024 1:11 PM	03:30:00	6.87 pH	15.49 °C	342.91 µS/cm	0.08 mg/L	6.11 NTU	-33.1 mV	8.00 ft	200.00 ml/min
2/17/2024 1:16 PM	03:35:00	6.86 pH	15.69 °C	346.73 µS/cm	0.10 mg/L	6.25 NTU	-35.4 mV	8.00 ft	200.00 ml/min
2/17/2024 1:21 PM	03:40:00	6.87 pH	15.52 °C	344.54 µS/cm	0.09 mg/L	5.89 NTU	-34.5 mV	8.00 ft	200.00 ml/min
2/17/2024 1:26 PM	03:45:00	6.88 pH	15.47 °C	345.38 µS/cm	0.09 mg/L	5.91 NTU	-35.5 mV	8.00 ft	200.00 ml/min
2/17/2024 1:31 PM	03:50:00	6.88 pH	15.60 °C	347.10 µS/cm	0.09 mg/L	5.70 NTU	-37.2 mV	8.00 ft	200.00 ml/min
2/17/2024 1:36 PM	03:55:00	6.88 pH	15.60 °C	346.65 µS/cm	0.09 mg/L	5.45 NTU	-37.2 mV	8.00 ft	200.00 ml/min
2/17/2024 1:41 PM	04:00:00	6.88 pH	15.60 °C	345.54 µS/cm	0.09 mg/L	5.19 NTU	-37.5 mV	8.00 ft	200.00 ml/min
2/17/2024 1:46 PM	04:05:00	6.88 pH	15.70 °C	345.56 µS/cm	0.09 mg/L	4.95 NTU	-36.3 mV	8.00 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-109	Grab.

Low-Flow Test Report:

Test Date / Time: 2/17/2024 4:12:15 PM

Project: GP-Plant Hammond

Operator Name: Thomas Kessler

Location Name: HGWC-117A Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.31 ft Total Depth: 40.31 ft Initial Depth to Water: 16.03 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 35.31 ft Estimated Total Volume Pumped: 13 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.05 ft	Instrument Used: Aqua TROLL 400 Serial Number: 883530
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 45 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/17/2024 4:12 PM	00:00	5.97 pH	16.00 °C	275.66 µS/cm	0.19 mg/L	1.34 NTU	118.8 mV	16.08 ft	200.00 ml/min
2/17/2024 4:17 PM	05:00	5.97 pH	16.10 °C	279.89 µS/cm	0.13 mg/L	0.80 NTU	164.1 mV	16.08 ft	200.00 ml/min
2/17/2024 4:22 PM	10:00	6.00 pH	16.50 °C	283.52 µS/cm	0.10 mg/L	0.60 NTU	138.3 mV	16.08 ft	200.00 ml/min
2/17/2024 4:27 PM	15:00	6.03 pH	16.25 °C	290.28 µS/cm	0.09 mg/L	0.48 NTU	175.6 mV	16.08 ft	200.00 ml/min
2/17/2024 4:32 PM	20:00	6.13 pH	16.32 °C	305.14 µS/cm	0.08 mg/L	0.45 NTU	141.6 mV	16.08 ft	200.00 ml/min
2/17/2024 4:37 PM	25:00	6.21 pH	16.48 °C	319.87 µS/cm	0.07 mg/L	0.30 NTU	177.9 mV	16.08 ft	200.00 ml/min
2/17/2024 4:42 PM	30:00	6.34 pH	16.65 °C	337.78 µS/cm	0.06 mg/L	0.36 NTU	141.8 mV	16.08 ft	200.00 ml/min
2/17/2024 4:47 PM	35:00	6.43 pH	16.52 °C	355.30 µS/cm	0.06 mg/L	0.22 NTU	188.6 mV	16.08 ft	200.00 ml/min
2/17/2024 4:52 PM	40:00	6.53 pH	16.20 °C	366.16 µS/cm	0.06 mg/L	0.20 NTU	143.5 mV	16.08 ft	200.00 ml/min
2/17/2024 4:57 PM	45:00	6.58 pH	16.16 °C	381.50 µS/cm	0.06 mg/L	0.23 NTU	132.1 mV	16.08 ft	200.00 ml/min
2/17/2024 5:02 PM	50:00	6.64 pH	16.09 °C	387.42 µS/cm	0.06 mg/L	0.25 NTU	122.5 mV	16.08 ft	200.00 ml/min
2/17/2024 5:07 PM	55:00	6.69 pH	16.03 °C	390.76 µS/cm	0.06 mg/L	0.21 NTU	114.8 mV	16.08 ft	200.00 ml/min
2/17/2024 5:12 PM	01:00:00	6.70 pH	16.18 °C	394.68 µS/cm	0.05 mg/L	0.35 NTU	109.6 mV	16.08 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-117A	Grab.
HAM-AP4-FD-02	Grab.

Low-Flow Test Report:

Test Date / Time: 2/17/2024 9:41:24 AM

Project: GP-Plant Hammond

Operator Name: Connor Cain

Location Name: HGWC-118 Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 30.91 ft Total Depth: 40.91 ft Initial Depth to Water: 12.7 ft	Pump Type: Peri Tubing Type: Poly Pump Intake From TOC: 35.91 ft Estimated Total Volume Pumped: 7 liter Flow Cell Volume: 90 ml Final Flow Rate: 200 ml/min Final Draw Down: 0.09 ft	Instrument Used: Aqua TROLL 400 Serial Number: 850767
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Test Notes:

Seven bottles; Full App III and IV and Major Ions

Weather Conditions:

Cloudy, 37 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
2/17/2024 9:41 AM	00:00	6.90 pH	16.07 °C	506.53 µS/cm	0.27 mg/L	1.56 NTU	39.9 mV	12.79 ft	200.00 ml/min
2/17/2024 9:46 AM	05:00	6.87 pH	16.20 °C	513.32 µS/cm	0.25 mg/L	1.45 NTU	21.3 mV	12.79 ft	200.00 ml/min
2/17/2024 9:51 AM	10:00	6.89 pH	16.35 °C	515.82 µS/cm	0.21 mg/L	1.13 NTU	10.8 mV	12.79 ft	200.00 ml/min
2/17/2024 9:56 AM	15:00	6.91 pH	16.35 °C	514.72 µS/cm	0.19 mg/L	1.17 NTU	6.5 mV	12.79 ft	200.00 ml/min
2/17/2024 10:01 AM	20:00	6.91 pH	16.41 °C	512.79 µS/cm	0.19 mg/L	1.09 NTU	3.4 mV	12.79 ft	200.00 ml/min
2/17/2024 10:06 AM	25:00	6.93 pH	16.30 °C	513.39 µS/cm	0.18 mg/L	0.88 NTU	0.7 mV	12.79 ft	200.00 ml/min
2/17/2024 10:11 AM	30:00	6.94 pH	16.25 °C	514.17 µS/cm	0.18 mg/L	0.56 NTU	-1.3 mV	12.79 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-118	Grab.

CALIBRATION REPORTS

August 2023

EQUIPMENT CALIBRATION LOG

Field Technician: C. CHAIN

Date: 8/8/23

Time (start): 0844

Time (finish): 0904

smarTroll SN: 883553

Turbidity Meter Type: LeMott 20207

SN: 4121-2623

Weather Conditions: Sunny 72

Facility and Unit: Plant Hammond

Project No: GH/6591

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	24.00	4490 4.0 cc	4445.9 4.25	4490 4.0 cc	+/- 5 %	<input checked="" type="checkbox"/> Yes No	
pH (4)			4.0	4.25 4.25	4.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (4) check			4.0	3.99		+/- 0.1 SU	Yes No	
pH (7)	2216893 11/23	25.16	7.0	7.18	7.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (7) check			7.0	7.02		+/- 0.1 SU	Yes No	
pH (10)	2210130 8/23	25.28	10.0	10.48	10.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (10) check			10.	10.0		+/- 0.1 SU	Yes No	
ORP (mV)	21390144 11/23	25.33	228	219.9	228	+/- 20mV	<input checked="" type="checkbox"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)			100	97.99	100	+/- 6 % saturation	<input checked="" type="checkbox"/> Yes No	
Turbidity 0 NTU			0	0.05	0.04	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 1 NTU			1	0.99	0.99	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 10 NTU			10	10.54	10.0	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Hester Date: 8/8/23 Time (start): 0843 Time (finish): 0857
 smarTroll SN: 850724 Turbidity Meter Type: Lanette 2020 SN: 1475-4011
 Weather Conditions: Clear, 75° Facility and Unit: Hammov Project No.: GWC581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22750153	24.22	4490	4351.6	4440	+/- 5 %	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (4)	11/23		4	4.07	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (4) check	↓		4.03	---	---	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (7)	2216558 11/23	24.74	7.0	7.02	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (7) check	↓		6.99	---	---	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (10)	21370282 12/23	24.82	10	10.23	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (10) check	↓		10.07	---	---	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
ORP (mV)	22700085 8/23	24.85	278	275.4	278	+/- 20mV	<input checked="" type="radio"/> Yes <input type="radio"/> No	
DO (%) (1pt, 100% water saturated air cal)			100	100.40	100	+/- 6 % saturation	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 0 NTU			0	1.25	0	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 1 NTU			1	3.25	0.97	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 10 NTU			10	9.73	9.47	+/- 0.5 NTU	<input type="radio"/> Yes <input type="radio"/> No	

EQUIPMENT CALIBRATION LOG

Field Technician: Elisabeth McDonnell

Date: 08/08/23

Time (start): 840

Time (finish): 910

smarTroll SN: 989630

Turbidity Meter Type: Lamo He 2020t

SN: 4109-2623

Weather Conditions: sunny 85

Facility and Unit: Plant hammont

Project No.: 6W6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	2226153 11/23	25.50	4,990	4,550	4510	+/- 5 %	<input checked="" type="radio"/> Yes No	
pH (4)			9.00	4.13	4.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (4) check	↓					+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
pH (7)	2216893 4/23	26.65	7.0	7.81	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (7) check	↓					+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
pH (10)	22320202 12/23		10.0	9.82	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (10) check	↓					+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
ORP (mV)	21390147 11/23	25.56	228	228.2	228.1	+/- 20mV	<input checked="" type="radio"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)			100%	102.95%	100%	+/- 6 % saturation	<input checked="" type="radio"/> Yes No	
Turbidity 0 NTU			0.0	0.51	0.00	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	
Turbidity 1 NTU			1.0	1.45	1.05	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	
Turbidity 10 NTU			10.0	13.3	10.4	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: A. Swast

Date: 8-10-2023

Time (start): 805

Time (finish): 835

smarTroll SN: 883530

Turbidity Meter Type: LaMotte 2020t

SN: 7139-2623

Weather Conditions: Rainy, 70°F

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153	22.60	4490.0	4672.9	4490.0	+/- 5 %	<input checked="" type="checkbox"/> Yes No	
pH (4)	11/2023	23.62	4.00	3.92	4.00	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (4) check						+/- 0.1 SU	Yes No	
pH (7)	2216893 11/2023	24.55	7.00	7.10	7.00	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (7) check						+/- 0.1 SU	Yes No	
pH (10)	21320202 12/2023	24.37	10.00	10.26	10.00	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (10) check						+/- 0.1 SU	Yes No	
ORP (mV)	21390144 11/2023	^{@ 20-23} 22.8 24.88	228.0	225.3	228.0	+/- 20mV	<input checked="" type="checkbox"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)			100.0	97.84	100.0	+/- 6 % saturation	<input checked="" type="checkbox"/> Yes No	
Turbidity 0 NTU			0.00	0.06	—	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 1 NTU			1.00	1.23	1.18	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 10 NTU			10.0	9.33	10.23	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Kessler

Date: 8/10/23

Time (start): 0815

Time (finish): 0830

smarTroll SN: 850724

Turbidity Meter Type: LaMotte 2020w

SN: 7475-4011

Weather Conditions: Rainy, 69°

Facility and Unit: Hammock

Project No.: GWCS81

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	22.22	4490	21482	41190	+/- 5 %	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (4)			4	4.03	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (4) check				4.01		+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (7)	2226593 11/23	22.84	7	6.99	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (7) check				7.06		+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (10)	222082 12/23	22.22	10	9.92	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (10) check				10.03		+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
ORP (mV)	2220085 8/23	22.90	228	225.9	222	+/- 20mV	<input checked="" type="radio"/> Yes <input type="radio"/> No	
DO (%) (1pt, 100% water saturated air cal)			100	97.59	100	+/- 6 % saturation	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 0 NTU			0	0.82	0	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 1 NTU			1	0.72	0.89	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 10 NTU			10	10.39	10.1	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	

EQUIPMENT CALIBRATION LOG

Field Technician: Elisabeth McDonnell

Date: 8/10/23

Time (start): 808

Time (finish): 838

smarTroll SN: 989630

Turbidity Meter Type: La Motte 2020b

SN: 9109-2623

Weather Conditions: Rainy 75

Facility and Unit: Plant Hammond

Project No: GW 6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	2226093 11/23	23	4490	4548	4490	+/- 5 %	<input checked="" type="radio"/> Yes No	
pH (4)	↓		4.0	4.06	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (4) check	↓	24.68	4.0	4.04	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
pH (7)	2114893 11/23	24.33	7.0	7.02	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (7) check	↓	24.53	7.0	6.97	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
pH (10)	21320202 12/23	24.37	10.0	9.99	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (10) check	↓	24.50	10.0	9.96	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
ORP (mV)	21390144 11/23	24.57	228	227.2	228	+/- 20mV	<input checked="" type="radio"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)			100%	96.97	100%	+/- 6 % saturation	<input checked="" type="radio"/> Yes No	
Turbidity 0 NTU			0.0	0.0	0.0	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	
Turbidity 1 NTU			1.0	.75	.89	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	
Turbidity 10 NTU			10.0	11.1	10.9	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: C. CAN Date: 8/10/23 Time (start): 0830 Time (finish): 0845
 smarTroll SN: 883553 Turbidity Meter Type: 2020 T SN: 4121-2623
 Weather Conditions: Rain 68 Facility and Unit: Plant Hammond Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	23.43	4490	4564.8	4490	+/- 5 %	<input checked="" type="checkbox"/> Yes No	
pH (4)			4.0	4.01	4.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (4) check			4.0	3.99		+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
pH (7)	2216893 11/23	24.36	7.0	6.96	7.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (7) check				7.0	7.0		+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No
pH (10)	22110130	24.26	10.0	10.0	10.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (10) check				10.0	10.0		+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No
ORP (mV)	21390144 11/23	24.15	228	225.5	228	+/- 20mV	<input checked="" type="checkbox"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)				100	103.24	100	+/- 6 % saturation	<input checked="" type="checkbox"/> Yes No
Turbidity 0 NTU			0	0	0	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 1 NTU			1	0.91	1	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 10 NTU			10	9.6	10	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: A. Szwaft

Date: 8-11-2023

Time (start): 815

Time (finish): 830

smarTroll SN: 889530

Turbidity Meter Type: LaMotte 2020t

SN: 4139-2623

Weather Conditions: Cloudy, 75° F

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22256153	29.24	4490.0	4495.8	4490.0	+/- 5 %	<input checked="" type="radio"/> Yes No	
pH (4)	11/2023	25.61	4.00	4.12	4.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (4) check	22250153 11/2023	29.65	4.00	4.20	4.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
pH (7)	2216893 11/2023	25.92	7.00	6.96	7.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (7) check	2216893 11/2023	28.09	7.00	6.50	7.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
pH (10)	21320202 12/2023	26.03	10.00	9.86	10.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
Mid-Day pH (10) check	21320202 12/2023	27.53	10.00	9.49	10.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes No	
ORP (mV)	21396144 11/2023	26.01	228.0	226.3	228.0	+/- 20mV	<input checked="" type="radio"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)			100.0	99.15	100.0	+/- 6 % saturation	<input checked="" type="radio"/> Yes No	
Turbidity 0 NTU			0.00	0.00	—	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	
Turbidity 1 NTU			1.00	1.53	1.08	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	
Turbidity 10 NTU			10.0	9.41	10.32	+/- 0.5 NTU	<input checked="" type="radio"/> Yes No	

EQUIPMENT CALIBRATION LOG

Field Technician: C. CHAIN

Date: 8/14/23

Time (start): 0820

Time (finish): 0845

smarTroll SN: 883553

Turbidity Meter Type: 2020T

SN: 4121-2623

Weather Conditions: Cloudy 72

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	24.61	4496	4424.8	4496	+/- 5 %	<input checked="" type="checkbox"/> Yes No	
pH (4)			4.0	4.06	4.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (4) check			4.0	4.0		+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
pH (7)	226893 11/23	24.64	7.0	7.02	7.0	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (7) check					7.0	7.02		+/- 0.1 SU
pH (10)	2216130 8/23	24.66	10.0	10.02	10	+/- 0.1 SU	<input checked="" type="checkbox"/> Yes No	
Mid-Day pH (10) check					10.0	10.01		+/- 0.1 SU
ORP (mV)	21390144 4/23	24.75	228	225.0	228	+/- 20mV	<input checked="" type="checkbox"/> Yes No	
DO (%) (1pt, 100% water saturated air cal)			100	96.33	100	+/- 6 % saturation	<input checked="" type="checkbox"/> Yes No	
Turbidity 0 NTU			0	0.02	0.01	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 1 NTU			1.0	0.97	1.0	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No	
Turbidity 10 NTU			10.02	10	+/- 0.5 NTU	<input checked="" type="checkbox"/> Yes No		

EQUIPMENT CALIBRATION LOG

Field Technician: Elizabeth McDonnell

Date: 8/11/23

Time (start): 756

Time (finish): 816

smarTroll SN: 989630

Turbidity Meter Type: La Motte 2020T

SN: 4109-2623

Weather Conditions: 70-90 sunny

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	25.94	4490	4481.9	4490	+/- 5 %	<input checked="" type="radio"/> Yes <input type="radio"/> No	/
pH (4)	↓		4.0	4.0	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (4) check		30.88	4.0	4.04	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (7)	2216893 11/23	26.90	7.0	6.98	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (7) check	↓	31.63	7.0	6.97	7.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (10)	21320202 12/23	27.13	10.0	9.98	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (10) check	↓	32.09	10.0	10.10	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
ORP (mV)	21390149 11/23	26.7	228	225	228	+/- 20mV	<input checked="" type="radio"/> Yes <input type="radio"/> No	
DO (%) (1pt, 100% water saturated air cal)			100%	99.39	100	+/- 6 % saturation	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 0 NTU			0.0	0.0	0.0	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 1 NTU			1.0	.89	.48	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 10 NTU			10.0	10.6	10.4	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Hessler

Date: 8/11/2012

Time (start): 0800

Time (finish): 0833

smarTroll SN: 550174

Turbidity Meter Type: Limette 2020 w/c

SN: 147E 41011

Weather Conditions: Rainy, 75°

Facility and Unit: Plant Hammond

Project No.: CWC581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153	24.37	4490	4611.2	4490	+/- 5%	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (4)			4.00	4.04	4.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (4) check				4.01		+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
pH (7)	2216843 11/23	21.69	7.00	7.02	7.00	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (7) check					6.97		+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No
pH (10)	2220202 12/23	24.38	10.00	9.93	10.0	+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Mid-Day pH (10) check					10.08		+/- 0.1 SU	<input checked="" type="radio"/> Yes <input type="radio"/> No
ORP (mV)	2220085 8/23	24.60	228	223.5	228	+/- 20mV	<input checked="" type="radio"/> Yes <input type="radio"/> No	
DO (%) (1pt, 100% water saturated air cal)			100	98.2	100	+/- 6% saturation	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 0 NTU			0	1.07	0.0	+/- 0.5 NTU	<input type="radio"/> Yes <input type="radio"/> No	
Turbidity 1 NTU			1	1.10	1.05	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Turbidity 10 NTU			10	9.76	9.85	+/- 0.5 NTU	<input checked="" type="radio"/> Yes <input type="radio"/> No	

February 2024

Site Name: GP Hammond

Field Instrumentation Calibration Form

Date: 2/13/24

Calibrated By: C. CAIN

Field Conditions: Cloudy 39

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	<u>Hanna HI 9142</u>	<u>850767</u>
Turbidity Meter	<u>Hanna HI 9142</u>	<u>22090000088</u>

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	<u>24000244</u>	<u>5/24</u>	<u>Zn-Situ</u>
pH (SU)	4.00	<u>24000044</u>	<u>6/24</u>	<u>Zn-Situ</u>
pH (SU)	7.00	<u>22290139</u>	<u>4/24</u>	<u>Zn-Situ</u>
pH (SU)	10.00	<u>22110130</u>	<u>4/24</u>	<u>Zn-Situ</u>
D.O. (%)	N/A			
ORP (mV)	228.0	<u>24002258</u>	<u>6/24</u>	<u>Zn-Situ</u>

Calibration					
Time Start <u>0745</u>		Time Finish <u>0820</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4490</u>	<u>10.64</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>	<u>10.64</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.0</u>	<u>7.0</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10</u>	<u>10.0</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>100</u>	<u>100</u>	± 10%	NA
ORP (mV)	228.0	<u>228</u>	<u>228</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>	± 10% of standard	EPA 2023
	<u>100</u>	<u>100</u>		
	<u>500</u>	<u>500</u>		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4490</u>	<u>19.6</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>	<u>20.3</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.0</u>	<u>18.7</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.0</u>	<u>18.9</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>	± 10% of standard	EPA 2023
	<u>100</u>	<u>100</u>		
	<u>500</u>	<u>500</u>		

Notes:

Site Name: Plant Hammond

Field Instrumentation Calibration Form

Date: 2-13-2023

Calibrated By: A. Swast

Field Conditions: Clear, 40°F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In-situ AT 400	043285
Turbidity Meter	Hach 2100A	2209000029

Calibration Standard Information					
Parameter	Standard	Lot #	Date of Expiration	Brand	
Specific Conductance (µS/cm)	4.490	24000044	05/2024	In-situ AIR	
pH (SU)	4.00	24600044	05/2024	In-situ ↓	
pH (SU)	7.00	22290139	04/2024		
pH (SU)	10.00	21320202	12/2023		
D.O. (%)	N/A	-	-		
ORP (mV)	228.0	24002208	06/2024	AIR	

Calibration					
Time Start	Time Finish				
8:00	8:30				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4776.3	7.44	± 10% of standard	EPA 2023
pH (SU)	4.00	3.25	8.31	± 0.1	GWMP
pH (SU)	7.00	7.08	9.07	± 0.1	GWMP
pH (SU)	10.00 (1)	10.15/10.18	9.36/9.78	± 0.1	GWMP
D.O. (%)	N/A	96.42	7.88	± 10%	NA
ORP (mV)	228.0	247.62	7.36	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20.0	20.1		
	100.0	92.9		
	800.0	800		
	10.0	10.2		

Calibration Check					
Time Start	Time Finish				
12:40	1:00				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4087.4	13.43	± 10% of standard	EPA 2023
pH (SU)	4.00	4.22	12.93	± 0.1	GWMP
pH (SU)	7.00	6.47	12.50	± 0.1	GWMP
pH (SU)	10.00	9.46	12.47	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	20.0	18.9		
	100	101		
	800	793		
	10.0	10.5		

Notes: (1) pH 10 Cal solution expired, recalibrate: Lot# 22110130 Exp: 04/2024 at 825

1731 Recalibrate turbidity meter

Standard	Calibration value
20.0	21.1
100	101
800	809
10.0	10.0

Site Name: GP Hammond

Field Instrumentation Calibration Form

Date: 2/14/24

Calibrated By: C. CAIN

Field Conditions: Sunny 3BF

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	<u>Hann</u>	<u>856760</u>
Turbidity Meter	<u>2100Q</u>	<u>22090000086</u>

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	<u>2400044</u>	<u>5/24</u>	<u>In-site</u>
pH (SU)	4.00	<u>2400044</u>	<u>8/24</u>	<u>In-site</u>
pH (SU)	7.00	<u>22990139</u>	<u>4/24</u>	<u>In-site</u>
pH (SU)	10.00	<u>22110130</u>	<u>4/24</u>	<u>In-site</u>
D.O. (%)	N/A	<u>—</u>	<u>—</u>	<u>—</u>
ORP (mV)	228.0	<u>24002258</u>	<u>6/24</u>	<u>In-site</u>

Calibration					
Time Start <u>0828</u>		Time Finish <u>0845</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4.96</u>	<u>10.93</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>	<u>10.23</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.0</u>	<u>10.13</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.0</u>	<u>9.73</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>100</u>	<u>8.95</u>	± 10%	NA
ORP (mV)	228.0	<u>224</u>	<u>9.76</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>		
	<u>100</u>	<u>106</u>		
	<u>400</u>	<u>415</u>		
			± 10% of standard	EPA 2023

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4.96</u>		± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>		± 0.1	GWMP
pH (SU)	7.00	<u>7.0</u>		± 0.1	GWMP
pH (SU)	10.00	<u>10.0</u>		± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>		
	<u>100</u>	<u>102</u>		
	<u>400</u>	<u>424</u>		
			± 10% of standard	EPA 2023

Notes:

Site Name: Pleasant Hammer

Field Instrumentation Calibration Form

Date: 7/14/2024

Calibrated By: f. Gressler

Field Conditions: 7/14/2024 135°

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	<u>Hach</u>	<u>868770</u>
Turbidity Meter	<u>Hach</u>	<u>2205060673</u>

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	<u>24000044</u>	<u>5/24</u>	<u>insitu</u>
pH (SU)	4.00	<u>24000044</u>	<u>5/24</u>	↓
pH (SU)	7.00	<u>22290159</u>	<u>4/24</u>	↓
pH (SU)	10.00	<u>22110130</u>	<u>4/24</u>	↓
D.O. (%)	N/A			↓
ORP (mV)	228.0	<u>24002258</u>	<u>6/24</u>	↓

Calibration					
Time Start <u>0900</u>		Time Finish <u>0920</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4.190</u>	<u>5.37</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>	<u>5.76</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.00</u>	<u>6.55</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.00</u>	<u>7.63</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>100</u>	<u>8.82</u>	± 10%	NA
ORP (mV)	228.0	<u>228</u>	<u>8.06</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>	± 10% of standard	EPA 2023
	<u>100</u>	<u>100</u>		
	<u>500</u>	<u>500</u>		
<u>800</u>	<u>800</u>			

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4.480</u>	<u>17.23</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>3.94</u>	<u>18.00</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.02</u>	<u>17.99</u>	± 0.1	GWMP
pH (SU)	10.00	<u>9.95</u>	<u>17.83</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>10</u>	<u>9.95</u>	± 10% of standard	EPA 2023
	<u>20</u>	<u>20.1</u>		
	<u>200</u>	<u>191</u>		
<u>800</u>	<u>807</u>			

Notes:

Site Name: GP Plant Hammond

Field Instrumentation Calibration Form

Date: 2/14/24

Calibrated By: J Newsome

Field Conditions: Foggy 38°F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	In Situ Aquatroll	9168202
Turbidity Meter	2100Q01	22090000239

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	24000044	05/2024	In Situ
pH (SU)	4.00	24000044	05/2024	In Situ
pH (SU)	7.00	22290139	04/2024	In Situ
pH (SU)	10.00	22110130	04/2024	In Situ
D.O. (%)	N/A	N/A	N/A	N/A
ORP (mV)	228.0	24002258	06/2024	In Situ

Calibration					
Time Start	0740	Time Finish	0800		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4490	7.11	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	7.21	± 0.1	GWMP
pH (SU)	7.00	7.00	7.22	± 0.1	GWMP
pH (SU)	10.00	10.10	7.55	± 0.1	GWMP
D.O. (%)	N/A	10.0%	7.75	± 10%	NA
ORP (mV)	228.0	228.0	7.65	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	10.6		
	20	19.1		
	100	103		
	800	808	± 10% of standard	EPA 2023

Calibration Check					
Time Start	12:33	Time Finish	12:41		
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	4371.3	22.31	± 10% of standard	EPA 2023
pH (SU)	4.00	4.02	22.31	± 0.1	GWMP
pH (SU)	7.00	6.95	20.27	± 0.1	GWMP
pH (SU)	10.00	9.10.01	18.89	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	9.91		
	20	19.38		
	100	101		
	800	797	± 10% of standard	EPA 2023

Notes:

Site Name: Plant Hammond

Field Instrumentation Calibration Form

Date: 2/16/2024

Calibrated By: T. Kessler

Field Conditions: Clear, SS⁰

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	<u>Hydrolab 400</u>	<u>883331</u>
Turbidity Meter	<u>hach</u>	<u>7204010174</u>

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	<u>24000044</u>	<u>5/24</u>	<u>usist</u>
pH (SU)	4.00	<u>24000044</u>	<u>5/24</u>	
pH (SU)	7.00			
pH (SU)	10.00			
D.O. (%)	N/A			
ORP (mV)	228.0			

Calibration					
Time Start	Time Finish				
<u>1004</u>	<u>1030</u>				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4490</u>	<u>17.63</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>	<u>13.72</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.0</u>	<u>13.78</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.0</u>	<u>13.95</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>100</u>	<u>16.03</u>	± 10%	NA
ORP (mV)	228.0	<u>228</u>	<u>15.62</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>19.8</u>		
	<u>200</u>	<u>199.1</u>		
	<u>800</u>	<u>750</u>		
		± 10% of standard	EPA 2023	

Calibration Check					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	<u>4500</u>	<u>18.75</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.02</u>	<u>18.00</u>	± 0.1	GWMP
pH (SU)	7.00	<u>6.93</u>	<u>19.10</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.02</u>	<u>18.32</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>18.9</u>		
	<u>200</u>	<u>200.7</u>		
	<u>600</u>	<u>513</u>		
		± 10% of standard	EPA 2023	

Notes:

FB-AP3-1410
FB-AP3-1415

Site Name: GP Plant Hammond

Field Instrumentation Calibration Form

Date: 2/16/24

Calibrated By: J. Newsum

Field Conditions: Clear, 44F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	Aquatrol	908202
Turbidity Meter	2100R	22091000239

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4.490	24000044	05/2024	In situ
pH (SU)	4.00	24000044	05/2024	In situ
pH (SU)	7.00	22790139	04/2024	In situ
pH (SU)	10.00	22110130	04/2024	In situ
D.O. (%)	N/A			
ORP (mV)	228.0	24002258	04/2024	In situ

Calibration					
Time Start	6730		Time Finish	1000	
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4490	14.74	± 10% of standard	EPA 2023
pH (SU)	4.00	4.00	15.11	± 0.1	GWMP
pH (SU)	7.00	7.00	14.73	± 0.1	GWMP
pH (SU)	10.00	10.00	14.00	± 0.1	GWMP
D.O. (%)	N/A	100%	14.74	± 10%	NA
ORP (mV)	228.0	228.0	13.76	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	9.98		
	20	19.1		
	100	95.2		
	800	784		
			± 10% of standard	EPA 2023

Calibration Check					
Time Start	1535		Time Finish	1540	
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4.490	4490	18.17	± 10% of standard	EPA 2023
pH (SU)	4.00	4.08	17.89 18.18	± 0.1	GWMP
pH (SU)	7.00	6.97	17.54	± 0.1	GWMP
pH (SU)	10.00	10.01	17.10	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	10	9.91		
	20	20.0		
	100	97.1		
	800	797		
			± 10% of standard	EPA 2023

Notes

Site Name: GP Plant Hammond

Field Instrumentation Calibration Form

Date: 2/17/24

Calibrated By: C. CHIN

Field Conditions: cloudy 38F

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	<u>Hanna HI9142</u>	<u>880767</u>
Turbidity Meter	<u>21918</u>	<u>220900000006</u>

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	<u>24000044</u>	<u>5/24</u>	<u>In-site</u>
pH (SU)	4.00	<u>24000044</u>	<u>5/24</u>	<u>In-site</u>
pH (SU)	7.00	<u>22290139</u>	<u>4/24</u>	<u>In-site</u>
pH (SU)	10.00	<u>22110130</u>	<u>4/24</u>	<u>In-site</u>
D.O. (%)	N/A	<u>-</u>	<u>-</u>	<u>-</u>
ORP (mV)	228.0	<u>24002258</u>	<u>6/24</u>	<u>In-site</u>

Calibration					
Time Start <u>0800</u>		Time Finish <u>0835</u>			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4490</u>	<u>12.76</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.0</u>	<u>13.17</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.0</u>	<u>13.67</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.0</u>	<u>13.86</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>100</u>	<u>13.95</u>	± 10%	NA
ORP (mV)	228.0	<u>228.0</u>	<u>13.81</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>	± 10% of standard	EPA 2023
	<u>100</u>	<u>100</u>		
	<u>800</u>	<u>800</u>		

Calibration Check					
Time Start		Time Finish			
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4472</u>	<u>13.29</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.01</u>	<u>13.29</u>	± 0.1	GWMP
pH (SU)	7.00	<u>6.97</u>	<u>13.84</u>	± 0.1	GWMP
pH (SU)	10.00	<u>9.94</u>	<u>14.01</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>19.7</u>	± 10% of standard	EPA 2023
	<u>100</u>	<u>102</u>		
	<u>800</u>	<u>815</u>		

Notes:

Site Name: Plant Hammond

Field Instrumentation Calibration Form

Date: 7/17/2024

Calibrated By: T. Kessler

Field Conditions: cloudy, 45°

Instrument	Manufacturer/ Model	Serial Number
Water Quality Meter	<u>control/400</u>	<u>48383</u>
Turbidity Meter	<u>bach</u>	<u>200200173</u>

Calibration Standard Information				
Parameter	Standard	Lot #	Date of Expiration	Brand
Specific Conductance (µS/cm)	4,490	<u>24000044</u>	<u>5/24</u>	<u>msity</u>
pH (SU)	4.00	<u>22290139</u>	<u>6/24</u>	
pH (SU)	7.00	<u>22290139</u>	<u>4/24</u>	
pH (SU)	10.00	<u>22110130</u>	<u>4/24</u>	
D.O. (%)	N/A			
ORP (mV)	228	<u>24002258</u>	<u>6/24</u>	

Calibration					
Time Start	Time Finish				
<u>0800</u>	<u>0910</u>				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4490</u>	<u>13.85</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.00</u>	<u>13.27</u>	± 0.1	GWMP
pH (SU)	7.00	<u>7.00</u>	<u>13.38</u>	± 0.1	GWMP
pH (SU)	10.00	<u>10.00</u>	<u>13.50</u>	± 0.1	GWMP
D.O. (%)	N/A	<u>100</u>	<u>12.95</u>	± 10%	NA
ORP (mV)	228.0	<u>228</u>	<u>13.31</u>	± 10	EPA 2023

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>20</u>		
	<u>100</u>	<u>100</u>		
	<u>800</u>	<u>800</u>		
		± 10% of standard	EPA 2023	

Calibration Check					
Time Start	Time Finish				
Parameter	Standard	Calibration Value	Calibration Solution Temperature (°C)	Acceptance Criteria	Reference
Specific Conductance (µS/cm)	4,490	<u>4485</u>	<u>14.07</u>	± 10% of standard	EPA 2023
pH (SU)	4.00	<u>4.02</u>	<u>14.82</u>	± 0.1	GWMP
pH (SU)	7.00	<u>6.91</u>	<u>16.31</u>	± 0.1	GWMP
pH (SU)	10.00	<u>9.96</u>	<u>15.87</u>	± 0.1	GWMP

Turbidity (NTU)	Standard	Calibration Value	Acceptance Criteria	Reference
	<u>20</u>	<u>19.6</u>		
	<u>100</u>	<u>100.1</u>		
	<u>800</u>	<u>809</u>		
		± 10% of standard	EPA 2023	

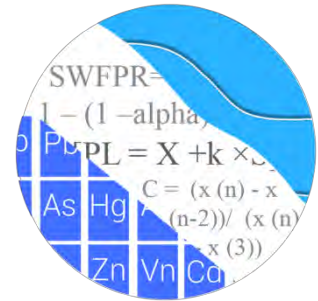
Notes:

APPENDIX C

Statistical Analyses Reports

August 2023

GROUNDWATER STATS CONSULTING



February 28, 2024

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd. NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant Hammond Ash Pond 4 (AP-4)
August 2023 Semi-Annual Statistical Analysis

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August 2023 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical summary of groundwater data for Georgia Power Company's Plant Hammond AP-4. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for Hammond AP-4 in 2016, and at least 8 background samples have been collected at each of the groundwater monitoring wells analyzed in this report. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** HGWA-47, HGWA-48D, HGWA-111, HGWA-112, and HGWA-113
- **Downgradient wells:** HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, and HGWC-118
- **Piezometer:** HGWC-117

Note that downgradient well HGWC-102 was first sampled in October 2019 and upgradient wells HGWA-47 and HGWA-48D were first sampled in September 2020 and

currently have at least 8 samples; therefore, data from this well were evaluated during this statistical analysis. Upgradient well data are included in construction of interwell prediction limits when a minimum of 2 samples are available and downgradient wells are evaluated with prediction limits once they have reached a minimum of 8 samples.

Note that HGWC-117 was reclassified as a piezometer; therefore, it is not included in this analysis. Well HGWC-117A was reclassified as a downgradient well was first sampled in February 2021 and currently has four samples. Therefore, this well is included on the time series graphs and box plots, and also has reached the minimum number of samples for Appendix IV parameters to be evaluated with confidence intervals. Once it has been sampled 8 times, it will be evaluated with interwell prediction limits.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The Coal Combustion Residuals (CCR) program consists of the following constituents listed below. The terms "constituent" and "parameter" are interchangeable.

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. In the cases of lithium, historical reporting limits vary among the wells. Therefore, the reporting limits of 0.030 mg/L, respectively, were substituted across all wells, which is the most recent reporting limit provided by the laboratory. Note that the reporting limit for arsenic during this event increased to 0.01 mg/L; therefore, the historic reporting limit of 0.005 mg/L was substituted across all wells in order to maintain statistical limits that are conservative from a regulatory perspective.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the

box plots provide visual representation of variation within individual wells and between all wells. 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).

Data at all wells were initially evaluated during the background screening described below for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the screening and demonstrated that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. 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.

Statistical Methods – Appendix III Parameters

Appendix III parameters are evaluated using interwell prediction limits combined with a 1-of-2 resample plan for all constituents: boron, calcium, chloride, fluoride, pH, sulfate, and TDS.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This

technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.

- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as the original reporting limit.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, an earlier portion of data may require deselection prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs. When this step is required a summary of any adjusted records will be provided. No records were adjusted at this time.

Summary of Background Screening Conducted in April 2019

Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, a few outliers were identified. Often, 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.

Of the outliers identified by Tukey's method, only one outlier was flagged as all other values are similar to remaining measurements within a given well or neighboring wells, or were reported non-detects.

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.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Tests

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 was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses were included with the screening and showed a few statistically significant decreasing and increasing trends for the Appendix III parameters. Most trends noted were relatively low in magnitude when compared to average concentrations, and the background period is short; therefore, no adjustments were made to the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) is typically used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

Statistical Evaluation of Appendix III Parameters – August 2023

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were reassessed 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. No additional values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through August 2023 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The August 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A and HGWC-118
- Calcium: HGWC-102, HGWC-103, HGWC-105, and HGWC-118
- Chloride: HGWC-102 and HGWC-103

- Sulfate: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, and HGWC-118
- TDS: HGWC-102, HGWC-103, HGWC-105, and HGWC-118

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen’s Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. When trends are present in upgradient trends, it is an indication of variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Boron: HGWC-101 and HGWC-103
- Calcium: HGWA-113 (upgradient), HGWC-103, and HGWC-105
- Chloride: HGWC-103
- TDS: HGWC-105

Decreasing trends:

- Boron: HGWC-109
- Sulfate: HGWA-113 (upgradient), HGWC-107, and HGWC-109

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (Maximum Containment Limits (MCL) or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Statistical Evaluation of Appendix IV Parameters – August 2023

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS).

GWPS were developed as described below. Well/constituent pairs that have 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No additional values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through August 2023 for Appendix IV constituents (Figure F). As mentioned above, a reporting limit of 0.005 mg/L was substituted for arsenic and a reporting limit of 0.030 mg/L was substituted for lithium. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient well (Figure H). As mentioned

above, well/constituent pairs with 100% non-detects did not require statistics, which includes all downgradient wells for molybdenum.

The Sanitas software was used to calculate the tolerance limits and the confidence intervals. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the appropriate order statistics, depending on the sample size, as interval limits, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The achievable confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. A summary of the confidence intervals follows this letter. When the entire records were evaluated, no exceedances were identified.

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test at the 95% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable. Although the trend tests for Assessment monitoring pairs were previously evaluated using 99% confidence, the 95% confidence level more rapidly identifies statistically significant trends. Additionally, the 95% confidence is recommended in cases with limited sample sizes and, particularly, for new assessment wells. Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient wells, it is an indication of variability in groundwater quality unrelated to practices at the site. Since no confidence interval exceedances were identified, no trend tests were required.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Hammond AP-4. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Tristan Clark
Groundwater Analyst



Andrew T. Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 10/19/2023 2:23 PM View: AIV
Plant Hammond Client: Southern Company Data: Hammond AP-4

Antimony (mg/L)

HGWC-101, HGWC-105, HGWC-109, HGWC-117A, HGWC-118

Arsenic (mg/L)

HGWC-103, HGWC-105, HGWC-107, HGWC-117A

Beryllium (mg/L)

HGWC-102, HGWC-105, HGWC-107, HGWC-109, HGWC-117A

Cadmium (mg/L)

HGWC-105, HGWC-109, HGWC-118

Chromium (mg/L)

HGWC-117A

Cobalt (mg/L)

HGWC-107

Lead (mg/L)

HGWC-117A

Lithium (mg/L)

HGWC-101

Molybdenum (mg/L)

HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Selenium (mg/L)

HGWC-101, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Thallium (mg/L)

HGWC-101, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Appendix III Interwell Prediction Limit - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:09 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	HGWC-101	0.04	n/a	8/11/2023	0.16	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-102	0.04	n/a	8/11/2023	3.2	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-103	0.04	n/a	8/11/2023	4.3	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-105	0.04	n/a	8/11/2023	1.4	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-107	0.04	n/a	8/11/2023	0.81	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-109	0.04	n/a	8/11/2023	0.23	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-117A	0.04	n/a	8/11/2023	0.31	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-118	0.04	n/a	8/11/2023	0.66	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-102	73.8	n/a	8/11/2023	134	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-103	73.8	n/a	8/11/2023	139	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-105	73.8	n/a	8/11/2023	129	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-118	73.8	n/a	8/11/2023	85.5	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-102	5.7	n/a	8/11/2023	6.7	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-103	5.7	n/a	8/11/2023	7.9	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-101	14	n/a	8/11/2023	102	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-102	14	n/a	8/11/2023	370	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-103	14	n/a	8/11/2023	382	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-105	14	n/a	8/11/2023	237	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-107	14	n/a	8/11/2023	113	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-109	14	n/a	8/11/2023	19.8	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-117A	14	n/a	8/11/2023	67.7	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-118	14	n/a	8/11/2023	64.9	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-102	345	n/a	8/11/2023	785	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-103	345	n/a	8/11/2023	808	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-105	345	n/a	8/11/2023	630	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-118	345	n/a	8/11/2023	346	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2

Appendix III Interwell Prediction Limit - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:09 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	HGWC-101	0.04	n/a	8/11/2023	0.16	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-102	0.04	n/a	8/11/2023	3.2	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-103	0.04	n/a	8/11/2023	4.3	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-105	0.04	n/a	8/11/2023	1.4	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-107	0.04	n/a	8/11/2023	0.81	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-109	0.04	n/a	8/11/2023	0.23	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-117A	0.04	n/a	8/11/2023	0.31	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-118	0.04	n/a	8/11/2023	0.66	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-101	73.8	n/a	8/11/2023	24.1	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-102	73.8	n/a	8/11/2023	134	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-103	73.8	n/a	8/11/2023	139	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-105	73.8	n/a	8/11/2023	129	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-107	73.8	n/a	8/11/2023	56	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-109	73.8	n/a	8/11/2023	44.8	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-117A	73.8	n/a	8/11/2023	61.1	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-118	73.8	n/a	8/11/2023	85.5	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-101	5.7	n/a	8/11/2023	4.9	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-102	5.7	n/a	8/11/2023	6.7	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-103	5.7	n/a	8/11/2023	7.9	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-105	5.7	n/a	8/11/2023	5.6	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-107	5.7	n/a	8/11/2023	2.7	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-109	5.7	n/a	8/11/2023	3.5	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-117A	5.7	n/a	8/11/2023	4.6	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-118	5.7	n/a	8/11/2023	3.8	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-101	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-102	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-103	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-105	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-107	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-109	0.2	n/a	8/11/2023	0.086J	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-117A	0.2	n/a	8/11/2023	0.057J	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-118	0.2	n/a	8/11/2023	0.07J	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-101	7.54	5.43	8/11/2023	5.44	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-102	7.54	5.43	8/11/2023	5.79	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-103	7.54	5.43	8/11/2023	5.8	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-105	7.54	5.43	8/11/2023	6.47	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-107	7.54	5.43	8/11/2023	6.16	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-109	7.54	5.43	8/11/2023	6.8	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-117A	7.54	5.43	8/11/2023	7.09	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-118	7.54	5.43	8/11/2023	7.49	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-101	14	n/a	8/11/2023	102	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-102	14	n/a	8/11/2023	370	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-103	14	n/a	8/11/2023	382	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-105	14	n/a	8/11/2023	237	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-107	14	n/a	8/11/2023	113	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-109	14	n/a	8/11/2023	19.8	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-117A	14	n/a	8/11/2023	67.7	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-118	14	n/a	8/11/2023	64.9	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-101	345	n/a	8/11/2023	250	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-102	345	n/a	8/11/2023	785	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-103	345	n/a	8/11/2023	808	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-105	345	n/a	8/11/2023	630	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-107	345	n/a	8/11/2023	296	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-109	345	n/a	8/11/2023	205	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-117A	345	n/a	8/11/2023	280	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-118	345	n/a	8/11/2023	346	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWC-101	0.009779	87	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-103	0.1375	85	74	Yes	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-109	-0.03064	-118	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-113 (bg)	0.2844	92	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-103	6.488	103	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-105	6.968	137	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWC-103	0.3971	99	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-113 (bg)	-0.9433	-96	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-107	-1.814	-77	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-109	-2.891	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-105	24.62	101	74	Yes	19	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-111 (bg)	0.0002457	33	68	No	18	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-112 (bg)	0	11	68	No	18	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-113 (bg)	0.0007341	30	68	No	18	22.22	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-47 (bg)	0.01101	20	30	No	10	60	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-48D (bg)	0	3	30	No	10	20	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-101	0.009779	87	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-102	-0.1535	-26	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-103	0.1375	85	74	Yes	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-105	0.00908	30	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-107	0.01658	51	74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-109	-0.03064	-118	-74	Yes	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-117A	-0.01502	-4	-14	No	6	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-118	-0.005615	-15	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-111 (bg)	1.8	29	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-112 (bg)	0.06404	44	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-113 (bg)	0.2844	92	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-47 (bg)	-0.4983	-5	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-48D (bg)	0	0	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-102	2.11	8	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-103	6.488	103	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-105	6.968	137	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-118	0.8924	63	74	No	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-111 (bg)	0	-2	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-112 (bg)	0	-10	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-113 (bg)	-0.03375	-48	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-47 (bg)	0	4	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-48D (bg)	0	1	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWC-102	0	4	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWC-103	0.3971	99	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-111 (bg)	0	-9	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-112 (bg)	0.02747	27	68	No	18	22.22	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-113 (bg)	-0.9433	-96	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-47 (bg)	-0.2246	-17	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-48D (bg)	-0.7264	-24	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-101	-1.808	-50	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-102	-3.65	-8	-48	No	14	7.143	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-103	7.11	46	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-105	2.019	14	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-107	-1.814	-77	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-109	-2.891	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-117A	2.408	4	14	No	6	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-118	-2.105	-72	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-111 (bg)	5.263	28	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-112 (bg)	-0.799	-12	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-113 (bg)	0.3489	4	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-47 (bg)	3.593	7	30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-48D (bg)	-0.365	-4	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-102	-13.69	-8	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-103	19.95	53	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-105	24.62	101	74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-118	-2.595	-25	-74	No	19	0	n/a	n/a	0.01	NP

Upper Tolerance Limit Summary Table

Plant Hammond Data: Hammond AP-4 Printed 10/26/2023, 1:43 PM

Constituent	Upper Lim.	Date	Observ.	Sig.	Bg.N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	63	93.65	n/a	n/a	0.0395	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	n/a	77	93.51	n/a	n/a	0.01926	NP Inter(NDs)
Barium (mg/L)	0.11	n/a	n/a	n/a	77	0	n/a	n/a	0.01926	NP Inter(normality)
Beryllium (mg/L)	0.0019	n/a	n/a	n/a	77	90.91	n/a	n/a	0.01926	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	77	100	n/a	n/a	0.01926	NP Inter(NDs)
Chromium (mg/L)	0.0061	n/a	n/a	n/a	77	38.96	n/a	n/a	0.01926	NP Inter(normality)
Cobalt (mg/L)	0.005	n/a	n/a	n/a	77	89.61	n/a	n/a	0.01926	NP Inter(NDs)
Combined Radium 226 & 228 (pCi/L)	1.259	n/a	n/a	n/a	77	0	None	No	0.05	Inter
Fluoride (mg/L)	0.1685	n/a	n/a	n/a	80	21.25	Kaplan-Meier	sqrt(x)	0.05	Inter
Lead (mg/L)	0.0016	n/a	n/a	n/a	77	72.73	n/a	n/a	0.01926	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	77	36.36	n/a	n/a	0.01926	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	63	80.95	n/a	n/a	0.0395	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	63	84.13	n/a	n/a	0.0395	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	63	79.37	n/a	n/a	0.0395	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	63	100	n/a	n/a	0.0395	NP Inter(NDs)

PLANT HAMMOND AP-4 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.11	2
Beryllium, Total (mg/L)	0.004		0.0019	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0061	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.005	0.006
Combined Radium, Total (pCi/L)	5		1.26	5
Fluoride, Total (mg/L)	4		0.17	4
Lead, Total (mg/L)	n/a	0.015	0.0016	0.015
Lithium, Total (mg/L)	n/a	0.040	0.030	0.040
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

Confidence Intervals - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/26/2023, 11:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-102	0.003	0.003	0.006	No	13	84.62	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-103	0.003	0.0022	0.006	No	15	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-107	0.003	0.0011	0.006	No	15	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-101	0.005	0.00039	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-102	0.005	0.00083	0.01	No	14	71.43	None	No	0.01	NP (normality)
Arsenic (mg/L)	HGWC-109	0.002308	0.001423	0.01	No	19	15.79	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	HGWC-118	0.005	0.001	0.01	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	HGWC-101	0.04489	0.03883	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-102	0.03228	0.02715	2	No	14	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-103	0.03985	0.03495	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-105	0.088	0.0668	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	HGWC-107	0.03881	0.03577	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-109	0.08688	0.08044	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-118	0.06041	0.04955	2	No	19	0	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-101	0.0005	0.000062	0.004	No	19	47.37	None	No	0.01	NP (normality)
Beryllium (mg/L)	HGWC-103	0.0005	0.000088	0.004	No	19	78.95	None	No	0.01	NP (NDs)
Beryllium (mg/L)	HGWC-118	0.0005	0.000093	0.004	No	19	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-101	0.0003	0.00011	0.005	No	19	15.79	None	No	0.01	NP (normality)
Cadmium (mg/L)	HGWC-102	0.000665	0.0003407	0.005	No	14	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-103	0.0007837	0.0006805	0.005	No	19	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-107	0.0005	0.0001	0.005	No	19	63.16	None	No	0.01	NP (normality)
Chromium (mg/L)	HGWC-101	0.005	0.00098	0.1	No	19	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-102	0.005	0.00063	0.1	No	14	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-103	0.005	0.00081	0.1	No	19	63.16	None	No	0.01	NP (normality)
Chromium (mg/L)	HGWC-105	0.005	0.0013	0.1	No	19	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-107	0.005	0.00074	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-109	0.005	0.0014	0.1	No	19	89.47	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-118	0.005	0.0017	0.1	No	19	73.68	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-101	0.002761	0.002144	0.006	No	19	5.263	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-102	0.001878	0.001042	0.006	No	14	0	None	ln(x)	0.01	Param.
Cobalt (mg/L)	HGWC-103	0.002251	0.001823	0.006	No	19	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-105	0.005	0.00046	0.006	No	19	31.58	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-109	0.00201	0.001226	0.006	No	19	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-118	0.005	0.00045	0.006	No	19	52.63	None	No	0.01	NP (normality)
Combined Radium 226 & 228 (pCi/L)	HGWC-101	0.8549	0.4408	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-102	1.165	0.5859	5	No	13	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-103	0.873	0.4601	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-105	0.8447	0.4736	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-107	1.024	0.4983	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-109	0.7607	0.4285	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-118	1.108	0.5047	5	No	18	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-101	0.1	0.065	4	No	20	85	None	No	0.01	NP (NDs)
Fluoride (mg/L)	HGWC-102	0.22	0.076	4	No	14	85.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	HGWC-103	0.13	0.071	4	No	20	75	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-105	0.13	0.074	4	No	20	55	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-107	0.1	0.064	4	No	20	55	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-109	0.1257	0.08329	4	No	20	10	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-118	0.18	0.072	4	No	21	0	None	No	0.01	NP (normality)
Lead (mg/L)	HGWC-101	0.001	0.0009	0.015	No	19	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-102	0.001	0.00011	0.015	No	14	92.86	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-103	0.001	0.00028	0.015	No	19	73.68	None	No	0.01	NP (normality)
Lead (mg/L)	HGWC-105	0.001	0.000085	0.015	No	19	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-107	0.001	0.00034	0.015	No	19	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-109	0.001	0.000058	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-118	0.001	0.00036	0.015	No	19	73.68	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-102	0.0013	0.001	0.04	No	14	0	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-103	0.002	0.0014	0.04	No	19	15.79	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-105	0.004198	0.003865	0.04	No	19	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-107	0.03	0.00084	0.04	No	19	42.11	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-109	0.03	0.00088	0.04	No	19	47.37	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-118	0.03	0.0015	0.04	No	19	31.58	None	No	0.01	NP (normality)
Mercury (mg/L)	HGWC-101	0.0002	0.000099	0.002	No	15	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-102	0.0002	0.0001	0.002	No	13	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-103	0.00025	0.00017	0.002	No	15	73.33	None	No	0.01	NP (normality)
Mercury (mg/L)	HGWC-105	0.00022	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-107	0.0002	0.000084	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-109	0.0002	0.00008	0.002	No	15	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-118	0.0002	0.00009	0.002	No	15	86.67	None	No	0.01	NP (NDs)

Confidence Intervals - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/26/2023, 11:28 AM

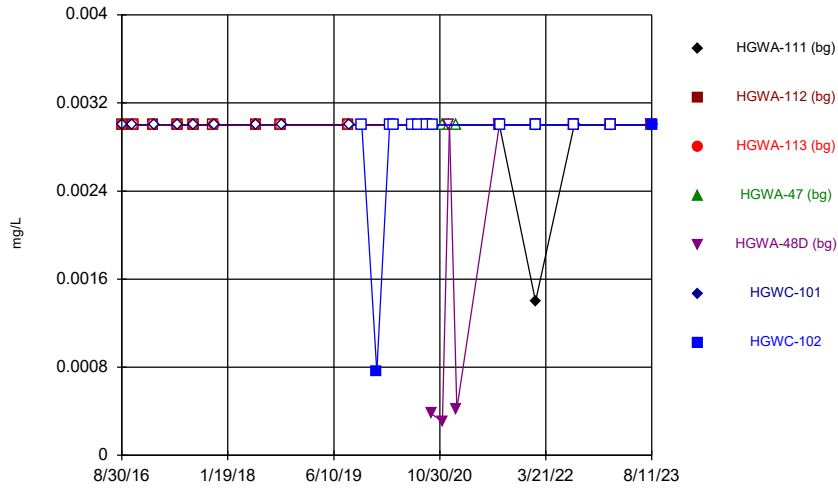
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	HGWC-102	0.005	0.0015	0.05	No	13	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	HGWC-102	0.001	0.00008	0.002	No	13	92.31	None	No	0.01	NP (NDs)

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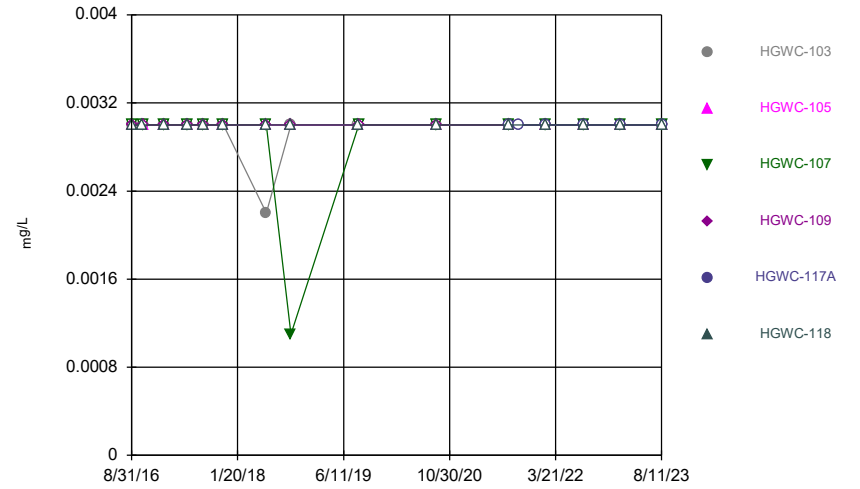
FIGURE A.

Time Series



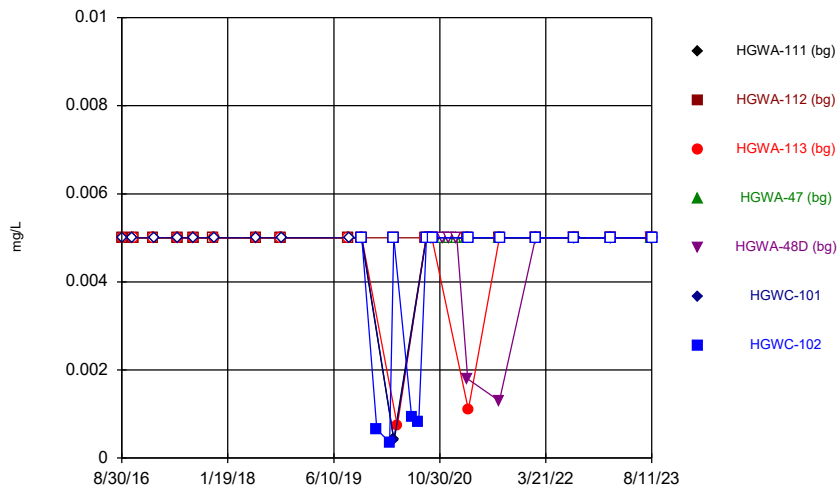
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Time Series



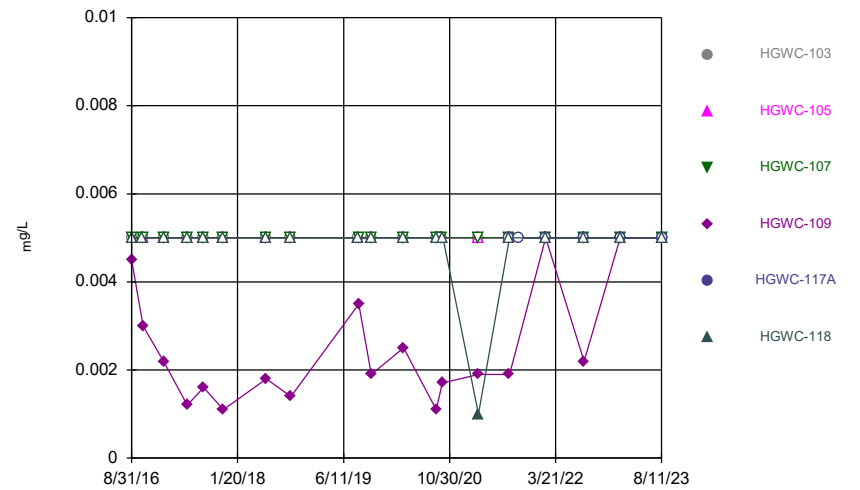
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Time Series



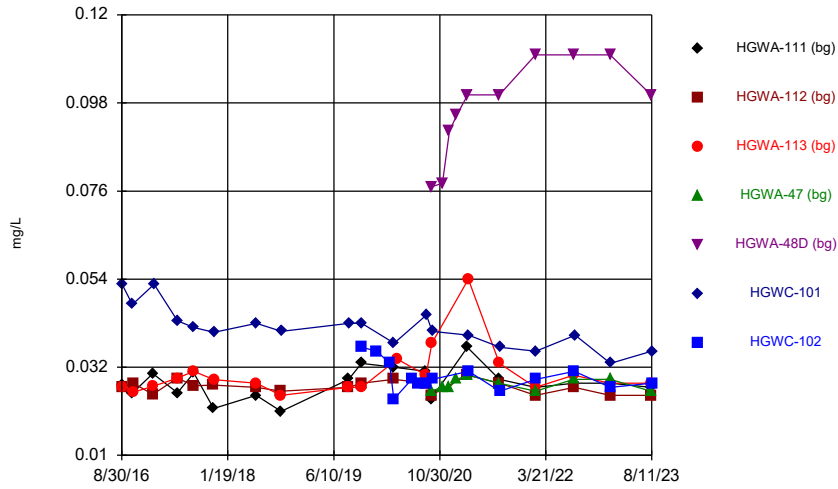
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Time Series



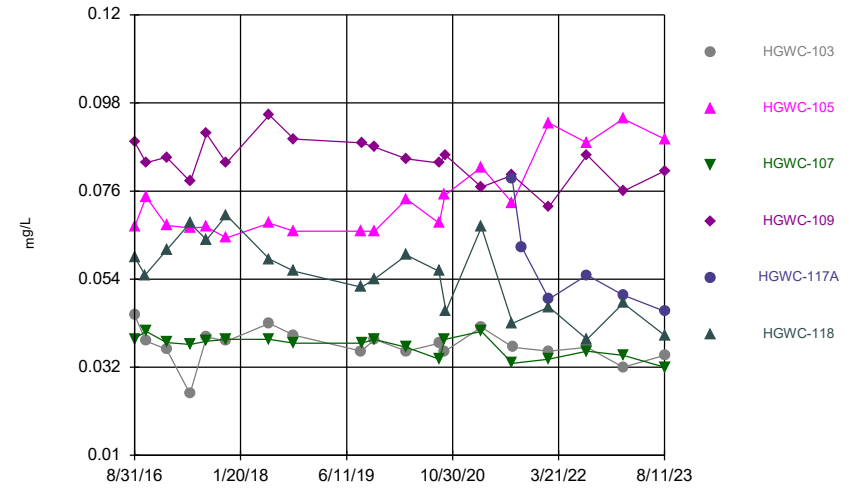
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Time Series



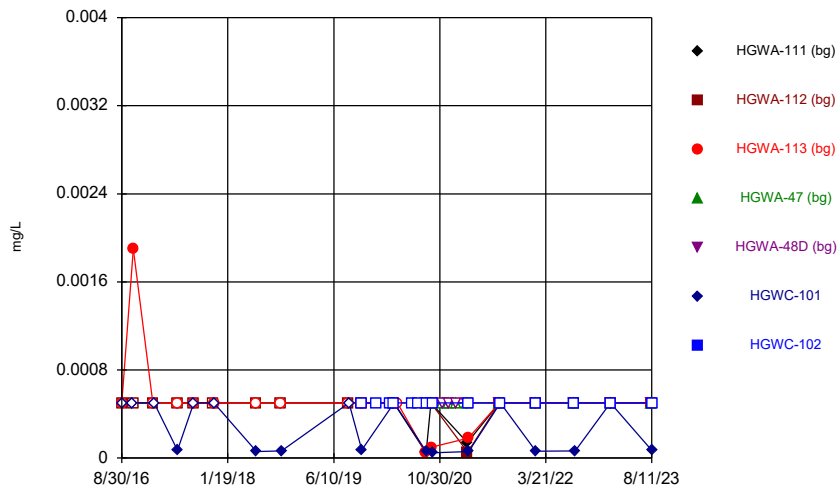
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Time Series



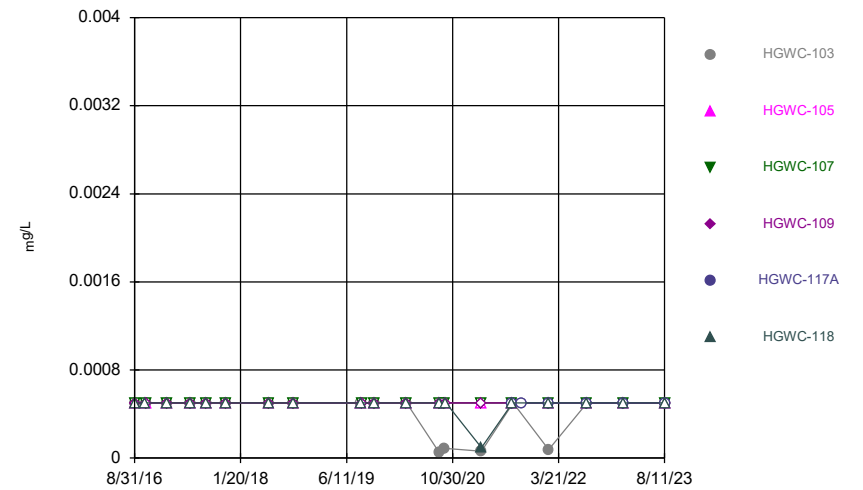
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Time Series



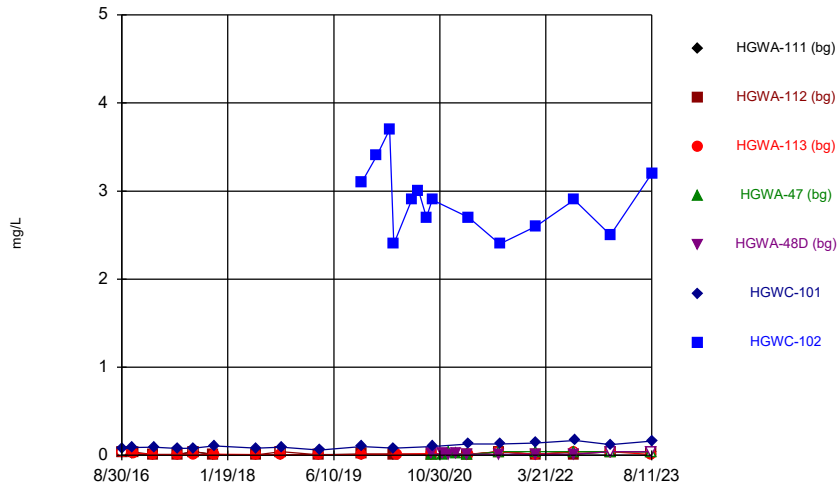
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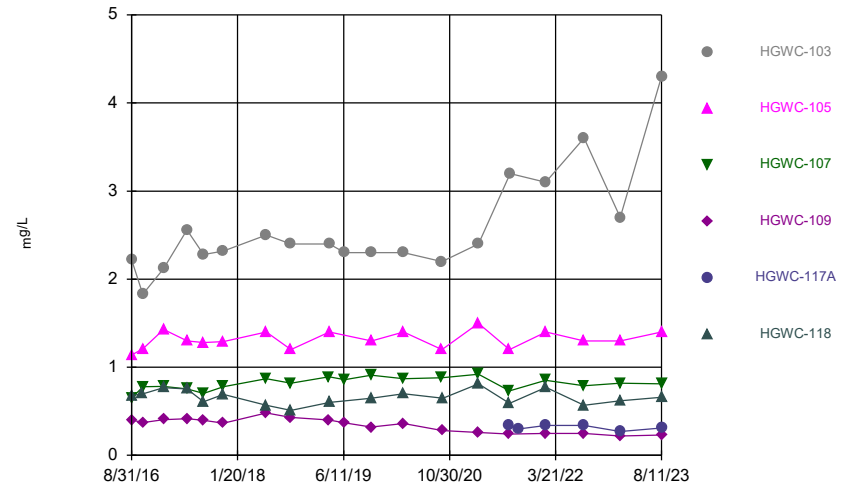
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Time Series



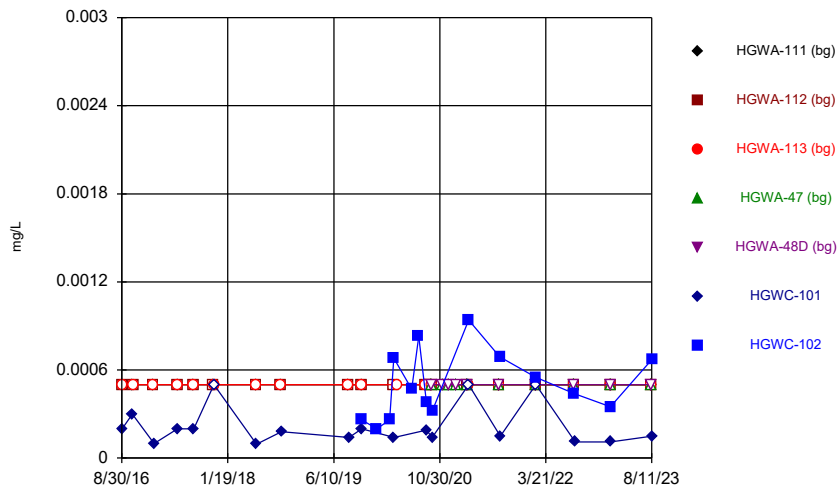
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Time Series



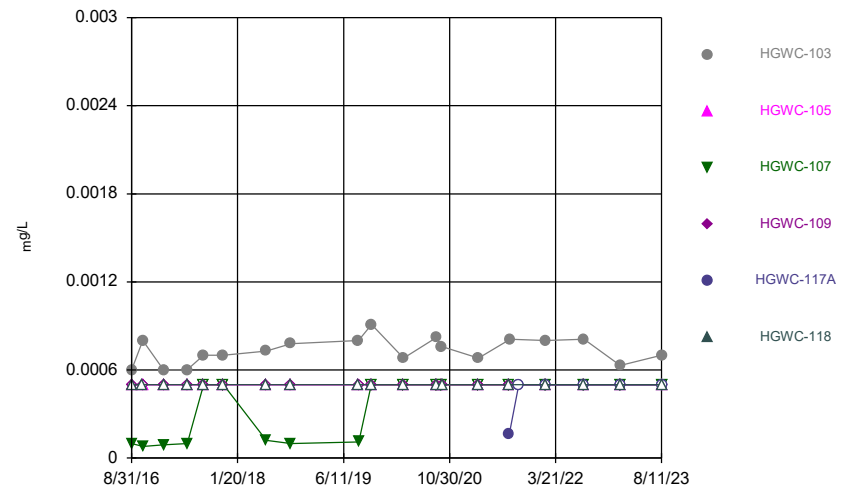
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Time Series



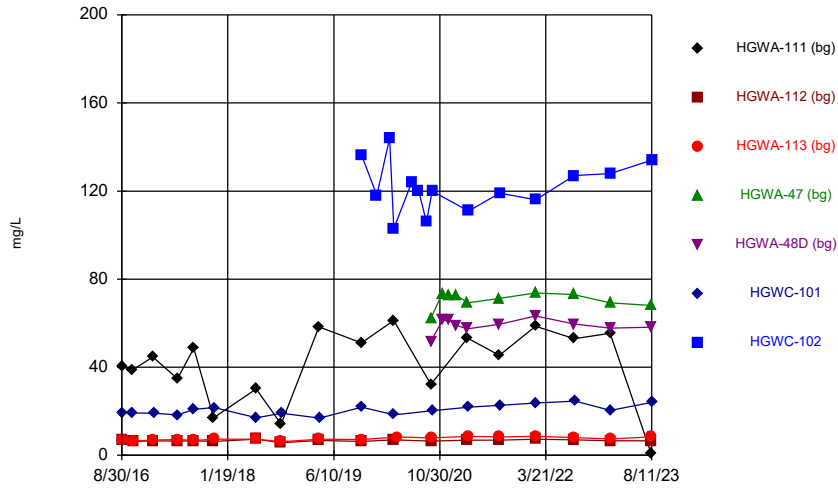
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Time Series



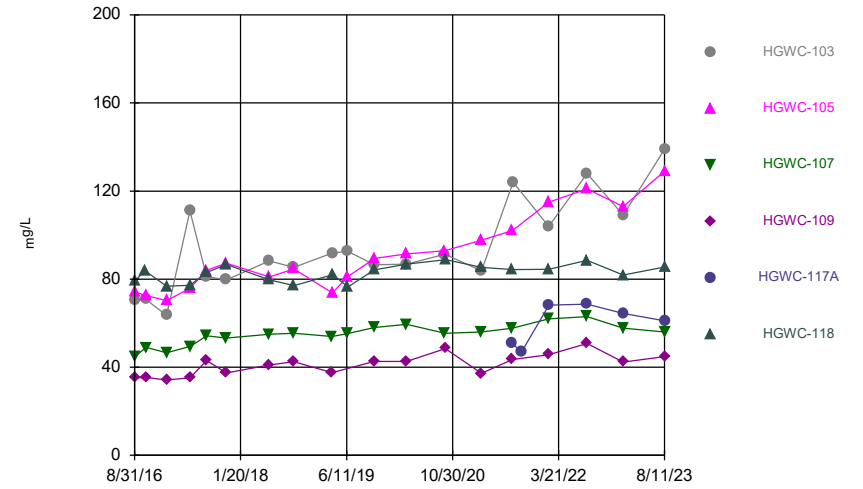
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Time Series



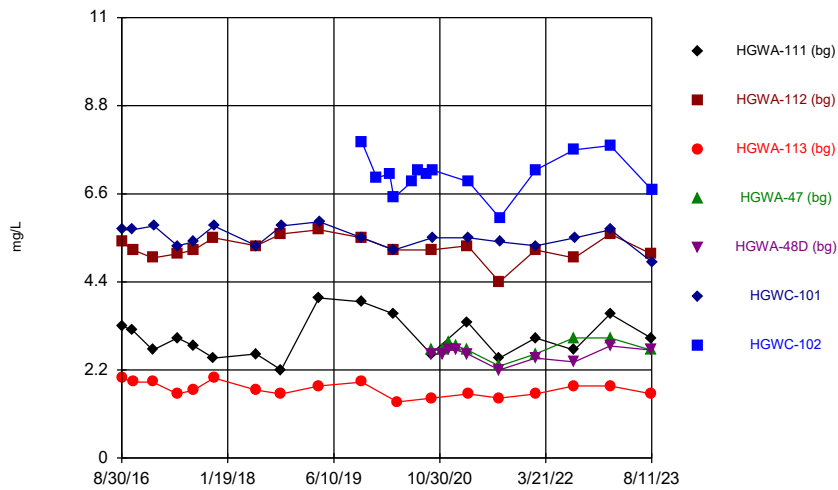
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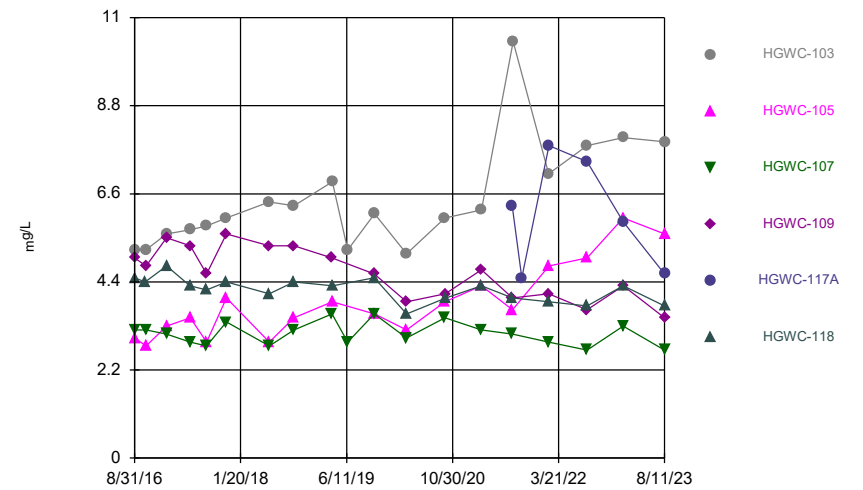
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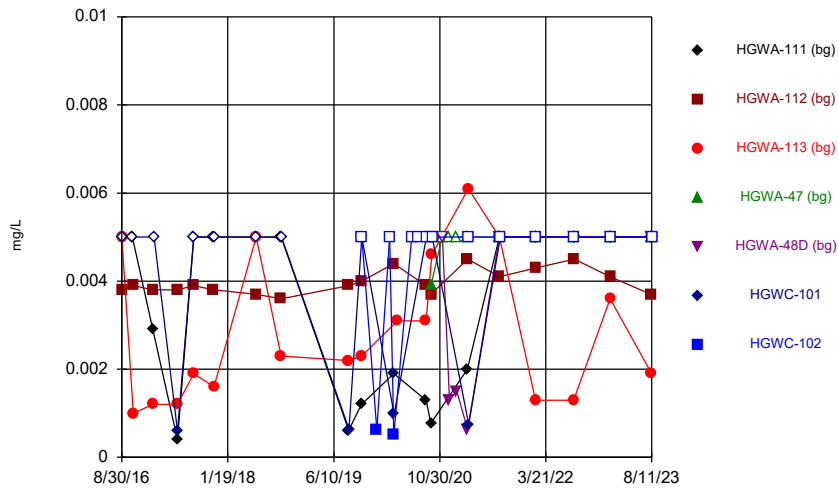
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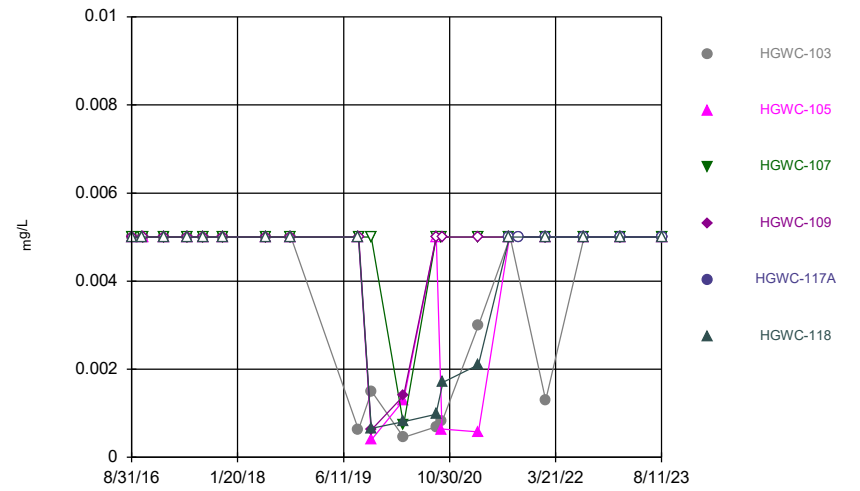
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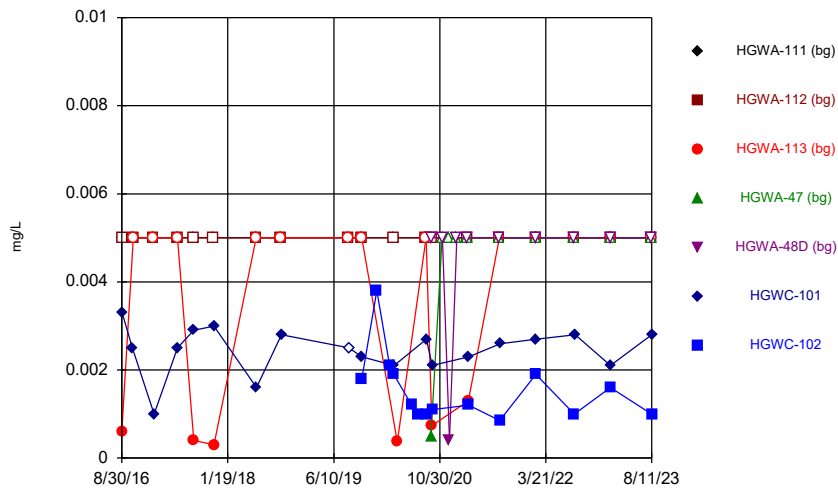
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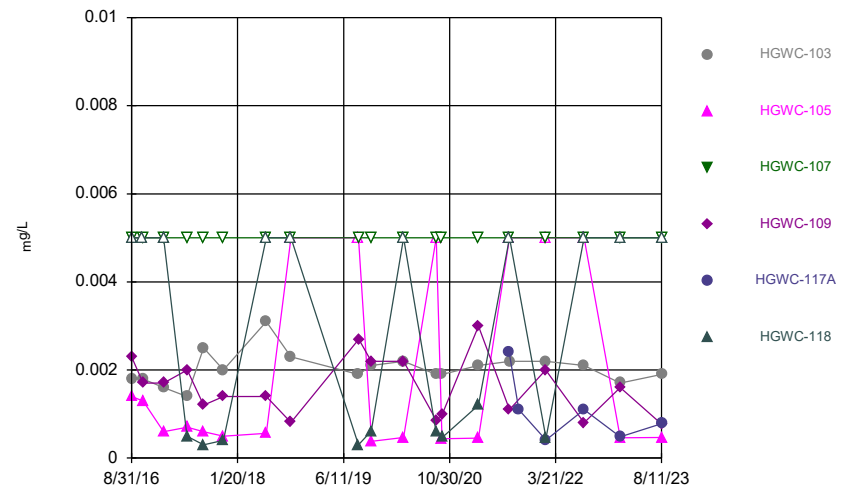
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Time Series



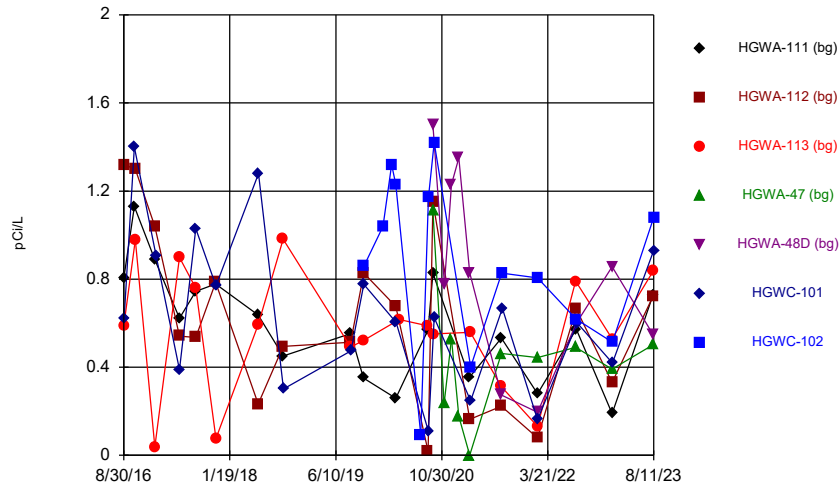
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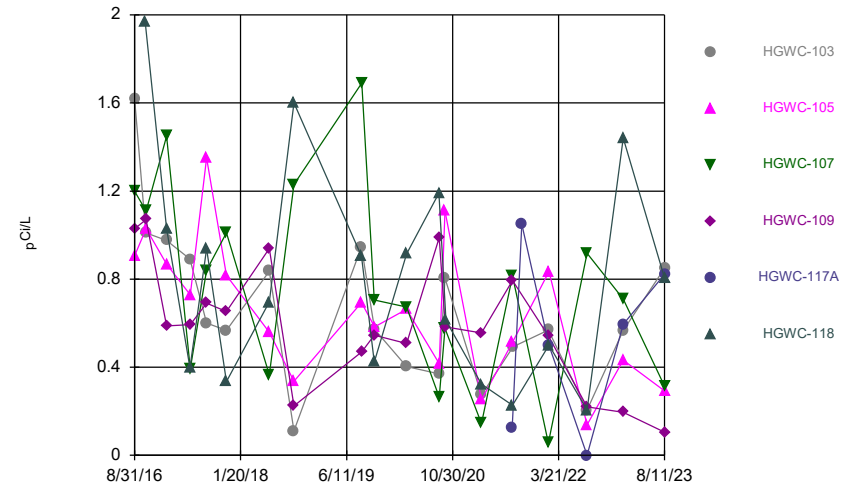
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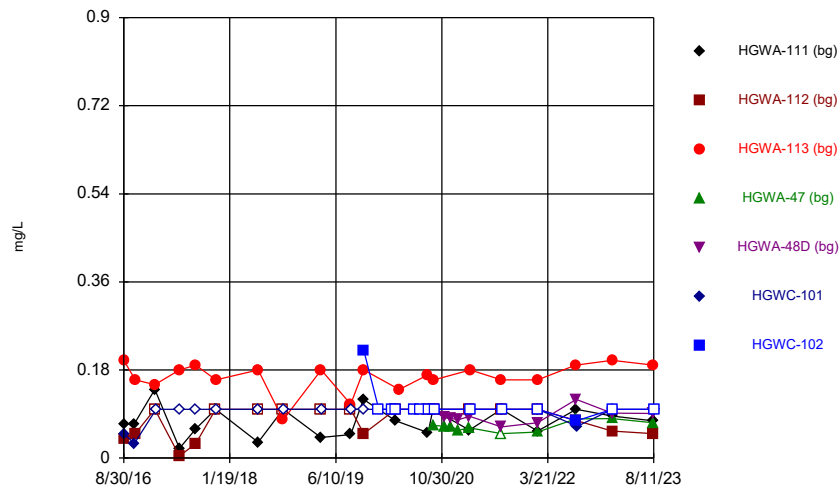
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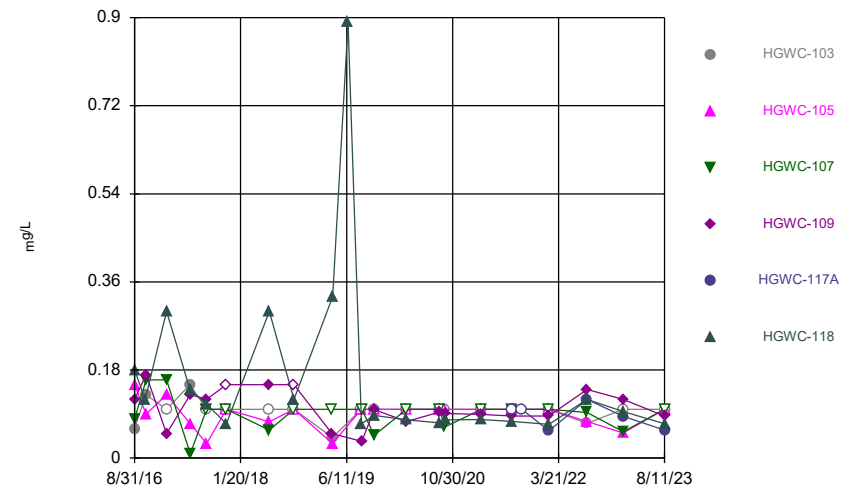
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Time Series



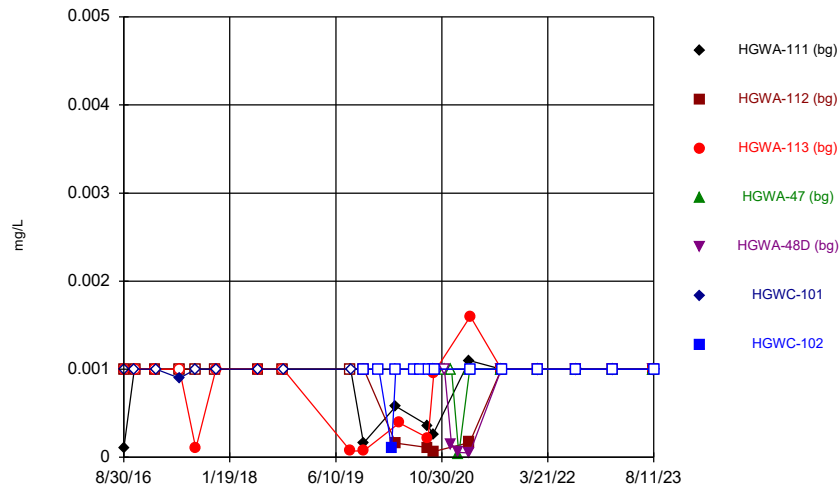
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Time Series



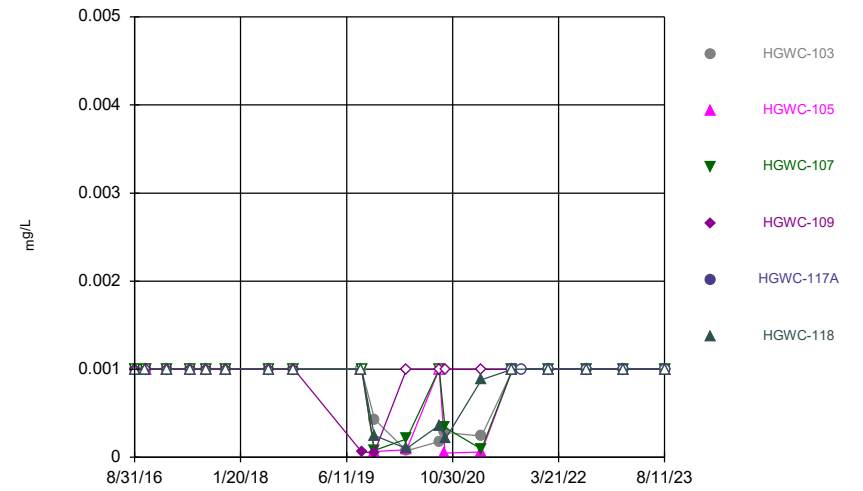
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Time Series



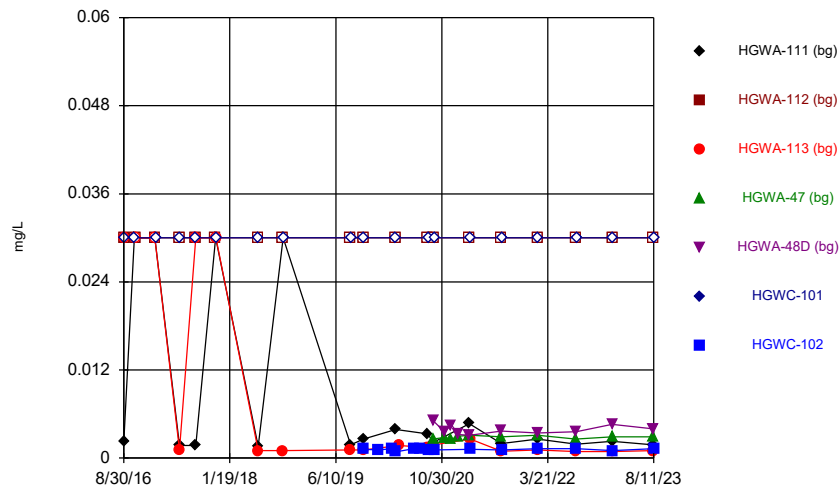
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Time Series



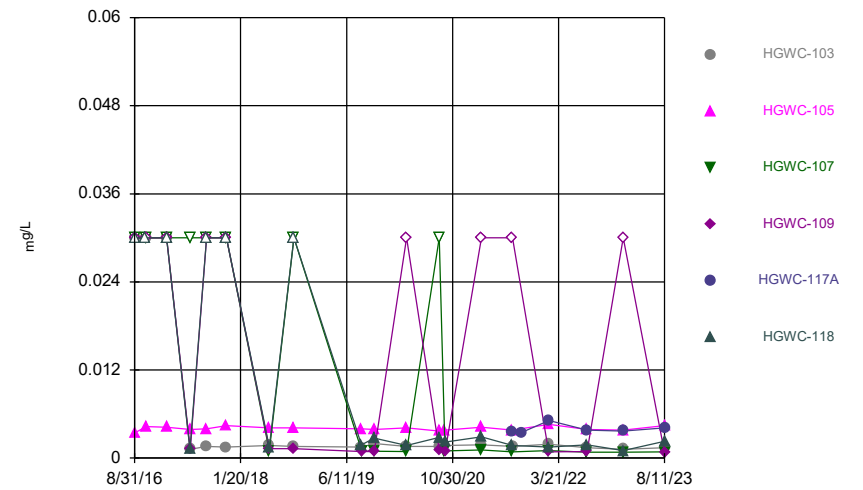
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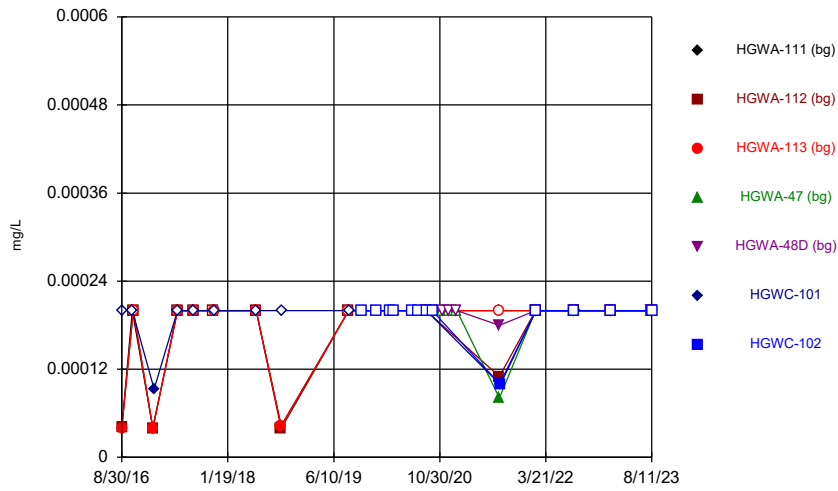
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Time Series



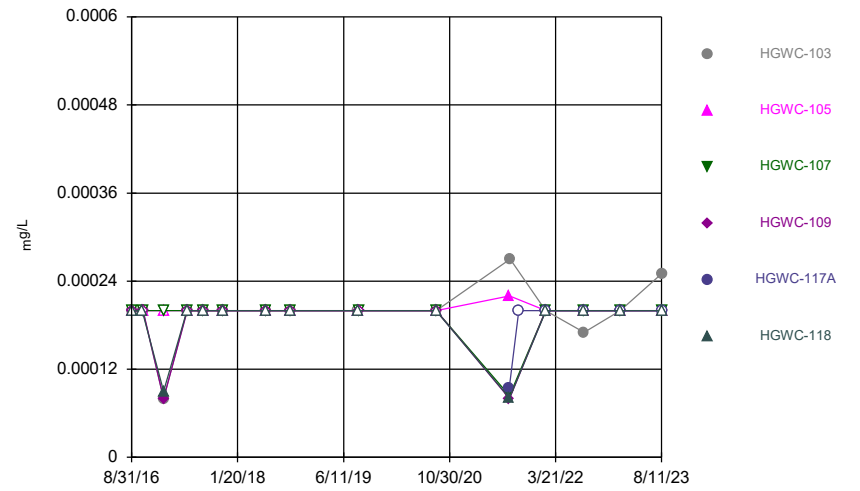
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Time Series



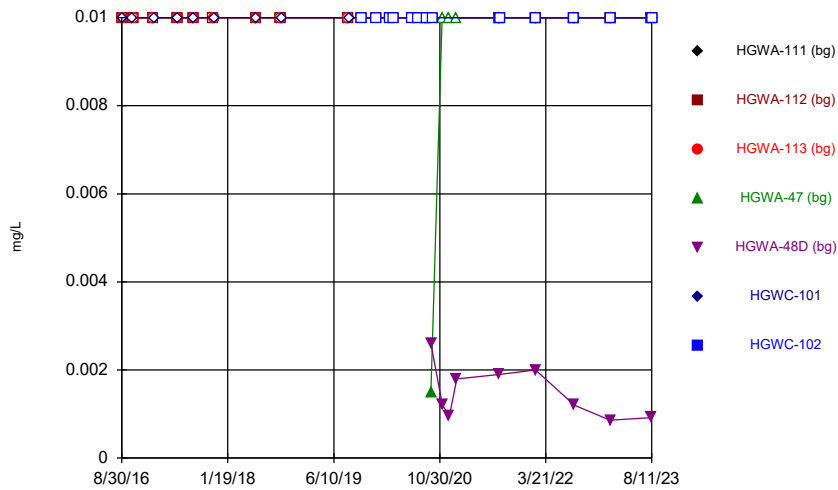
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Time Series



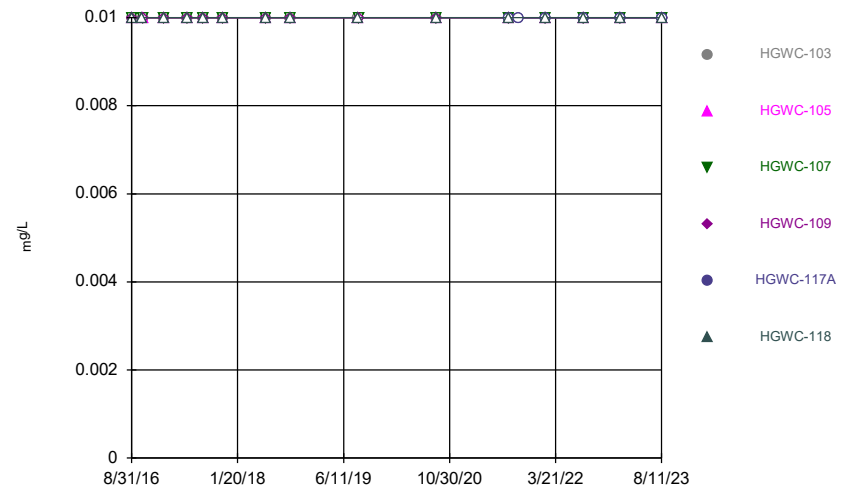
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Time Series



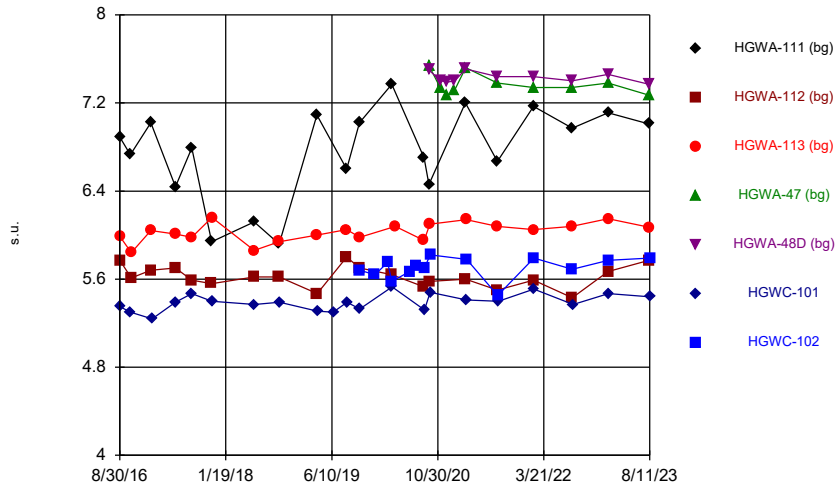
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Time Series



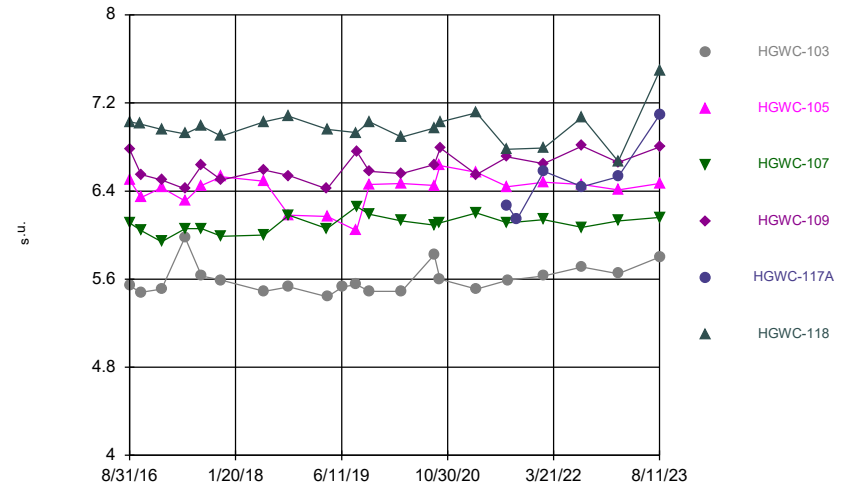
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Time Series



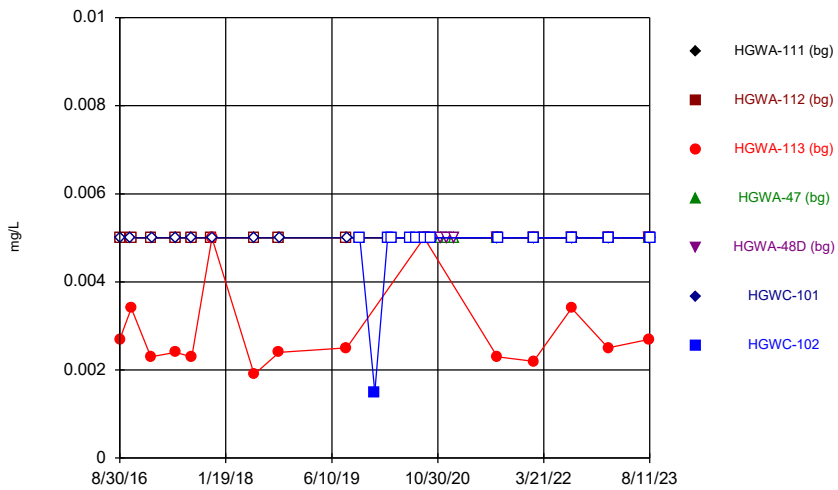
Constituent: pH Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



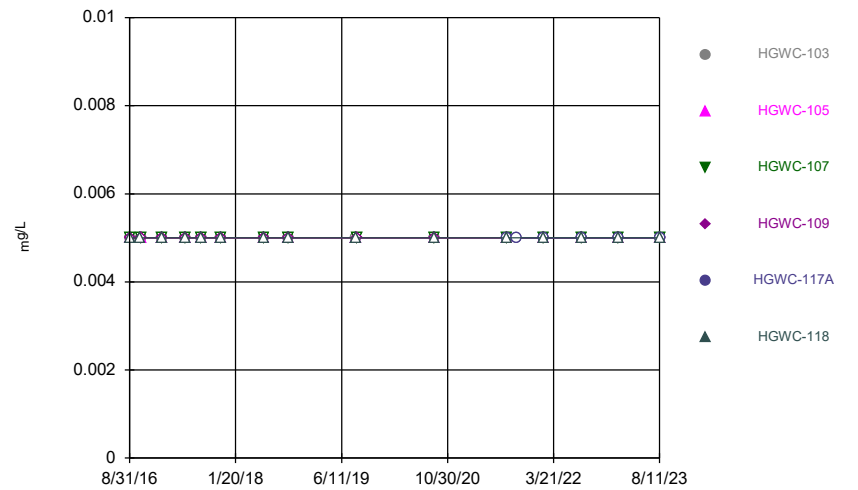
Constituent: pH Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



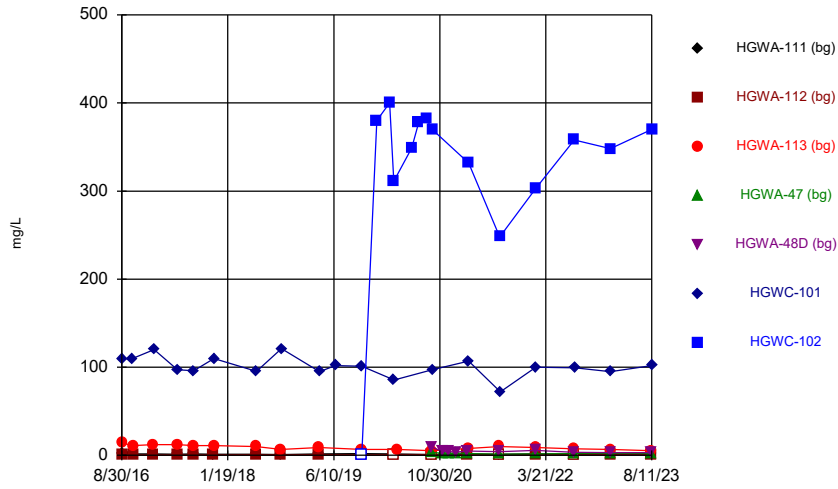
Constituent: Selenium Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



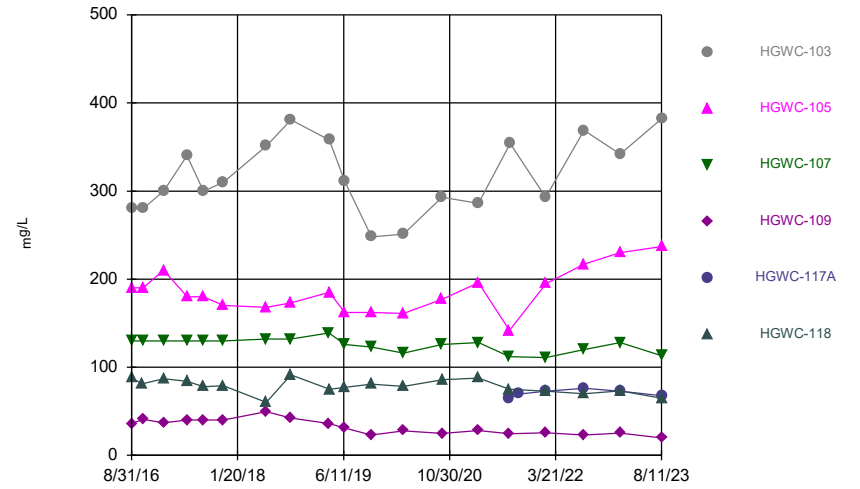
Constituent: Selenium Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



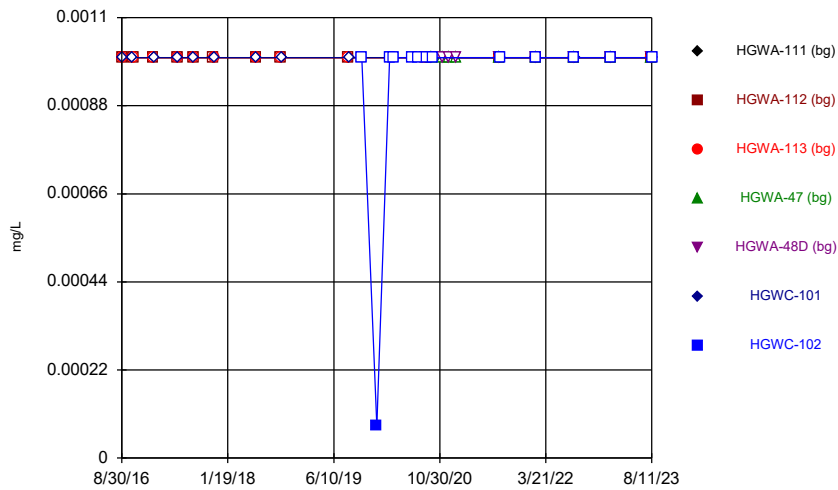
Constituent: Sulfate Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



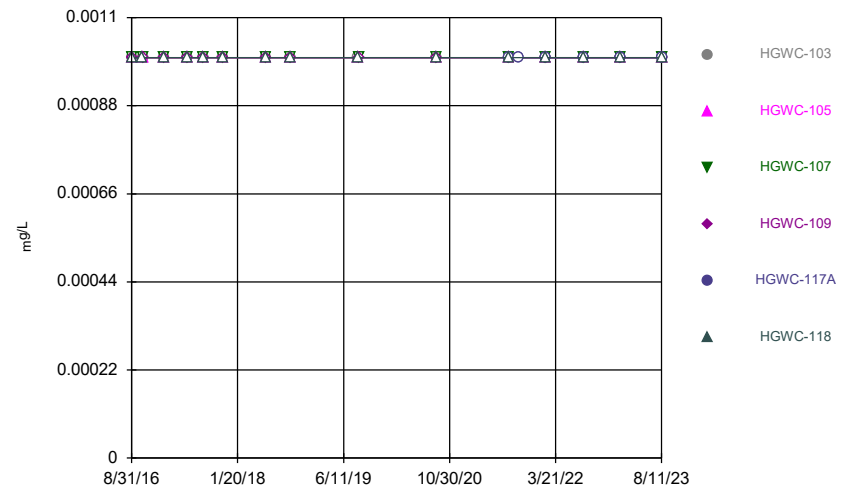
Constituent: Sulfate Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



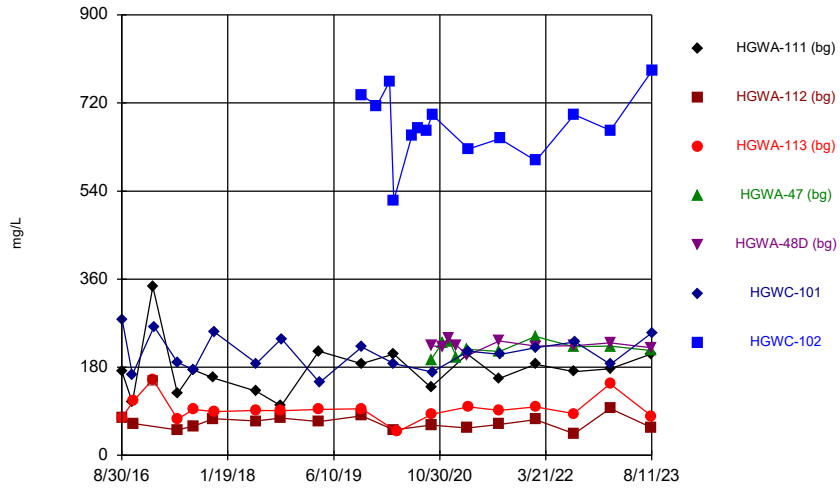
Constituent: Thallium Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



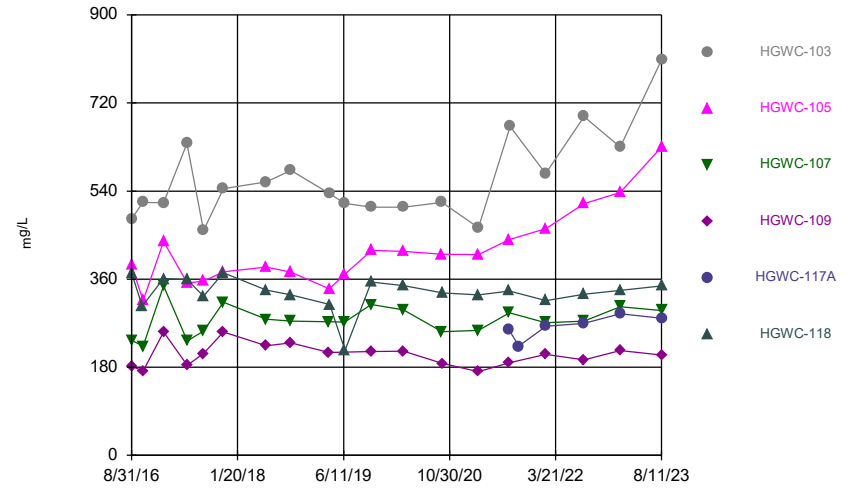
Constituent: Thallium Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.003	<0.003	<0.003				
8/31/2016						<0.003	
10/20/2016	<0.003					<0.003	
10/24/2016		<0.003	<0.003				
1/25/2017	<0.003	<0.003	<0.003				
1/31/2017						<0.003	
5/23/2017		<0.003	<0.003			<0.003	
5/24/2017	<0.003						
8/10/2017	<0.003	<0.003	<0.003			<0.003	
11/13/2017	<0.003	<0.003					
11/14/2017			<0.003			<0.003	
6/4/2018	<0.003	<0.003					
6/5/2018			<0.003				
6/6/2018						<0.003	
10/1/2018	<0.003	<0.003	<0.003				
10/3/2018						<0.003	
8/21/2019	<0.003	<0.003	<0.003				
8/22/2019						<0.003	
10/23/2019							<0.003
1/3/2020							0.00076 (J)
3/4/2020							<0.003
3/24/2020							<0.003
6/18/2020							<0.003
7/21/2020							<0.003
8/25/2020	<0.003	<0.003	<0.003				
8/27/2020						<0.003	<0.003
9/18/2020				<0.003	0.00038 (J)		
9/24/2020							<0.003
11/10/2020				<0.003			
11/11/2020					0.00031 (J)		
12/15/2020				<0.003	<0.003		
1/19/2021				<0.003	0.00042 (J)		
8/12/2021	<0.003	<0.003	<0.003	<0.003	<0.003		
8/13/2021							<0.003
8/16/2021						<0.003	
1/31/2022	0.0014 (J)			<0.003	<0.003		
2/1/2022		<0.003	<0.003				
2/2/2022						<0.003	<0.003
8/2/2022			<0.003	<0.003			
8/5/2022	<0.003	<0.003			<0.003		<0.003
8/10/2022						<0.003	
1/24/2023	<0.003	<0.003	<0.003	<0.003	<0.003		
1/25/2023						<0.003	<0.003
8/8/2023	<0.003	<0.003		<0.003	<0.003		
8/10/2023			<0.003				
8/11/2023						<0.003	0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.003	<0.003	<0.003	<0.003		<0.003
10/20/2016						<0.003
10/24/2016	<0.003					
10/25/2016		<0.003	<0.003	<0.003		
1/31/2017	<0.003	<0.003	<0.003	<0.003		<0.003
5/23/2017	<0.003					<0.003
5/24/2017		<0.003	<0.003	<0.003		
8/10/2017	<0.003	<0.003	<0.003	<0.003		<0.003
11/14/2017	<0.003	<0.003	<0.003	<0.003		<0.003
6/6/2018	0.0022 (J)	<0.003	<0.003	<0.003		
6/7/2018						<0.003
10/2/2018		<0.003	0.0011 (J)	<0.003		
10/3/2018	<0.003					<0.003
8/22/2019	<0.003	<0.003				<0.003
8/23/2019			<0.003	<0.003		
8/26/2020						<0.003
8/27/2020	<0.003	<0.003	<0.003	<0.003		
8/12/2021					<0.003	
8/13/2021		<0.003	<0.003	<0.003		<0.003
8/16/2021	<0.003					
9/27/2021					<0.003	
2/2/2022	<0.003		<0.003	<0.003		
2/3/2022		<0.003			<0.003	<0.003
8/5/2022	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/25/2023	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/11/2023	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	<0.005	<0.005				
8/31/2016						<0.005	
10/20/2016	<0.005					<0.005	
10/24/2016		<0.005	<0.005				
1/25/2017	<0.005	<0.005	<0.005				
1/31/2017						<0.005	
5/23/2017		<0.005	<0.005			<0.005	
5/24/2017	<0.005						
8/10/2017	<0.005	<0.005	<0.005			<0.005	
11/13/2017	<0.005	<0.005					
11/14/2017			<0.005			<0.005	
6/4/2018	<0.005	<0.005					
6/5/2018			<0.005				
6/6/2018						<0.005	
10/1/2018	<0.005	<0.005	<0.005				
10/3/2018						<0.005	
8/21/2019	<0.005	<0.005	<0.005				
8/22/2019						<0.005	
10/21/2019	<0.005						
10/22/2019		<0.005	<0.005				
10/23/2019						<0.005	<0.005
1/3/2020							0.00065 (J)
3/4/2020							0.00036 (J)
3/24/2020	0.00042 (J)	<0.005					<0.005
3/25/2020						0.00039 (J)	
4/9/2020			0.00074 (J)				
6/18/2020							0.00092 (J)
7/21/2020							0.00083 (J)
8/25/2020	<0.005	<0.005	<0.005				
8/27/2020						<0.005	<0.005
9/18/2020	<0.005	<0.005		<0.005	<0.005		
9/22/2020			<0.005				
9/24/2020						<0.005	<0.005
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	<0.005		
1/19/2021				<0.005	<0.005		
3/11/2021	<0.005						
3/12/2021		<0.005		<0.005	0.0018 (J)		
3/16/2021			0.0011 (J)				
3/17/2021						<0.005	<0.005
8/12/2021	<0.005	<0.005	<0.005	<0.005	0.0013 (J)		
8/13/2021							<0.005
8/16/2021						<0.005	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		<0.005	<0.005				
2/2/2022						<0.005	<0.005
8/2/2022			<0.005	<0.005			
8/5/2022	<0.005	<0.005			<0.005		<0.005
8/10/2022						<0.005	
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005		
1/25/2023						<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.005	<0.005		<0.005	<0.005		
8/10/2023			<0.005				
8/11/2023						<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.005	<0.005	<0.005	0.0045 (J)		<0.005
10/20/2016						<0.005
10/24/2016	<0.005					
10/25/2016		<0.005	<0.005	0.003 (J)		
1/31/2017	<0.005	<0.005	<0.005	0.0022 (J)		<0.005
5/23/2017	<0.005					<0.005
5/24/2017		<0.005	<0.005	0.0012 (J)		
8/10/2017	<0.005	<0.005	<0.005	0.0016 (J)		<0.005
11/14/2017	<0.005	<0.005	<0.005	0.0011 (J)		<0.005
6/6/2018	<0.005	<0.005	<0.005	0.0018 (J)		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	0.0014 (J)		
10/3/2018	<0.005					<0.005
8/22/2019	<0.005	<0.005				<0.005
8/23/2019			<0.005	0.0035 (J)		
10/22/2019			<0.005	0.0019 (J)		<0.005
10/23/2019	<0.005	<0.005				
3/25/2020	<0.005	<0.005	<0.005	0.0025 (J)		<0.005
8/26/2020						<0.005
8/27/2020	<0.005	<0.005	<0.005	0.0011 (J)		
9/24/2020	<0.005	<0.005	<0.005			
9/25/2020				0.0017 (J)		
9/28/2020						<0.005
3/17/2021				0.0019 (J)		
3/18/2021	<0.005	<0.005	<0.005			0.001 (J)
8/12/2021					<0.005	
8/13/2021		<0.005	<0.005	0.0019 (J)		<0.005
8/16/2021	<0.005					
9/27/2021					<0.005	
2/2/2022	<0.005		<0.005	<0.005		
2/3/2022		<0.005			<0.005	<0.005
8/5/2022	<0.005	<0.005	<0.005	0.0022 (J)	<0.005	<0.005
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.0275	0.0269	0.0269				
8/31/2016						0.0527	
10/20/2016	0.0255					0.0477	
10/24/2016		0.028	0.0258				
1/25/2017	0.0304	0.0252	0.0272				
1/31/2017						0.0527	
5/23/2017		0.0293	0.0293			0.0436	
5/24/2017	0.0256						
8/10/2017	0.0306	0.0274	0.031			0.0419	
11/13/2017	0.0217	0.0275					
11/14/2017			0.0289			0.0407	
6/4/2018	0.025	0.027					
6/5/2018			0.028				
6/6/2018						0.043	
10/1/2018	0.021	0.026	0.025				
10/3/2018						0.041	
8/21/2019	0.029	0.027	0.027				
8/22/2019						0.043	
10/21/2019	0.033						
10/22/2019		0.028	0.027				
10/23/2019						0.043	0.037
1/3/2020							0.036
3/4/2020							0.033
3/24/2020	0.032	0.029					0.024
3/25/2020						0.038	
4/9/2020			0.034				
6/18/2020							0.029
7/21/2020							0.028
8/25/2020	0.031	0.028	0.03				
8/27/2020						0.045	0.028
9/18/2020	0.024	0.025		0.026	0.077		
9/22/2020			0.038				
9/24/2020						0.041	0.029
11/10/2020				0.027			
11/11/2020					0.078		
12/15/2020				0.027	0.091		
1/19/2021				0.029	0.095		
3/11/2021	0.037						
3/12/2021		0.03		0.03	0.1		
3/16/2021			0.054				
3/17/2021						0.04	0.031
8/12/2021	0.029	0.028	0.033	0.028	0.1		
8/13/2021							0.026
8/16/2021						0.037	
1/31/2022	0.027			0.026	0.11		
2/1/2022		0.025	0.027				
2/2/2022						0.036	0.029
8/2/2022			0.03	0.029			
8/5/2022	0.028	0.027			0.11		0.031
8/10/2022						0.04	
1/24/2023	0.028	0.025	0.028	0.029	0.11		
1/25/2023						0.033	0.027

Time Series

Constituent: Barium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	0.027	0.025		0.026	0.1		
8/10/2023			0.028				
8/11/2023						0.036	0.028

Time Series

Constituent: Barium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.045	0.067	0.0391	0.0883		0.0595
10/20/2016						0.055
10/24/2016	0.0386					
10/25/2016		0.0745	0.041	0.0831		
1/31/2017	0.0365	0.0674	0.0382	0.0844		0.0613
5/23/2017	0.0254					0.068
5/24/2017		0.0668	0.0377	0.0784		
8/10/2017	0.0396	0.067	0.0385	0.0903		0.0638
11/14/2017	0.0385	0.0643	0.039	0.083		0.07
6/6/2018	0.043	0.068	0.039	0.095		
6/7/2018						0.059
10/2/2018		0.066	0.038	0.089		
10/3/2018	0.04					0.056
8/22/2019	0.036	0.066				0.052
8/23/2019			0.038	0.088		
10/22/2019			0.039	0.087		0.054
10/23/2019	0.039	0.066				
3/25/2020	0.036	0.074	0.037	0.084		0.06
8/26/2020						0.056
8/27/2020	0.038	0.068	0.034	0.083		
9/24/2020	0.036	0.075	0.039			
9/25/2020				0.085		
9/28/2020						0.046
3/17/2021				0.077		
3/18/2021	0.042	0.082	0.041			0.067
8/12/2021					0.079	
8/13/2021		0.073	0.033	0.08		0.043
8/16/2021	0.037					
9/27/2021					0.062	
2/2/2022	0.036		0.034	0.072		
2/3/2022		0.093			0.049	0.047
8/5/2022	0.037	0.088	0.036	0.085	0.055	0.039
1/25/2023	0.032	0.094	0.035	0.076	0.05	0.048
8/11/2023	0.035	0.089	0.032	0.081	0.046	0.04

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.0005	<0.0005	<0.0005				
8/31/2016						<0.0005	
10/20/2016	<0.0005					<0.0005	
10/24/2016		<0.0005	0.0019 (J)				
1/25/2017	<0.0005	<0.0005	<0.0005				
1/31/2017						<0.0005	
5/23/2017		<0.0005	<0.0005			7E-05 (J)	
5/24/2017	<0.0005						
8/10/2017	<0.0005	<0.0005	<0.0005			<0.0005	
11/13/2017	<0.0005	<0.0005					
11/14/2017			<0.0005			<0.0005	
6/4/2018	<0.0005	<0.0005					
6/5/2018			<0.0005				
6/6/2018						5.9E-05 (J)	
10/1/2018	<0.0005	<0.0005	<0.0005				
10/3/2018						6.5E-05 (J)	
8/21/2019	<0.0005	<0.0005	<0.0005				
8/22/2019						<0.0005	
10/21/2019	<0.0005						
10/22/2019		<0.0005	<0.0005				
10/23/2019						7.5E-05 (J)	<0.0005
1/3/2020							<0.0005
3/4/2020							<0.0005
3/24/2020	<0.0005	<0.0005					<0.0005
3/25/2020						<0.0005	
4/9/2020			<0.0005				
6/18/2020							<0.0005
7/21/2020							<0.0005
8/25/2020	4.7E-05 (J)	<0.0005	4.6E-05 (J)				
8/27/2020						5.7E-05 (J)	<0.0005
9/18/2020	<0.0005	<0.0005		<0.0005	<0.0005		
9/22/2020			9.9E-05 (J)				
9/24/2020						4.8E-05 (J)	<0.0005
11/10/2020				<0.0005			
11/11/2020					<0.0005		
12/15/2020				<0.0005	<0.0005		
1/19/2021				<0.0005	<0.0005		
3/11/2021	0.00014 (J)						
3/12/2021		5.4E-05 (J)		<0.0005	<0.0005		
3/16/2021			0.00018 (J)				
3/17/2021						5.9E-05 (J)	<0.0005
8/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
8/13/2021							<0.0005
8/16/2021						<0.0005	
1/31/2022	<0.0005			<0.0005	<0.0005		
2/1/2022		<0.0005	<0.0005				
2/2/2022						6.2E-05 (J)	<0.0005
8/2/2022			<0.0005	<0.0005			
8/5/2022	<0.0005	<0.0005			<0.0005		<0.0005
8/10/2022						6.4E-05 (J)	
1/24/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
1/25/2023						<0.0005	<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.0005	<0.0005		<0.0005	<0.0005		
8/10/2023			<0.0005				
8/11/2023						7E-05 (J)	<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
10/20/2016						<0.0005
10/24/2016	<0.0005					
10/25/2016		<0.0005	<0.0005	<0.0005		
1/31/2017	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
5/23/2017	<0.0005					<0.0005
5/24/2017		<0.0005	<0.0005	<0.0005		
8/10/2017	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
11/14/2017	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
6/6/2018	<0.0005	<0.0005	<0.0005	<0.0005		
6/7/2018						<0.0005
10/2/2018		<0.0005	<0.0005	<0.0005		
10/3/2018	<0.0005					<0.0005
8/22/2019	<0.0005	<0.0005				<0.0005
8/23/2019			<0.0005	<0.0005		
10/22/2019			<0.0005	<0.0005		<0.0005
10/23/2019	<0.0005	<0.0005				
3/25/2020	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
8/26/2020						<0.0005
8/27/2020	5E-05 (J)	<0.0005	<0.0005	<0.0005		
9/24/2020	8.8E-05 (J)	<0.0005	<0.0005			
9/25/2020				<0.0005		
9/28/2020						<0.0005
3/17/2021				<0.0005		
3/18/2021	6.1E-05 (J)	<0.0005	<0.0005			9.3E-05 (J)
8/12/2021					<0.0005	
8/13/2021		<0.0005	<0.0005	<0.0005		<0.0005
8/16/2021	<0.0005					
9/27/2021					<0.0005	
2/2/2022	7.7E-05 (J)		<0.0005	<0.0005		
2/3/2022		<0.0005			<0.0005	<0.0005
8/5/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/25/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/11/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Boron (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.04	<0.04	<0.04				
8/31/2016						0.0724 (J)	
10/20/2016	0.016 (J)					0.0877 (J)	
10/24/2016		0.0367 (J)	0.0226 (J)				
1/25/2017	0.0095 (J)	0.0075 (J)	0.009 (J)				
1/31/2017						0.0928	
5/23/2017		0.0073 (J)	0.0082 (J)			0.0795	
5/24/2017	0.0094 (J)						
8/10/2017	<0.04	<0.04	0.0061 (J)			0.0814	
11/13/2017	0.0103 (J)	0.0089 (J)					
11/14/2017			0.012 (J)			0.108	
6/4/2018	0.0065 (J)	0.007 (J)					
6/5/2018			0.0085 (J)				
6/6/2018						0.081	
10/1/2018	0.0054 (J)	<0.04	0.0042 (J)				
10/3/2018						0.092	
4/1/2019	0.0076 (J)						
4/2/2019		0.0043 (J)	0.0059 (J)				
4/4/2019						0.06 (X)	
10/21/2019	0.0097 (J)						
10/22/2019		0.016 (J)	0.01 (J)				
10/23/2019						0.1	3.1
1/3/2020							3.4
3/4/2020							3.7
3/24/2020	0.011 (J)	0.012 (J)					2.4
3/25/2020						0.08 (J)	
4/9/2020			0.012 (J)				
6/18/2020							2.9
7/21/2020							3
8/27/2020							2.7
9/18/2020	0.011 (J)	0.008 (J)		0.0082 (J)	0.015 (J)		
9/22/2020			0.021 (J)				
9/24/2020						0.1	2.9
11/10/2020				0.0064 (J)			
11/11/2020					0.014 (J)		
12/15/2020				<0.04	0.0083 (J)		
1/19/2021				0.015 (J)	0.015 (J)		
3/11/2021	0.01 (J)						
3/12/2021		0.0061 (J)		0.0067 (J)	0.012 (J)		
3/16/2021			0.011 (J)				
3/17/2021						0.13	2.7
8/12/2021	<0.04	<0.04	<0.04	<0.04	0.012 (J)		
8/13/2021							2.4
8/16/2021						0.13	
1/31/2022	0.0099 (J)			<0.04	0.011 (J)		
2/1/2022		0.011 (J)	0.012 (J)				
2/2/2022						0.14	2.6
8/2/2022			<0.04	<0.04			
8/5/2022	<0.04	0.012 (J)			0.011 (J)		2.9
8/10/2022						0.17	
1/24/2023	<0.04	<0.04	<0.04	<0.04	<0.04		
1/25/2023						0.12	2.5

Time Series

Constituent: Boron (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.04	<0.04		<0.04	<0.04		
8/10/2023			0.0091 (J)				
8/11/2023						0.16	3.2

Time Series

Constituent: Boron (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	2.22	1.14	0.651	0.402		0.681
10/20/2016						0.697
10/24/2016	1.83					
10/25/2016		1.21	0.778	0.372		
1/31/2017	2.12	1.43	0.782	0.404		0.768
5/23/2017	2.56					0.754
5/24/2017		1.3	0.753	0.415		
8/10/2017	2.28	1.28	0.702	0.397		0.608
11/14/2017	2.32	1.29	0.78	0.366		0.691
6/6/2018	2.5	1.4	0.87	0.48		
6/7/2018						0.57
10/2/2018		1.2	0.82	0.43		
10/3/2018	2.4					0.51
4/3/2019			0.89	0.4		
4/4/2019	2.4	1.4 (X)				
4/5/2019						0.6 (X)
6/17/2019	2.3		0.86	0.37		
10/22/2019			0.91	0.32		0.65
10/23/2019	2.3	1.3				
3/25/2020	2.3	1.4	0.87	0.36		0.7
9/24/2020	2.2	1.2	0.88			
9/25/2020				0.28		
9/28/2020						0.65
3/17/2021				0.26		
3/18/2021	2.4	1.5	0.92			0.81
8/12/2021					0.34	
8/13/2021		1.2	0.73	0.24		0.59
8/16/2021	3.2					
9/27/2021					0.3	
2/2/2022	3.1		0.85	0.25		
2/3/2022		1.4			0.34	0.77
8/5/2022	3.6	1.3	0.79	0.25	0.34	0.57
1/25/2023	2.7	1.3	0.82	0.22	0.27	0.62
8/11/2023	4.3	1.4	0.81	0.23	0.31	0.66

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.0005	<0.0005	<0.0005				
8/31/2016						0.0002 (J)	
10/20/2016	<0.0005					0.0003 (J)	
10/24/2016		<0.0005	<0.0005				
1/25/2017	<0.0005	<0.0005	<0.0005				
1/31/2017						0.0001 (J)	
5/23/2017		<0.0005	<0.0005			0.0002 (J)	
5/24/2017	<0.0005						
8/10/2017	<0.0005	<0.0005	<0.0005			0.0002 (J)	
11/13/2017	<0.0005	<0.0005					
11/14/2017			<0.0005			<0.0005	
6/4/2018	<0.0005	<0.0005					
6/5/2018			<0.0005				
6/6/2018						9.5E-05 (J)	
10/1/2018	<0.0005	<0.0005	<0.0005				
10/3/2018						0.00018 (J)	
8/21/2019	<0.0005	<0.0005	<0.0005				
8/22/2019						0.00014 (J)	
10/21/2019	<0.0005						
10/22/2019		<0.0005	<0.0005				
10/23/2019						0.0002 (J)	0.00026 (J)
1/3/2020							0.0002 (J)
3/4/2020							0.00026 (J)
3/24/2020	<0.0005	<0.0005					0.00068 (J)
3/25/2020						0.00014 (J)	
4/9/2020			<0.0005				
6/18/2020							0.00047 (J)
7/21/2020							0.00083 (J)
8/25/2020	<0.0005	<0.0005	<0.0005				
8/27/2020						0.00019 (J)	0.00038 (J)
9/18/2020	<0.0005	<0.0005		<0.0005	<0.0005		
9/22/2020			<0.0005				
9/24/2020						0.00014 (J)	0.00032 (J)
11/10/2020				<0.0005			
11/11/2020					<0.0005		
12/15/2020				<0.0005	<0.0005		
1/19/2021				<0.0005	<0.0005		
3/11/2021	<0.0005						
3/12/2021		<0.0005		<0.0005	<0.0005		
3/16/2021			<0.0005				
3/17/2021						<0.0005	0.00094
8/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
8/13/2021							0.00069
8/16/2021						0.00015 (J)	
1/31/2022	<0.0005			<0.0005	<0.0005		
2/1/2022		<0.0005	<0.0005				
2/2/2022						<0.0005	0.00055
8/2/2022			<0.0005	<0.0005			
8/5/2022	<0.0005	<0.0005			<0.0005		0.00044 (J)
8/10/2022						0.00011 (J)	
1/24/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
1/25/2023						0.00011 (J)	0.00035 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.0005	<0.0005		<0.0005	<0.0005		
8/10/2023			<0.0005				
8/11/2023						0.00015 (J)	0.00067

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.0006 (J)	<0.0005	0.0001 (J)	<0.0005		<0.0005
10/20/2016						<0.0005
10/24/2016	0.0008 (J)					
10/25/2016		<0.0005	8E-05 (J)	<0.0005		
1/31/2017	0.0006 (J)	<0.0005	9E-05 (J)	<0.0005		<0.0005
5/23/2017	0.0006 (J)					<0.0005
5/24/2017		<0.0005	0.0001 (J)	<0.0005		
8/10/2017	0.0007 (J)	<0.0005	<0.0005	<0.0005		<0.0005
11/14/2017	0.0007 (J)	<0.0005	<0.0005	<0.0005		<0.0005
6/6/2018	0.00073 (J)	<0.0005	0.00012 (J)	<0.0005		
6/7/2018						<0.0005
10/2/2018		<0.0005	0.0001 (J)	<0.0005		
10/3/2018	0.00078 (J)					<0.0005
8/22/2019	0.0008 (J)	<0.0005				<0.0005
8/23/2019			0.00011 (J)	<0.0005		
10/22/2019			<0.0005	<0.0005		<0.0005
10/23/2019	0.00091 (J)	<0.0005				
3/25/2020	0.00068 (J)	<0.0005	<0.0005	<0.0005		<0.0005
8/26/2020						<0.0005
8/27/2020	0.00082 (J)	<0.0005	<0.0005	<0.0005		
9/24/2020	0.00076 (J)	<0.0005	<0.0005			
9/25/2020				<0.0005		
9/28/2020						<0.0005
3/17/2021				<0.0005		
3/18/2021	0.00068	<0.0005	<0.0005			<0.0005
8/12/2021					0.00016 (J)	
8/13/2021		<0.0005	<0.0005	<0.0005		<0.0005
8/16/2021	0.00081					
9/27/2021					<0.0005	
2/2/2022	0.0008		<0.0005	<0.0005		
2/3/2022		<0.0005			<0.0005	<0.0005
8/5/2022	0.00081	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/25/2023	0.00063	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/11/2023	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	40.3	6.69	6.72				
8/31/2016						19.4	
10/20/2016	38.7					19.3	
10/24/2016		6.25	6.4				
1/25/2017	44.6	6.58	6.87				
1/31/2017						19.1	
5/23/2017		6.4	7.13			18.3	
5/24/2017	34.8						
8/10/2017	48.6	6.54	6.71			20.9	
11/13/2017	17.1	6.26					
11/14/2017			7.4			21.7	
6/4/2018	30.1	7.4					
6/5/2018			7.4				
6/6/2018						17	
10/1/2018	14.2 (J)	5.8	6.2				
10/3/2018						19.1 (J)	
4/1/2019	58.4						
4/2/2019		6.7	7.4				
4/4/2019						16.9	
10/21/2019	51						
10/22/2019		6.3	7.2				
10/23/2019						21.9	136
1/3/2020							118
3/4/2020							144
3/24/2020	61.2	7					103
3/25/2020						18.4	
4/9/2020			8.3				
6/18/2020							124
7/21/2020							120
8/27/2020							106
9/18/2020	32.2	6.5		62.2	51.8		
9/22/2020			7.9				
9/24/2020						20.3	120
11/10/2020				73.3			
11/11/2020					61.3		
12/15/2020				72.5	61.3		
1/19/2021				72.5	58.9		
3/11/2021	53.2						
3/12/2021		6.9		69.2	57.5		
3/16/2021			8.6				
3/17/2021						21.8	111
8/12/2021	45.4	6.9	8.4	71.2	59.5		
8/13/2021							119
8/16/2021						22.8	
1/31/2022	58.6			73.8	63.2		
2/1/2022		7.4	8.6				
2/2/2022						23.8	116
8/2/2022			8	73			
8/5/2022	53	7.1			59.6		127
8/10/2022						24.6	
1/24/2023	55.4	6.6	7.5	69.2	57.8		
1/25/2023						20.4	128

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	0.94 (J)	6.6		68	58.2		
8/10/2023			8.4				
8/11/2023						24.1	134

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	70.4	74.2	44.7	35.1		79.3
10/20/2016						83.7
10/24/2016	70.9					
10/25/2016		72.5	49	35.4		
1/31/2017	63.6	70.3	46.6	34.2		76.8
5/23/2017	111					77.2
5/24/2017		75.9	49.5	35.3		
8/10/2017	81.2	84	54.2	43.1		83.1
11/14/2017	79.7	87.2	53.2	37.4		86.7
6/6/2018	88.3	81	55	41.1		
6/7/2018						79.7
10/2/2018		84.7	55.4	42.5		
10/3/2018	85.3					77.1
4/3/2019			54	37.5		
4/4/2019	91.9	73.8				
4/5/2019						82
6/17/2019	92.6	81.2	55.3			
6/18/2019						76.5
10/22/2019			58.1	42.6		84.2
10/23/2019	86.5	89.4				
3/25/2020	86.8	91.4	59.5	42.6		86.8
9/24/2020	91.3	92.9	55.4			
9/25/2020				48.5		
9/28/2020						88.9
3/17/2021				37.3		
3/18/2021	83.7	97.7	56			85.4
8/12/2021					50.7	
8/13/2021		102	57.8	43.5		84.3
8/16/2021	124					
9/27/2021					47.2	
2/2/2022	104		62	45.7		
2/3/2022		115			68.2	84.5
8/5/2022	128	121	63	50.8	68.6	88.5
1/25/2023	109	113	57.8	42.4	64.5	81.8
8/11/2023	139	129	56	44.8	61.1	85.5

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	3	5.1		2.7	2.7		
8/10/2023			1.6				
8/11/2023						4.9	6.7

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	5.2	3	3.2	5		4.5
10/20/2016						4.4
10/24/2016	5.2					
10/25/2016		2.8	3.2	4.8		
1/31/2017	5.6	3.3	3.1	5.5		4.8
5/23/2017	5.7					4.3
5/24/2017		3.5	2.9	5.3		
8/10/2017	5.8	2.9	2.8	4.6		4.2
11/14/2017	6	4	3.4	5.6		4.4
6/6/2018	6.4	2.9	2.8	5.3		
6/7/2018						4.1
10/2/2018		3.5	3.2	5.3		
10/3/2018	6.3					4.4
4/3/2019			3.6	5		
4/4/2019	6.9	3.9				
4/5/2019						4.3
6/17/2019	5.2		2.9			
10/22/2019			3.6	4.6		4.5
10/23/2019	6.1	3.6				
3/25/2020	5.1	3.2	3	3.9		3.6
9/24/2020	6	3.9	3.5			
9/25/2020				4.1		
9/28/2020						4
3/17/2021				4.7		
3/18/2021	6.2	4.3	3.2			4.3
8/12/2021					6.3	
8/13/2021		3.7	3.1	4		4
8/16/2021	10.4					
9/27/2021					4.5	
2/2/2022	7.1		2.9	4.1		
2/3/2022		4.8			7.8	3.9
8/5/2022	7.8	5	2.7	3.7	7.4	3.8
1/25/2023	8	6	3.3	4.3	5.9	4.3
8/11/2023	7.9	5.6	2.7	3.5	4.6	3.8

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	0.0038 (J)	<0.005				
8/31/2016						<0.005	
10/20/2016	<0.005					<0.005	
10/24/2016		0.0039 (J)	0.001 (J)				
1/25/2017	0.0029 (J)	0.0038 (J)	0.0012 (J)				
1/31/2017						<0.005	
5/23/2017		0.0038 (J)	0.0012 (J)			0.0006 (J)	
5/24/2017	0.0004 (J)						
8/10/2017	<0.005	0.0039 (J)	0.0019 (J)			<0.005	
11/13/2017	<0.005	0.0038 (J)					
11/14/2017			0.0016 (J)			<0.005	
6/4/2018	<0.005	0.0037 (J)					
6/5/2018			<0.005				
6/6/2018						<0.005	
10/1/2018	<0.005	0.0036 (J)	0.0023 (J)				
10/3/2018						<0.005	
8/21/2019	0.00061 (J)	0.0039 (J)	0.0022 (J)				
8/22/2019						0.00064 (J)	
10/21/2019	0.0012 (J)						
10/22/2019		0.004 (J)	0.0023 (J)				
10/23/2019						<0.005	<0.005
1/3/2020							0.00063 (J)
3/4/2020							<0.005
3/24/2020	0.0019 (J)	0.0044 (J)					0.00051 (J)
3/25/2020						0.00098 (J)	
4/9/2020			0.0031 (J)				
6/18/2020							<0.005
7/21/2020							<0.005
8/25/2020	0.0013 (J)	0.0039 (J)	0.0031 (J)				
8/27/2020						<0.005	<0.005
9/18/2020	0.00077 (J)	0.0037 (J)		0.0039 (J)	<0.005		
9/22/2020			0.0046 (J)				
9/24/2020						<0.005	<0.005
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	0.0013 (J)		
1/19/2021				<0.005	0.0015 (J)		
3/11/2021	0.002 (J)						
3/12/2021		0.0045 (J)		<0.005	0.00062 (J)		
3/16/2021			0.0061				
3/17/2021						0.00075 (J)	<0.005
8/12/2021	<0.005	0.0041 (J)	<0.005	<0.005	<0.005		
8/13/2021							<0.005
8/16/2021						<0.005	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		0.0043 (J)	0.0013 (J)				
2/2/2022						<0.005	<0.005
8/2/2022			0.0013 (J)	<0.005			
8/5/2022	<0.005	0.0045 (J)			<0.005		<0.005
8/10/2022						<0.005	
1/24/2023	<0.005	0.0041 (J)	0.0036 (J)	<0.005	<0.005		
1/25/2023						<0.005	<0.005

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.005	0.0037 (J)		<0.005	<0.005		
8/10/2023			0.0019 (J)				
8/11/2023						<0.005	<0.005

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.005	<0.005	<0.005	<0.005		<0.005
10/20/2016						<0.005
10/24/2016	<0.005					
10/25/2016		<0.005	<0.005	<0.005		
1/31/2017	<0.005	<0.005	<0.005	<0.005		<0.005
5/23/2017	<0.005					<0.005
5/24/2017		<0.005	<0.005	<0.005		
8/10/2017	<0.005	<0.005	<0.005	<0.005		<0.005
11/14/2017	<0.005	<0.005	<0.005	<0.005		<0.005
6/6/2018	<0.005	<0.005	<0.005	<0.005		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	<0.005		
10/3/2018	<0.005					<0.005
8/22/2019	0.00063 (J)	<0.005				<0.005
8/23/2019			<0.005	<0.005		
10/22/2019			<0.005	0.00062 (J)		0.00066 (J)
10/23/2019	0.0015 (J)	0.0004 (J)				
3/25/2020	0.00045 (J)	0.0013 (J)	0.00074 (J)	0.0014 (J)		0.00081 (J)
8/26/2020						0.00098 (J)
8/27/2020	0.00069 (J)	<0.005	<0.005	<0.005		
9/24/2020	0.00081 (J)	0.00064 (J)	<0.005			
9/25/2020				<0.005		
9/28/2020						0.0017 (J)
3/17/2021				<0.005		
3/18/2021	0.003 (J)	0.00058 (J)	<0.005			0.0021 (J)
8/12/2021					<0.005	
8/13/2021		<0.005	<0.005	<0.005		<0.005
8/16/2021	<0.005					
9/27/2021					<0.005	
2/2/2022	0.0013 (J)		<0.005	<0.005		
2/3/2022		<0.005			<0.005	<0.005
8/5/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	<0.005	0.0006 (J)				
8/31/2016						0.0033 (J)	
10/20/2016	<0.005					0.0025 (J)	
10/24/2016		<0.005	<0.005				
1/25/2017	<0.005	<0.005	<0.005				
1/31/2017						0.001 (J)	
5/23/2017		<0.005	<0.005			0.0025 (J)	
5/24/2017	<0.005						
8/10/2017	<0.005	<0.005	0.0004 (J)			0.0029 (J)	
11/13/2017	<0.005	<0.005					
11/14/2017			0.0003 (J)			0.003 (J)	
6/4/2018	<0.005	<0.005					
6/5/2018			<0.005				
6/6/2018						0.0016 (J)	
10/1/2018	<0.005	<0.005	<0.005				
10/3/2018						0.0028 (J)	
8/21/2019	<0.005	<0.005	<0.005				
8/22/2019						<0.005	
10/21/2019	<0.005						
10/22/2019		<0.005	<0.005				
10/23/2019						0.0023 (J)	0.0018 (J)
1/3/2020							0.0038 (J)
3/4/2020							0.0021 (J)
3/24/2020	<0.005	<0.005					0.0019 (J)
3/25/2020						0.0021 (J)	
4/9/2020			0.00037 (J)				
6/18/2020							0.0012 (J)
7/21/2020							0.00098 (J)
8/25/2020	<0.005	<0.005	<0.005				
8/27/2020						0.0027 (J)	0.001 (J)
9/18/2020	<0.005	<0.005		0.00049 (J)	<0.005		
9/22/2020			0.00074 (J)				
9/24/2020						0.0021 (J)	0.0011 (J)
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	0.00039 (J)		
1/19/2021				<0.005	<0.005		
3/11/2021	<0.005						
3/12/2021		<0.005		<0.005	<0.005		
3/16/2021			0.0013 (J)				
3/17/2021						0.0023 (J)	0.0012 (J)
8/12/2021	<0.005	<0.005	<0.005	<0.005	<0.005		
8/13/2021							0.00085 (J)
8/16/2021						0.0026 (J)	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		<0.005	<0.005				
2/2/2022						0.0027 (J)	0.0019 (J)
8/2/2022			<0.005	<0.005			
8/5/2022	<0.005	<0.005			<0.005		0.001 (J)
8/10/2022						0.0028 (J)	
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005		
1/25/2023						0.0021 (J)	0.0016 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.005	<0.005		<0.005	<0.005		
8/10/2023			<0.005				
8/11/2023						0.0028 (J)	0.001 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.0018 (J)	0.0014 (J)	<0.005	0.0023 (J)		<0.005
10/20/2016						<0.005
10/24/2016	0.0018 (J)					
10/25/2016		0.0013 (J)	<0.005	0.0017 (J)		
1/31/2017	0.0016 (J)	0.0006 (J)	<0.005	0.0017 (J)		<0.005
5/23/2017	0.0014 (J)					0.0005 (J)
5/24/2017		0.0007 (J)	<0.005	0.002 (J)		
8/10/2017	0.0025 (J)	0.0006 (J)	<0.005	0.0012 (J)		0.0003 (J)
11/14/2017	0.002 (J)	0.0005 (J)	<0.005	0.0014 (J)		0.0004 (J)
6/6/2018	0.0031 (J)	0.00056 (J)	<0.005	0.0014 (J)		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	0.00081 (J)		
10/3/2018	0.0023 (J)					<0.005
8/22/2019	0.0019 (J)	<0.005				0.0003 (J)
8/23/2019			<0.005	0.0027 (J)		
10/22/2019			<0.005	0.0022 (J)		0.00061 (J)
10/23/2019	0.0021 (J)	0.00038 (J)				
3/25/2020	0.0022 (J)	0.00047 (J)	<0.005	0.0022 (J)		<0.005
8/26/2020						0.00061 (J)
8/27/2020	0.0019 (J)	<0.005	<0.005	0.00086 (J)		
9/24/2020	0.0019 (J)	0.00044 (J)	<0.005			
9/25/2020				0.001 (J)		
9/28/2020						0.00048 (J)
3/17/2021				0.003 (J)		
3/18/2021	0.0021 (J)	0.00045 (J)	<0.005			0.0012 (J)
8/12/2021					0.0024 (J)	
8/13/2021		<0.005	<0.005	0.0011 (J)		<0.005
8/16/2021	0.0022 (J)					
9/27/2021					0.0011 (J)	
2/2/2022	0.0022 (J)		<0.005	0.002 (J)		
2/3/2022		<0.005			0.00041 (J)	0.00045 (J)
8/5/2022	0.0021 (J)	<0.005	<0.005	0.0008 (J)	0.0011 (J)	<0.005
1/25/2023	0.0017 (J)	0.00046 (J)	<0.005	0.0016 (J)	0.00048 (J)	<0.005
8/11/2023	0.0019 (J)	0.00047 (J)	<0.005	0.00077 (J)	0.00078 (J)	<0.005

Time Series

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.804 (U)	1.32 (U)	0.587 (U)				
8/31/2016						0.621 (U)	
10/20/2016	1.13 (U)					1.4	
10/24/2016		1.3 (U)	0.979 (U)				
1/25/2017	0.888 (U)	1.04 (U)	0.038 (U)				
1/31/2017						0.906 (U)	
5/23/2017		0.541 (U)	0.898 (U)			0.388 (U)	
5/24/2017	0.622 (U)						
8/10/2017	0.745 (U)	0.536 (U)	0.759 (U)			1.03 (U)	
11/13/2017	0.778 (U)	0.786 (U)					
11/14/2017			0.0762 (U)			0.769 (U)	
6/4/2018	0.637 (U)	0.233 (U)					
6/5/2018			0.594 (U)				
6/6/2018						1.28 (U)	
10/1/2018	0.451 (U)	0.494 (U)	0.982				
10/3/2018						0.302 (U)	
8/21/2019	0.553 (U)	0.514 (U)	0.492 (U)				
8/22/2019						0.474 (U)	
10/21/2019	0.351 (U)						
10/22/2019		0.828 (U)	0.523 (U)				
10/23/2019						0.776 (U)	0.858 (U)
1/22/2020							1.04 (U)
3/4/2020							1.32
3/24/2020	0.26 (U)	0.677 (U)					1.23 (U)
3/25/2020						0.603 (U)	
4/9/2020			0.617 (U)				
7/21/2020							0.0938 (U)
8/25/2020	0.57 (U)	0.0182 (U)	0.587 (U)				
8/27/2020						0.109 (U)	1.17 (U)
9/18/2020	0.828 (U)	1.15 (U)		1.11 (U)	1.5 (U)		
9/22/2020			0.551 (U)				
9/24/2020						0.625 (U)	1.42
11/10/2020				0.234 (U)			
11/11/2020					0.776 (U)		
12/15/2020				0.529 (U)	1.23 (U)		
1/19/2021				0.176 (U)	1.35 (U)		
3/11/2021	0.354 (U)						
3/12/2021		0.164 (U)		0 (U)	0.829 (U)		
3/16/2021			0.559 (U)				
3/17/2021						0.248 (U)	0.401 (U)
8/12/2021	0.532 (U)	0.223 (U)	0.312 (U)	0.462 (U)	0.274 (U)		
8/13/2021							0.828 (U)
8/16/2021						0.667 (U)	
1/31/2022	0.279 (U)			0.444 (U)	0.196 (U)		
2/1/2022		0.0793 (U)	0.132 (U)			0.162 (U)	0.806 (U)
8/2/2022			0.791 (U)	0.491 (U)			
8/5/2022	0.573 (U)	0.665 (U)			0.599 (U)		0.618 (U)
8/10/2022						0.601 (U)	
1/24/2023	0.19 (U)	0.331 (U)	0.529 (U)	0.391 (U)	0.856		
1/25/2023						0.419 (U)	0.513 (U)
8/8/2023	0.728 (U)	0.723 (U)		0.502 (U)	0.549 (U)		
8/10/2023			0.841 (U)				

Time Series

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/11/2023						0.93 (U)	1.08

Time Series

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	1.62	0.906 (U)	1.2	1.03		
10/20/2016						1.97
10/24/2016	1.01 (U)					
10/25/2016		1.03	1.11 (U)	1.07		
1/31/2017	0.976 (U)	0.868 (U)	1.45	0.588 (U)		1.03
5/23/2017	0.891 (U)					0.398 (U)
5/24/2017		0.728 (U)	0.393 (U)	0.593 (U)		
8/10/2017	0.601 (U)	1.35	0.84 (U)	0.691 (U)		0.938 (U)
11/14/2017	0.567 (U)	0.817 (U)	1.01 (U)	0.653 (U)		0.335 (U)
6/6/2018	0.836 (U)	0.559 (U)	0.365 (U)	0.939 (U)		
6/7/2018						0.696 (U)
10/2/2018		0.336 (U)	1.23	0.225 (U)		
10/3/2018	0.111 (U)					1.6 (U)
8/22/2019	0.946 (U)	0.694 (U)				0.904 (U)
8/23/2019			1.69	0.47 (U)		
10/22/2019			0.705 (U)	0.545 (U)		0.424 (U)
10/23/2019	0.571 (U)	0.584 (U)				
3/25/2020	0.403 (U)	0.663 (U)	0.673 (U)	0.508 (U)		0.915 (U)
8/26/2020						1.19
8/27/2020	0.37 (U)	0.416 (U)	0.264 (U)	0.989 (U)		
9/24/2020	0.804 (U)	1.11 (U)	0.576 (U)			
9/25/2020				0.584 (U)		
9/28/2020						0.613 (U)
3/17/2021				0.556 (U)		
3/18/2021	0.274 (U)	0.252 (U)	0.145 (U)			0.323 (U)
8/12/2021					0.124 (U)	
8/13/2021		0.513 (U)	0.815 (U)	0.794 (U)		0.228 (U)
8/16/2021	0.493 (U)					
9/27/2021					1.05 (U)	
2/1/2022	0.569 (U)		0.0564 (U)	0.542 (U)		
2/3/2022		0.835			0.499 (U)	0.5 (U)
8/5/2022	0.205 (U)	0.139 (U)	0.917 (U)	0.22 (U)	0 (U)	0.206 (U)
1/25/2023	0.568 (U)	0.432 (U)	0.71 (U)	0.195 (U)	0.595 (U)	1.44
8/11/2023	0.849 (U)	0.292 (U)	0.314 (U)	0.105 (U)	0.822 (U)	0.806 (U)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.07 (J)	0.04 (J)	0.2 (J)				
8/31/2016						0.05 (J)	
10/20/2016	0.07 (J)					0.03 (J)	
10/24/2016		0.05 (J)	0.16 (J)				
1/25/2017	0.14 (J)	<0.1	0.15 (J)				
1/31/2017						<0.1	
5/23/2017		0.004 (J)	0.18 (J)			<0.1	
5/24/2017	0.02 (J)						
8/10/2017	0.06 (J)	0.03 (J)	0.19 (J)			<0.1	
11/13/2017	<0.1	<0.1					
11/14/2017			0.16 (J)			<0.1	
6/4/2018	0.032 (J)	<0.1					
6/5/2018			0.18 (J)				
6/6/2018						<0.1	
10/1/2018	<0.1	<0.1	0.078 (J)				
10/3/2018						<0.1	
4/1/2019	0.042 (J)						
4/2/2019		<0.1	0.18 (J)				
4/4/2019						<0.1	
8/21/2019	0.048 (J)	<0.1	0.11 (J)				
8/22/2019						<0.1	
10/21/2019	0.12 (J)						
10/22/2019		0.05 (J)	0.18 (J)				
10/23/2019						<0.1	0.22 (J)
1/3/2020							<0.1
3/4/2020							<0.1
3/24/2020	0.076 (J)	<0.1					<0.1
3/25/2020						<0.1	
4/9/2020			0.14 (J)				
6/18/2020							<0.1
7/21/2020							<0.1
8/25/2020	0.052 (J)	<0.1	0.17				
8/27/2020						<0.1	<0.1
9/18/2020	<0.1	<0.1		0.067 (J)	0.098 (J)		
9/22/2020			0.16				
9/24/2020						<0.1	<0.1
11/10/2020				0.065 (J)			
11/11/2020					0.083 (J)		
12/15/2020				0.064 (J)	0.081 (J)		
1/19/2021				0.057 (J)	0.079 (J)		
3/11/2021	0.057 (J)						
3/12/2021		<0.1		0.062 (J)	0.085 (J)		
3/16/2021			0.18				
3/17/2021						<0.1	<0.1
8/12/2021	<0.1	<0.1	0.16	<0.1	0.064 (J)		
8/13/2021							<0.1
8/16/2021						<0.1	
1/31/2022	0.055 (J)			0.053 (J)	0.072 (J)		
2/1/2022		<0.1	0.16				
2/2/2022						<0.1	<0.1
8/2/2022			0.19	0.08 (J)			
8/5/2022	0.1	0.077 (J)			0.12		0.076 (J)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/10/2022						0.065 (J)	
1/24/2023	0.086 (J)	0.055 (J)	0.2	0.081 (J)	0.092 (J)		
1/25/2023						<0.1	<0.1
8/8/2023	0.076 (J)	0.05 (J)		0.072 (J)	0.091 (J)		
8/10/2023			0.19				
8/11/2023						<0.1	<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.06 (J)	0.15 (J)	0.08 (J)	0.12 (J)		0.18 (J)
10/20/2016						0.12 (J)
10/24/2016	0.13 (J)					
10/25/2016		0.09 (J)	0.16 (J)	0.17 (J)		
1/31/2017	<0.1	0.13 (J)	0.16 (J)	0.05 (J)		0.3
5/23/2017	0.15 (J)					0.14 (J)
5/24/2017		0.07 (J)	0.009 (J)	0.13 (J)		
8/10/2017	<0.1	0.03 (J)	<0.1	0.12 (J)		0.11 (J)
11/14/2017	<0.1	<0.1	<0.1	<0.3		0.07 (J)
6/6/2018	<0.1	0.074 (J)	0.057 (J)	0.15 (J)		
6/7/2018						0.3
10/2/2018		<0.1	<0.1	<0.3		
10/3/2018	<0.1					0.12 (J)
4/3/2019			<0.1	0.05 (J)		
4/4/2019	0.042 (J)	0.03 (J)				
4/5/2019						0.33
6/18/2019						0.89
8/22/2019	<0.1	<0.1				0.07 (J)
8/23/2019			<0.1	0.034 (J)		
10/22/2019			0.047 (J)	0.099 (J)		0.087 (J)
10/23/2019	<0.1	<0.1				
3/25/2020	<0.1	<0.1	<0.1	0.075 (J)		0.078 (J)
8/26/2020						0.072 (J)
8/27/2020	<0.1	<0.1	<0.1	0.094 (J)		
9/24/2020	<0.1	<0.1	0.064 (J)			
9/25/2020				0.091 (J)		
9/28/2020						0.078 (J)
3/17/2021				0.089 (J)		
3/18/2021	<0.1	<0.1	<0.1			0.079 (J)
8/12/2021					<0.1	
8/13/2021		<0.1	<0.1	0.086 (J)		0.075 (J)
8/16/2021	<0.1					
9/27/2021					<0.1	
2/2/2022	<0.1		<0.1	0.086 (J)		
2/3/2022		<0.1			0.056 (J)	0.069 (J)
8/5/2022	0.071 (J)	0.075 (J)	0.093 (J)	0.14	0.12	0.12
1/25/2023	<0.1	0.051 (J)	0.054 (J)	0.12	0.085 (J)	0.095 (J)
8/11/2023	<0.1	<0.1	<0.1	0.086 (J)	0.057 (J)	0.07 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.0001 (J)	<0.001	<0.001				
8/31/2016						<0.001	
10/20/2016	<0.001					<0.001	
10/24/2016		<0.001	<0.001				
1/25/2017	<0.001	<0.001	<0.001				
1/31/2017						<0.001	
5/23/2017		<0.001	<0.001			0.0009 (J)	
5/24/2017	<0.001						
8/10/2017	<0.001	<0.001	0.0001 (J)			<0.001	
11/13/2017	<0.001	<0.001					
11/14/2017			<0.001			<0.001	
6/4/2018	<0.001	<0.001					
6/5/2018			<0.001				
6/6/2018						<0.001	
10/1/2018	<0.001	<0.001	<0.001				
10/3/2018						<0.001	
8/21/2019	<0.001	<0.001	7.1E-05 (J)				
8/22/2019						<0.001	
10/21/2019	0.00016 (J)						
10/22/2019		<0.001	7.3E-05 (J)				
10/23/2019						<0.001	<0.001
1/3/2020							<0.001
3/4/2020							0.00011 (J)
3/24/2020	0.00058 (J)	0.00016 (J)					<0.001
3/25/2020						<0.001	
4/9/2020			0.00039 (J)				
6/18/2020							<0.001
7/21/2020							<0.001
8/25/2020	0.00036 (J)	0.00011 (J)	0.00022 (J)				
8/27/2020						<0.001	<0.001
9/18/2020	0.00026 (J)	6.5E-05 (J)		<0.001	<0.001		
9/22/2020			0.00096 (J)				
9/24/2020						<0.001	<0.001
11/10/2020				<0.001			
11/11/2020					<0.001		
12/15/2020				<0.001	0.00015 (J)		
1/19/2021				3.8E-05 (J)	5.6E-05 (J)		
3/11/2021	0.0011						
3/12/2021		0.00017 (J)		<0.001	4.8E-05 (J)		
3/16/2021			0.0016				
3/17/2021						<0.001	<0.001
8/12/2021	<0.001	<0.001	<0.001	<0.001	<0.001		
8/13/2021							<0.001
8/16/2021						<0.001	
1/31/2022	<0.001			<0.001	<0.001		
2/1/2022		<0.001	<0.001				
2/2/2022						<0.001	<0.001
8/2/2022			<0.001	<0.001			
8/5/2022	<0.001	<0.001			<0.001		<0.001
8/10/2022						<0.001	
1/24/2023	<0.001	<0.001	<0.001	<0.001	<0.001		
1/25/2023						<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.001	<0.001		<0.001	<0.001		
8/10/2023			<0.001				
8/11/2023						<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.001	<0.001	<0.001	<0.001		<0.001
10/20/2016						<0.001
10/24/2016	<0.001					
10/25/2016		<0.001	<0.001	<0.001		
1/31/2017	<0.001	<0.001	<0.001	<0.001		<0.001
5/23/2017	<0.001					<0.001
5/24/2017		<0.001	<0.001	<0.001		
8/10/2017	<0.001	<0.001	<0.001	<0.001		<0.001
11/14/2017	<0.001	<0.001	<0.001	<0.001		<0.001
6/6/2018	<0.001	<0.001	<0.001	<0.001		
6/7/2018						<0.001
10/2/2018		<0.001	<0.001	<0.001		
10/3/2018	<0.001					<0.001
8/22/2019	<0.001	<0.001				<0.001
8/23/2019			<0.001	5.8E-05 (J)		
10/22/2019			7.9E-05 (J)	5.4E-05 (J)		0.00025 (J)
10/23/2019	0.00043 (J)	6.8E-05 (J)				
3/25/2020	7.6E-05 (J)	8.5E-05 (J)	0.00021 (J)	<0.001		0.0001 (J)
8/26/2020						0.00036 (J)
8/27/2020	0.00018 (J)	<0.001	<0.001	<0.001		
9/24/2020	0.00028 (J)	4.9E-05 (J)	0.00034 (J)			
9/25/2020				<0.001		
9/28/2020						0.00022 (J)
3/17/2021				<0.001		
3/18/2021	0.00024 (J)	5.8E-05 (J)	9.1E-05 (J)			0.00088 (J)
8/12/2021					<0.001	
8/13/2021		<0.001	<0.001	<0.001		<0.001
8/16/2021	<0.001					
9/27/2021					<0.001	
2/2/2022	<0.001		<0.001	<0.001		
2/3/2022		<0.001			<0.001	<0.001
8/5/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/25/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/11/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.0022 (J)	<0.03	<0.03				
8/31/2016						<0.03	
10/20/2016	<0.03					<0.03	
10/24/2016		<0.03	<0.03				
1/25/2017	<0.03	<0.03	<0.03				
1/31/2017						<0.03	
5/23/2017		<0.03	0.0011 (J)			<0.03	
5/24/2017	0.0017 (J)						
8/10/2017	0.0017 (J)	<0.03	<0.03			<0.03	
11/13/2017	<0.03	<0.03					
11/14/2017			<0.03			<0.03	
6/4/2018	0.0016 (J)	<0.03					
6/5/2018			0.001 (J)				
6/6/2018						<0.03	
10/1/2018	<0.03	<0.03	0.001 (J)				
10/3/2018						<0.03	
8/21/2019	0.0018 (J)	<0.03	0.0011 (J)				
8/22/2019						<0.03	
10/21/2019	0.0026 (J)						
10/22/2019		<0.03	0.0011 (J)				
10/23/2019						<0.03	0.0012 (J)
1/3/2020							0.0011 (J)
3/4/2020							0.0013 (J)
3/24/2020	0.0039 (J)	<0.03					0.00084 (J)
3/25/2020						<0.03	
4/9/2020			0.0017 (J)				
6/18/2020							0.0013 (J)
7/21/2020							0.0013 (J)
8/25/2020	0.0033 (J)	<0.03	0.0014 (J)				
8/27/2020						<0.03	0.0011 (J)
9/18/2020	0.0021 (J)	<0.03		0.0026 (J)	0.0051 (J)		
9/22/2020			0.0018 (J)				
9/24/2020						<0.03	0.0011 (J)
11/10/2020				0.0028 (J)			
11/11/2020					0.0036 (J)		
12/15/2020				0.0026 (J)	0.0045 (J)		
1/19/2021				0.003 (J)	0.0032 (J)		
3/11/2021	0.0047 (J)						
3/12/2021		<0.03		0.0031 (J)	0.0031 (J)		
3/16/2021			0.0026 (J)				
3/17/2021						<0.03	0.0012 (J)
8/12/2021	0.002 (J)	<0.03	0.00094 (J)	0.0029 (J)	0.0037 (J)		
8/13/2021							0.0011 (J)
8/16/2021						<0.03	
1/31/2022	0.0026 (J)			0.0031 (J)	0.0034 (J)		
2/1/2022		<0.03	0.0011 (J)				
2/2/2022						<0.03	0.0013 (J)
8/2/2022			0.00089 (J)	0.0026 (J)			
8/5/2022	0.0019 (J)	<0.03			0.0036 (J)		0.0013 (J)
8/10/2022						<0.03	
1/24/2023	0.0023 (J)	<0.03	0.00091 (J)	0.0029 (J)	0.0046 (J)		
1/25/2023						<0.03	0.001 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	0.0018 (J)	<0.03		0.0029 (J)	0.004 (J)		
8/10/2023			0.001 (J)				
8/11/2023						<0.03	0.0013 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.03	0.0034 (J)	<0.03	<0.03		<0.03
10/20/2016						<0.03
10/24/2016	<0.03					
10/25/2016		0.0043 (J)	<0.03	<0.03		
1/31/2017	<0.03	0.0042 (J)	<0.03	<0.03		<0.03
5/23/2017	0.0012 (J)					0.0012 (J)
5/24/2017		0.0039 (J)	<0.03	0.0012 (J)		
8/10/2017	0.0016 (J)	0.004 (J)	<0.03	<0.03		<0.03
11/14/2017	0.0015 (J)	0.0044 (J)	<0.03	<0.03		<0.03
6/6/2018	0.0017 (J)	0.0041 (J)	0.00099 (J)	0.0013 (J)		
6/7/2018						0.0015 (J)
10/2/2018		0.0041 (J)	<0.03	0.0013 (J)		
10/3/2018	0.0016 (J)					<0.03
8/22/2019	0.0015 (J)	0.004 (J)				0.0018 (J)
8/23/2019			0.00092 (J)	0.0009 (J)		
10/22/2019			0.00094 (J)	0.00088 (J)		0.0027 (J)
10/23/2019	0.002 (J)	0.0039 (J)				
3/25/2020	0.0016 (J)	0.0041 (J)	0.00091 (J)	<0.03		0.0017 (J)
8/26/2020						0.0028 (J)
8/27/2020	0.0016 (J)	0.0037 (J)	<0.03	0.0011 (J)		
9/24/2020	0.0017 (J)	0.0038 (J)	0.00098 (J)			
9/25/2020				0.001 (J)		
9/28/2020						0.0022 (J)
3/17/2021				<0.03		
3/18/2021	0.0018 (J)	0.0042 (J)	0.0011 (J)			0.0029 (J)
8/12/2021					0.0036 (J)	
8/13/2021		0.0038 (J)	0.00084 (J)	<0.03		0.0017 (J)
8/16/2021	0.0016 (J)					
9/27/2021					0.0035 (J)	
2/2/2022	0.0019 (J)		0.001 (J)	0.00084 (J)		
2/3/2022		0.0046 (J)			0.0051 (J)	0.0015 (J)
8/5/2022	0.0014 (J)	0.0039 (J)	0.00082 (J)	0.00087 (J)	0.0038 (J)	0.0018 (J)
1/25/2023	0.0012 (J)	0.0038 (J)	0.00081 (J)	<0.03	0.0037 (J)	0.001 (J)
8/11/2023	0.0014 (J)	0.0044 (J)	0.00083 (J)	0.00076 (J)	0.0041 (J)	0.0023 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	4E-05 (J)	4.1E-05 (J)	4E-05 (J)				
8/31/2016						<0.0002	
10/20/2016	<0.0002					<0.0002	
10/24/2016		<0.0002	<0.0002				
1/25/2017	4E-05 (J)	4E-05 (J)	4E-05 (J)				
1/31/2017						9.3E-05 (J)	
5/23/2017		<0.0002	<0.0002			<0.0002	
5/24/2017	<0.0002						
8/10/2017	<0.0002	<0.0002	<0.0002			<0.0002	
11/13/2017	<0.0002	<0.0002					
11/14/2017			<0.0002			<0.0002	
6/4/2018	<0.0002	<0.0002					
6/5/2018			<0.0002				
6/6/2018						<0.0002	
10/1/2018	4.3E-05 (J)	3.9E-05 (J)	4.3E-05 (J)				
10/3/2018						<0.0002	
8/21/2019	<0.0002	<0.0002	<0.0002				
8/22/2019						<0.0002	
10/23/2019							<0.0002
1/3/2020							<0.0002
3/4/2020							<0.0002
3/24/2020							<0.0002
6/18/2020							<0.0002
7/21/2020							<0.0002
8/25/2020	<0.0002	<0.0002	<0.0002				
8/27/2020						<0.0002	<0.0002
9/18/2020				<0.0002	<0.0002		
9/24/2020							<0.0002
11/10/2020				<0.0002			
11/11/2020					<0.0002		
12/15/2020				<0.0002	<0.0002		
1/19/2021				<0.0002	<0.0002		
8/12/2021	<0.0002 (ND)	0.00011 (J)	<0.0002	8.1E-05 (J)	0.00018 (J)		
8/13/2021							0.0001 (J)
8/16/2021						9.9E-05 (J)	
1/31/2022	<0.0002			<0.0002	<0.0002		
2/1/2022		<0.0002	<0.0002				
2/2/2022						<0.0002	<0.0002
8/2/2022			<0.0002	<0.0002			
8/5/2022	<0.0002	<0.0002			<0.0002		<0.0002
8/10/2022						<0.0002	
1/24/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
1/25/2023						<0.0002	<0.0002
8/8/2023	<0.0002	<0.0002		<0.0002	<0.0002		
8/10/2023			<0.0002				
8/11/2023						<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
10/20/2016						<0.0002
10/24/2016	<0.0002					
10/25/2016		<0.0002	<0.0002	<0.0002		
1/31/2017	8E-05 (J)	<0.0002	<0.0002	8E-05 (J)		9E-05 (J)
5/23/2017	<0.0002					<0.0002
5/24/2017		<0.0002	<0.0002	<0.0002		
8/10/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/14/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
6/6/2018	<0.0002	<0.0002	<0.0002	<0.0002		
6/7/2018						<0.0002
10/2/2018		<0.0002	<0.0002	<0.0002		
10/3/2018	<0.0002					<0.0002
8/22/2019	<0.0002	<0.0002				<0.0002
8/23/2019			<0.0002	<0.0002		
8/26/2020						<0.0002
8/27/2020	<0.0002	<0.0002	<0.0002	<0.0002		
8/12/2021					9.4E-05 (J)	
8/13/2021		0.00022	8.4E-05 (J)	8E-05 (J)		8.1E-05 (J)
8/16/2021	0.00027					
9/27/2021					<0.0002	
2/2/2022	<0.0002		<0.0002	<0.0002		
2/3/2022		<0.0002			<0.0002	<0.0002
8/5/2022	0.00017 (J)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/25/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/11/2023	0.00025	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.01	<0.01	<0.01				
8/31/2016						<0.01	
10/20/2016	<0.01					<0.01	
10/24/2016		<0.01	<0.01				
1/25/2017	<0.01	<0.01	<0.01				
1/31/2017						<0.01	
5/23/2017		<0.01	<0.01			<0.01	
5/24/2017	<0.01						
8/10/2017	<0.01	<0.01	<0.01			<0.01	
11/13/2017	<0.01	<0.01					
11/14/2017			<0.01			<0.01	
6/4/2018	<0.01	<0.01					
6/5/2018			<0.01				
6/6/2018						<0.01	
10/1/2018	<0.01	<0.01	<0.01				
10/3/2018						<0.01	
8/21/2019	<0.01	<0.01	<0.01				
8/22/2019						<0.01	
10/23/2019							<0.01
1/3/2020							<0.01
3/4/2020							<0.01
3/24/2020							<0.01
6/18/2020							<0.01
7/21/2020							<0.01
8/25/2020	<0.01	<0.01	<0.01				
8/27/2020						<0.01	<0.01
9/18/2020				0.0015 (J)	0.0026 (J)		
9/24/2020							<0.01
11/10/2020				<0.01			
11/11/2020					0.0012 (J)		
12/15/2020				<0.01	0.00097 (J)		
1/19/2021				<0.01	0.0018 (J)		
8/12/2021	<0.01	<0.01	<0.01	<0.01	0.0019 (J)		
8/13/2021							<0.01
8/16/2021						<0.01	
1/31/2022	<0.01			<0.01	0.002 (J)		
2/1/2022		<0.01	<0.01				
2/2/2022						<0.01	<0.01
8/2/2022			<0.01	<0.01			
8/5/2022	<0.01	<0.01			0.0012 (J)		<0.01
8/10/2022						<0.01	
1/24/2023	<0.01	<0.01	<0.01	<0.01	0.00086 (J)		
1/25/2023						<0.01	<0.01
8/8/2023	<0.01	<0.01		<0.01	0.00092 (J)		
8/10/2023			<0.01				
8/11/2023						<0.01	<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.01	<0.01	<0.01	<0.01		<0.01
10/20/2016						<0.01
10/24/2016	<0.01					
10/25/2016		<0.01	<0.01	<0.01		
1/31/2017	<0.01	<0.01	<0.01	<0.01		<0.01
5/23/2017	<0.01					<0.01
5/24/2017		<0.01	<0.01	<0.01		
8/10/2017	<0.01	<0.01	<0.01	<0.01		<0.01
11/14/2017	<0.01	<0.01	<0.01	<0.01		<0.01
6/6/2018	<0.01	<0.01	<0.01	<0.01		
6/7/2018						<0.01
10/2/2018		<0.01	<0.01	<0.01		
10/3/2018	<0.01					<0.01
8/22/2019	<0.01	<0.01				<0.01
8/23/2019			<0.01	<0.01		
8/26/2020						<0.01
8/27/2020	<0.01	<0.01	<0.01	<0.01		
8/12/2021					<0.01	
8/13/2021		<0.01	<0.01	<0.01		<0.01
8/16/2021	<0.01					
9/27/2021					<0.01	
2/2/2022	<0.01		<0.01	<0.01		
2/3/2022		<0.01			<0.01	<0.01
8/5/2022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/25/2023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8/11/2023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Time Series

Constituent: pH (s.u.) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	6.89	5.77	5.99				
8/31/2016						5.35	
10/20/2016	6.73					5.3	
10/24/2016		5.61	5.84				
1/25/2017	7.02	5.68	6.04				
1/31/2017						5.24	
5/23/2017		5.7	6.01			5.39	
5/24/2017	6.44						
8/10/2017	6.79	5.59	5.98			5.47	
11/13/2017	5.94	5.56					
11/14/2017			6.16			5.4	
6/4/2018	6.12	5.62					
6/5/2018			5.86				
6/6/2018						5.37	
10/1/2018	5.92	5.62	5.94				
10/3/2018						5.39	
4/1/2019	7.09						
4/2/2019		5.47	6				
4/4/2019						5.31	
6/18/2019						5.3	
8/21/2019	6.6	5.8	6.05				
8/22/2019						5.39	
10/21/2019	7.02						
10/22/2019		5.7	5.98				
10/23/2019						5.33	5.68
1/3/2020							5.64
3/4/2020							5.75
3/24/2020	7.37	5.64					5.58
3/25/2020						5.53	
4/9/2020			6.08				
6/18/2020							5.67
7/21/2020							5.72
8/25/2020	6.7	5.53	5.95				
8/27/2020						5.32	5.7
9/18/2020	6.46	5.58		7.54	7.5		
9/22/2020			6.1				
9/24/2020						5.48	5.82
11/10/2020				7.34			
11/11/2020					7.4		
12/15/2020				7.27	7.39		
1/19/2021				7.32	7.4		
3/11/2021	7.2						
3/12/2021		5.6		7.52	7.51		
3/16/2021			6.14				
3/17/2021						5.41	5.78
8/12/2021	6.67	5.5	6.08	7.38	7.44		
8/13/2021							5.45
8/16/2021						5.4	
1/31/2022	7.17			7.34	7.44		
2/1/2022		5.59	6.05				
2/2/2022						5.51	5.79
8/2/2022			6.08	7.34			

Time Series

Constituent: pH (s.u.) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/5/2022	6.97	5.43			7.4		5.69
8/10/2022						5.37	
1/24/2023	7.11	5.67	6.15	7.38	7.46		
1/25/2023						5.47	5.77
8/8/2023	7.01	5.77		7.27	7.37		
8/10/2023			6.07				
8/11/2023						5.44	5.79

Time Series

Constituent: pH (s.u.) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	5.54	6.5	6.11	6.78		7.03
10/20/2016						7.01
10/24/2016	5.48					
10/25/2016		6.34	6.04	6.55		
1/31/2017	5.51	6.43	5.94	6.5		6.96
5/23/2017	5.98					6.92
5/24/2017		6.31	6.06	6.42		
8/10/2017	5.63	6.45	6.06	6.63		6.99
11/14/2017	5.59	6.53	5.99	6.5		6.9
6/6/2018	5.49	6.49	6	6.59		
6/7/2018						7.03
10/2/2018		6.18	6.18	6.54		
10/3/2018	5.53					7.08
4/3/2019			6.06	6.42		
4/4/2019	5.44	6.17				
4/5/2019						6.96
6/17/2019	5.53					
8/22/2019	5.55	6.04				6.93
8/23/2019			6.26	6.76		
10/22/2019			6.19	6.58		7.03
10/23/2019	5.49	6.46				
3/25/2020	5.49	6.47	6.13	6.56		6.89
8/26/2020						6.97
8/27/2020	5.82	6.45	6.09	6.64		
9/24/2020	5.6	6.63	6.11			
9/25/2020				6.79		
9/28/2020						7.03
3/17/2021				6.55		
3/18/2021	5.51	6.57	6.2			7.11
8/12/2021					6.27	
8/13/2021		6.44	6.11	6.71		6.78
8/16/2021	5.59					
9/27/2021					6.14	
2/2/2022	5.63		6.14	6.65		
2/3/2022		6.48			6.58	6.79
8/5/2022	5.71	6.46	6.07	6.81	6.44	7.07
1/25/2023	5.65	6.41	6.13	6.66	6.53	6.67
8/11/2023	5.8	6.47	6.16	6.8	7.09	7.49

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	<0.005	0.0027 (J)				
8/31/2016						<0.005	
10/20/2016	<0.005					<0.005	
10/24/2016		<0.005	0.0034 (J)				
1/25/2017	<0.005	<0.005	0.0023 (J)				
1/31/2017						<0.005	
5/23/2017		<0.005	0.0024 (J)			<0.005	
5/24/2017	<0.005						
8/10/2017	<0.005	<0.005	0.0023 (J)			<0.005	
11/13/2017	<0.005	<0.005					
11/14/2017			<0.01			<0.005	
6/4/2018	<0.005	<0.005					
6/5/2018			0.0019 (J)				
6/6/2018						<0.005	
10/1/2018	<0.005	<0.005	0.0024 (J)				
10/3/2018						<0.005	
8/21/2019	<0.005	<0.005	0.0025 (J)				
8/22/2019						<0.005	
10/23/2019							<0.005
1/3/2020							0.0015 (J)
3/4/2020							<0.005
3/24/2020							<0.005
6/18/2020							<0.005
7/21/2020							<0.005
8/25/2020	<0.005	<0.005	<0.01				
8/27/2020						<0.005	<0.005
9/18/2020				<0.005	<0.005		
9/24/2020							<0.005
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	<0.005		
1/19/2021				<0.005	<0.005		
8/12/2021	<0.005	<0.005	0.0023 (J)	<0.005	<0.005		
8/13/2021							<0.005
8/16/2021						<0.005	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		<0.005	0.0022 (J)				
2/2/2022						<0.005	<0.005
8/2/2022			0.0034 (J)	<0.005			
8/5/2022	<0.005	<0.005			<0.005		<0.005
8/10/2022						<0.005	
1/24/2023	<0.005	<0.005	0.0025 (J)	<0.005	<0.005		
1/25/2023						<0.005	<0.005
8/8/2023	<0.005	<0.005		<0.005	<0.005		
8/10/2023			0.0027 (J)				
8/11/2023						<0.005	<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.005	<0.005	<0.005	<0.005		<0.005
10/20/2016						<0.005
10/24/2016	<0.005					
10/25/2016		<0.005	<0.005	<0.005		
1/31/2017	<0.005	<0.005	<0.005	<0.005		<0.005
5/23/2017	<0.005					<0.005
5/24/2017		<0.005	<0.005	<0.005		
8/10/2017	<0.005	<0.005	<0.005	<0.005		<0.005
11/14/2017	<0.005	<0.005	<0.005	<0.005		<0.005
6/6/2018	<0.005	<0.005	<0.005	<0.005		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	<0.005		
10/3/2018	<0.005					<0.005
8/22/2019	<0.005	<0.005				<0.005
8/23/2019			<0.005	<0.005		
8/26/2020						<0.005
8/27/2020	<0.005	<0.005	<0.005	<0.005		
8/12/2021					<0.005	
8/13/2021		<0.005	<0.005	<0.005		<0.005
8/16/2021	<0.005					
9/27/2021					<0.005	
2/2/2022	<0.005		<0.005	<0.005		
2/3/2022		<0.005			<0.005	<0.005
8/5/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	1.6	0.63 (J)	14				
8/31/2016						110	
10/20/2016	1.6					110	
10/24/2016		0.62 (J)	11				
1/25/2017	1.6	0.62 (J)	12				
1/31/2017						120	
5/23/2017		0.55 (J)	12			97	
5/24/2017	1.4						
8/10/2017	1.6	0.66 (J)	11			96	
11/13/2017	1.3	0.61 (J)					
11/14/2017			11			110	
6/4/2018	1.4	0.73 (J)					
6/5/2018			9.9				
6/6/2018						95.5	
10/1/2018	1	0.52 (J)	6.7				
10/3/2018						121	
4/1/2019	1.7						
4/2/2019		0.78 (J)	8.7				
4/4/2019						95.1	
6/18/2019						102	
10/21/2019	1.8						
10/22/2019		0.6 (J)	6.8				
10/23/2019						101	<1
1/3/2020							380
3/4/2020							400
3/24/2020	1.6	<1					311
3/25/2020						85.5	
4/9/2020			6.6				
6/18/2020							349
7/21/2020							378
8/27/2020							382
9/18/2020	1	<1		3.5	9.5		
9/22/2020			5.3				
9/24/2020						97	370
11/10/2020				2.3			
11/11/2020					4.5		
12/15/2020				2.4	4.2		
1/19/2021				2.6	3.9		
3/11/2021	1.5						
3/12/2021		0.52 (J)		1.9	4.7		
3/16/2021			7.7				
3/17/2021						107	332
8/12/2021	1.3	<1	10	1.4	4.3		
8/13/2021							248
8/16/2021						72.1	
1/31/2022	1.5			1.7	5.6		
2/1/2022		0.5 (J)	8.9				
2/2/2022						100	303
8/2/2022			7.5	2.1			
8/5/2022	1.4	<1			3.4		358
8/10/2022						99.5	
1/24/2023	1.9	0.81 (J)	6.6	2.2	2.9		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
1/25/2023						95	348
8/8/2023	1.5	0.71 (J)		2	2.9		
8/10/2023			5.1				
8/11/2023						102	370

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	280	190	130	36		88
10/20/2016						81
10/24/2016	280					
10/25/2016		190	130	41		
1/31/2017	300	210	130	37		87
5/23/2017	340					84
5/24/2017		180	130	40		
8/10/2017	300	180	130	40		78
11/14/2017	310	170	130	40		79
6/6/2018	351	168	132	49.7		
6/7/2018						60.1
10/2/2018		173	132	42.3		
10/3/2018	381					91.5
4/3/2019			139	36		
4/4/2019	358	185				
4/5/2019						75.1
6/17/2019	311	162	126	30.9		
6/18/2019						77
10/22/2019			123	23.2		80.9
10/23/2019	248	162				
3/25/2020	251	161	116	27.9		78.4
9/24/2020	293	177	126			
9/25/2020				24.7		
9/28/2020						86
3/17/2021				28.3		
3/18/2021	286	196	128			87.8
8/12/2021					64.6	
8/13/2021		142	112	24.4		75.1
8/16/2021	354					
9/27/2021					69.7	
2/2/2022	293		111	25.5		
2/3/2022		195			72.9	72.7
8/5/2022	369	217	120	23	76.1	69.8
1/25/2023	342	230	128	25.4	72.9	73
8/11/2023	382	237	113	19.8	67.7	64.9

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.001	<0.001	<0.001				
8/31/2016						<0.001	
10/20/2016	<0.001					<0.001	
10/24/2016		<0.001	<0.001				
1/25/2017	<0.001	<0.001	<0.001				
1/31/2017						<0.001	
5/23/2017		<0.001	<0.001			<0.001	
5/24/2017	<0.001						
8/10/2017	<0.001	<0.001	<0.001			<0.001	
11/13/2017	<0.001	<0.001					
11/14/2017			<0.001			<0.001	
6/4/2018	<0.001	<0.001					
6/5/2018			<0.001				
6/6/2018						<0.001	
10/1/2018	<0.001	<0.001	<0.001				
10/3/2018						<0.001	
8/21/2019	<0.001	<0.001	<0.001				
8/22/2019						<0.001	
10/23/2019							<0.001
1/3/2020							8E-05 (J)
3/4/2020							<0.001
3/24/2020							<0.001
6/18/2020							<0.001
7/21/2020							<0.001
8/25/2020	<0.001	<0.001	<0.001				
8/27/2020						<0.001	<0.001
9/18/2020				<0.001	<0.001		
9/24/2020							<0.001
11/10/2020				<0.001			
11/11/2020					<0.001		
12/15/2020				<0.001	<0.001		
1/19/2021				<0.001	<0.001		
8/12/2021	<0.001	<0.001	<0.001	<0.001	<0.001		
8/13/2021							<0.001
8/16/2021						<0.001	
1/31/2022	<0.001			<0.001	<0.001		
2/1/2022		<0.001	<0.001				
2/2/2022						<0.001	<0.001
8/2/2022			<0.001	<0.001			
8/5/2022	<0.001	<0.001			<0.001		<0.001
8/10/2022						<0.001	
1/24/2023	<0.001	<0.001	<0.001	<0.001	<0.001		
1/25/2023						<0.001	<0.001
8/8/2023	<0.001	<0.001		<0.001	<0.001		
8/10/2023			<0.001				
8/11/2023						<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/26/2023 11:23 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.001	<0.001	<0.001	<0.001		<0.001
10/20/2016						<0.001
10/24/2016	<0.001					
10/25/2016		<0.001	<0.001	<0.001		
1/31/2017	<0.001	<0.001	<0.001	<0.001		<0.001
5/23/2017	<0.001					<0.001
5/24/2017		<0.001	<0.001	<0.001		
8/10/2017	<0.001	<0.001	<0.001	<0.001		<0.001
11/14/2017	<0.001	<0.001	<0.001	<0.001		<0.001
6/6/2018	<0.001	<0.001	<0.001	<0.001		
6/7/2018						<0.001
10/2/2018		<0.001	<0.001	<0.001		
10/3/2018	<0.001					<0.001
8/22/2019	<0.001	<0.001				<0.001
8/23/2019			<0.001	<0.001		
8/26/2020						<0.001
8/27/2020	<0.001	<0.001	<0.001	<0.001		
8/12/2021					<0.001	
8/13/2021		<0.001	<0.001	<0.001		<0.001
8/16/2021	<0.001					
9/27/2021					<0.001	
2/2/2022	<0.001		<0.001	<0.001		
2/3/2022		<0.001			<0.001	<0.001
8/5/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/25/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/11/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	207	57		214	220		
8/10/2023			80				
8/11/2023						250	785

Time Series

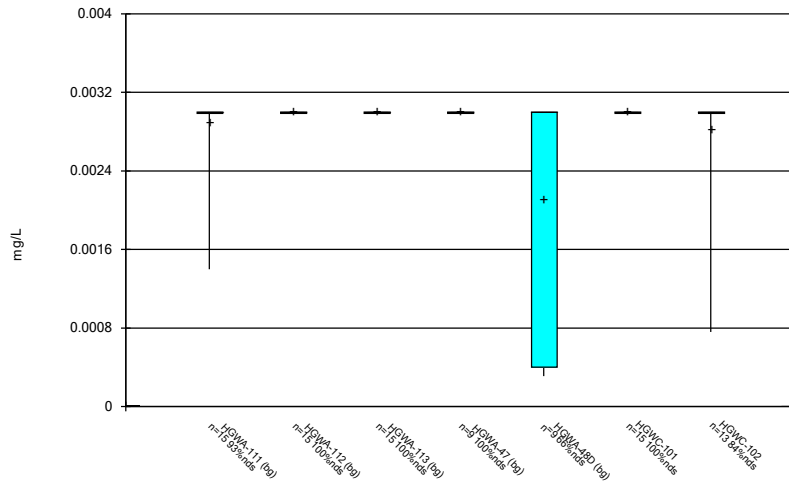
Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	483	389	235	182		373
10/20/2016						305
10/24/2016	517					
10/25/2016		316	223	172		
1/31/2017	516	437	346	252		361
5/23/2017	637					359
5/24/2017		352	234	184		
8/10/2017	459	356	254	208		325
11/14/2017	545	375	313	252		373
6/6/2018	559	385	278	224		
6/7/2018						338
10/2/2018		374	274	230		
10/3/2018	582					328
4/3/2019			273	210		
4/4/2019	535	340				
4/5/2019						308
6/17/2019	515	370	272			
6/18/2019						215
10/22/2019			308	212		354
10/23/2019	507	419				
3/25/2020	507	417	297	213		347
9/24/2020	517	411	253			
9/25/2020				188		
9/28/2020						332
3/17/2021				171		
3/18/2021	465	410	255			328
8/12/2021					256	
8/13/2021		441	291	189		336
8/16/2021	672					
9/27/2021					223	
2/2/2022	576		271	206		
2/3/2022		463			264	316
8/5/2022	692	514	274	195	270	329
1/25/2023	630	537	304	214	289	337
8/11/2023	808	630	296	205	280	346

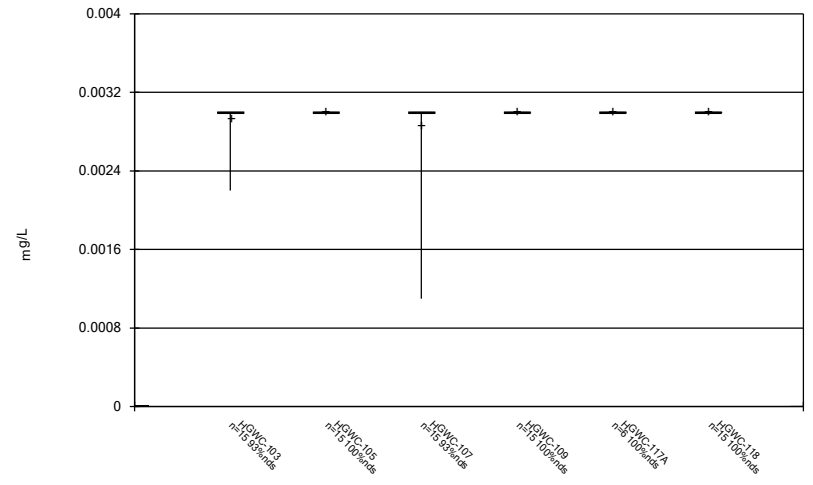
FIGURE B.

Box & Whiskers Plot



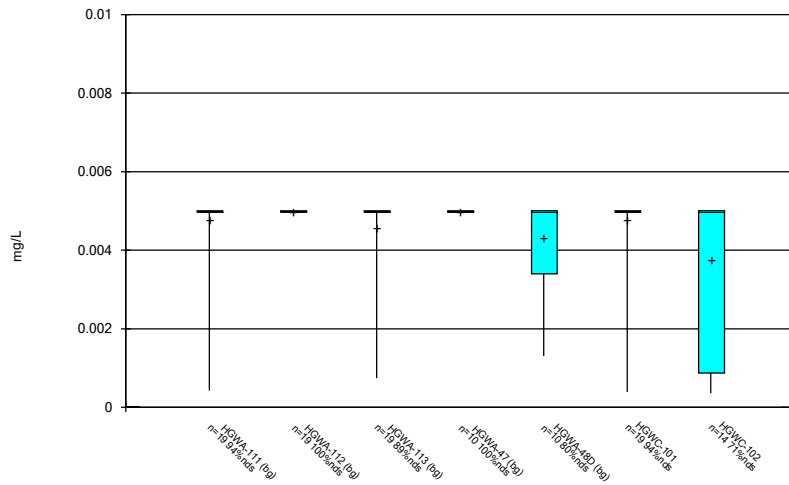
Constituent: Antimony Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



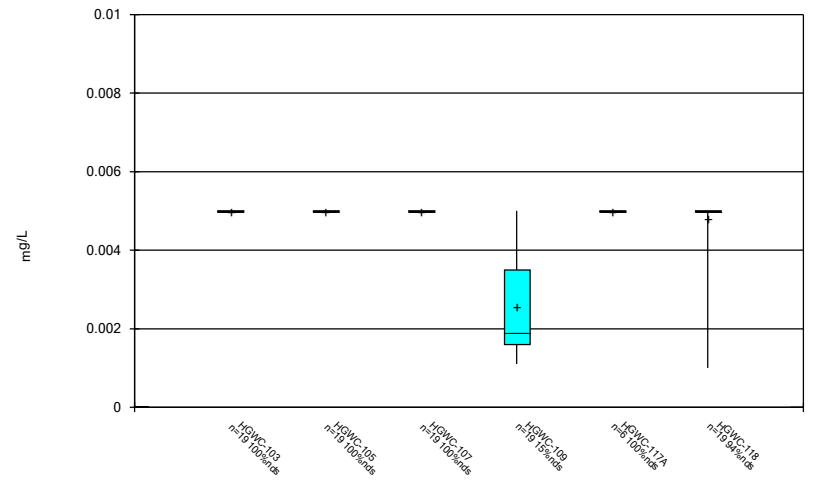
Constituent: Antimony Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



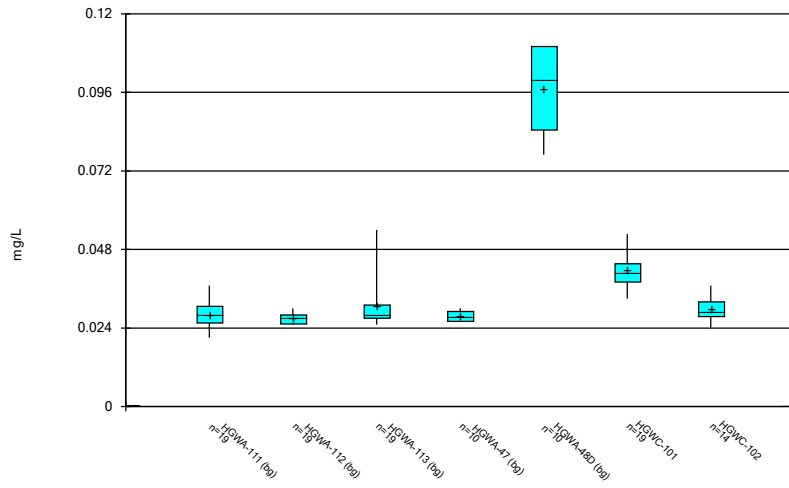
Constituent: Arsenic Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



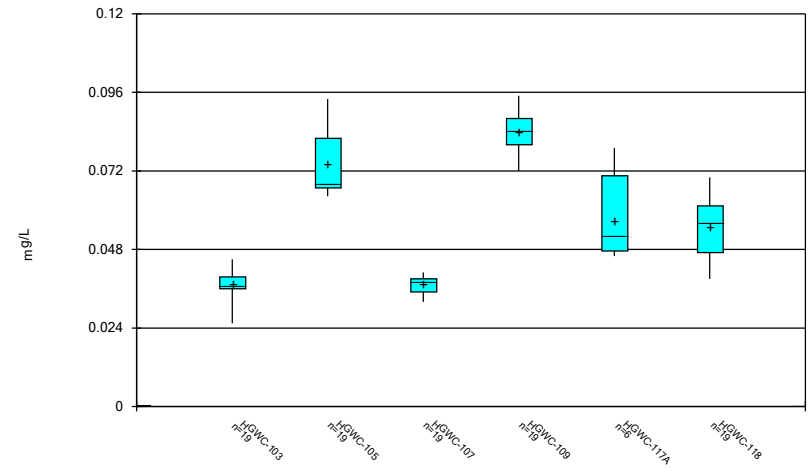
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



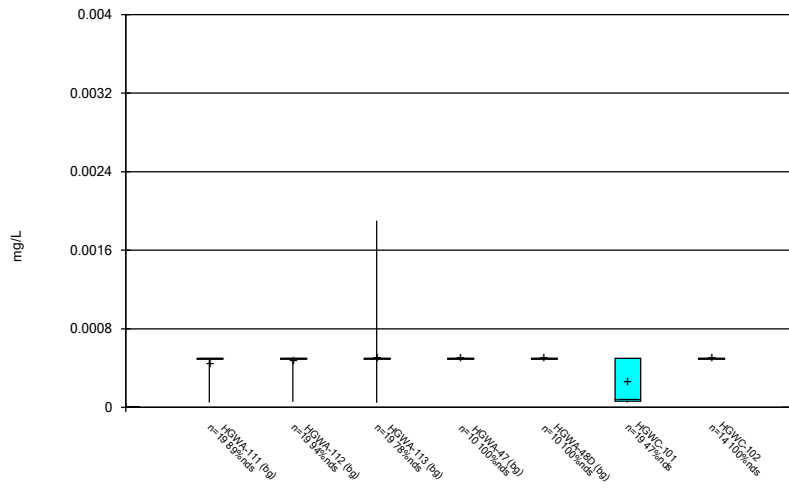
Constituent: Barium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



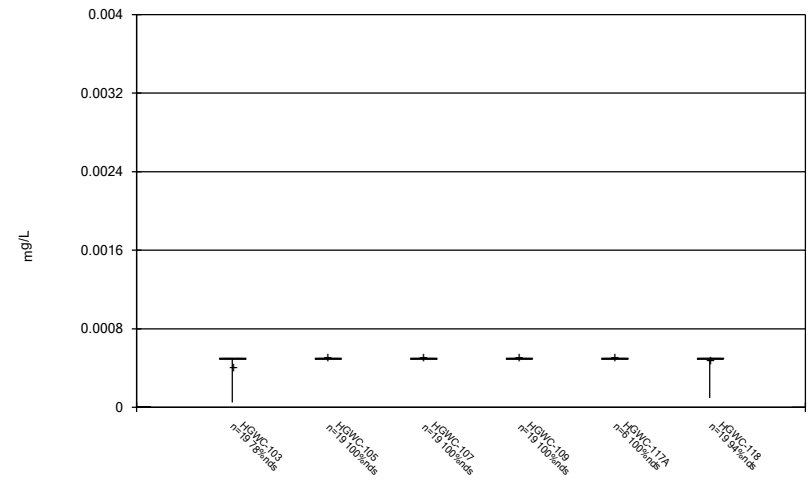
Constituent: Barium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



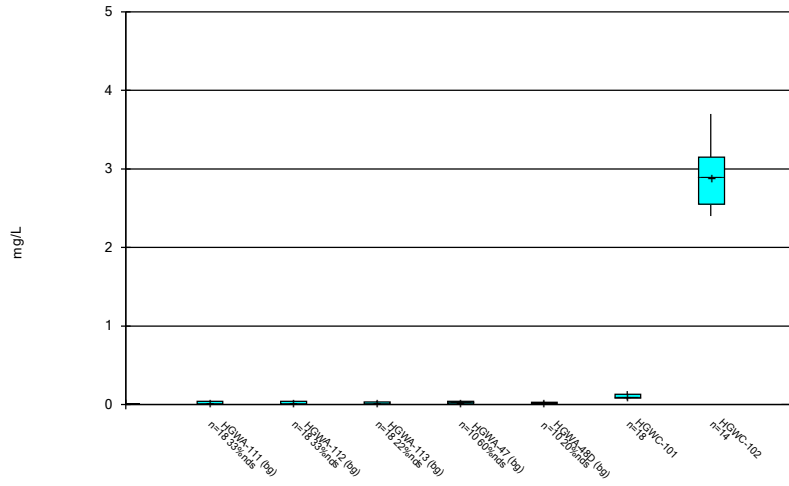
Constituent: Beryllium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



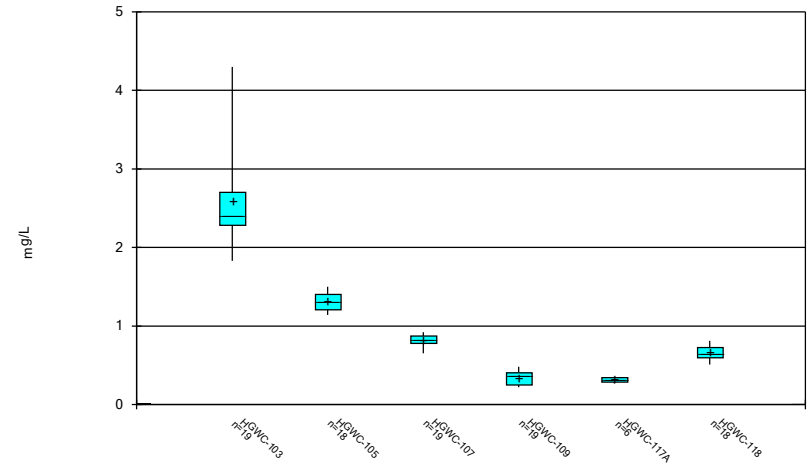
Constituent: Beryllium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



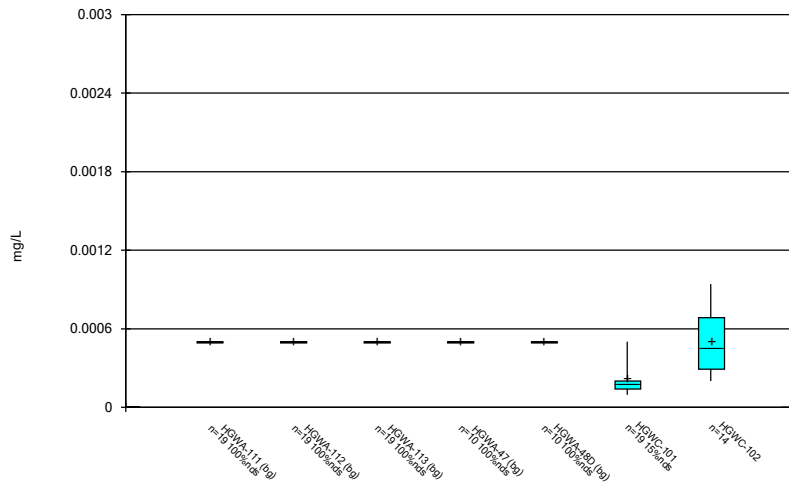
Constituent: Boron Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



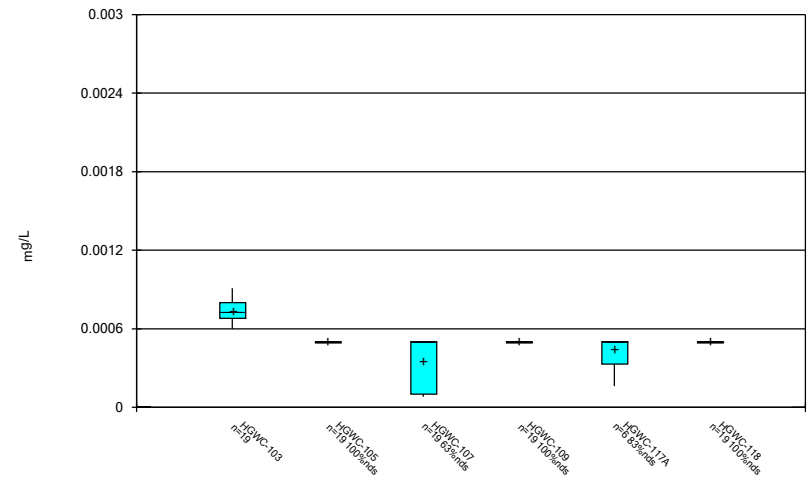
Constituent: Boron Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



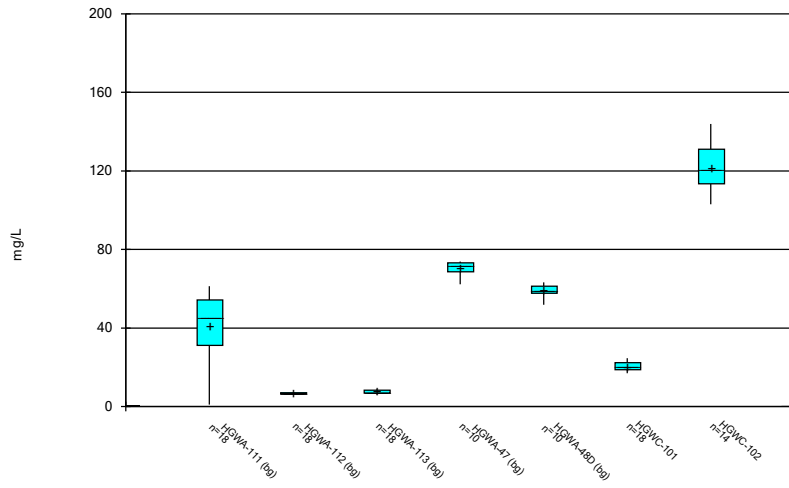
Constituent: Cadmium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



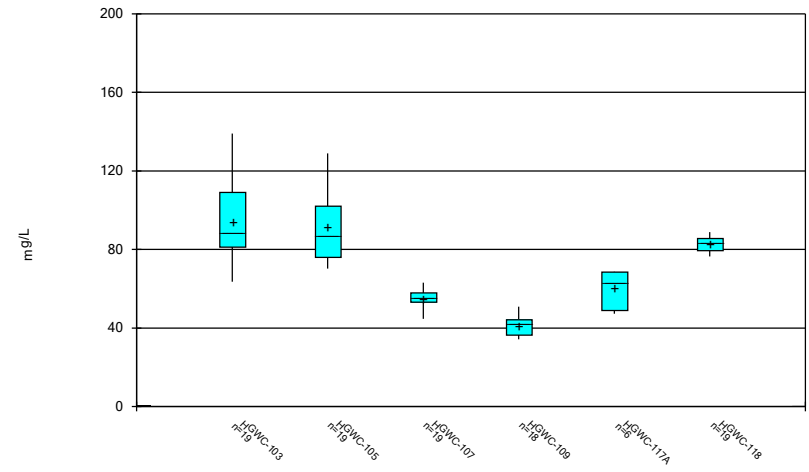
Constituent: Cadmium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



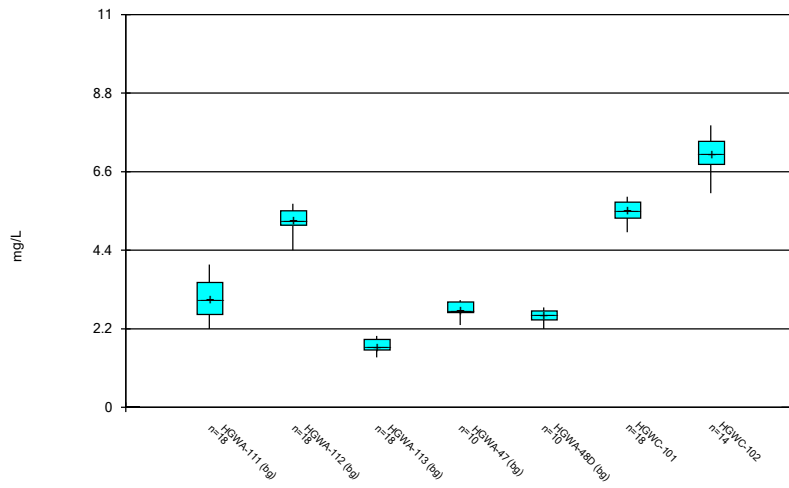
Constituent: Calcium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



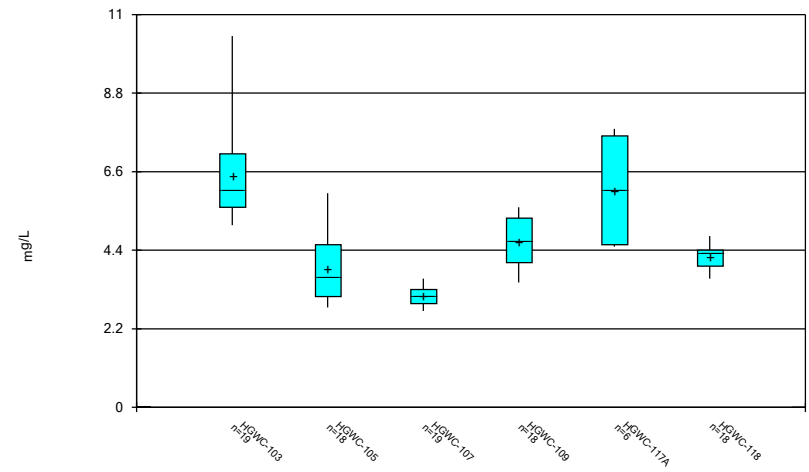
Constituent: Calcium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



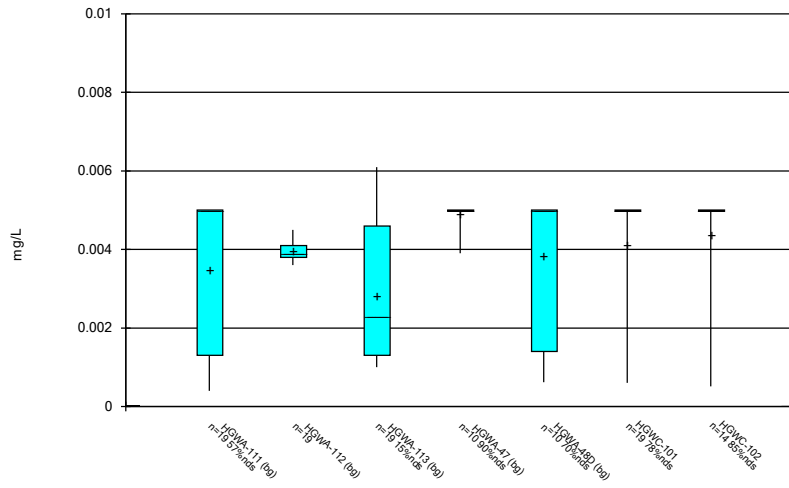
Constituent: Chloride Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



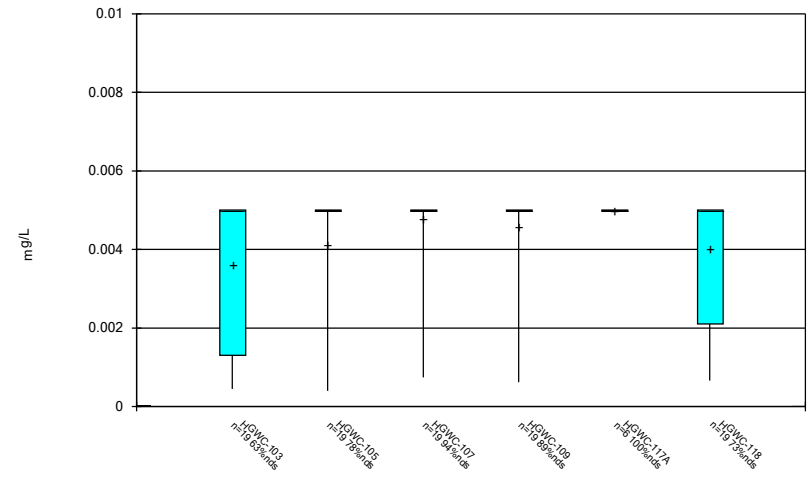
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



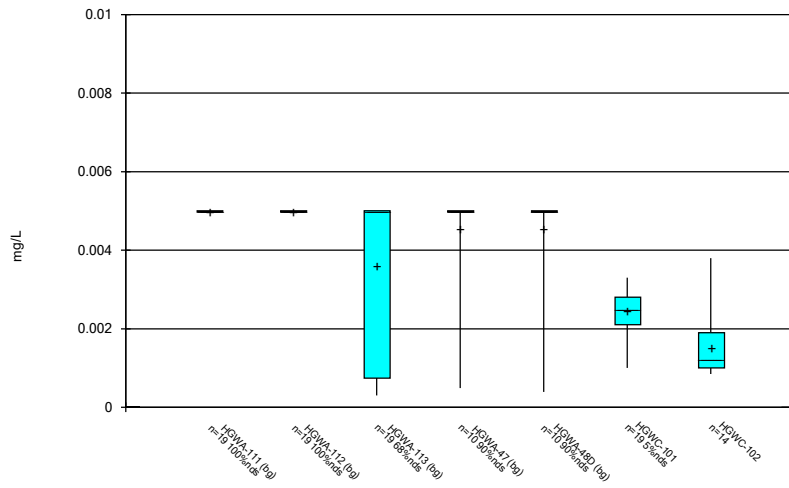
Constituent: Chromium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



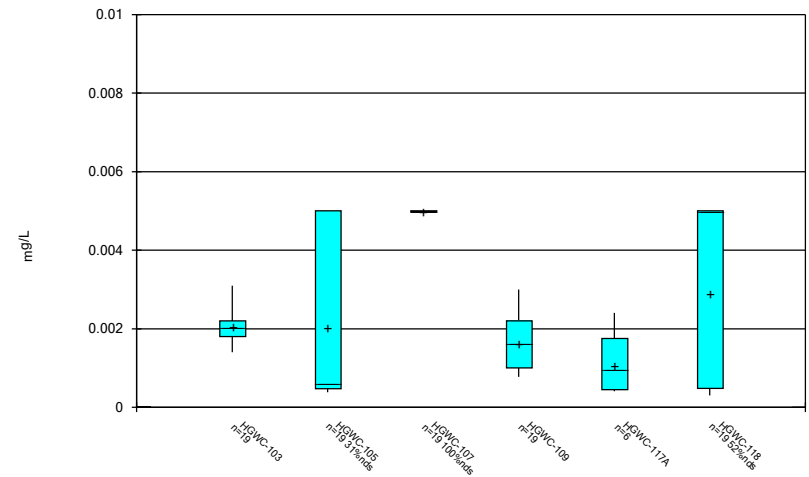
Constituent: Chromium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



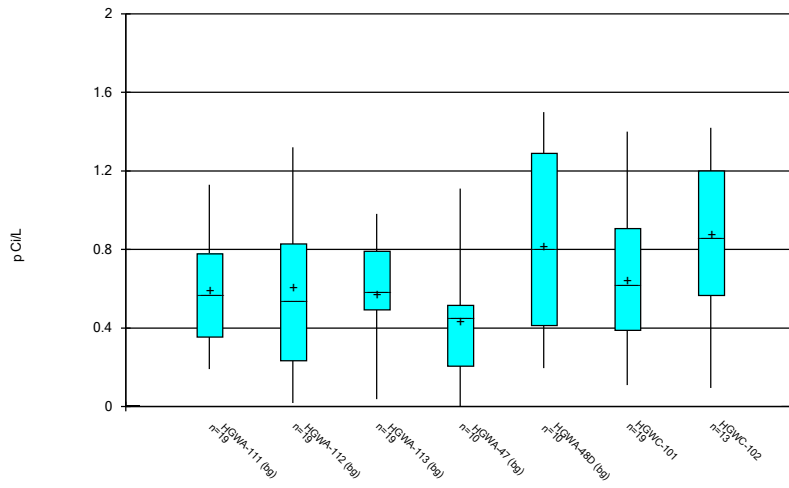
Constituent: Cobalt Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



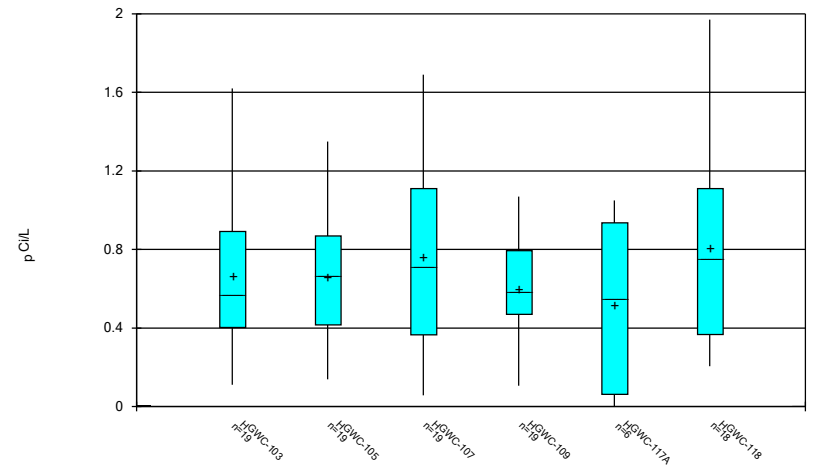
Constituent: Cobalt Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



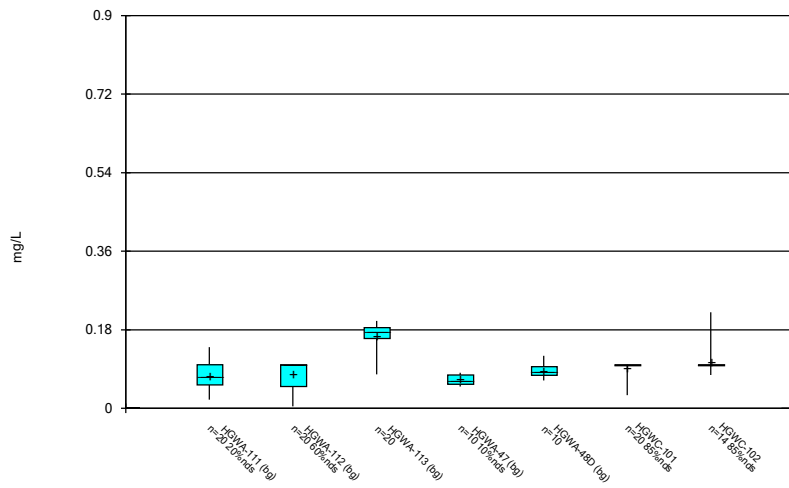
Constituent: Combined Radium 226 & 228 Analysis Run 10/26/2023 11:24 AM View: Time Series & Box P
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



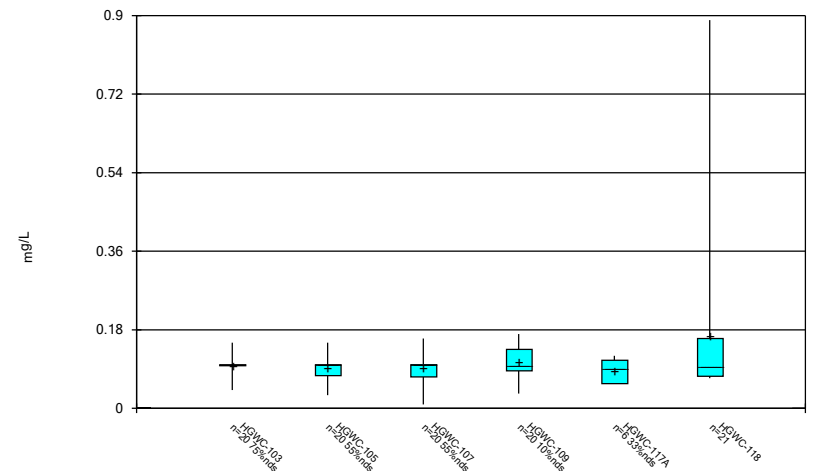
Constituent: Combined Radium 226 & 228 Analysis Run 10/26/2023 11:24 AM View: Time Series & Box P
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



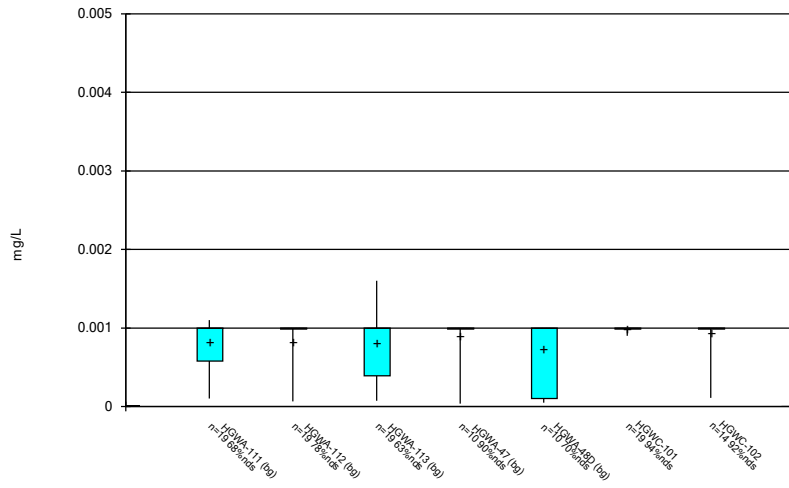
Constituent: Fluoride Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



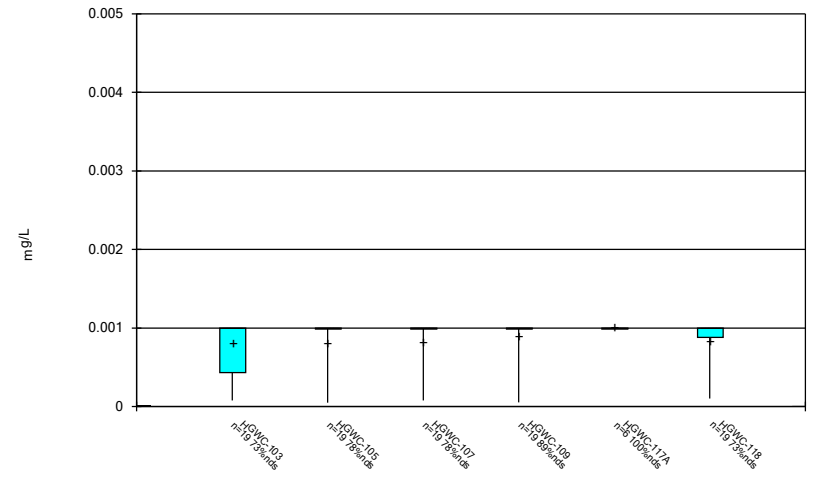
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



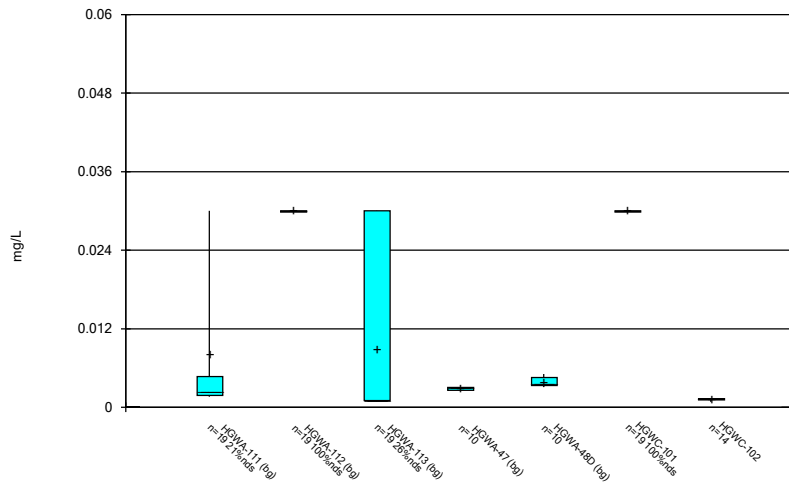
Constituent: Lead Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



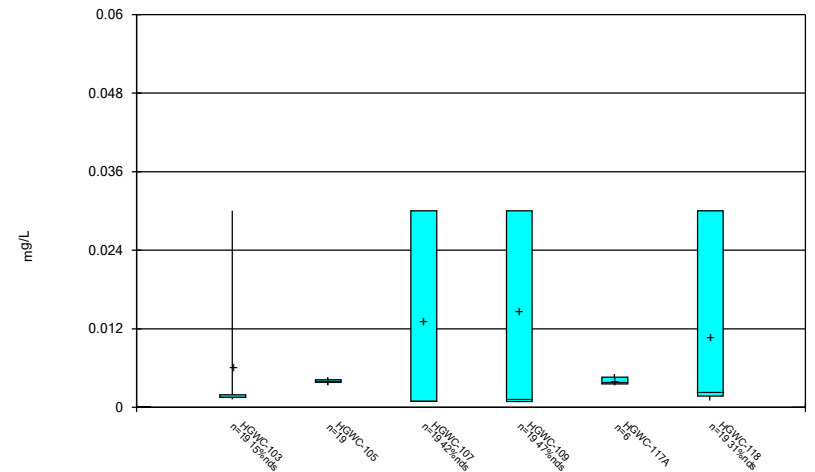
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



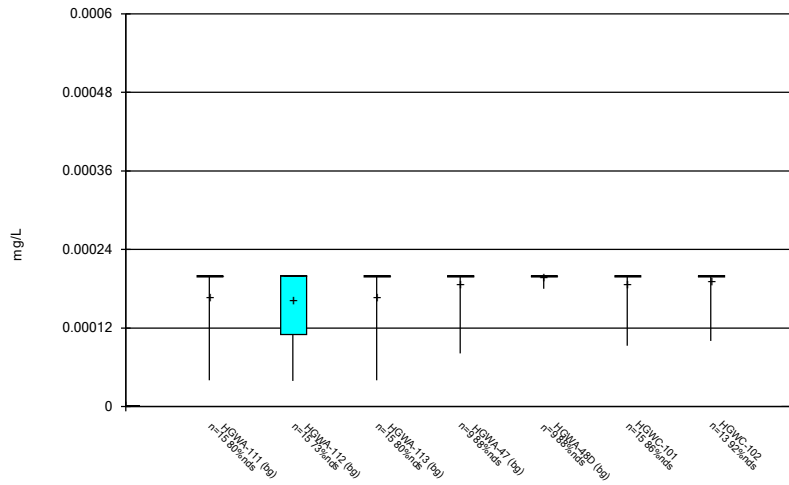
Constituent: Lithium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



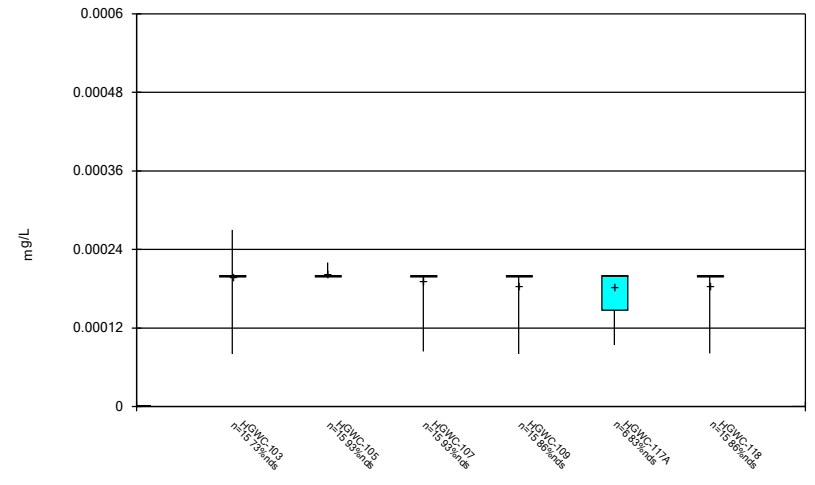
Constituent: Lithium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



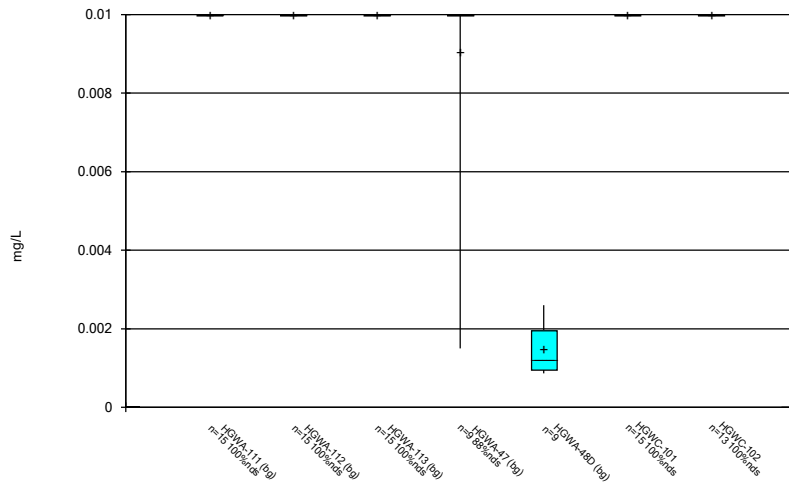
Constituent: Mercury Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



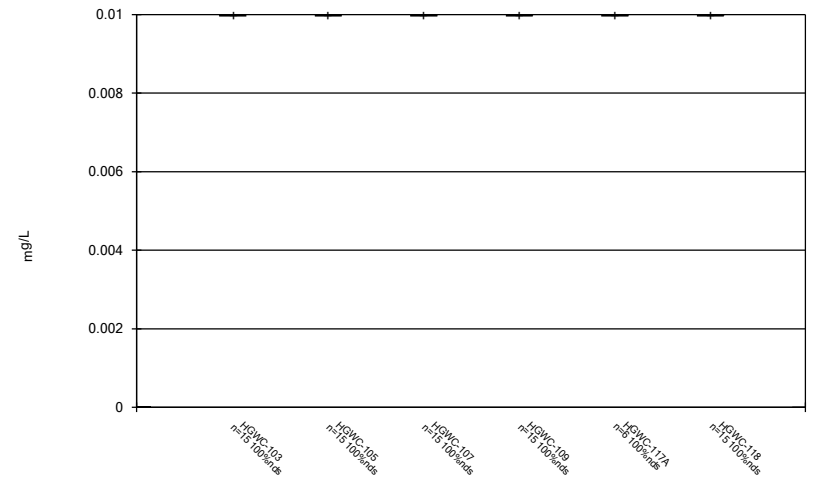
Constituent: Mercury Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



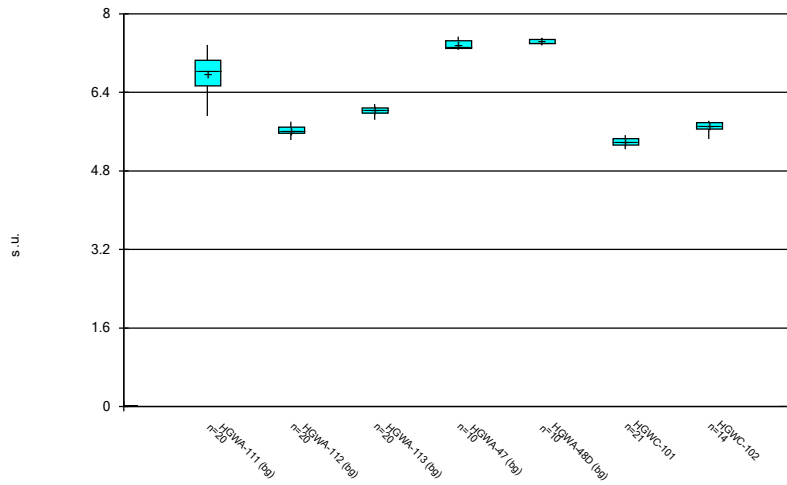
Constituent: Molybdenum Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



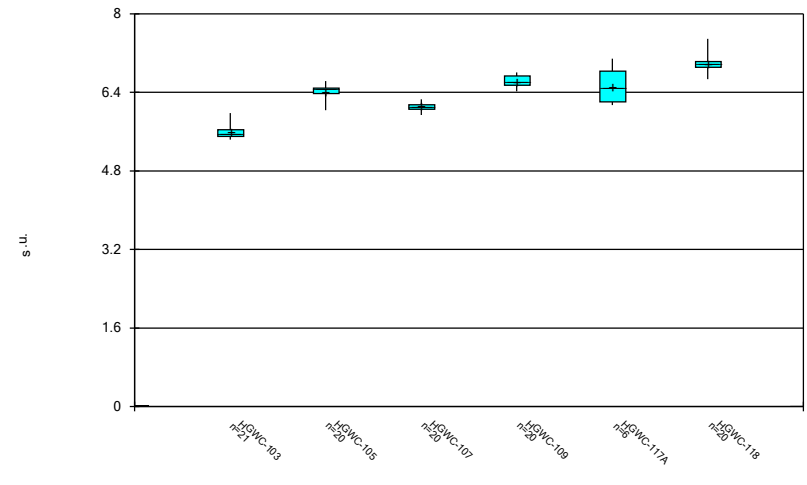
Constituent: Molybdenum Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



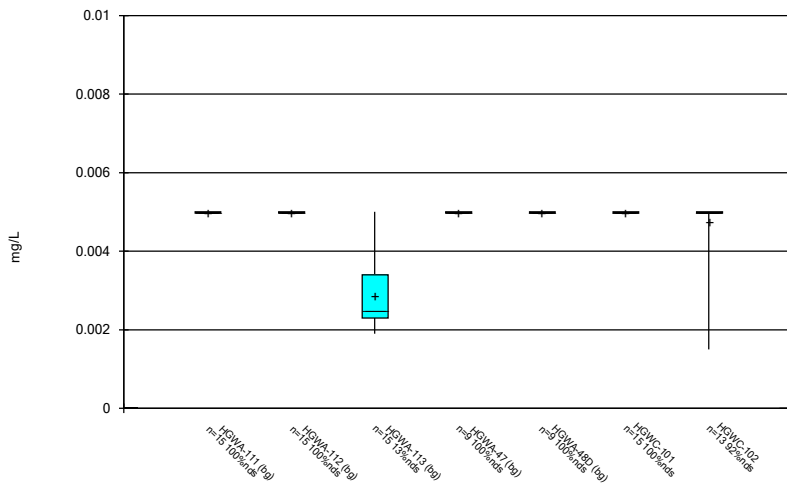
Constituent: pH Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



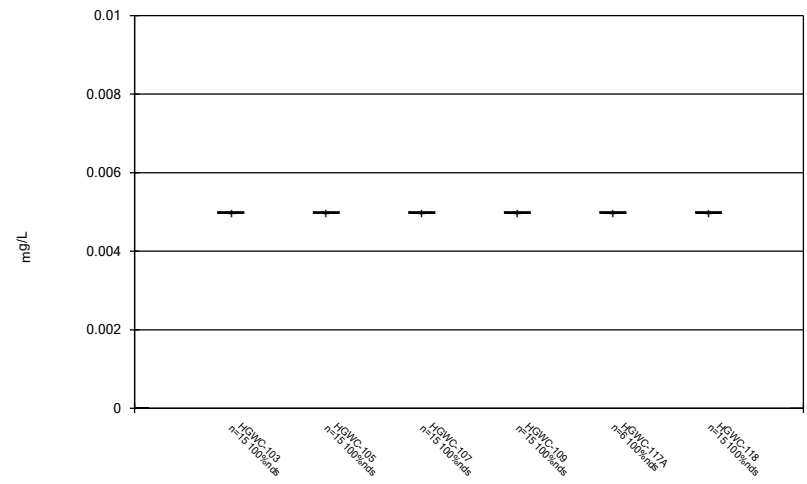
Constituent: pH Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



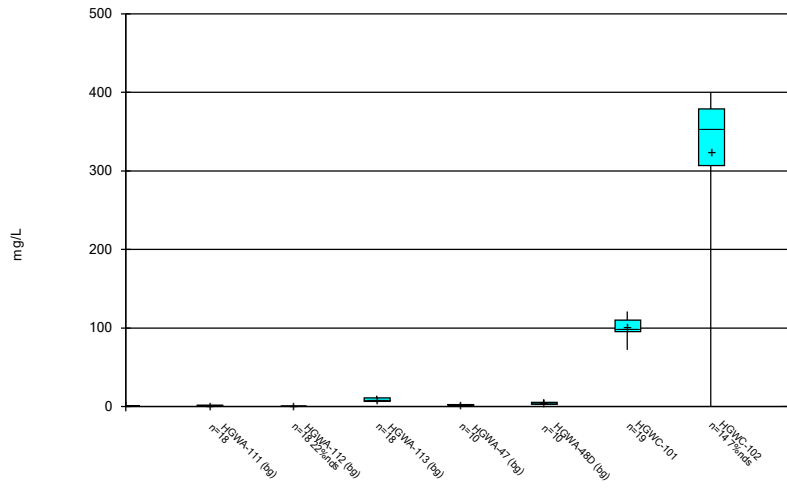
Constituent: Selenium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



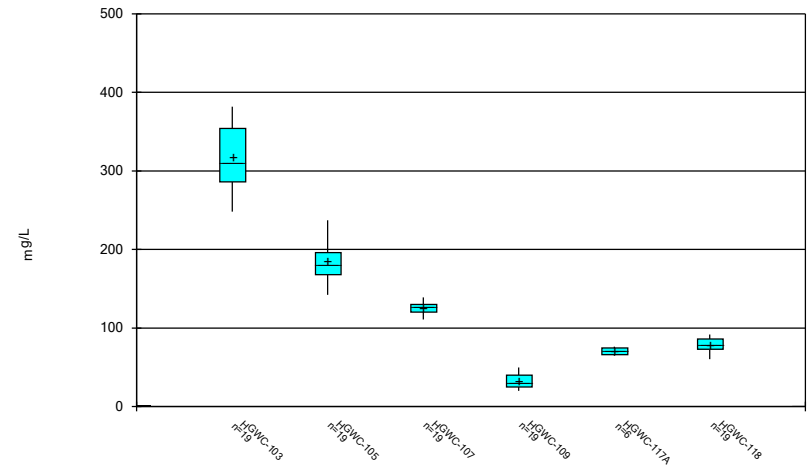
Constituent: Selenium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



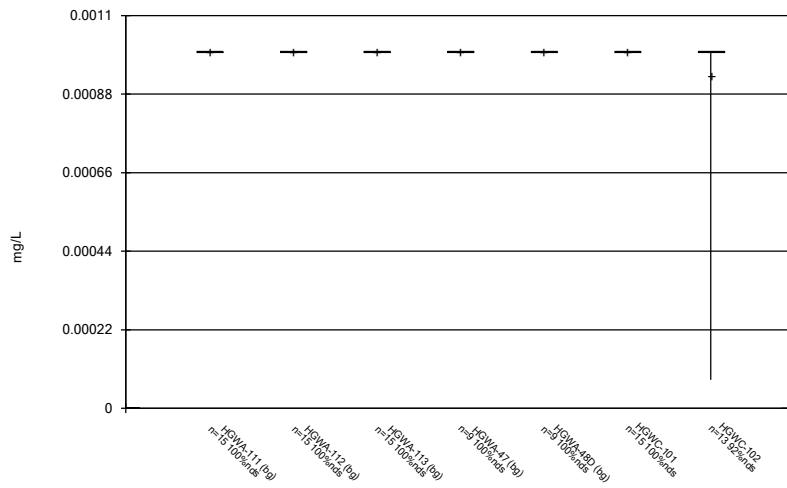
Constituent: Sulfate Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



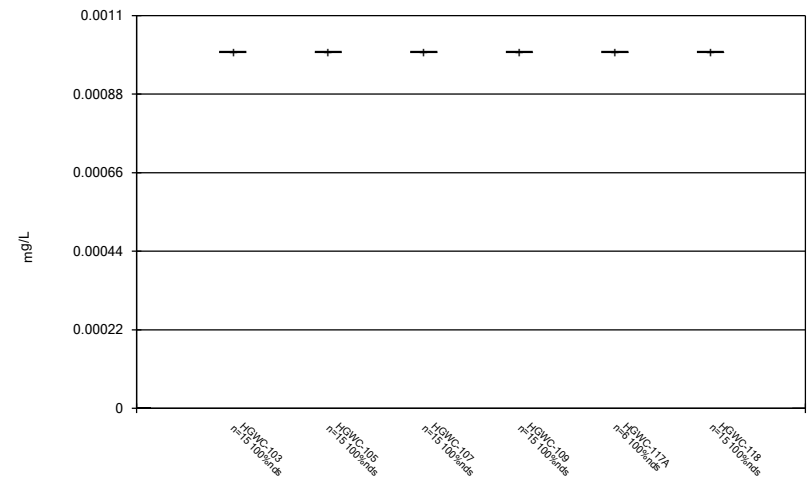
Constituent: Sulfate Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



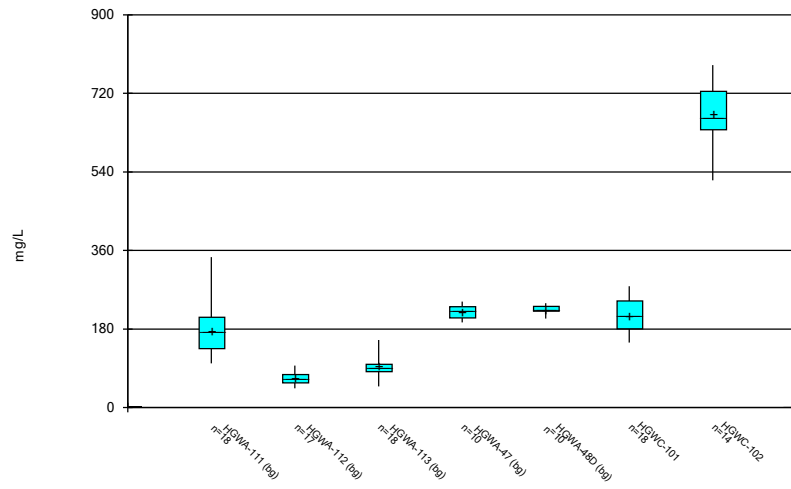
Constituent: Thallium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



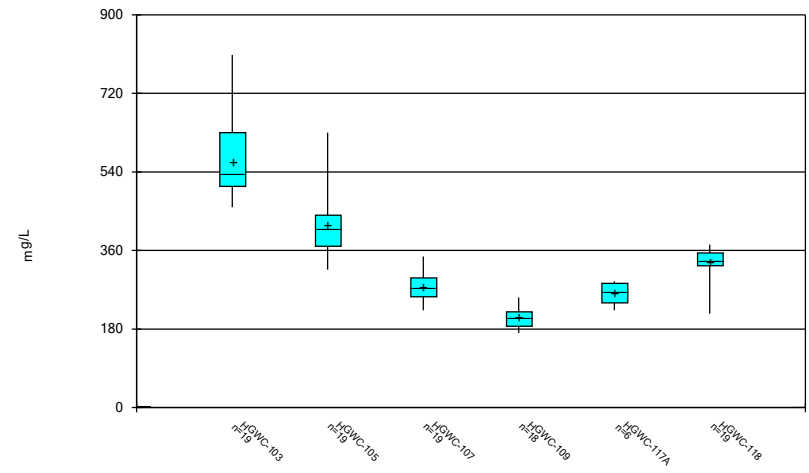
Constituent: Thallium Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/26/2023 11:24 AM View: Time Series & Box Plots
Plant Hammond Client: Southern Company Data: Hammond AP-4

FIGURE C.

Outlier Summary

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:06 PM

HGWA-112 Total Dissolved Solids (mg/L)

1/25/2017

152 (e)

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:09 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	HGWC-101	0.04	n/a	8/11/2023	0.16	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-102	0.04	n/a	8/11/2023	3.2	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-103	0.04	n/a	8/11/2023	4.3	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-105	0.04	n/a	8/11/2023	1.4	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-107	0.04	n/a	8/11/2023	0.81	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-109	0.04	n/a	8/11/2023	0.23	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-117A	0.04	n/a	8/11/2023	0.31	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-118	0.04	n/a	8/11/2023	0.66	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-102	73.8	n/a	8/11/2023	134	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-103	73.8	n/a	8/11/2023	139	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-105	73.8	n/a	8/11/2023	129	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-118	73.8	n/a	8/11/2023	85.5	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-102	5.7	n/a	8/11/2023	6.7	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-103	5.7	n/a	8/11/2023	7.9	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-101	14	n/a	8/11/2023	102	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-102	14	n/a	8/11/2023	370	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-103	14	n/a	8/11/2023	382	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-105	14	n/a	8/11/2023	237	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-107	14	n/a	8/11/2023	113	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-109	14	n/a	8/11/2023	19.8	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-117A	14	n/a	8/11/2023	67.7	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-118	14	n/a	8/11/2023	64.9	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-102	345	n/a	8/11/2023	785	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-103	345	n/a	8/11/2023	808	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-105	345	n/a	8/11/2023	630	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-118	345	n/a	8/11/2023	346	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2

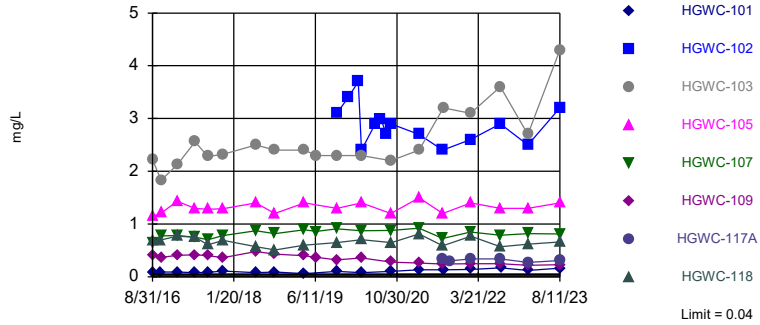
Appendix III Interwell Prediction Limits - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:09 PM

Constituent	Well	Upper Lim	Lower Lim	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	HGWC-101	0.04	n/a	8/11/2023	0.16	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-102	0.04	n/a	8/11/2023	3.2	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-103	0.04	n/a	8/11/2023	4.3	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-105	0.04	n/a	8/11/2023	1.4	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-107	0.04	n/a	8/11/2023	0.81	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-109	0.04	n/a	8/11/2023	0.23	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-117A	0.04	n/a	8/11/2023	0.31	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Boron (mg/L)	HGWC-118	0.04	n/a	8/11/2023	0.66	Yes	74	n/a	n/a	32.43	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-101	73.8	n/a	8/11/2023	24.1	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-102	73.8	n/a	8/11/2023	134	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-103	73.8	n/a	8/11/2023	139	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-105	73.8	n/a	8/11/2023	129	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-107	73.8	n/a	8/11/2023	56	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-109	73.8	n/a	8/11/2023	44.8	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-117A	73.8	n/a	8/11/2023	61.1	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Calcium (mg/L)	HGWC-118	73.8	n/a	8/11/2023	85.5	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-101	5.7	n/a	8/11/2023	4.9	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-102	5.7	n/a	8/11/2023	6.7	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-103	5.7	n/a	8/11/2023	7.9	Yes	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-105	5.7	n/a	8/11/2023	5.6	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-107	5.7	n/a	8/11/2023	2.7	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-109	5.7	n/a	8/11/2023	3.5	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-117A	5.7	n/a	8/11/2023	4.6	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-118	5.7	n/a	8/11/2023	3.8	No	74	n/a	n/a	0	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-101	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-102	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-103	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-105	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-107	0.2	n/a	8/11/2023	0.1ND	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-109	0.2	n/a	8/11/2023	0.086J	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-117A	0.2	n/a	8/11/2023	0.057J	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-118	0.2	n/a	8/11/2023	0.07J	No	80	n/a	n/a	21.25	n/a	n/a	n/a	0.0002979	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-101	7.54	5.43	8/11/2023	5.44	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-102	7.54	5.43	8/11/2023	5.79	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-103	7.54	5.43	8/11/2023	5.8	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-105	7.54	5.43	8/11/2023	6.47	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-107	7.54	5.43	8/11/2023	6.16	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-109	7.54	5.43	8/11/2023	6.8	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-117A	7.54	5.43	8/11/2023	7.09	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-118	7.54	5.43	8/11/2023	7.49	No	80	n/a	n/a	0	n/a	n/a	n/a	0.0005958	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-101	14	n/a	8/11/2023	102	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-102	14	n/a	8/11/2023	370	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-103	14	n/a	8/11/2023	382	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-105	14	n/a	8/11/2023	237	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-107	14	n/a	8/11/2023	113	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-109	14	n/a	8/11/2023	19.8	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-117A	14	n/a	8/11/2023	67.7	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Sulfate (mg/L)	HGWC-118	14	n/a	8/11/2023	64.9	Yes	74	n/a	n/a	5.405	n/a	n/a	n/a	0.0003507	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-101	345	n/a	8/11/2023	250	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-102	345	n/a	8/11/2023	785	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-103	345	n/a	8/11/2023	808	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-105	345	n/a	8/11/2023	630	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-107	345	n/a	8/11/2023	296	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-109	345	n/a	8/11/2023	205	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-117A	345	n/a	8/11/2023	280	No	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-118	345	n/a	8/11/2023	346	Yes	73	n/a	n/a	0	n/a	n/a	n/a	0.0003595	NP Inter (normality) 1 of 2

Exceeds Limit: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Prediction Limit
Interwell Non-parametric

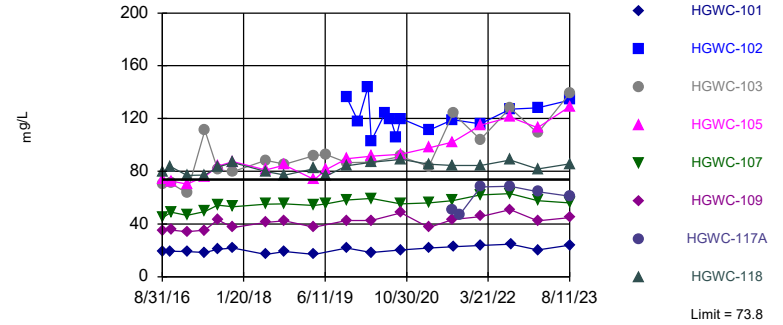


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 74 background values. 32.43% NDs. Annual per-constituent alpha = 0.005596. Individual comparison alpha = 0.0003507 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Exceeds Limit: HGWC-102, HGWC-103, HGWC-105, HGWC-118

Prediction Limit
Interwell Non-parametric

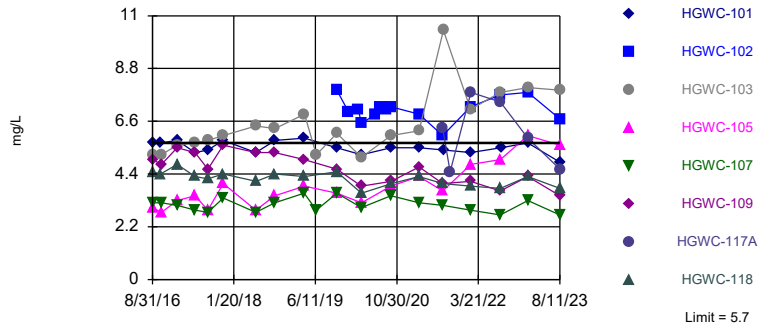


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 74 background values. Annual per-constituent alpha = 0.005596. Individual comparison alpha = 0.0003507 (1 of 2). Comparing 8 points to limit.

Constituent: Calcium Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Exceeds Limit: HGWC-102, HGWC-103

Prediction Limit
Interwell Non-parametric

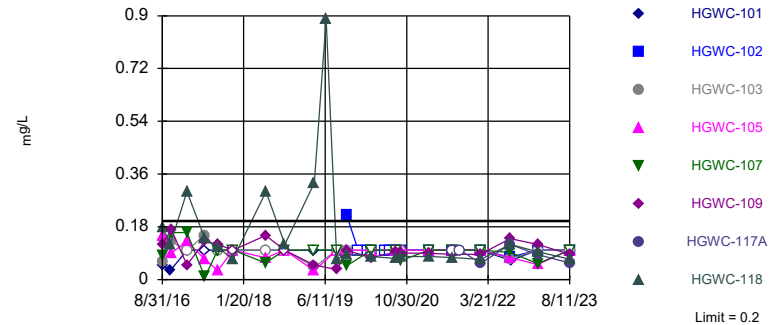


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 74 background values. Annual per-constituent alpha = 0.005596. Individual comparison alpha = 0.0003507 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Within Limit

Prediction Limit
Interwell Non-parametric

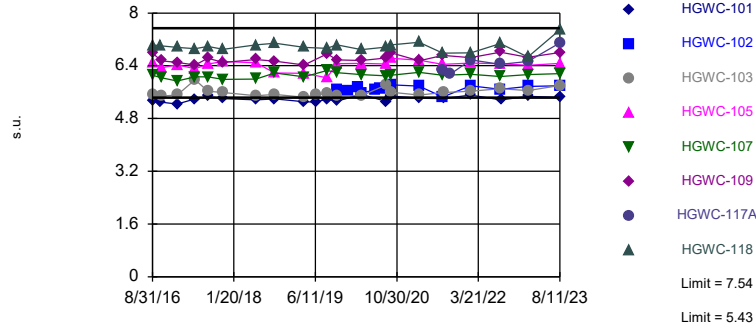


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 80 background values. 21.25% NDs. Annual per-constituent alpha = 0.004756. Individual comparison alpha = 0.0002979 (1 of 2). Comparing 8 points to limit.

Constituent: Fluoride Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Within Limits

Prediction Limit
Interwell Non-parametric



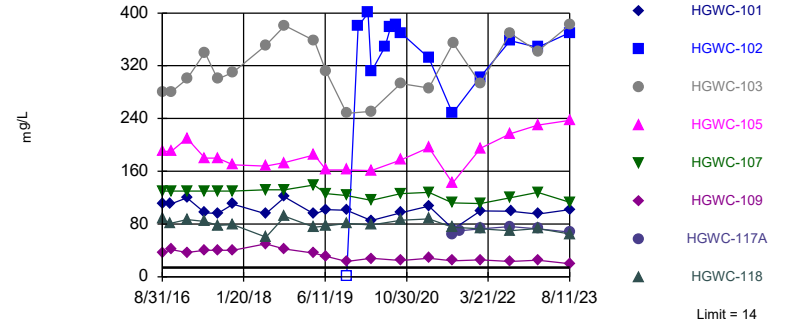
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limits are highest and lowest of 80 background values. Annual per-constituent alpha = 0.009511. Individual comparison alpha = 0.0005958 (1 of 2). Comparing 8 points to limit.

Constituent: pH Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Hollow symbols indicate censored values.

Exceeds Limit: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Prediction Limit
Interwell Non-parametric

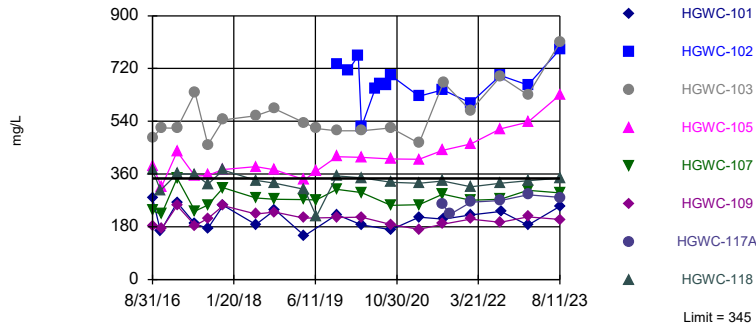


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 74 background values. 5.405% NDs. Annual per-constituent alpha = 0.005596. Individual comparison alpha = 0.0003507 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Exceeds Limit: HGWC-102, HGWC-103, HGWC-105, HGWC-118

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 73 background values. Annual per-constituent alpha = 0.005736. Individual comparison alpha = 0.0003595 (1 of 2). Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:08 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-101	HGWC-118	HGWC-109
8/30/2016	<0.04	<0.04	<0.04						
8/31/2016				0.651	1.14	2.22	0.0724 (J)	0.681	0.402
10/20/2016	0.016 (J)						0.0877 (J)	0.697	
10/24/2016		0.0226 (J)	0.0367 (J)			1.83			
10/25/2016				0.778	1.21				0.372
1/25/2017	0.0095 (J)	0.009 (J)	0.0075 (J)						
1/31/2017				0.782	1.43	2.12	0.0928	0.768	0.404
5/23/2017		0.0082 (J)	0.0073 (J)			2.56	0.0795	0.754	
5/24/2017	0.0094 (J)			0.753	1.3				0.415
8/10/2017	<0.04	0.0061 (J)	<0.04	0.702	1.28	2.28	0.0814	0.608	0.397
11/13/2017	0.0103 (J)		0.0089 (J)						
11/14/2017		0.012 (J)		0.78	1.29	2.32	0.108	0.691	0.366
6/4/2018	0.0065 (J)		0.007 (J)						
6/5/2018		0.0085 (J)							
6/6/2018				0.87	1.4	2.5	0.081		0.48
6/7/2018								0.57	
10/1/2018	0.0054 (J)	0.0042 (J)	<0.04						
10/2/2018				0.82	1.2				0.43
10/3/2018						2.4	0.092	0.51	
4/1/2019	0.0076 (J)								
4/2/2019		0.0059 (J)	0.0043 (J)						
4/3/2019				0.89					0.4
4/4/2019					1.4 (X)	2.4	0.06 (X)		
4/5/2019								0.6 (X)	
6/17/2019				0.86		2.3			0.37
10/21/2019	0.0097 (J)								
10/22/2019		0.01 (J)	0.016 (J)	0.91				0.65	0.32
10/23/2019					1.3	2.3	0.1		
1/3/2020									
3/4/2020									
3/24/2020	0.011 (J)		0.012 (J)						
3/25/2020				0.87	1.4	2.3	0.08 (J)	0.7	0.36
4/9/2020		0.012 (J)							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	0.011 (J)		0.008 (J)						
9/22/2020		0.021 (J)							
9/24/2020				0.88	1.2	2.2	0.1		
9/25/2020									0.28
9/28/2020								0.65	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	0.01 (J)								
3/12/2021			0.0061 (J)						
3/16/2021		0.011 (J)							
3/17/2021							0.13		0.26
3/18/2021				0.92	1.5	2.4		0.81	
8/12/2021	<0.04	<0.04	<0.04						
8/13/2021				0.73	1.2			0.59	0.24

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-101	HGWC-118	HGWC-109
8/16/2021						3.2	0.13		
9/27/2021									
1/31/2022	0.0099 (J)								
2/1/2022		0.012 (J)	0.011 (J)						
2/2/2022				0.85		3.1	0.14		0.25
2/3/2022					1.4			0.77	
8/2/2022		<0.04							
8/5/2022	<0.04		0.012 (J)	0.79	1.3	3.6		0.57	0.25
8/10/2022							0.17		
1/24/2023	<0.04	<0.04	<0.04						
1/25/2023				0.82	1.3	2.7	0.12	0.62	0.22
8/8/2023	<0.04		<0.04						
8/10/2023		0.0091 (J)							
8/11/2023				0.81	1.4	4.3	0.16	0.66	0.23

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/17/2019				
10/21/2019				
10/22/2019				
10/23/2019	3.1			
1/3/2020	3.4			
3/4/2020	3.7			
3/24/2020	2.4			
3/25/2020				
4/9/2020				
6/18/2020	2.9			
7/21/2020	3			
8/27/2020	2.7			
9/18/2020		0.015 (J)	0.0082 (J)	
9/22/2020				
9/24/2020	2.9			
9/25/2020				
9/28/2020				
11/10/2020			0.0064 (J)	
11/11/2020		0.014 (J)		
12/15/2020		0.0083 (J)	<0.04	
1/19/2021		0.015 (J)	0.015 (J)	
3/11/2021				
3/12/2021		0.012 (J)	0.0067 (J)	
3/16/2021				
3/17/2021	2.7			
3/18/2021				
8/12/2021		0.012 (J)	<0.04	0.34
8/13/2021	2.4			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/16/2021				
9/27/2021				0.3
1/31/2022		0.011 (J)	<0.04	
2/1/2022				
2/2/2022	2.6			
2/3/2022				0.34
8/2/2022			<0.04	
8/5/2022	2.9	0.011 (J)		0.34
8/10/2022				
1/24/2023		<0.04	<0.04	
1/25/2023	2.5			0.27
8/8/2023		<0.04	<0.04	
8/10/2023				
8/11/2023	3.2			0.31

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-101	HGWC-118	HGWC-109
8/30/2016	40.3	6.72	6.69						
8/31/2016				44.7	74.2	70.4	19.4	79.3	35.1
10/20/2016	38.7						19.3	83.7	
10/24/2016		6.4	6.25			70.9			
10/25/2016				49	72.5				35.4
1/25/2017	44.6	6.87	6.58						
1/31/2017				46.6	70.3	63.6	19.1	76.8	34.2
5/23/2017		7.13	6.4			111	18.3	77.2	
5/24/2017	34.8			49.5	75.9				35.3
8/10/2017	48.6	6.71	6.54	54.2	84	81.2	20.9	83.1	43.1
11/13/2017	17.1		6.26						
11/14/2017		7.4		53.2	87.2	79.7	21.7	86.7	37.4
6/4/2018	30.1		7.4						
6/5/2018		7.4							
6/6/2018				55	81	88.3	17		41.1
6/7/2018								79.7	
10/1/2018	14.2 (J)	6.2	5.8						
10/2/2018				55.4	84.7				42.5
10/3/2018						85.3	19.1 (J)	77.1	
4/1/2019	58.4								
4/2/2019		7.4	6.7						
4/3/2019				54					37.5
4/4/2019					73.8	91.9	16.9		
4/5/2019								82	
6/17/2019				55.3	81.2	92.6			
6/18/2019								76.5	
10/21/2019	51								
10/22/2019		7.2	6.3	58.1				84.2	42.6
10/23/2019					89.4	86.5	21.9		
1/3/2020									
3/4/2020									
3/24/2020	61.2		7						
3/25/2020				59.5	91.4	86.8	18.4	86.8	42.6
4/9/2020		8.3							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	32.2		6.5						
9/22/2020		7.9							
9/24/2020				55.4	92.9	91.3	20.3		
9/25/2020									48.5
9/28/2020								88.9	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	53.2								
3/12/2021			6.9						
3/16/2021		8.6							
3/17/2021							21.8		37.3
3/18/2021				56	97.7	83.7		85.4	
8/12/2021	45.4	8.4	6.9						

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-101	HGWC-118	HGWC-109
8/13/2021				57.8	102			84.3	43.5
8/16/2021						124	22.8		
9/27/2021									
1/31/2022	58.6								
2/1/2022		8.6	7.4						
2/2/2022				62		104	23.8		45.7
2/3/2022					115			84.5	
8/2/2022		8							
8/5/2022	53		7.1	63	121	128		88.5	50.8
8/10/2022							24.6		
1/24/2023	55.4	7.5	6.6						
1/25/2023				57.8	113	109	20.4	81.8	42.4
8/8/2023	0.94 (J)		6.6						
8/10/2023		8.4							
8/11/2023				56	129	139	24.1	85.5	44.8

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/17/2019				
6/18/2019				
10/21/2019				
10/22/2019				
10/23/2019	136			
1/3/2020	118			
3/4/2020	144			
3/24/2020	103			
3/25/2020				
4/9/2020				
6/18/2020	124			
7/21/2020	120			
8/27/2020	106			
9/18/2020		62.2	51.8	
9/22/2020				
9/24/2020	120			
9/25/2020				
9/28/2020				
11/10/2020		73.3		
11/11/2020			61.3	
12/15/2020		72.5	61.3	
1/19/2021		72.5	58.9	
3/11/2021				
3/12/2021		69.2	57.5	
3/16/2021				
3/17/2021	111			
3/18/2021				
8/12/2021		71.2	59.5	50.7

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-117A
8/13/2021	119			
8/16/2021				
9/27/2021				47.2
1/31/2022		73.8	63.2	
2/1/2022				
2/2/2022	116			
2/3/2022				68.2
8/2/2022		73		
8/5/2022	127		59.6	68.6
8/10/2022				
1/24/2023		69.2	57.8	
1/25/2023	128			64.5
8/8/2023		68	58.2	
8/10/2023				
8/11/2023	134			61.1

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWC-107	HGWC-118	HGWC-101	HGWC-105	HGWC-103	HGWC-109
8/30/2016	3.3	5.4	2						
8/31/2016				3.2	4.5	5.7	3	5.2	5
10/20/2016	3.2				4.4	5.7			
10/24/2016		5.2	1.9					5.2	
10/25/2016				3.2			2.8		4.8
1/25/2017	2.7	5	1.9						
1/31/2017				3.1	4.8	5.8	3.3	5.6	5.5
5/23/2017		5.1	1.6		4.3	5.3		5.7	
5/24/2017	3			2.9			3.5		5.3
8/10/2017	2.8	5.2	1.7	2.8	4.2	5.4	2.9	5.8	4.6
11/13/2017	2.5	5.5							
11/14/2017			2	3.4	4.4	5.8	4	6	5.6
6/4/2018	2.6	5.3							
6/5/2018			1.7						
6/6/2018				2.8		5.3	2.9	6.4	5.3
6/7/2018					4.1				
10/1/2018	2.2	5.6	1.6						
10/2/2018				3.2			3.5		5.3
10/3/2018					4.4	5.8		6.3	
4/1/2019	4								
4/2/2019		5.7	1.8						
4/3/2019				3.6					5
4/4/2019						5.9	3.9	6.9	
4/5/2019					4.3				
6/17/2019				2.9				5.2	
10/21/2019	3.9								
10/22/2019		5.5	1.9	3.6	4.5				4.6
10/23/2019						5.5	3.6	6.1	
1/3/2020									
3/4/2020									
3/24/2020	3.6	5.2							
3/25/2020				3	3.6	5.2	3.2	5.1	3.9
4/9/2020			1.4						
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	2.6	5.2							
9/22/2020			1.5						
9/24/2020				3.5		5.5	3.9	6	
9/25/2020									4.1
9/28/2020					4				
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	3.4								
3/12/2021		5.3							
3/16/2021			1.6						
3/17/2021						5.5			4.7
3/18/2021				3.2	4.3		4.3	6.2	
8/12/2021	2.5	4.4	1.5						
8/13/2021				3.1	4		3.7		4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWC-107	HGWC-118	HGWC-101	HGWC-105	HGWC-103	HGWC-109
8/16/2021						5.4		10.4	
9/27/2021									
1/31/2022	3								
2/1/2022		5.2	1.6						
2/2/2022				2.9		5.3		7.1	4.1
2/3/2022					3.9		4.8		
8/2/2022			1.8						
8/5/2022	2.7	5		2.7	3.8		5	7.8	3.7
8/10/2022						5.5			
1/24/2023	3.6	5.6	1.8						
1/25/2023				3.3	4.3	5.7	6	8	4.3
8/8/2023	3	5.1							
8/10/2023			1.6						
8/11/2023				2.7	3.8	4.9	5.6	7.9	3.5

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/17/2019				
10/21/2019				
10/22/2019				
10/23/2019	7.9			
1/3/2020	7			
3/4/2020	7.1			
3/24/2020	6.5			
3/25/2020				
4/9/2020				
6/18/2020	6.9			
7/21/2020	7.2			
8/27/2020	7.1			
9/18/2020		2.6	2.7	
9/22/2020				
9/24/2020	7.2			
9/25/2020				
9/28/2020				
11/10/2020			2.7	
11/11/2020		2.6		
12/15/2020		2.7	2.9	
1/19/2021		2.7	2.8	
3/11/2021				
3/12/2021		2.6	2.7	
3/16/2021				
3/17/2021	6.9			
3/18/2021				
8/12/2021		2.2	2.3	6.3
8/13/2021	6			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/16/2021				
9/27/2021				4.5
1/31/2022		2.5	2.6	
2/1/2022				
2/2/2022	7.2			
2/3/2022				7.8
8/2/2022			3	
8/5/2022	7.7	2.4		7.4
8/10/2022				
1/24/2023		2.8	3	
1/25/2023	7.8			5.9
8/8/2023		2.7	2.7	
8/10/2023				
8/11/2023	6.7			4.6

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-118	HGWC-101	HGWC-109
8/30/2016	0.07 (J)	0.2 (J)	0.04 (J)						
8/31/2016				0.08 (J)	0.15 (J)	0.06 (J)	0.18 (J)	0.05 (J)	0.12 (J)
10/20/2016	0.07 (J)						0.12 (J)	0.03 (J)	
10/24/2016		0.16 (J)	0.05 (J)			0.13 (J)			
10/25/2016				0.16 (J)	0.09 (J)				0.17 (J)
1/25/2017	0.14 (J)	0.15 (J)	<0.1						
1/31/2017				0.16 (J)	0.13 (J)	<0.1	0.3	<0.1	0.05 (J)
5/23/2017		0.18 (J)	0.004 (J)			0.15 (J)	0.14 (J)	<0.1	
5/24/2017	0.02 (J)			0.009 (J)	0.07 (J)				0.13 (J)
8/10/2017	0.06 (J)	0.19 (J)	0.03 (J)	<0.1	0.03 (J)	<0.1	0.11 (J)	<0.1	0.12 (J)
11/13/2017	<0.1		<0.1						
11/14/2017		0.16 (J)		<0.1	<0.1	<0.1	0.07 (J)	<0.1	<0.1
6/4/2018	0.032 (J)		<0.1						
6/5/2018		0.18 (J)							
6/6/2018				0.057 (J)	0.074 (J)	<0.1		<0.1	0.15 (J)
6/7/2018							0.3		
10/1/2018	<0.1	0.078 (J)	<0.1						
10/2/2018				<0.1	<0.1				<0.1
10/3/2018						<0.1	0.12 (J)	<0.1	
4/1/2019	0.042 (J)								
4/2/2019		0.18 (J)	<0.1						
4/3/2019				<0.1					0.05 (J)
4/4/2019					0.03 (J)	0.042 (J)		<0.1	
4/5/2019							0.33		
6/18/2019							0.89		
8/21/2019	0.048 (J)	0.11 (J)	<0.1						
8/22/2019					<0.1	<0.1	0.07 (J)	<0.1	
8/23/2019				<0.1					0.034 (J)
10/21/2019	0.12 (J)								
10/22/2019		0.18 (J)	0.05 (J)	0.047 (J)			0.087 (J)		0.099 (J)
10/23/2019					<0.1	<0.1		<0.1	
1/3/2020									
3/4/2020									
3/24/2020	0.076 (J)		<0.1						
3/25/2020				<0.1	<0.1	<0.1	0.078 (J)	<0.1	0.075 (J)
4/9/2020		0.14 (J)							
6/18/2020									
7/21/2020									
8/25/2020	0.052 (J)	0.17	<0.1						
8/26/2020							0.072 (J)		
8/27/2020				<0.1	<0.1	<0.1		<0.1	0.094 (J)
9/18/2020	<0.1		<0.1						
9/22/2020		0.16							
9/24/2020				0.064 (J)	<0.1	<0.1		<0.1	
9/25/2020									0.091 (J)
9/28/2020							0.078 (J)		
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	0.057 (J)								
3/12/2021			<0.1						

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-118	HGWC-101	HGWC-109
3/16/2021		0.18							
3/17/2021								<0.1	0.089 (J)
3/18/2021				<0.1	<0.1	<0.1	0.079 (J)		
8/12/2021	<0.1	0.16	<0.1						
8/13/2021				<0.1	<0.1		0.075 (J)		0.086 (J)
8/16/2021						<0.1		<0.1	
9/27/2021									
1/31/2022	0.055 (J)								
2/1/2022		0.16	<0.1						
2/2/2022				<0.1		<0.1		<0.1	0.086 (J)
2/3/2022					<0.1		0.069 (J)		
8/2/2022		0.19							
8/5/2022	0.1		0.077 (J)	0.093 (J)	0.075 (J)	0.071 (J)	0.12		0.14
8/10/2022								0.065 (J)	
1/24/2023	0.086 (J)	0.2	0.055 (J)						
1/25/2023				0.054 (J)	0.051 (J)	<0.1	0.095 (J)	<0.1	0.12
8/8/2023	0.076 (J)		0.05 (J)						
8/10/2023		0.19							
8/11/2023				<0.1	<0.1	<0.1	0.07 (J)	<0.1	0.086 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/18/2019				
8/21/2019				
8/22/2019				
8/23/2019				
10/21/2019				
10/22/2019				
10/23/2019	0.22 (J)			
1/3/2020	<0.1			
3/4/2020	<0.1			
3/24/2020	<0.1			
3/25/2020				
4/9/2020				
6/18/2020	<0.1			
7/21/2020	<0.1			
8/25/2020				
8/26/2020				
8/27/2020	<0.1			
9/18/2020		0.098 (J)	0.067 (J)	
9/22/2020				
9/24/2020	<0.1			
9/25/2020				
9/28/2020				
11/10/2020			0.065 (J)	
11/11/2020		0.083 (J)		
12/15/2020		0.081 (J)	0.064 (J)	
1/19/2021		0.079 (J)	0.057 (J)	
3/11/2021				
3/12/2021		0.085 (J)	0.062 (J)	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
3/16/2021				
3/17/2021	<0.1			
3/18/2021				
8/12/2021		0.064 (J)	<0.1	<0.1
8/13/2021	<0.1			
8/16/2021				
9/27/2021				<0.1
1/31/2022		0.072 (J)	0.053 (J)	
2/1/2022				
2/2/2022	<0.1			
2/3/2022				0.056 (J)
8/2/2022			0.08 (J)	
8/5/2022	0.076 (J)	0.12		0.12
8/10/2022				
1/24/2023		0.092 (J)	0.081 (J)	
1/25/2023	<0.1			0.085 (J)
8/8/2023		0.091 (J)	0.072 (J)	
8/10/2023				
8/11/2023	<0.1			0.057 (J)

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWC-103	HGWC-107	HGWC-118	HGWC-101	HGWC-105	HGWC-109
3/12/2021		5.6							
3/16/2021			6.14						
3/17/2021							5.41		6.55
3/18/2021				5.51	6.2	7.11		6.57	
8/12/2021	6.67	5.5	6.08						
8/13/2021					6.11	6.78		6.44	6.71
8/16/2021				5.59			5.4		
9/27/2021									
1/31/2022	7.17								
2/1/2022		5.59	6.05						
2/2/2022				5.63	6.14		5.51		6.65
2/3/2022						6.79		6.48	
8/2/2022			6.08						
8/5/2022	6.97	5.43		5.71	6.07	7.07		6.46	6.81
8/10/2022							5.37		
1/24/2023	7.11	5.67	6.15						
1/25/2023				5.65	6.13	6.67	5.47	6.41	6.66
8/8/2023	7.01	5.77							
8/10/2023			6.07						
8/11/2023				5.8	6.16	7.49	5.44	6.47	6.8

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/17/2019				
6/18/2019				
8/21/2019				
8/22/2019				
8/23/2019				
10/21/2019				
10/22/2019				
10/23/2019	5.68			
1/3/2020	5.64			
3/4/2020	5.75			
3/24/2020	5.58			
3/25/2020				
4/9/2020				
6/18/2020	5.67			
7/21/2020	5.72			
8/25/2020				
8/26/2020				
8/27/2020	5.7			
9/18/2020		7.54	7.5	
9/22/2020				
9/24/2020	5.82			
9/25/2020				
9/28/2020				
11/10/2020		7.34		
11/11/2020			7.4	
12/15/2020		7.27	7.39	
1/19/2021		7.32	7.4	
3/11/2021				

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-117A
3/12/2021		7.52	7.51	
3/16/2021				
3/17/2021	5.78			
3/18/2021				
8/12/2021		7.38	7.44	6.27
8/13/2021	5.45			
8/16/2021				
9/27/2021				6.14
1/31/2022		7.34	7.44	
2/1/2022				
2/2/2022	5.79			
2/3/2022				6.58
8/2/2022		7.34		
8/5/2022	5.69		7.4	6.44
8/10/2022				
1/24/2023		7.38	7.46	
1/25/2023	5.77			6.53
8/8/2023		7.27	7.37	
8/10/2023				
8/11/2023	5.79			7.09

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-101	HGWC-118	HGWC-109
8/30/2016	1.6	14	0.63 (J)						
8/31/2016				130	190	280	110	88	36
10/20/2016	1.6						110	81	
10/24/2016		11	0.62 (J)			280			
10/25/2016				130	190				41
1/25/2017	1.6	12	0.62 (J)						
1/31/2017				130	210	300	120	87	37
5/23/2017		12	0.55 (J)			340	97	84	
5/24/2017	1.4			130	180				40
8/10/2017	1.6	11	0.66 (J)	130	180	300	96	78	40
11/13/2017	1.3		0.61 (J)						
11/14/2017		11		130	170	310	110	79	40
6/4/2018	1.4		0.73 (J)						
6/5/2018		9.9							
6/6/2018				132	168	351	95.5		49.7
6/7/2018								60.1	
10/1/2018	1	6.7	0.52 (J)						
10/2/2018				132	173				42.3
10/3/2018						381	121	91.5	
4/1/2019	1.7								
4/2/2019		8.7	0.78 (J)						
4/3/2019				139					36
4/4/2019					185	358	95.1		
4/5/2019								75.1	
6/17/2019				126	162	311			30.9
6/18/2019							102	77	
10/21/2019	1.8								
10/22/2019		6.8	0.6 (J)	123				80.9	23.2
10/23/2019					162	248	101		
1/3/2020									
3/4/2020									
3/24/2020	1.6		<1						
3/25/2020				116	161	251	85.5	78.4	27.9
4/9/2020		6.6							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	1		<1						
9/22/2020		5.3							
9/24/2020				126	177	293	97		
9/25/2020									24.7
9/28/2020								86	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	1.5								
3/12/2021			0.52 (J)						
3/16/2021		7.7							
3/17/2021							107		28.3
3/18/2021				128	196	286		87.8	
8/12/2021	1.3	10	<1						

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-107	HGWC-105	HGWC-103	HGWC-101	HGWC-118	HGWC-109
8/13/2021				112	142			75.1	24.4
8/16/2021						354	72.1		
9/27/2021									
1/31/2022	1.5								
2/1/2022		8.9	0.5 (J)						
2/2/2022				111		293	100		25.5
2/3/2022					195			72.7	
8/2/2022		7.5							
8/5/2022	1.4		<1	120	217	369		69.8	23
8/10/2022							99.5		
1/24/2023	1.9	6.6	0.81 (J)						
1/25/2023				128	230	342	95	73	25.4
8/8/2023	1.5		0.71 (J)						
8/10/2023		5.1							
8/11/2023				113	237	382	102	64.9	19.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/17/2019				
6/18/2019				
10/21/2019				
10/22/2019				
10/23/2019	<1			
1/3/2020	380			
3/4/2020	400			
3/24/2020	311			
3/25/2020				
4/9/2020				
6/18/2020	349			
7/21/2020	378			
8/27/2020	382			
9/18/2020		9.5	3.5	
9/22/2020				
9/24/2020	370			
9/25/2020				
9/28/2020				
11/10/2020			2.3	
11/11/2020		4.5		
12/15/2020		4.2	2.4	
1/19/2021		3.9	2.6	
3/11/2021				
3/12/2021		4.7	1.9	
3/16/2021				
3/17/2021	332			
3/18/2021				
8/12/2021		4.3	1.4	64.6

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)	HGWC-117A
8/13/2021	248			
8/16/2021				
9/27/2021				69.7
1/31/2022		5.6	1.7	
2/1/2022				
2/2/2022	303			
2/3/2022				72.9
8/2/2022			2.1	
8/5/2022	358	3.4		76.1
8/10/2022				
1/24/2023		2.9	2.2	
1/25/2023	348			72.9
8/8/2023		2.9	2	
8/10/2023				
8/11/2023	370			67.7

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-118	HGWC-103	HGWC-105	HGWC-101	HGWC-107	HGWC-109
8/30/2016	172	77	76						
8/31/2016				373	483	389	278	235	182
10/20/2016	108			305			165		
10/24/2016		111	65		517				
10/25/2016						316		223	172
1/25/2017	345	155	152 (o)						
1/31/2017				361	516	437	263	346	252
5/23/2017		74	52	359	637		190		
5/24/2017	126					352		234	184
8/10/2017	174	94	60	325	459	356	175	254	208
11/13/2017	158		75						
11/14/2017		89		373	545	375	253	313	252
6/4/2018	131		70						
6/5/2018		92							
6/6/2018					559	385	188	278	224
6/7/2018				338					
10/1/2018	101	91	76						
10/2/2018						374		274	230
10/3/2018				328	582		238		
4/1/2019	213								
4/2/2019		94	69						
4/3/2019								273	210
4/4/2019					535	340	149		
4/5/2019				308					
6/17/2019					515	370		272	
6/18/2019				215					
10/21/2019	187								
10/22/2019		95	81	354				308	212
10/23/2019					507	419	221		
1/3/2020									
3/4/2020									
3/24/2020	207		52						
3/25/2020				347	507	417	187	297	213
4/9/2020		48							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	139		62						
9/22/2020		84							
9/24/2020					517	411	170	253	
9/25/2020									188
9/28/2020				332					
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	207								
3/12/2021			56						
3/16/2021		99							
3/17/2021							213		171
3/18/2021				328	465	410		255	
8/12/2021	157	92	63						

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-118	HGWC-103	HGWC-105	HGWC-101	HGWC-107	HGWC-109
8/13/2021				336		441		291	189
8/16/2021					672		206		
9/27/2021									
1/31/2022	186								
2/1/2022		99	73						
2/2/2022					576		220	271	206
2/3/2022				316		463			
8/2/2022		85							
8/5/2022	171		44	329	692	514		274	195
8/10/2022							232		
1/24/2023	177	146	96						
1/25/2023				337	630	537	186	304	214
8/8/2023	207		57						
8/10/2023		80							
8/11/2023				346	808	630	250	296	205

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-117A
8/30/2016				
8/31/2016				
10/20/2016				
10/24/2016				
10/25/2016				
1/25/2017				
1/31/2017				
5/23/2017				
5/24/2017				
8/10/2017				
11/13/2017				
11/14/2017				
6/4/2018				
6/5/2018				
6/6/2018				
6/7/2018				
10/1/2018				
10/2/2018				
10/3/2018				
4/1/2019				
4/2/2019				
4/3/2019				
4/4/2019				
4/5/2019				
6/17/2019				
6/18/2019				
10/21/2019				
10/22/2019				
10/23/2019	736			
1/3/2020	714			
3/4/2020	764			
3/24/2020	521			
3/25/2020				
4/9/2020				
6/18/2020	652			
7/21/2020	669			
8/27/2020	663			
9/18/2020		195	224	
9/22/2020				
9/24/2020	696			
9/25/2020				
9/28/2020				
11/10/2020		229		
11/11/2020			221	
12/15/2020		233	239	
1/19/2021		199	224	
3/11/2021				
3/12/2021		217	204	
3/16/2021				
3/17/2021	626			
3/18/2021				
8/12/2021		212	234	256

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/19/2023 2:09 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-117A
8/13/2021	647			
8/16/2021				
9/27/2021				223
1/31/2022		243	223	
2/1/2022				
2/2/2022	602			
2/3/2022				264
8/2/2022		222		
8/5/2022	696		224	270
8/10/2022				
1/24/2023		223	230	
1/25/2023	664			289
8/8/2023		214	220	
8/10/2023				
8/11/2023	785			280

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWC-101	0.009779	87	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-103	0.1375	85	74	Yes	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-109	-0.03064	-118	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-113 (bg)	0.2844	92	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-103	6.488	103	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-105	6.968	137	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWC-103	0.3971	99	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-113 (bg)	-0.9433	-96	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-107	-1.814	-77	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-109	-2.891	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-105	24.62	101	74	Yes	19	0	n/a	n/a	0.01	NP

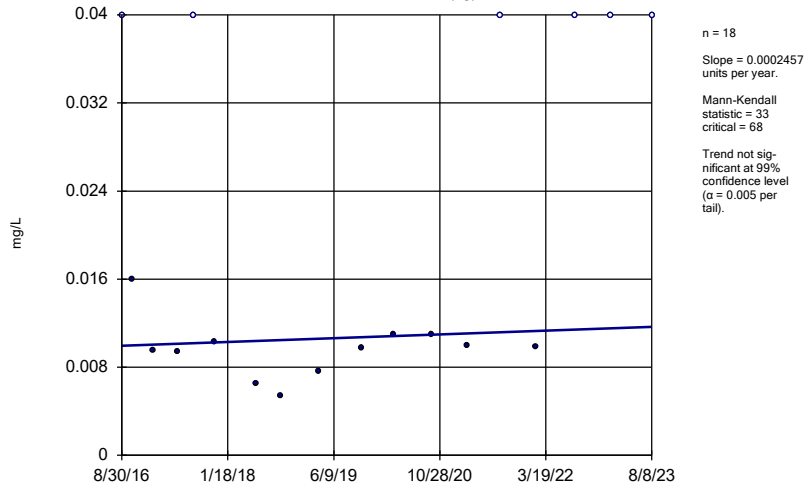
Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/19/2023, 2:16 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-111 (bg)	0.0002457	33	68	No	18	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-112 (bg)	0	11	68	No	18	33.33	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-113 (bg)	0.0007341	30	68	No	18	22.22	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-47 (bg)	0.01101	20	30	No	10	60	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-48D (bg)	0	3	30	No	10	20	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-101	0.009779	87	68	Yes	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-102	-0.1535	-26	-48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-103	0.1375	85	74	Yes	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-105	0.00908	30	68	No	18	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-107	0.01658	51	74	No	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-109	-0.03064	-118	-74	Yes	19	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-117A	-0.01502	-4	-14	No	6	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWC-118	-0.005615	-15	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-111 (bg)	1.8	29	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-112 (bg)	0.06404	44	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-113 (bg)	0.2844	92	68	Yes	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-47 (bg)	-0.4983	-5	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-48D (bg)	0	0	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-102	2.11	8	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-103	6.488	103	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-105	6.968	137	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-118	0.8924	63	74	No	19	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-111 (bg)	0	-2	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-112 (bg)	0	-10	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-113 (bg)	-0.03375	-48	-68	No	18	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-47 (bg)	0	4	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWA-48D (bg)	0	1	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWC-102	0	4	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	HGWC-103	0.3971	99	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-111 (bg)	0	-9	-68	No	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-112 (bg)	0.02747	27	68	No	18	22.22	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-113 (bg)	-0.9433	-96	-68	Yes	18	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-47 (bg)	-0.2246	-17	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-48D (bg)	-0.7264	-24	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-101	-1.808	-50	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-102	-3.65	-8	-48	No	14	7.143	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-103	7.11	46	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-105	2.019	14	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-107	-1.814	-77	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-109	-2.891	-101	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-117A	2.408	4	14	No	6	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWC-118	-2.105	-72	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-111 (bg)	5.263	28	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-112 (bg)	-0.799	-12	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-113 (bg)	0.3489	4	68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-47 (bg)	3.593	7	30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-48D (bg)	-0.365	-4	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-102	-13.69	-8	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-103	19.95	53	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-105	24.62	101	74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWC-118	-2.595	-25	-74	No	19	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

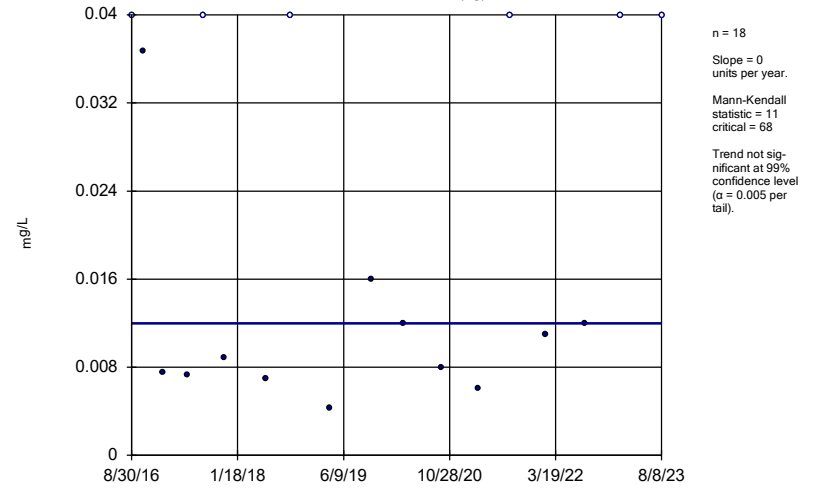
HGWA-111 (bg)



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

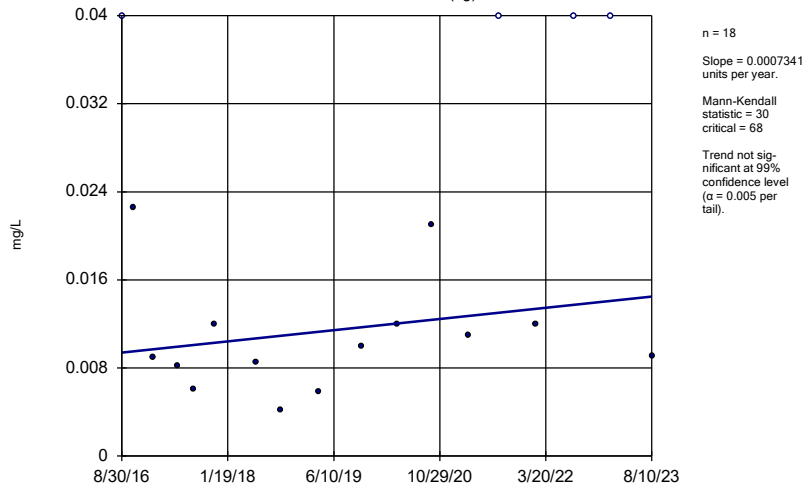
HGWA-112 (bg)



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

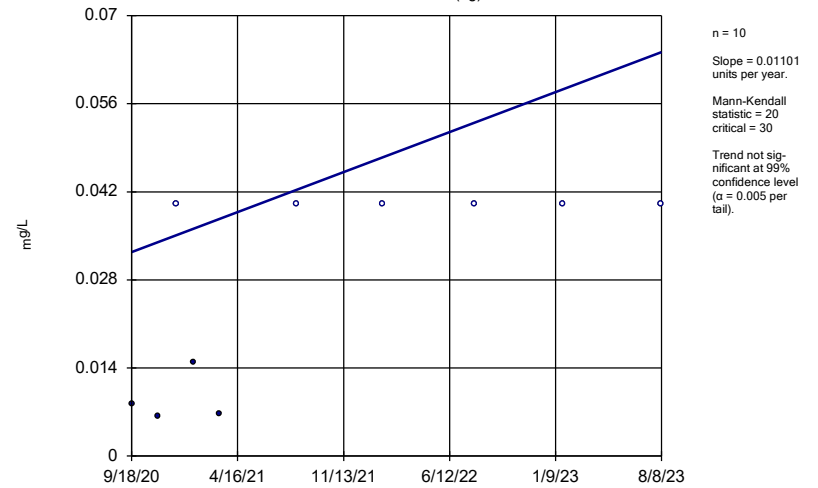
HGWA-113 (bg)



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

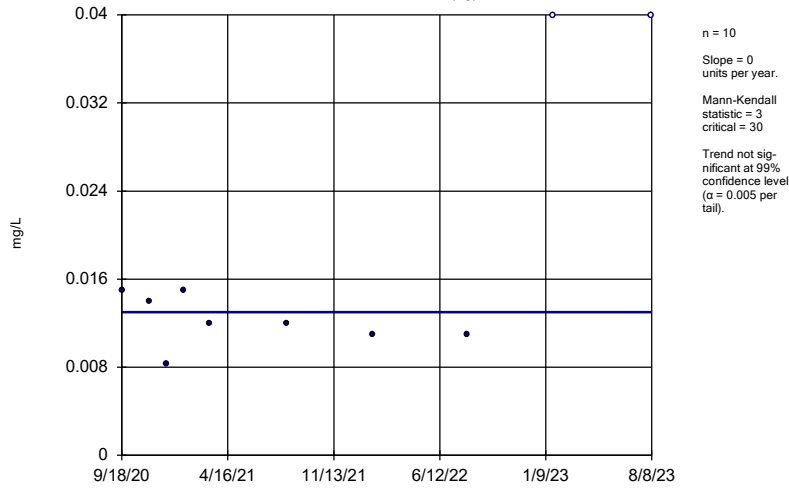
HGWA-47 (bg)



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

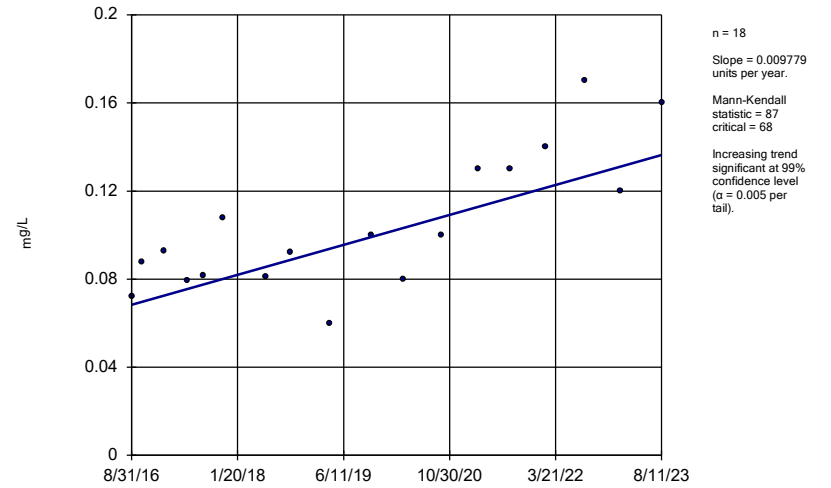
HGWA-48D (bg)



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

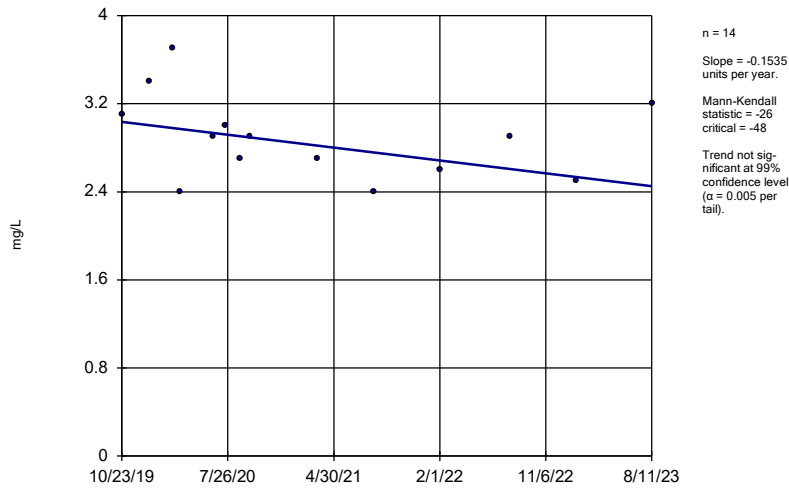
HGWC-101



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

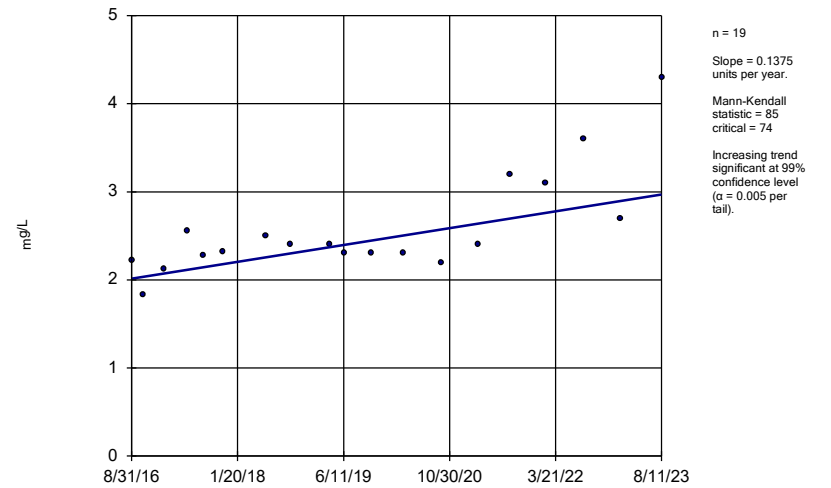
HGWC-102



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

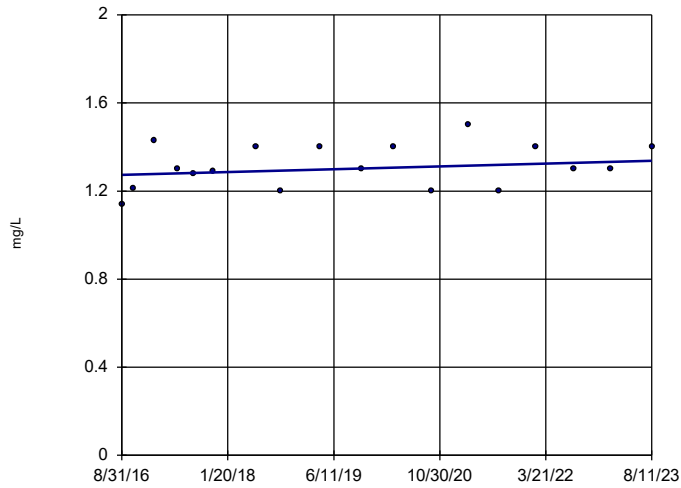
HGWC-103



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-105

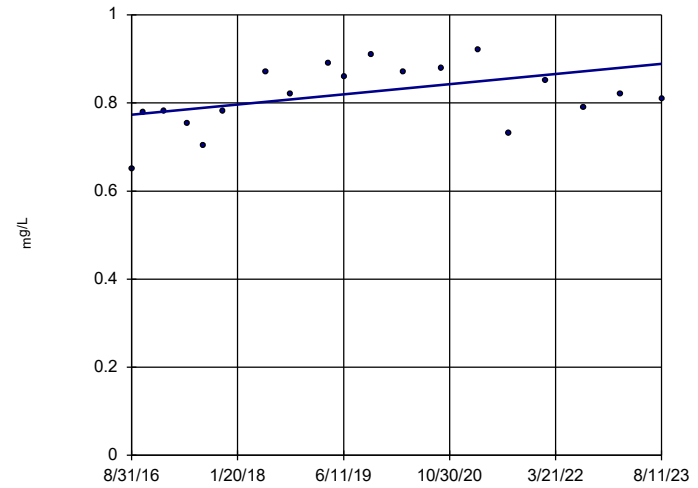


n = 18
 Slope = 0.00908
 units per year.
 Mann-Kendall
 statistic = 30
 critical = 68
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-107

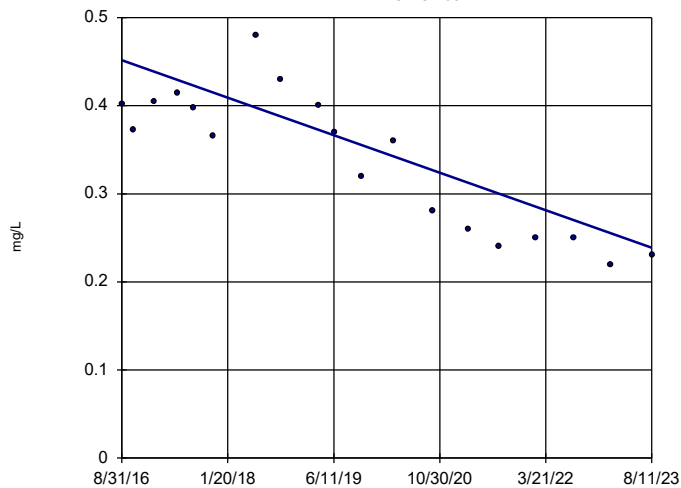


n = 19
 Slope = 0.01658
 units per year.
 Mann-Kendall
 statistic = 51
 critical = 74
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-109

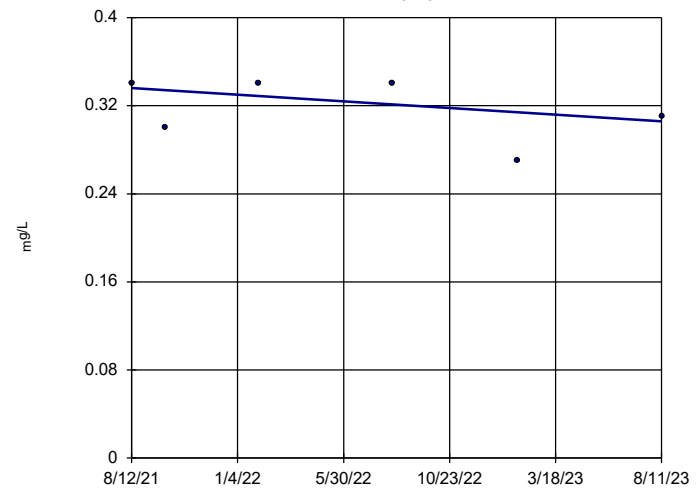


n = 19
 Slope = -0.03064
 units per year.
 Mann-Kendall
 statistic = -118
 critical = -74
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-117A

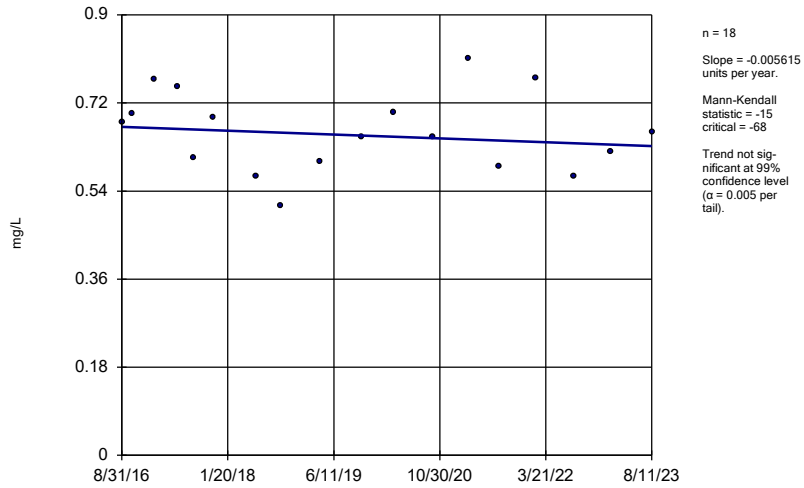


n = 6
 Slope = -0.01502
 units per year.
 Mann-Kendall
 statistic = -4
 critical = -14
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

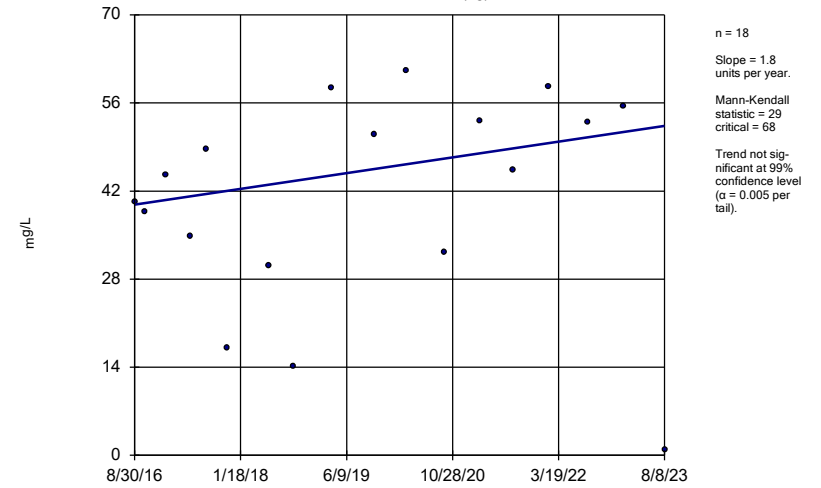
HGWC-118



Constituent: Boron Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

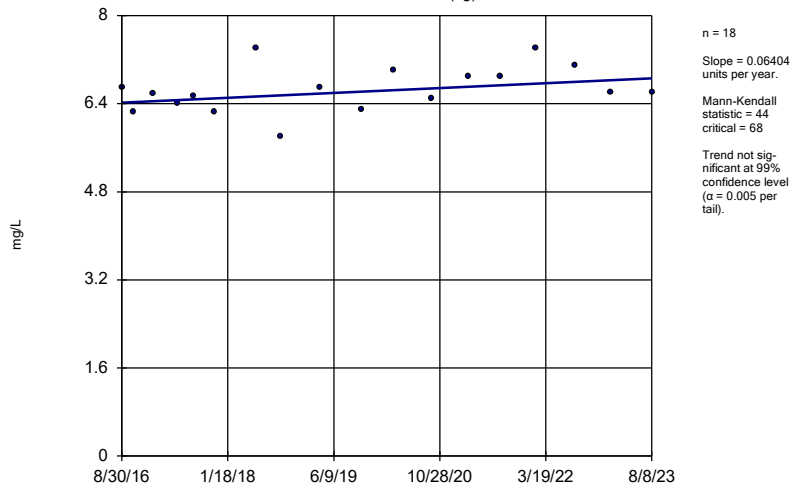
HGWA-111 (bg)



Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

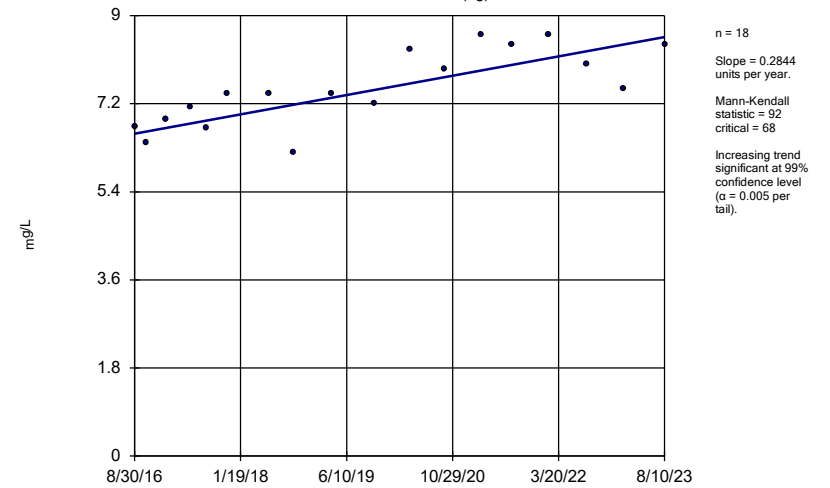
HGWA-112 (bg)



Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

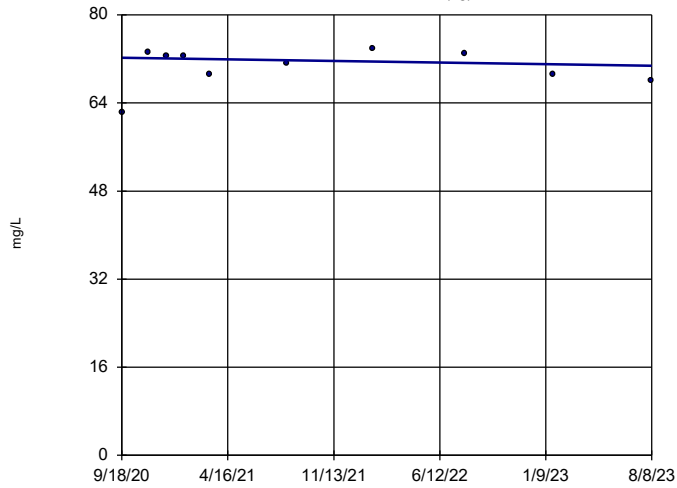
HGWA-113 (bg)



Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-47 (bg)

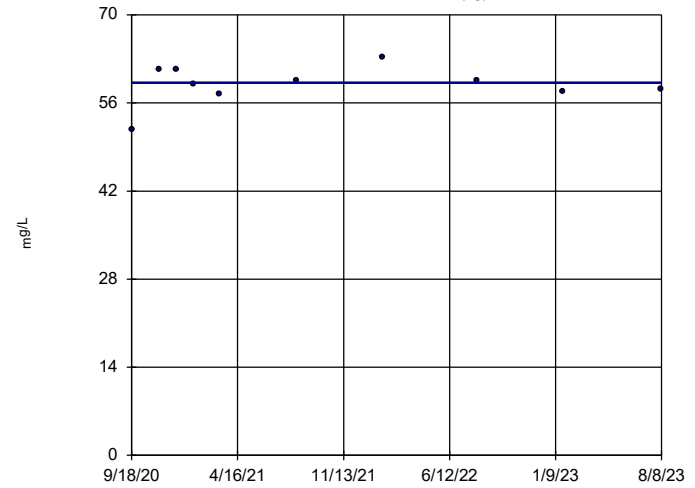


n = 10
 Slope = -0.4983 units per year.
 Mann-Kendall statistic = -5
 critical = -30
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-48D (bg)

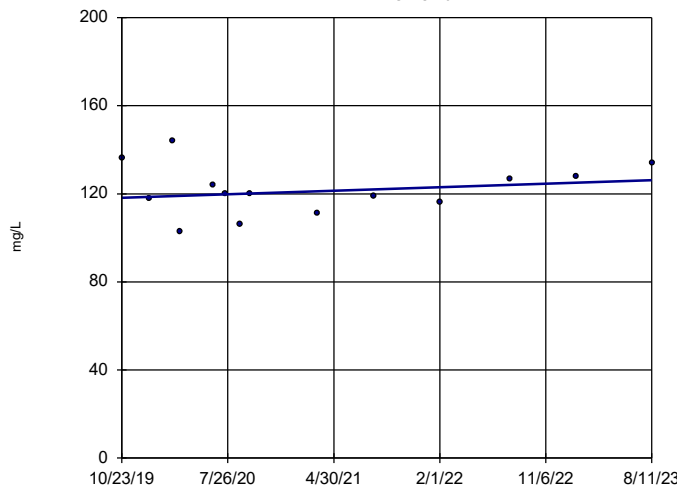


n = 10
 Slope = 0 units per year.
 Mann-Kendall statistic = 0
 critical = 30
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-102

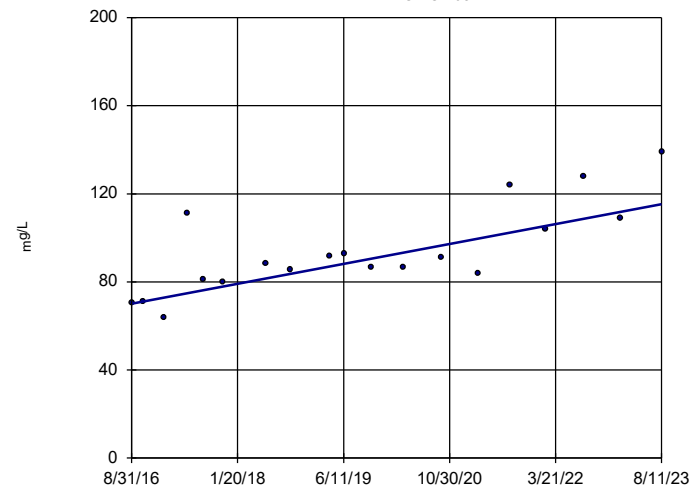


n = 14
 Slope = 2.11 units per year.
 Mann-Kendall statistic = 8
 critical = 48
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

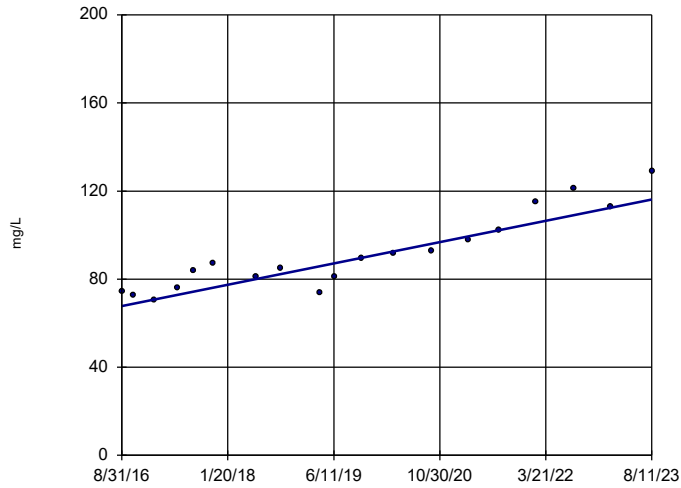
Sen's Slope Estimator

HGWC-103



Sen's Slope Estimator

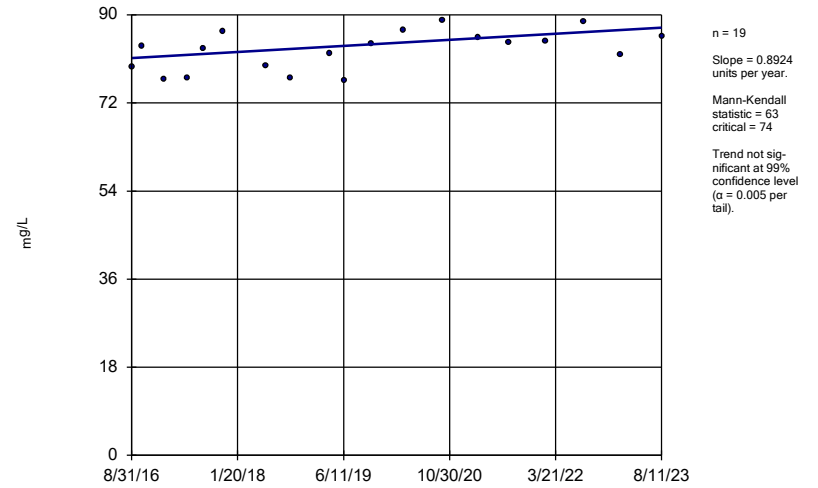
HGWC-105



Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

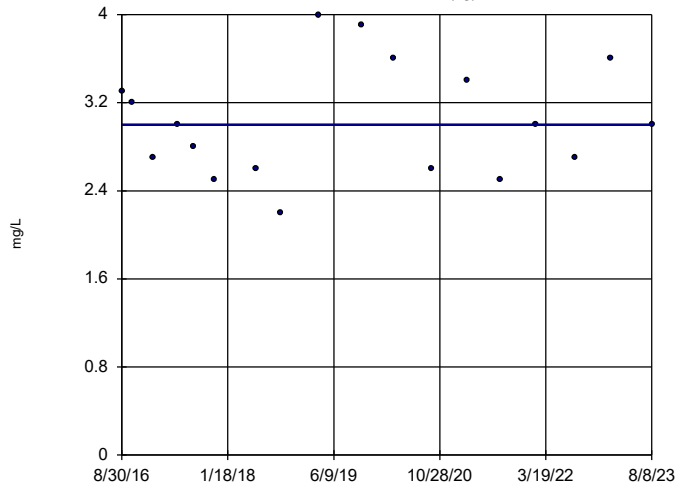
HGWC-118



Constituent: Calcium Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

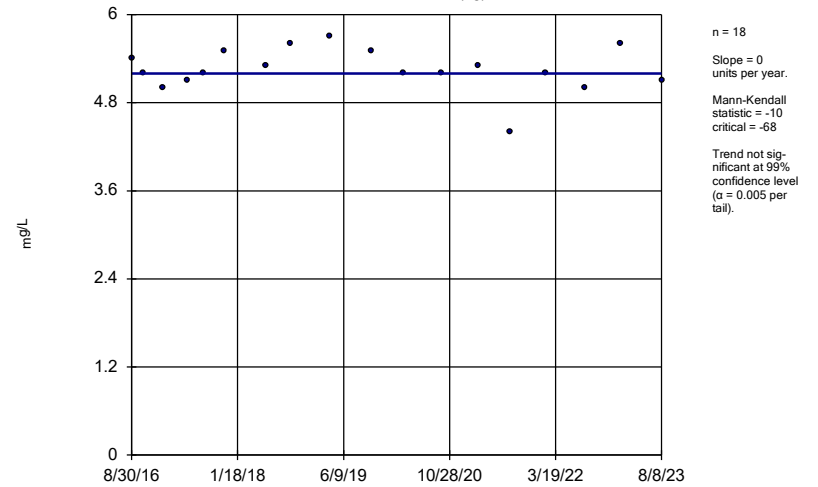
HGWA-111 (bg)



Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

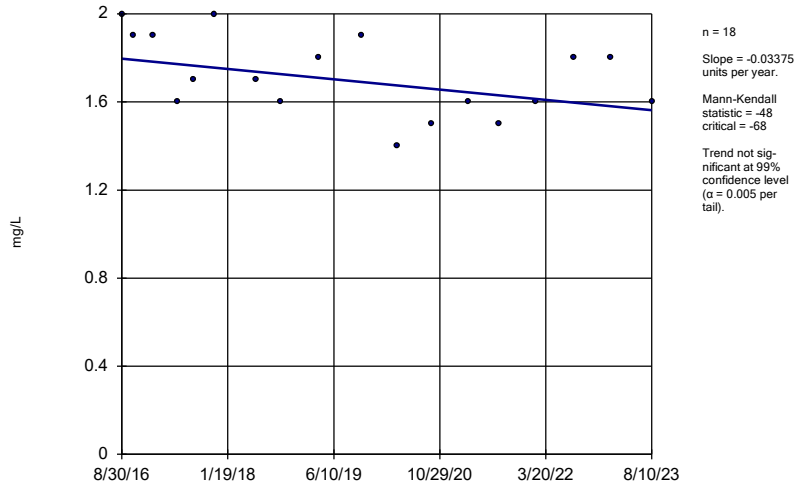
HGWA-112 (bg)



Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

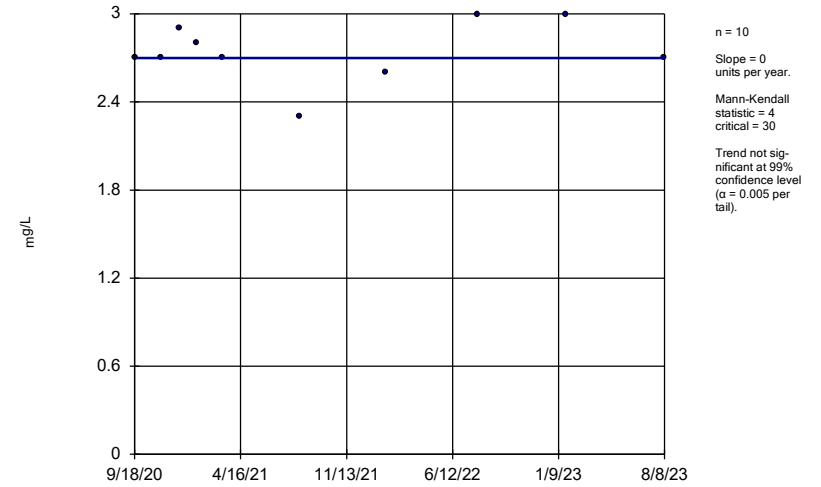
HGWA-113 (bg)



Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

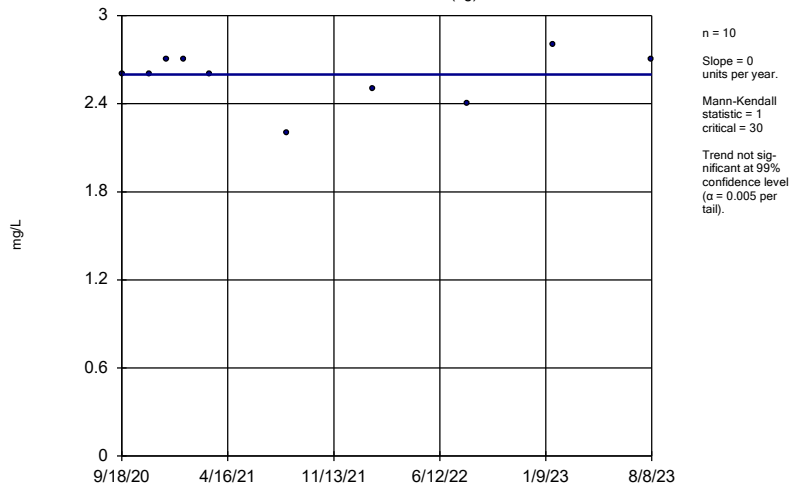
HGWA-47 (bg)



Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

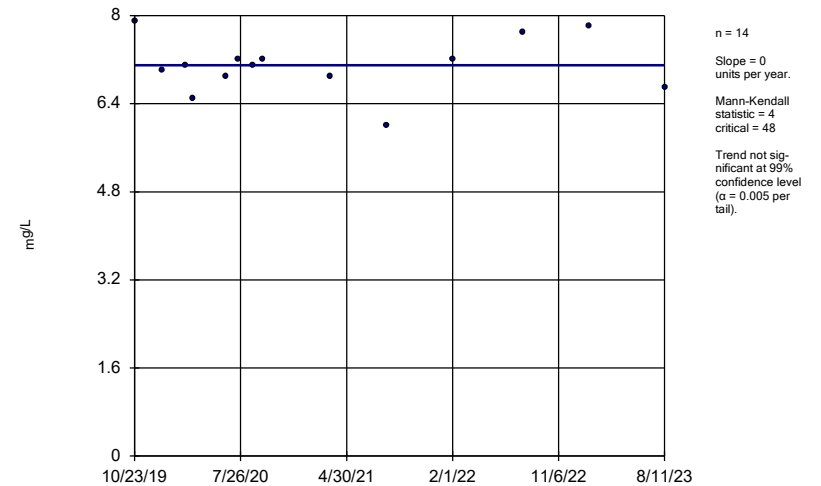
HGWA-48D (bg)



Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

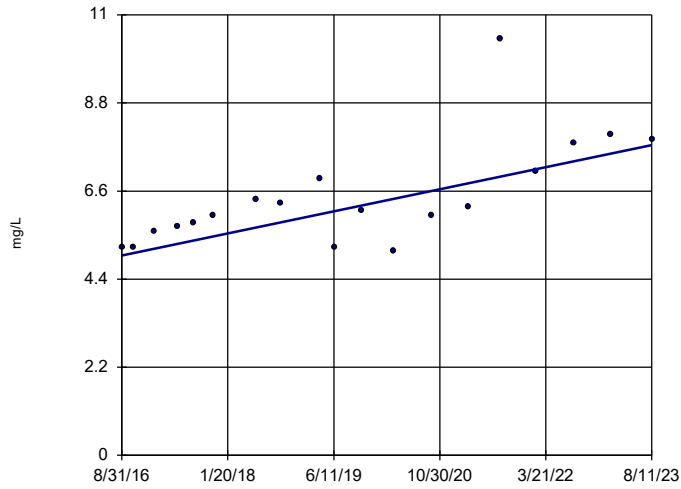
HGWC-102



Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-103

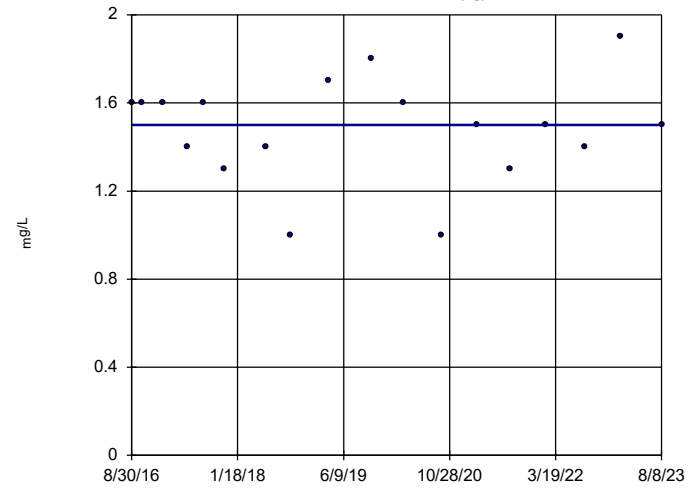


n = 19
Slope = 0.3971
units per year.
Mann-Kendall
statistic = 99
critical = 74
Increasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-111 (bg)

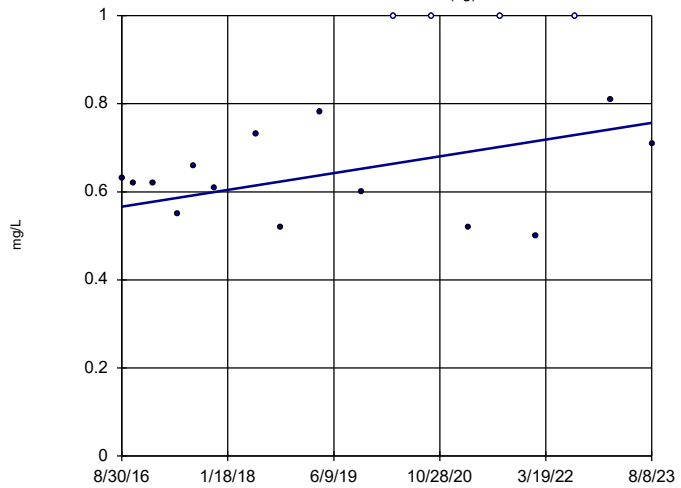


n = 18
Slope = 0
units per year.
Mann-Kendall
statistic = -9
critical = -68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-112 (bg)

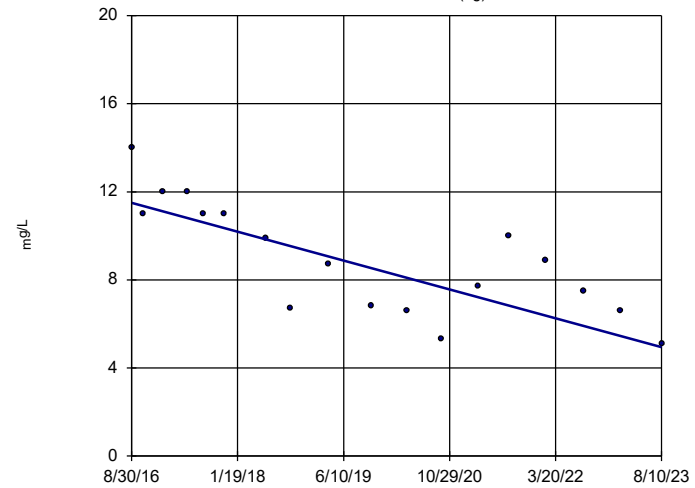


n = 18
Slope = 0.02747
units per year.
Mann-Kendall
statistic = 27
critical = 68
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-113 (bg)

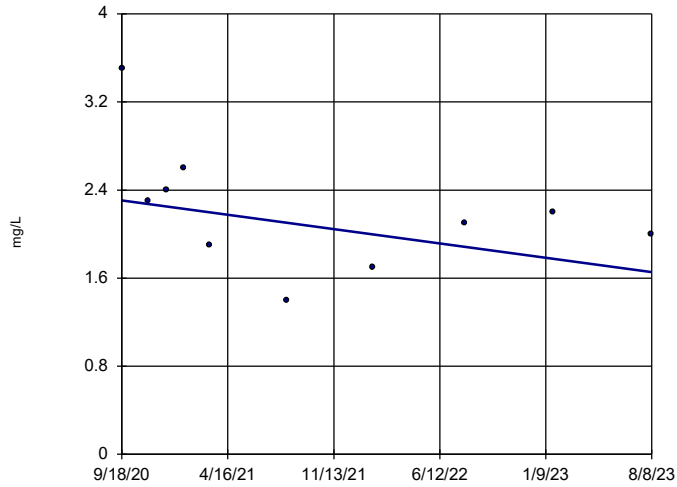


n = 18
Slope = -0.9433
units per year.
Mann-Kendall
statistic = -96
critical = -68
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-47 (bg)

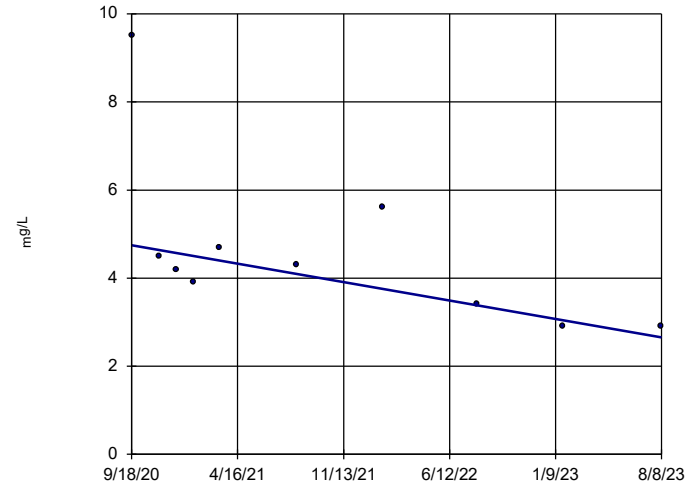


n = 10
 Slope = -0.2246
 units per year.
 Mann-Kendall
 statistic = -17
 critical = -30
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-48D (bg)

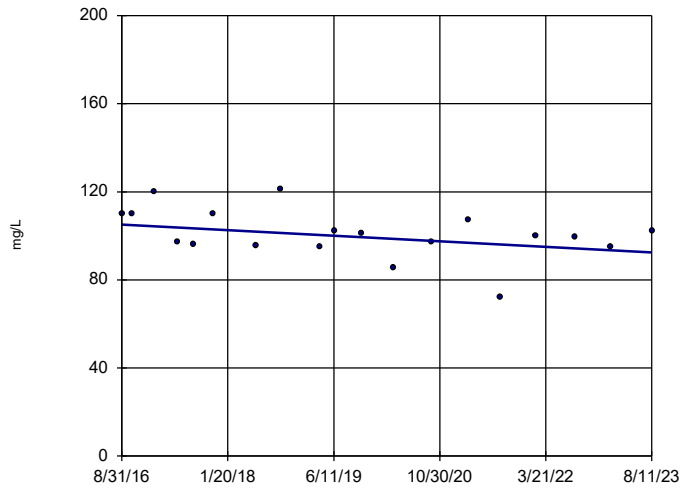


n = 10
 Slope = -0.7264
 units per year.
 Mann-Kendall
 statistic = -24
 critical = -30
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-101



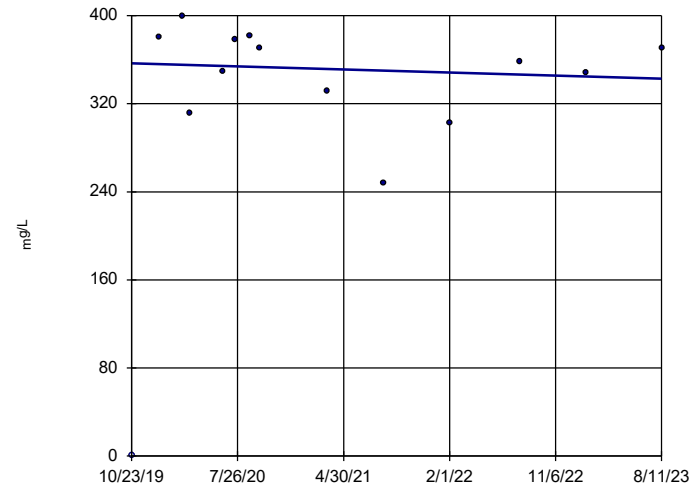
n = 19
 Slope = -1.808
 units per year.
 Mann-Kendall
 statistic = -50
 critical = -74
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWC-102

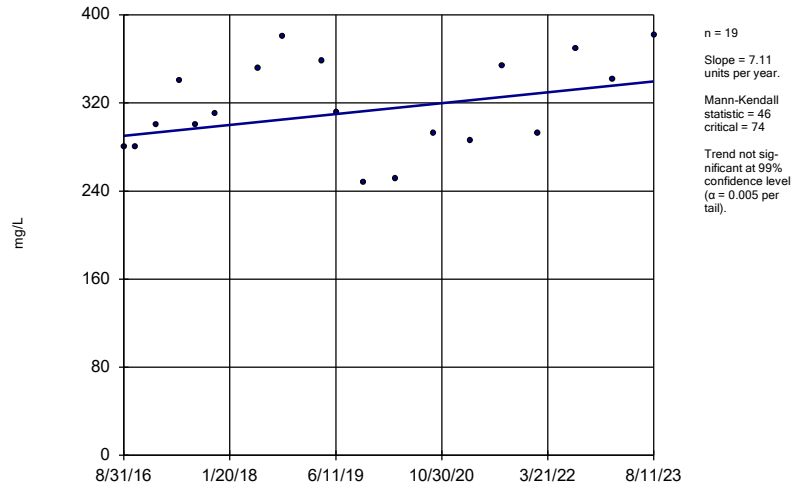


n = 14
 Slope = -3.65
 units per year.
 Mann-Kendall
 statistic = -8
 critical = -48
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

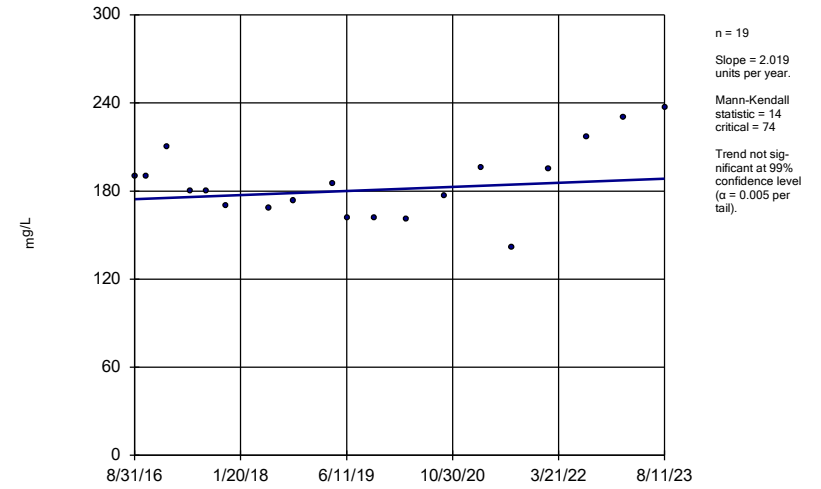
HGWC-103



Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

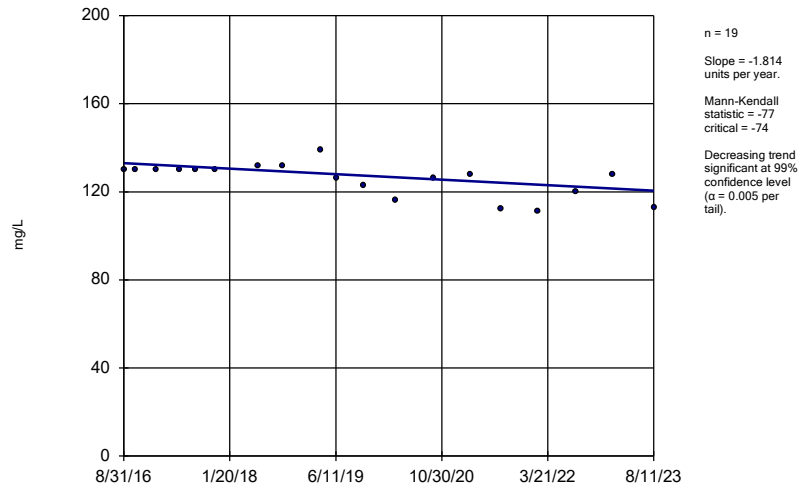
HGWC-105



Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

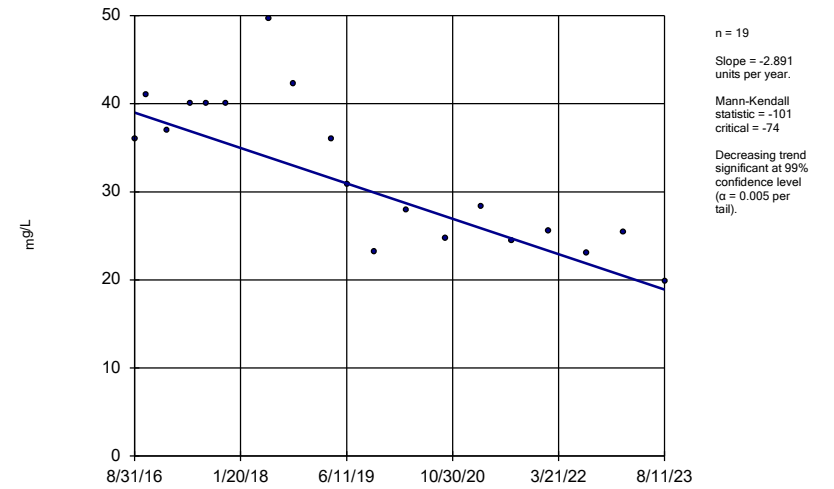
HGWC-107



Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

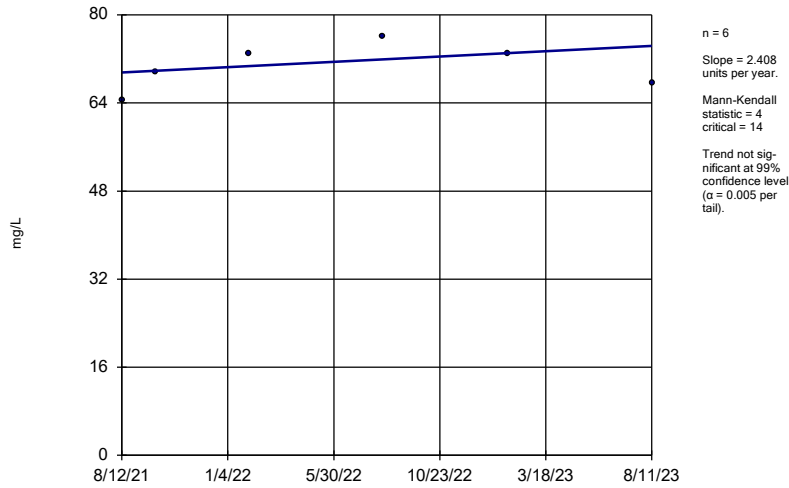
HGWC-109



Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

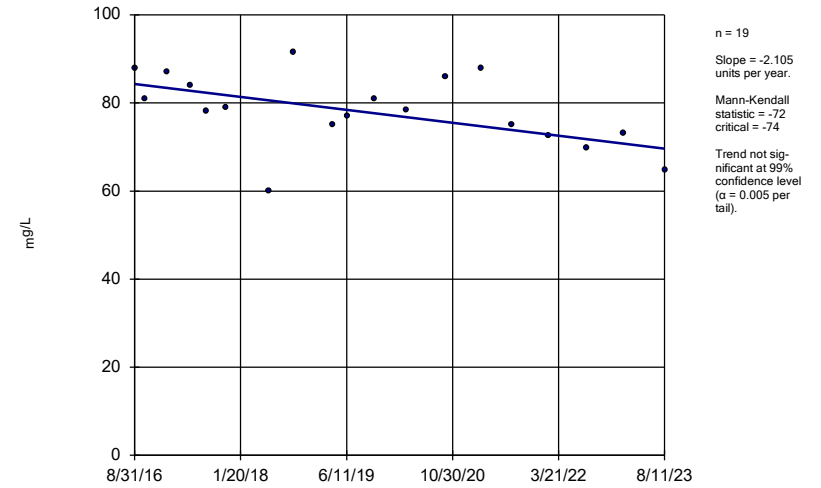
HGWC-117A



Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

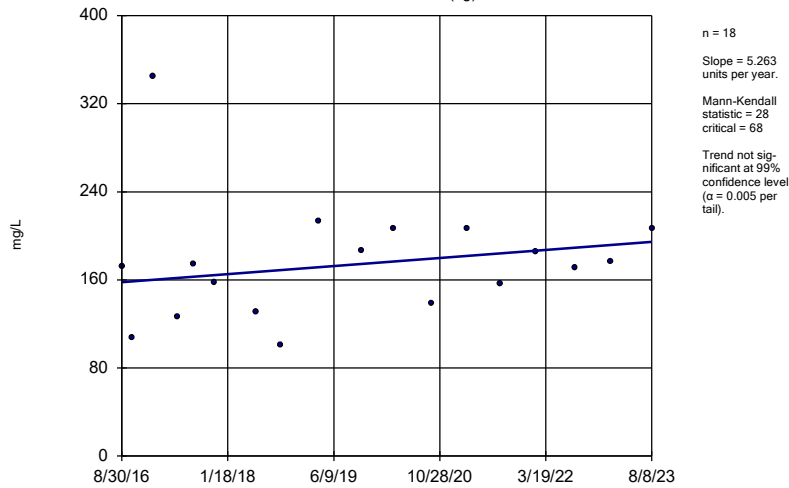
HGWC-118



Constituent: Sulfate Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

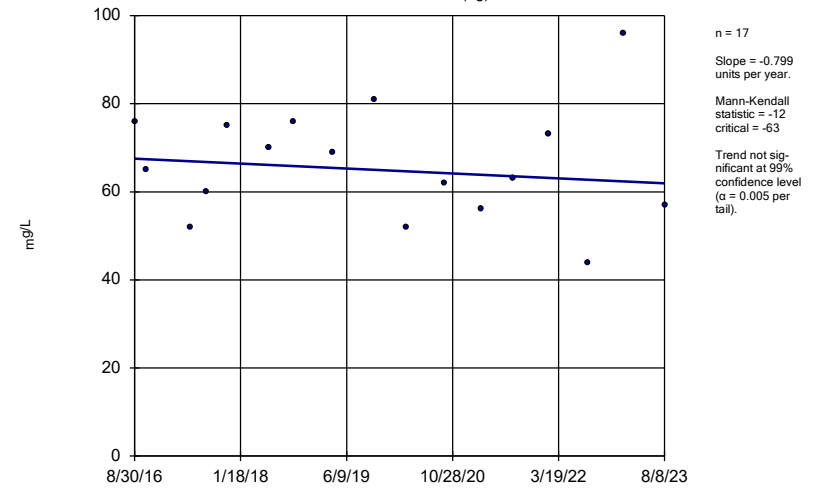
HGWA-111 (bg)



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

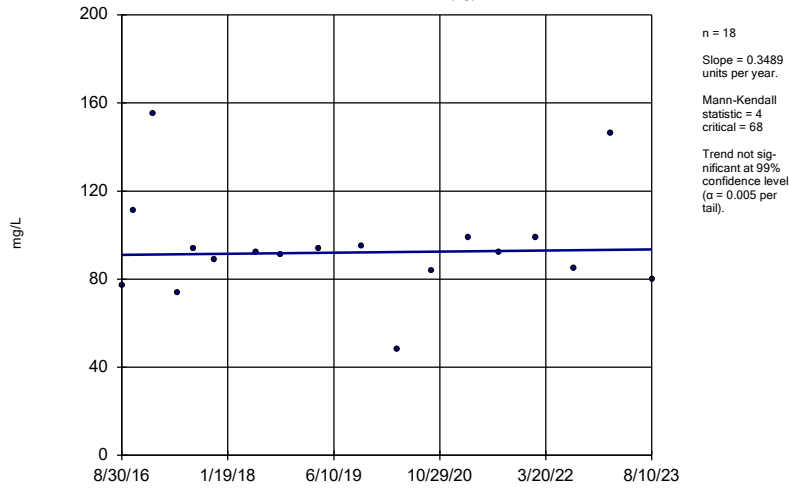
HGWA-112 (bg)



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

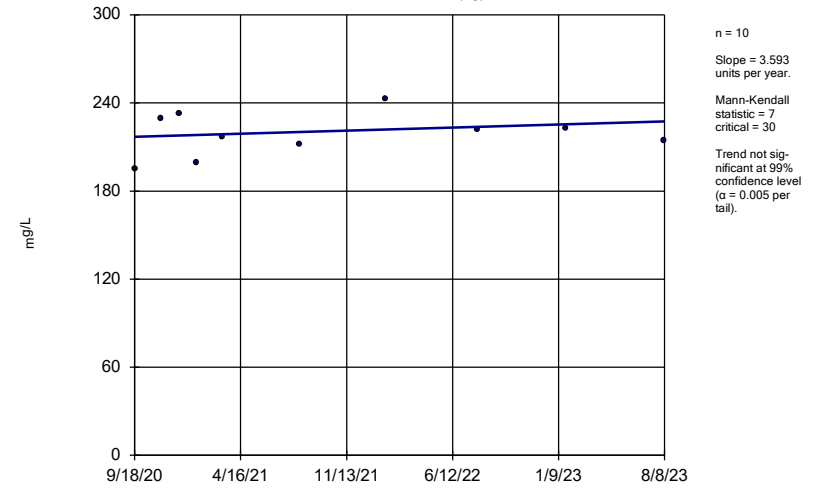
HGWA-113 (bg)



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

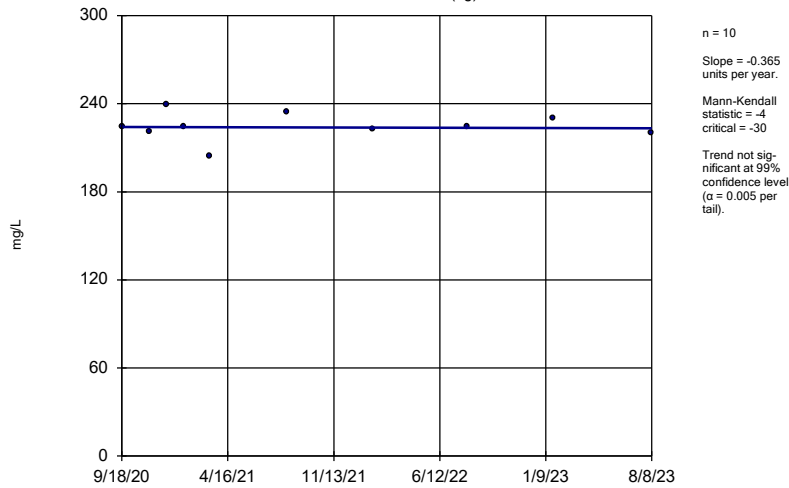
HGWA-47 (bg)



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

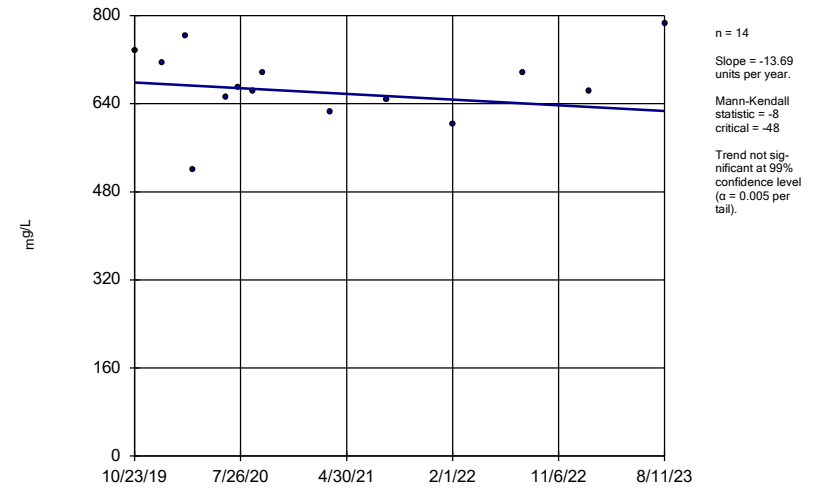
HGWA-48D (bg)



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

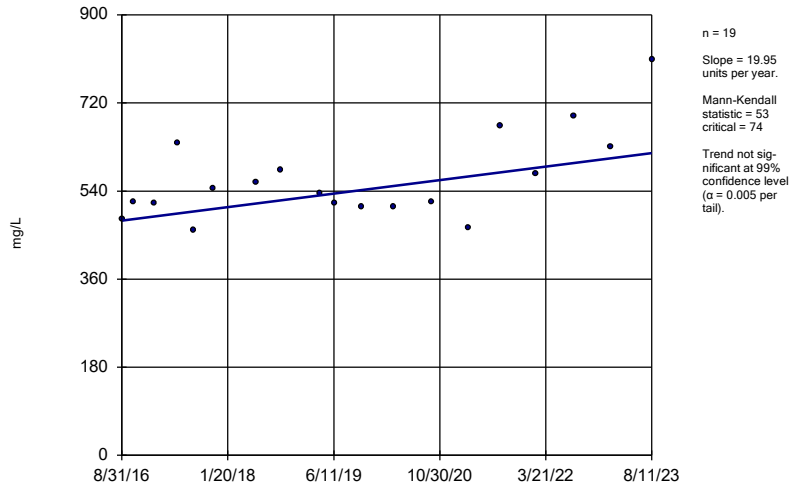
HGWC-102



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

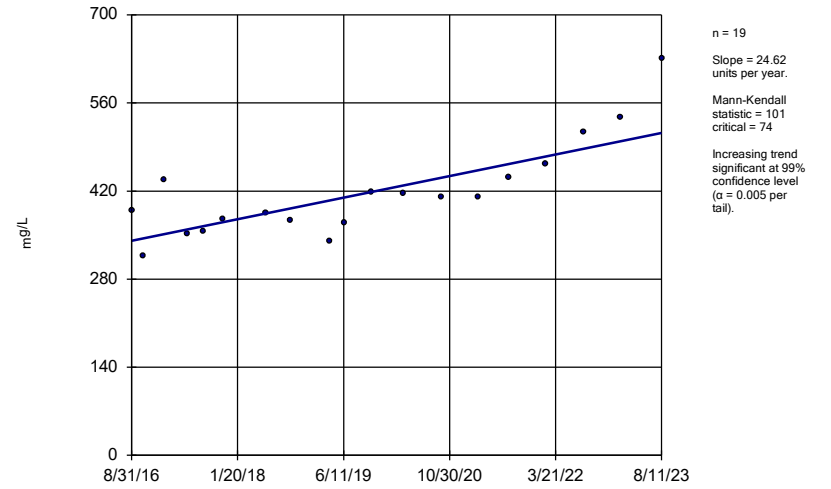
HGWC-103



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

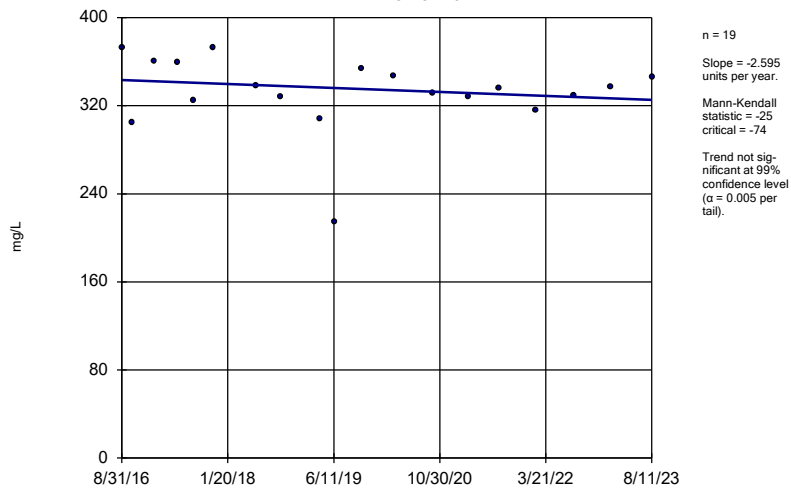
HGWC-105



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-118



Constituent: Total Dissolved Solids Analysis Run 10/19/2023 2:13 PM View: Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-4

FIGURE F.

Upper Tolerance Limit Summary Table

Plant Hammond Data: Hammond AP-4 Printed 10/26/2023, 1:43 PM

Constituent	Upper Lim.	Date	Observ.	Sig.	Bg.N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	63	93.65	n/a	n/a	0.0395	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	n/a	77	93.51	n/a	n/a	0.01926	NP Inter(NDs)
Barium (mg/L)	0.11	n/a	n/a	n/a	77	0	n/a	n/a	0.01926	NP Inter(normality)
Beryllium (mg/L)	0.0019	n/a	n/a	n/a	77	90.91	n/a	n/a	0.01926	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	77	100	n/a	n/a	0.01926	NP Inter(NDs)
Chromium (mg/L)	0.0061	n/a	n/a	n/a	77	38.96	n/a	n/a	0.01926	NP Inter(normality)
Cobalt (mg/L)	0.005	n/a	n/a	n/a	77	89.61	n/a	n/a	0.01926	NP Inter(NDs)
Combined Radium 226 & 228 (pCi/L)	1.259	n/a	n/a	n/a	77	0	None	No	0.05	Inter
Fluoride (mg/L)	0.1685	n/a	n/a	n/a	80	21.25	Kaplan-Meier	sqrt(x)	0.05	Inter
Lead (mg/L)	0.0016	n/a	n/a	n/a	77	72.73	n/a	n/a	0.01926	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	77	36.36	n/a	n/a	0.01926	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	63	80.95	n/a	n/a	0.0395	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	63	84.13	n/a	n/a	0.0395	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	63	79.37	n/a	n/a	0.0395	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	63	100	n/a	n/a	0.0395	NP Inter(NDs)

FIGURE G.

PLANT HAMMOND AP-4 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.11	2
Beryllium, Total (mg/L)	0.004		0.0019	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0061	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.005	0.006
Combined Radium, Total (pCi/L)	5		1.26	5
Fluoride, Total (mg/L)	4		0.17	4
Lead, Total (mg/L)	n/a	0.015	0.0016	0.015
Lithium, Total (mg/L)	n/a	0.040	0.030	0.040
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Intervals - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/26/2023, 11:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-102	0.003	0.003	0.006	No	13	84.62	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-103	0.003	0.0022	0.006	No	15	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-107	0.003	0.0011	0.006	No	15	93.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-101	0.005	0.00039	0.01	No	19	94.74	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-102	0.005	0.00083	0.01	No	14	71.43	None	No	0.01	NP (normality)
Arsenic (mg/L)	HGWC-109	0.002308	0.001423	0.01	No	19	15.79	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	HGWC-118	0.005	0.001	0.01	No	19	94.74	Kaplan-Meier	No	0.01	NP (NDs)
Barium (mg/L)	HGWC-101	0.04489	0.03883	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-102	0.03228	0.02715	2	No	14	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-103	0.03985	0.03495	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-105	0.088	0.0668	2	No	19	0	None	No	0.01	NP (normality)
Barium (mg/L)	HGWC-107	0.03881	0.03577	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-109	0.08688	0.08044	2	No	19	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-118	0.06041	0.04955	2	No	19	0	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-101	0.0005	0.000062	0.004	No	19	47.37	None	No	0.01	NP (normality)
Beryllium (mg/L)	HGWC-103	0.0005	0.000088	0.004	No	19	78.95	None	No	0.01	NP (NDs)
Beryllium (mg/L)	HGWC-118	0.0005	0.000093	0.004	No	19	94.74	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-101	0.0003	0.00011	0.005	No	19	15.79	None	No	0.01	NP (normality)
Cadmium (mg/L)	HGWC-102	0.000665	0.0003407	0.005	No	14	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-103	0.0007837	0.0006805	0.005	No	19	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-107	0.0005	0.0001	0.005	No	19	63.16	None	No	0.01	NP (normality)
Chromium (mg/L)	HGWC-101	0.005	0.00098	0.1	No	19	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-102	0.005	0.00063	0.1	No	14	85.71	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-103	0.005	0.00081	0.1	No	19	63.16	None	No	0.01	NP (normality)
Chromium (mg/L)	HGWC-105	0.005	0.0013	0.1	No	19	78.95	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-107	0.005	0.00074	0.1	No	19	94.74	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-109	0.005	0.0014	0.1	No	19	89.47	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-118	0.005	0.0017	0.1	No	19	73.68	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-101	0.002761	0.002144	0.006	No	19	5.263	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-102	0.001878	0.001042	0.006	No	14	0	None	ln(x)	0.01	Param.
Cobalt (mg/L)	HGWC-103	0.002251	0.001823	0.006	No	19	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-105	0.005	0.00046	0.006	No	19	31.58	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-109	0.00201	0.001226	0.006	No	19	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-118	0.005	0.00045	0.006	No	19	52.63	None	No	0.01	NP (normality)
Combined Radium 226 & 228 (pCi/L)	HGWC-101	0.8549	0.4408	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-102	1.165	0.5859	5	No	13	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-103	0.873	0.4601	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-105	0.8447	0.4736	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-107	1.024	0.4983	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-109	0.7607	0.4285	5	No	19	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-118	1.108	0.5047	5	No	18	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-101	0.1	0.065	4	No	20	85	None	No	0.01	NP (NDs)
Fluoride (mg/L)	HGWC-102	0.22	0.076	4	No	14	85.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	HGWC-103	0.13	0.071	4	No	20	75	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-105	0.13	0.074	4	No	20	55	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-107	0.1	0.064	4	No	20	55	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-109	0.1257	0.08329	4	No	20	10	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-118	0.18	0.072	4	No	21	0	None	No	0.01	NP (normality)
Lead (mg/L)	HGWC-101	0.001	0.0009	0.015	No	19	94.74	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-102	0.001	0.00011	0.015	No	14	92.86	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-103	0.001	0.00028	0.015	No	19	73.68	None	No	0.01	NP (normality)
Lead (mg/L)	HGWC-105	0.001	0.000085	0.015	No	19	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-107	0.001	0.00034	0.015	No	19	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-109	0.001	0.000058	0.015	No	19	89.47	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-118	0.001	0.00036	0.015	No	19	73.68	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-102	0.0013	0.001	0.04	No	14	0	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-103	0.002	0.0014	0.04	No	19	15.79	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-105	0.004198	0.003865	0.04	No	19	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-107	0.03	0.00084	0.04	No	19	42.11	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-109	0.03	0.00088	0.04	No	19	47.37	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-118	0.03	0.0015	0.04	No	19	31.58	None	No	0.01	NP (normality)
Mercury (mg/L)	HGWC-101	0.0002	0.000099	0.002	No	15	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-102	0.0002	0.0001	0.002	No	13	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-103	0.00025	0.00017	0.002	No	15	73.33	None	No	0.01	NP (normality)
Mercury (mg/L)	HGWC-105	0.00022	0.0002	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-107	0.0002	0.000084	0.002	No	15	93.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-109	0.0002	0.00008	0.002	No	15	86.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-118	0.0002	0.00009	0.002	No	15	86.67	None	No	0.01	NP (NDs)

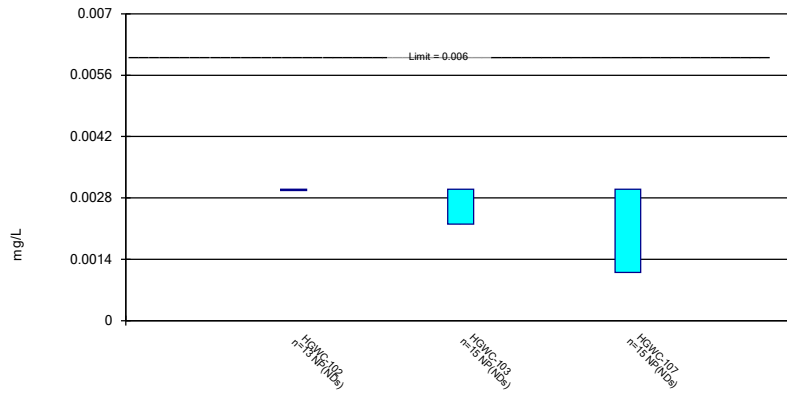
Confidence Intervals - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 10/26/2023, 11:28 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	HGWC-102	0.005	0.0015	0.05	No	13	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	HGWC-102	0.001	0.00008	0.002	No	13	92.31	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

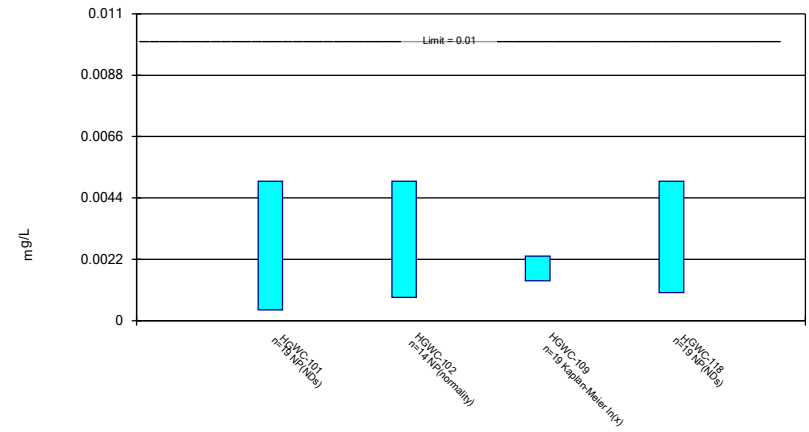
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

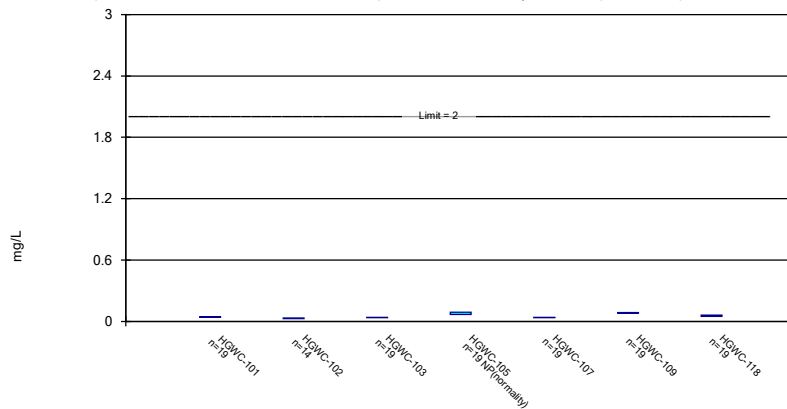
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

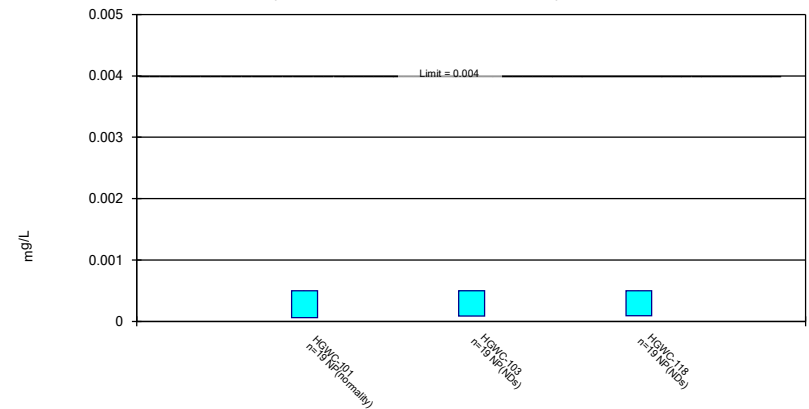
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Constituent: Barium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

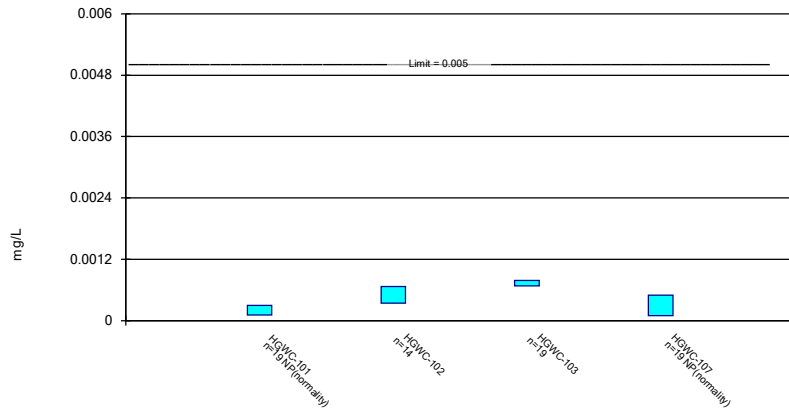
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

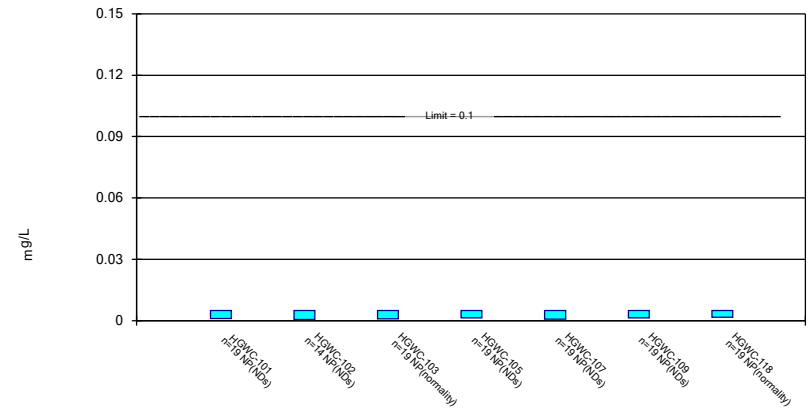
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

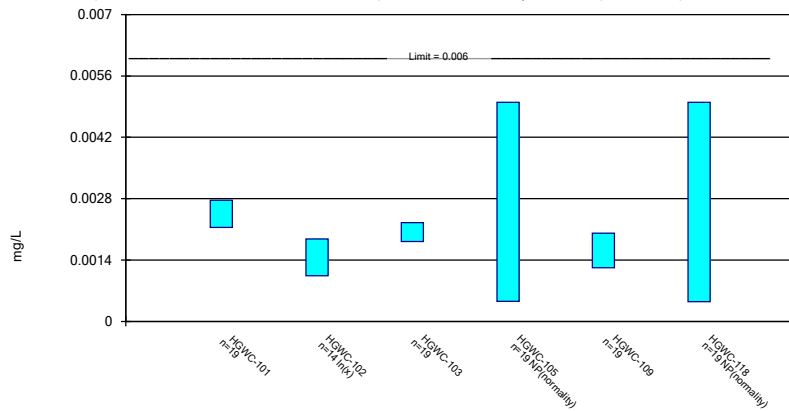
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

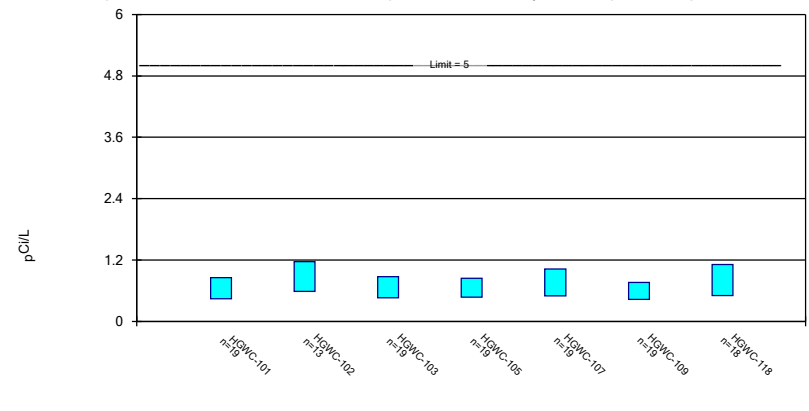
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric Confidence Interval

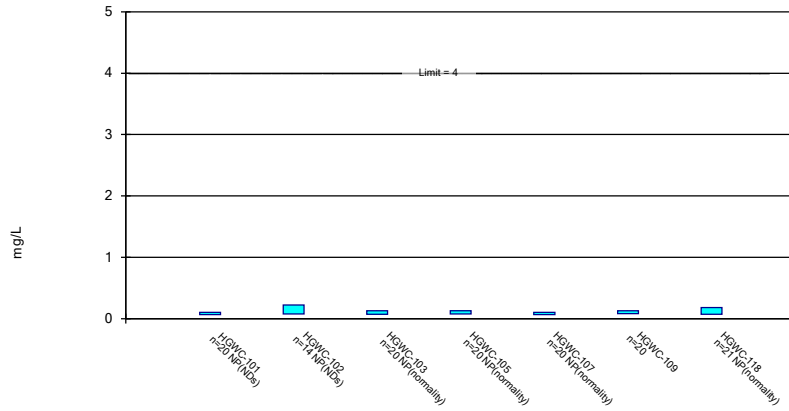
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 & 228 Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

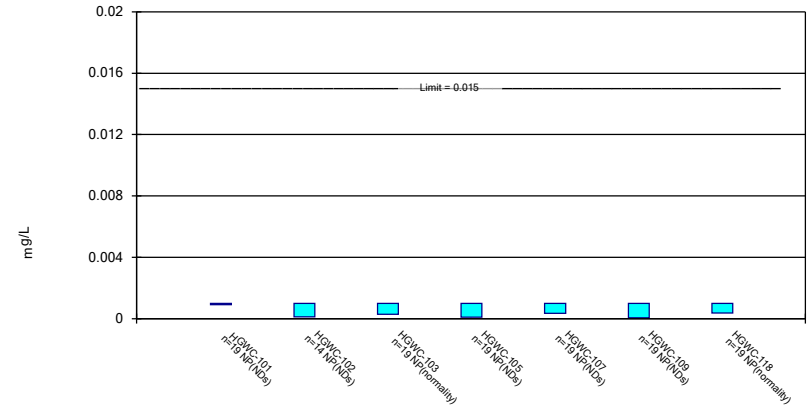
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

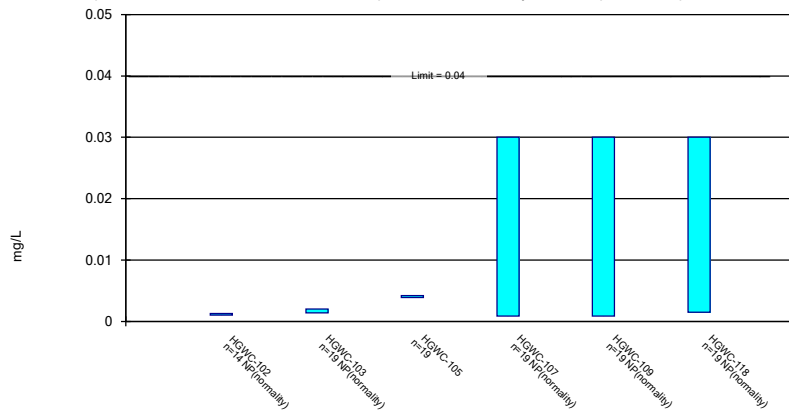
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

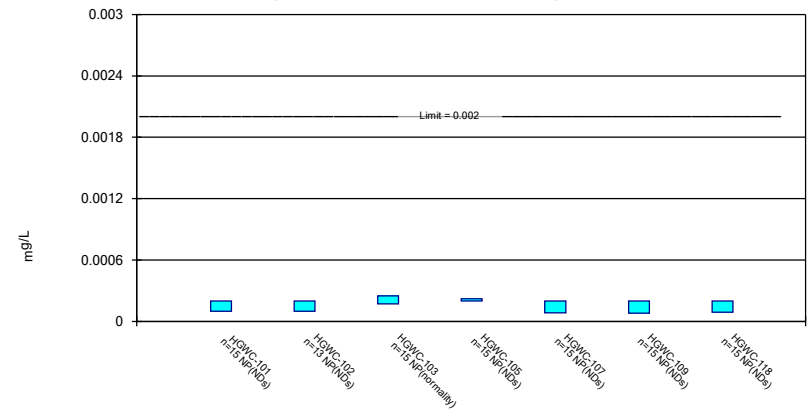
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

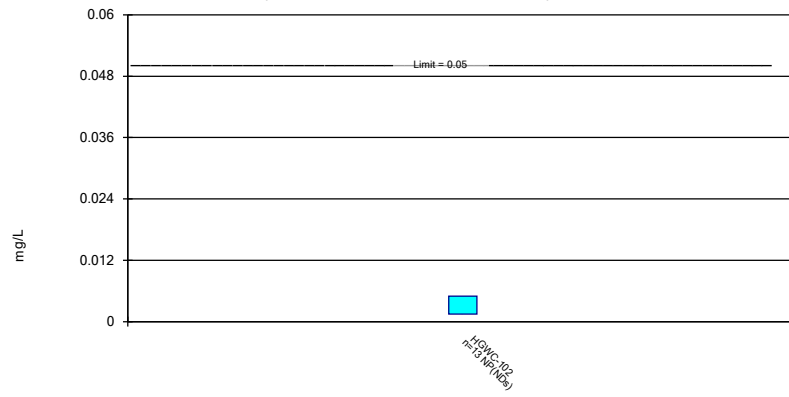
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

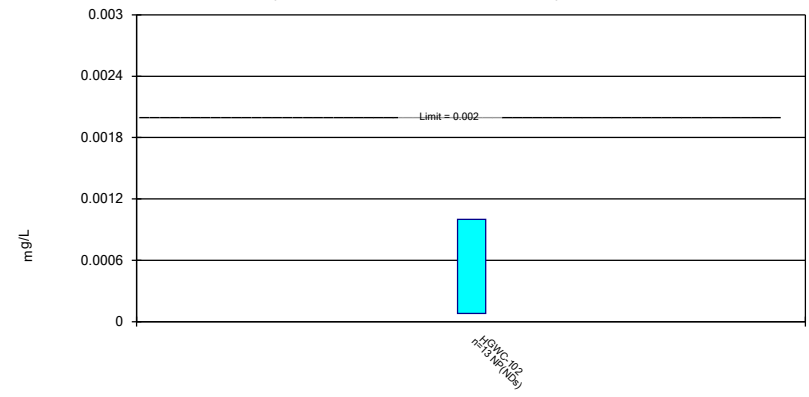
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 10/26/2023 11:27 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWC-103	HGWC-107
8/31/2016		<0.003	<0.003
10/24/2016		<0.003	
10/25/2016			<0.003
1/31/2017		<0.003	<0.003
5/23/2017		<0.003	
5/24/2017			<0.003
8/10/2017		<0.003	<0.003
11/14/2017		<0.003	<0.003
6/6/2018		0.0022 (J)	<0.003
10/2/2018			0.0011 (J)
10/3/2018		<0.003	
8/22/2019		<0.003	
8/23/2019			<0.003
10/23/2019	<0.003		
1/3/2020	0.00076 (J)		
3/4/2020	<0.003		
3/24/2020	<0.003		
6/18/2020	<0.003		
7/21/2020	<0.003		
8/27/2020	<0.003	<0.003	<0.003
9/24/2020	<0.003		
8/13/2021	<0.003		<0.003
8/16/2021		<0.003	
2/2/2022	<0.003	<0.003	<0.003
8/5/2022	<0.003	<0.003	<0.003
1/25/2023	<0.003	<0.003	<0.003
8/11/2023	0.003	<0.003	<0.003
Mean	0.002828	0.002947	0.002873
Std. Dev.	0.0006213	0.0002066	0.0004906
Upper Lim.	0.003	0.003	0.003
Lower Lim.	0.003	0.0022	0.0011

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-109	HGWC-118
8/31/2016	<0.005		0.0045 (J)	<0.005
10/20/2016	<0.005			<0.005
10/25/2016			0.003 (J)	
1/31/2017	<0.005		0.0022 (J)	<0.005
5/23/2017	<0.005			<0.005
5/24/2017			0.0012 (J)	
8/10/2017	<0.005		0.0016 (J)	<0.005
11/14/2017	<0.005		0.0011 (J)	<0.005
6/6/2018	<0.005		0.0018 (J)	
6/7/2018				<0.005
10/2/2018			0.0014 (J)	
10/3/2018	<0.005			<0.005
8/22/2019	<0.005			<0.005
8/23/2019			0.0035 (J)	
10/22/2019			0.0019 (J)	<0.005
10/23/2019	<0.005	<0.005		
1/3/2020		0.00065 (J)		
3/4/2020		0.00036 (J)		
3/24/2020		<0.005		
3/25/2020	0.00039 (J)		0.0025 (J)	<0.005
6/18/2020		0.00092 (J)		
7/21/2020		0.00083 (J)		
8/26/2020				<0.005
8/27/2020	<0.005	<0.005	0.0011 (J)	
9/24/2020	<0.005	<0.005		
9/25/2020			0.0017 (J)	
9/28/2020				<0.005
3/17/2021	<0.005	<0.005	0.0019 (J)	
3/18/2021				0.001 (J)
8/13/2021		<0.005	0.0019 (J)	<0.005
8/16/2021	<0.005			
2/2/2022	<0.005	<0.005	<0.005	
2/3/2022				<0.005
8/5/2022		<0.005	0.0022 (J)	<0.005
8/10/2022	<0.005			
1/25/2023	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005
Mean	0.004757	0.003769	0.002553	0.004789
Std. Dev.	0.001058	0.002024	0.001374	0.0009177
Upper Lim.	0.005	0.005	0.002308	0.005
Lower Lim.	0.00039	0.00083	0.001423	0.001

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	0.0527		0.045	0.067	0.0391	0.0883	0.0595
10/20/2016	0.0477						0.055
10/24/2016			0.0386				
10/25/2016				0.0745	0.041	0.0831	
1/31/2017	0.0527		0.0365	0.0674	0.0382	0.0844	0.0613
5/23/2017	0.0436		0.0254				0.068
5/24/2017				0.0668	0.0377	0.0784	
8/10/2017	0.0419		0.0396	0.067	0.0385	0.0903	0.0638
11/14/2017	0.0407		0.0385	0.0643	0.039	0.083	0.07
6/6/2018	0.043		0.043	0.068	0.039	0.095	
6/7/2018							0.059
10/2/2018				0.066	0.038	0.089	
10/3/2018	0.041		0.04				0.056
8/22/2019	0.043		0.036	0.066			0.052
8/23/2019					0.038	0.088	
10/22/2019					0.039	0.087	0.054
10/23/2019	0.043	0.037	0.039	0.066			
1/3/2020		0.036					
3/4/2020		0.033					
3/24/2020		0.024					
3/25/2020	0.038		0.036	0.074	0.037	0.084	0.06
6/18/2020		0.029					
7/21/2020		0.028					
8/26/2020							0.056
8/27/2020	0.045	0.028	0.038	0.068	0.034	0.083	
9/24/2020	0.041	0.029	0.036	0.075	0.039		
9/25/2020						0.085	
9/28/2020							0.046
3/17/2021	0.04	0.031				0.077	
3/18/2021			0.042	0.082	0.041		0.067
8/13/2021		0.026		0.073	0.033	0.08	0.043
8/16/2021	0.037		0.037				
2/2/2022	0.036	0.029	0.036		0.034	0.072	
2/3/2022				0.093			0.047
8/5/2022		0.031	0.037	0.088	0.036	0.085	0.039
8/10/2022	0.04						
1/25/2023	0.033	0.027	0.032	0.094	0.035	0.076	0.048
8/11/2023	0.036	0.028	0.035	0.089	0.032	0.081	0.04
Mean	0.04186	0.02971	0.0374	0.07416	0.03729	0.08366	0.05498
Std. Dev.	0.005171	0.003625	0.004186	0.009998	0.002593	0.005504	0.009272
Upper Lim.	0.04489	0.03228	0.03985	0.088	0.03881	0.08688	0.06041
Lower Lim.	0.03883	0.02715	0.03495	0.0668	0.03577	0.08044	0.04955

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-103	HGWC-118
8/31/2016	<0.0005	<0.0005	<0.0005
10/20/2016	<0.0005		<0.0005
10/24/2016		<0.0005	
1/31/2017	<0.0005	<0.0005	<0.0005
5/23/2017	7E-05 (J)	<0.0005	<0.0005
8/10/2017	<0.0005	<0.0005	<0.0005
11/14/2017	<0.0005	<0.0005	<0.0005
6/6/2018	5.9E-05 (J)	<0.0005	
6/7/2018			<0.0005
10/3/2018	6.5E-05 (J)	<0.0005	<0.0005
8/22/2019	<0.0005	<0.0005	<0.0005
10/22/2019			<0.0005
10/23/2019	7.5E-05 (J)	<0.0005	
3/25/2020	<0.0005	<0.0005	<0.0005
8/26/2020			<0.0005
8/27/2020	5.7E-05 (J)	5E-05 (J)	
9/24/2020	4.8E-05 (J)	8.8E-05 (J)	
9/28/2020			<0.0005
3/17/2021	5.9E-05 (J)		
3/18/2021		6.1E-05 (J)	9.3E-05 (J)
8/13/2021			<0.0005
8/16/2021	<0.0005	<0.0005	
2/2/2022	6.2E-05 (J)	7.7E-05 (J)	
2/3/2022			<0.0005
8/5/2022		<0.0005	<0.0005
8/10/2022	6.4E-05 (J)		
1/25/2023	<0.0005	<0.0005	<0.0005
8/11/2023	7E-05 (J)	<0.0005	<0.0005
Mean	0.0002699	0.0004093	0.0004786
Std. Dev.	0.0002243	0.0001807	9.337E-05
Upper Lim.	0.0005	0.0005	0.0005
Lower Lim.	6.2E-05	8.8E-05	9.3E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-107
8/31/2016	0.0002 (J)		0.0006 (J)	0.0001 (J)
10/20/2016	0.0003 (J)			
10/24/2016			0.0008 (J)	
10/25/2016				8E-05 (J)
1/31/2017	0.0001 (J)		0.0006 (J)	9E-05 (J)
5/23/2017	0.0002 (J)		0.0006 (J)	
5/24/2017				0.0001 (J)
8/10/2017	0.0002 (J)		0.0007 (J)	<0.0005
11/14/2017	<0.0005		0.0007 (J)	<0.0005
6/6/2018	9.5E-05 (J)		0.00073 (J)	0.00012 (J)
10/2/2018				0.0001 (J)
10/3/2018	0.00018 (J)		0.00078 (J)	
8/22/2019	0.00014 (J)		0.0008 (J)	
8/23/2019				0.00011 (J)
10/22/2019				<0.0005
10/23/2019	0.0002 (J)	0.00026 (J)	0.00091 (J)	
1/3/2020		0.0002 (J)		
3/4/2020		0.00026 (J)		
3/24/2020		0.00068 (J)		
3/25/2020	0.00014 (J)		0.00068 (J)	<0.0005
6/18/2020		0.00047 (J)		
7/21/2020		0.00083 (J)		
8/27/2020	0.00019 (J)	0.00038 (J)	0.00082 (J)	<0.0005
9/24/2020	0.00014 (J)	0.00032 (J)	0.00076 (J)	<0.0005
3/17/2021	<0.0005	0.00094		
3/18/2021			0.00068	<0.0005
8/13/2021		0.00069		<0.0005
8/16/2021	0.00015 (J)		0.00081	
2/2/2022	<0.0005	0.00055	0.0008	<0.0005
8/5/2022		0.00044 (J)	0.00081	<0.0005
8/10/2022	0.00011 (J)			
1/25/2023	0.00011 (J)	0.00035 (J)	0.00063	<0.0005
8/11/2023	0.00015 (J)	0.00067	0.0007	<0.0005
Mean	0.0002161	0.0005029	0.0007321	0.0003526
Std. Dev.	0.0001351	0.0002289	8.81E-05	0.0001984
Upper Lim.	0.0003	0.000665	0.0007837	0.0005
Lower Lim.	0.00011	0.0003407	0.0006805	0.0001

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
10/20/2016	<0.005						<0.005
10/24/2016			<0.005				
10/25/2016				<0.005	<0.005	<0.005	
1/31/2017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
5/23/2017	0.0006 (J)		<0.005				<0.005
5/24/2017				<0.005	<0.005	<0.005	
8/10/2017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
11/14/2017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2018	<0.005		<0.005	<0.005	<0.005	<0.005	
6/7/2018							<0.005
10/2/2018				<0.005	<0.005	<0.005	
10/3/2018	<0.005		<0.005				<0.005
8/22/2019	0.00064 (J)		0.00063 (J)	<0.005			<0.005
8/23/2019					<0.005	<0.005	
10/22/2019					<0.005	0.00062 (J)	0.00066 (J)
10/23/2019	<0.005	<0.005	0.0015 (J)	0.0004 (J)			
1/3/2020		0.00063 (J)					
3/4/2020		<0.005					
3/24/2020		0.00051 (J)					
3/25/2020	0.00098 (J)		0.00045 (J)	0.0013 (J)	0.00074 (J)	0.0014 (J)	0.00081 (J)
6/18/2020		<0.005					
7/21/2020		<0.005					
8/26/2020							0.00098 (J)
8/27/2020	<0.005	<0.005	0.00069 (J)	<0.005	<0.005	<0.005	
9/24/2020	<0.005	<0.005	0.00081 (J)	0.00064 (J)	<0.005		
9/25/2020						<0.005	
9/28/2020							0.0017 (J)
3/17/2021	0.00075 (J)	<0.005				<0.005	
3/18/2021			0.003 (J)	0.00058 (J)	<0.005		0.0021 (J)
8/13/2021		<0.005		<0.005	<0.005	<0.005	<0.005
8/16/2021	<0.005		<0.005				
2/2/2022	<0.005	<0.005	0.0013 (J)		<0.005	<0.005	
2/3/2022				<0.005			<0.005
8/5/2022		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/10/2022	<0.005						
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Mean	0.004104	0.004367	0.003599	0.004101	0.004776	0.00458	0.004013
Std. Dev.	0.001785	0.001609	0.001952	0.001796	0.0009773	0.001265	0.001722
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00098	0.00063	0.00081	0.0013	0.00074	0.0014	0.0017

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-109	HGWC-118
8/31/2016	0.0033 (J)		0.0018 (J)	0.0014 (J)	0.0023 (J)	<0.005
10/20/2016	0.0025 (J)					<0.005
10/24/2016			0.0018 (J)			
10/25/2016				0.0013 (J)	0.0017 (J)	
1/31/2017	0.001 (J)		0.0016 (J)	0.0006 (J)	0.0017 (J)	<0.005
5/23/2017	0.0025 (J)		0.0014 (J)			0.0005 (J)
5/24/2017				0.0007 (J)	0.002 (J)	
8/10/2017	0.0029 (J)		0.0025 (J)	0.0006 (J)	0.0012 (J)	0.0003 (J)
11/14/2017	0.003 (J)		0.002 (J)	0.0005 (J)	0.0014 (J)	0.0004 (J)
6/6/2018	0.0016 (J)		0.0031 (J)	0.00056 (J)	0.0014 (J)	
6/7/2018						<0.005
10/2/2018				<0.005	0.00081 (J)	
10/3/2018	0.0028 (J)		0.0023 (J)			<0.005
8/22/2019	<0.005		0.0019 (J)	<0.005		0.0003 (J)
8/23/2019					0.0027 (J)	
10/22/2019					0.0022 (J)	0.00061 (J)
10/23/2019	0.0023 (J)	0.0018 (J)	0.0021 (J)	0.00038 (J)		
1/3/2020		0.0038 (J)				
3/4/2020		0.0021 (J)				
3/24/2020		0.0019 (J)				
3/25/2020	0.0021 (J)		0.0022 (J)	0.00047 (J)	0.0022 (J)	<0.005
6/18/2020		0.0012 (J)				
7/21/2020		0.00098 (J)				
8/26/2020						0.00061 (J)
8/27/2020	0.0027 (J)	0.001 (J)	0.0019 (J)	<0.005	0.00086 (J)	
9/24/2020	0.0021 (J)	0.0011 (J)	0.0019 (J)	0.00044 (J)		
9/25/2020					0.001 (J)	
9/28/2020						0.00048 (J)
3/17/2021	0.0023 (J)	0.0012 (J)			0.003 (J)	
3/18/2021			0.0021 (J)	0.00045 (J)		0.0012 (J)
8/13/2021		0.00085 (J)		<0.005	0.0011 (J)	<0.005
8/16/2021	0.0026 (J)		0.0022 (J)			
2/2/2022	0.0027 (J)	0.0019 (J)	0.0022 (J)		0.002 (J)	
2/3/2022				<0.005		0.00045 (J)
8/5/2022		0.001 (J)	0.0021 (J)	<0.005	0.0008 (J)	<0.005
8/10/2022	0.0028 (J)					
1/25/2023	0.0021 (J)	0.0016 (J)	0.0017 (J)	0.00046 (J)	0.0016 (J)	<0.005
8/11/2023	0.0028 (J)	0.001 (J)	0.0019 (J)	0.00047 (J)	0.00077 (J)	<0.005
Mean	0.002453	0.001531	0.002037	0.002017	0.001618	0.002887
Std. Dev.	0.0005264	0.0007766	0.0003655	0.002099	0.0006693	0.002296
Upper Lim.	0.002761	0.001878	0.002251	0.005	0.00201	0.005
Lower Lim.	0.002144	0.001042	0.001823	0.00046	0.001226	0.00045

Confidence Interval

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	0.621 (U)		1.62	0.906 (U)	1.2	1.03	
10/20/2016	1.4						1.97
10/24/2016			1.01 (U)				
10/25/2016				1.03	1.11 (U)	1.07	
1/31/2017	0.906 (U)		0.976 (U)	0.868 (U)	1.45	0.588 (U)	1.03
5/23/2017	0.388 (U)		0.891 (U)				0.398 (U)
5/24/2017				0.728 (U)	0.393 (U)	0.593 (U)	
8/10/2017	1.03 (U)		0.601 (U)	1.35	0.84 (U)	0.691 (U)	0.938 (U)
11/14/2017	0.769 (U)		0.567 (U)	0.817 (U)	1.01 (U)	0.653 (U)	0.335 (U)
6/6/2018	1.28 (U)		0.836 (U)	0.559 (U)	0.365 (U)	0.939 (U)	
6/7/2018							0.696 (U)
10/2/2018				0.336 (U)	1.23	0.225 (U)	
10/3/2018	0.302 (U)		0.111 (U)				1.6 (U)
8/22/2019	0.474 (U)		0.946 (U)	0.694 (U)			0.904 (U)
8/23/2019					1.69	0.47 (U)	
10/22/2019					0.705 (U)	0.545 (U)	0.424 (U)
10/23/2019	0.776 (U)	0.858 (U)	0.571 (U)	0.584 (U)			
1/22/2020		1.04 (U)					
3/4/2020		1.32					
3/24/2020		1.23 (U)					
3/25/2020	0.603 (U)		0.403 (U)	0.663 (U)	0.673 (U)	0.508 (U)	0.915 (U)
7/21/2020		0.0938 (U)					
8/26/2020							1.19
8/27/2020	0.109 (U)	1.17 (U)	0.37 (U)	0.416 (U)	0.264 (U)	0.989 (U)	
9/24/2020	0.625 (U)	1.42	0.804 (U)	1.11 (U)	0.576 (U)		
9/25/2020						0.584 (U)	
9/28/2020							0.613 (U)
3/17/2021	0.248 (U)	0.401 (U)				0.556 (U)	
3/18/2021			0.274 (U)	0.252 (U)	0.145 (U)		0.323 (U)
8/13/2021		0.828 (U)		0.513 (U)	0.815 (U)	0.794 (U)	0.228 (U)
8/16/2021	0.667 (U)		0.493 (U)				
2/1/2022	0.162 (U)	0.806 (U)	0.569 (U)		0.0564 (U)	0.542 (U)	
2/3/2022				0.835			0.5 (U)
8/5/2022		0.618 (U)	0.205 (U)	0.139 (U)	0.917 (U)	0.22 (U)	0.206 (U)
8/10/2022	0.601 (U)						
1/25/2023	0.419 (U)	0.513 (U)	0.568 (U)	0.432 (U)	0.71 (U)	0.195 (U)	1.44
8/11/2023	0.93 (U)	1.08	0.849 (U)	0.292 (U)	0.314 (U)	0.105 (U)	0.806 (U)
Mean	0.6479	0.8752	0.6665	0.6592	0.7612	0.5946	0.8064
Std. Dev.	0.3536	0.3891	0.3526	0.3169	0.4491	0.2837	0.4987
Upper Lim.	0.8549	1.165	0.873	0.8447	1.024	0.7607	1.108
Lower Lim.	0.4408	0.5859	0.4601	0.4736	0.4983	0.4285	0.5047

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	0.05 (J)		0.06 (J)	0.15 (J)	0.08 (J)	0.12 (J)	0.18 (J)
10/20/2016	0.03 (J)						0.12 (J)
10/24/2016			0.13 (J)				
10/25/2016				0.09 (J)	0.16 (J)	0.17 (J)	
1/31/2017	<0.1		<0.1	0.13 (J)	0.16 (J)	0.05 (J)	0.3
5/23/2017	<0.1		0.15 (J)				0.14 (J)
5/24/2017				0.07 (J)	0.009 (J)	0.13 (J)	
8/10/2017	<0.1		<0.1	0.03 (J)	<0.1	0.12 (J)	0.11 (J)
11/14/2017	<0.1		<0.1	<0.1	<0.1	<0.3	0.07 (J)
6/6/2018	<0.1		<0.1	0.074 (J)	0.057 (J)	0.15 (J)	
6/7/2018							0.3
10/2/2018				<0.1	<0.1	<0.3	
10/3/2018	<0.1		<0.1				0.12 (J)
4/3/2019					<0.1	0.05 (J)	
4/4/2019	<0.1		0.042 (J)	0.03 (J)			
4/5/2019							0.33
6/18/2019							0.89
8/22/2019	<0.1		<0.1	<0.1			0.07 (J)
8/23/2019					<0.1	0.034 (J)	
10/22/2019					0.047 (J)	0.099 (J)	0.087 (J)
10/23/2019	<0.1	0.22 (J)	<0.1	<0.1			
1/3/2020		<0.1					
3/4/2020		<0.1					
3/24/2020		<0.1					
3/25/2020	<0.1		<0.1	<0.1	<0.1	0.075 (J)	0.078 (J)
6/18/2020		<0.1					
7/21/2020		<0.1					
8/26/2020							0.072 (J)
8/27/2020	<0.1	<0.1	<0.1	<0.1	<0.1	0.094 (J)	
9/24/2020	<0.1	<0.1	<0.1	<0.1	0.064 (J)		
9/25/2020						0.091 (J)	
9/28/2020							0.078 (J)
3/17/2021	<0.1	<0.1				0.089 (J)	
3/18/2021			<0.1	<0.1	<0.1		0.079 (J)
8/13/2021		<0.1		<0.1	<0.1	0.086 (J)	0.075 (J)
8/16/2021	<0.1		<0.1				
2/2/2022	<0.1	<0.1	<0.1		<0.1	0.086 (J)	
2/3/2022				<0.1			0.069 (J)
8/5/2022		0.076 (J)	0.071 (J)	0.075 (J)	0.093 (J)	0.14	0.12
8/10/2022	0.065 (J)						
1/25/2023	<0.1	<0.1	<0.1	0.051 (J)	0.054 (J)	0.12	0.095 (J)
8/11/2023	<0.1	<0.1	<0.1	<0.1	<0.1	0.086 (J)	0.07 (J)
Mean	0.09225	0.1069	0.09765	0.09	0.0912	0.1045	0.1644
Std. Dev.	0.01977	0.03319	0.02188	0.02893	0.03438	0.03735	0.1852
Upper Lim.	0.1	0.22	0.13	0.13	0.1	0.1257	0.18
Lower Lim.	0.065	0.076	0.071	0.074	0.064	0.08329	0.072

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/20/2016	<0.001						<0.001
10/24/2016			<0.001				
10/25/2016				<0.001	<0.001	<0.001	
1/31/2017	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
5/23/2017	0.0009 (J)		<0.001				<0.001
5/24/2017				<0.001	<0.001	<0.001	
8/10/2017	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
11/14/2017	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
6/7/2018							<0.001
10/2/2018				<0.001	<0.001	<0.001	
10/3/2018	<0.001		<0.001				<0.001
8/22/2019	<0.001		<0.001	<0.001			<0.001
8/23/2019					<0.001	5.8E-05 (J)	
10/22/2019					7.9E-05 (J)	5.4E-05 (J)	0.00025 (J)
10/23/2019	<0.001	<0.001	0.00043 (J)	6.8E-05 (J)			
1/3/2020		<0.001					
3/4/2020		0.00011 (J)					
3/24/2020		<0.001					
3/25/2020	<0.001		7.6E-05 (J)	8.5E-05 (J)	0.00021 (J)	<0.001	0.0001 (J)
6/18/2020		<0.001					
7/21/2020		<0.001					
8/26/2020							0.00036 (J)
8/27/2020	<0.001	<0.001	0.00018 (J)	<0.001	<0.001	<0.001	
9/24/2020	<0.001	<0.001	0.00028 (J)	4.9E-05 (J)	0.00034 (J)		
9/25/2020						<0.001	
9/28/2020							0.00022 (J)
3/17/2021	<0.001	<0.001				<0.001	
3/18/2021			0.00024 (J)	5.8E-05 (J)	9.1E-05 (J)		0.00088 (J)
8/13/2021		<0.001		<0.001	<0.001	<0.001	<0.001
8/16/2021	<0.001		<0.001				
2/2/2022	<0.001	<0.001	<0.001		<0.001	<0.001	
2/3/2022				<0.001			<0.001
8/5/2022		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/10/2022	<0.001						
1/25/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/11/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mean	0.0009947	0.0009364	0.0008003	0.0008032	0.0008274	0.0009006	0.0008321
Std. Dev.	2.294E-05	0.0002379	0.0003488	0.0003917	0.0003471	0.0002976	0.0003223
Upper Lim.	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0009	0.00011	0.00028	8.5E-05	0.00034	5.8E-05	0.00036

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016		<0.03	0.0034 (J)	<0.03	<0.03	<0.03
10/20/2016						<0.03
10/24/2016		<0.03				
10/25/2016			0.0043 (J)	<0.03	<0.03	
1/31/2017		<0.03	0.0042 (J)	<0.03	<0.03	<0.03
5/23/2017		0.0012 (J)				0.0012 (J)
5/24/2017			0.0039 (J)	<0.03	0.0012 (J)	
8/10/2017		0.0016 (J)	0.004 (J)	<0.03	<0.03	<0.03
11/14/2017		0.0015 (J)	0.0044 (J)	<0.03	<0.03	<0.03
6/6/2018		0.0017 (J)	0.0041 (J)	0.00099 (J)	0.0013 (J)	
6/7/2018						0.0015 (J)
10/2/2018			0.0041 (J)	<0.03	0.0013 (J)	
10/3/2018		0.0016 (J)				<0.03
8/22/2019		0.0015 (J)	0.004 (J)			0.0018 (J)
8/23/2019				0.00092 (J)	0.0009 (J)	
10/22/2019				0.00094 (J)	0.00088 (J)	0.0027 (J)
10/23/2019	0.0012 (J)	0.002 (J)	0.0039 (J)			
1/3/2020	0.0011 (J)					
3/4/2020	0.0013 (J)					
3/24/2020	0.00084 (J)					
3/25/2020		0.0016 (J)	0.0041 (J)	0.00091 (J)	<0.03	0.0017 (J)
6/18/2020	0.0013 (J)					
7/21/2020	0.0013 (J)					
8/26/2020						0.0028 (J)
8/27/2020	0.0011 (J)	0.0016 (J)	0.0037 (J)	<0.03	0.0011 (J)	
9/24/2020	0.0011 (J)	0.0017 (J)	0.0038 (J)	0.00098 (J)		
9/25/2020					0.001 (J)	
9/28/2020						0.0022 (J)
3/17/2021	0.0012 (J)				<0.03	
3/18/2021		0.0018 (J)	0.0042 (J)	0.0011 (J)		0.0029 (J)
8/13/2021	0.0011 (J)		0.0038 (J)	0.00084 (J)	<0.03	0.0017 (J)
8/16/2021		0.0016 (J)				
2/2/2022	0.0013 (J)	0.0019 (J)		0.001 (J)	0.00084 (J)	
2/3/2022			0.0046 (J)			0.0015 (J)
8/5/2022	0.0013 (J)	0.0014 (J)	0.0039 (J)	0.00082 (J)	0.00087 (J)	0.0018 (J)
1/25/2023	0.001 (J)	0.0012 (J)	0.0038 (J)	0.00081 (J)	<0.03	0.001 (J)
8/11/2023	0.0013 (J)	0.0014 (J)	0.0044 (J)	0.00083 (J)	0.00076 (J)	0.0023 (J)
Mean	0.001174	0.006068	0.004032	0.01317	0.01474	0.01079
Std. Dev.	0.0001415	0.01065	0.0002849	0.01475	0.01487	0.01341
Upper Lim.	0.0013	0.002	0.004198	0.03	0.03	0.03
Lower Lim.	0.001	0.0014	0.003865	0.00084	0.00088	0.0015

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
10/20/2016	<0.0002						<0.0002
10/24/2016			<0.0002				
10/25/2016				<0.0002	<0.0002	<0.0002	
1/31/2017	9.3E-05 (J)		8E-05 (J)	<0.0002	<0.0002	8E-05 (J)	9E-05 (J)
5/23/2017	<0.0002		<0.0002				<0.0002
5/24/2017				<0.0002	<0.0002	<0.0002	
8/10/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
11/14/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
6/6/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	
6/7/2018							<0.0002
10/2/2018				<0.0002	<0.0002	<0.0002	
10/3/2018	<0.0002		<0.0002				<0.0002
8/22/2019	<0.0002		<0.0002	<0.0002			<0.0002
8/23/2019					<0.0002	<0.0002	
10/23/2019		<0.0002					
1/3/2020		<0.0002					
3/4/2020		<0.0002					
3/24/2020		<0.0002					
6/18/2020		<0.0002					
7/21/2020		<0.0002					
8/26/2020							<0.0002
8/27/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
9/24/2020		<0.0002					
8/13/2021		0.0001 (J)		0.00022	8.4E-05 (J)	8E-05 (J)	8.1E-05 (J)
8/16/2021	9.9E-05 (J)		0.00027				
2/2/2022	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	
2/3/2022				<0.0002			<0.0002
8/5/2022		<0.0002	0.00017 (J)	<0.0002	<0.0002	<0.0002	<0.0002
8/10/2022	<0.0002						
1/25/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/11/2023	<0.0002	<0.0002	0.00025	<0.0002	<0.0002	<0.0002	<0.0002
Mean	0.0001861	0.0001923	0.000198	0.0002013	0.0001923	0.000184	0.0001847
Std. Dev.	3.661E-05	2.774E-05	4.021E-05	5.164E-06	2.995E-05	4.222E-05	4.032E-05
Upper Lim.	0.0002	0.0002	0.00025	0.00022	0.0002	0.0002	0.0002
Lower Lim.	9.9E-05	0.0001	0.00017	0.0002	8.4E-05	8E-05	9E-05

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102
10/23/2019	<0.005
1/3/2020	0.0015 (J)
3/4/2020	<0.005
3/24/2020	<0.005
6/18/2020	<0.005
7/21/2020	<0.005
8/27/2020	<0.005
9/24/2020	<0.005
8/13/2021	<0.005
2/2/2022	<0.005
8/5/2022	<0.005
1/25/2023	<0.005
8/11/2023	<0.005
Mean	0.004731
Std. Dev.	0.0009707
Upper Lim.	0.005
Lower Lim.	0.0015

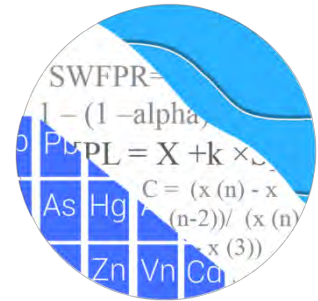
Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 10/26/2023 11:28 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102
10/23/2019	<0.001
1/3/2020	8E-05 (J)
3/4/2020	<0.001
3/24/2020	<0.001
6/18/2020	<0.001
7/21/2020	<0.001
8/27/2020	<0.001
9/24/2020	<0.001
8/13/2021	<0.001
2/2/2022	<0.001
8/5/2022	<0.001
1/25/2023	<0.001
8/11/2023	<0.001
Mean	0.0009292
Std. Dev.	0.0002552
Upper Lim.	0.001
Lower Lim.	8E-05

February 2024

GROUNDWATER STATS CONSULTING



July 31, 2024

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd. NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant Hammond Ash Pond 4 (AP-4)
February 2024 Semi-Annual Statistical Analysis

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the February 2024 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical summary of groundwater data for Georgia Power Company's Plant Hammond AP-4. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for Hammond AP-4 in 2016, and at least 8 background samples have been collected at each of the groundwater monitoring wells analyzed in this report. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** HGWA-47, HGWA-48D, HGWA-111, HGWA-112, and HGWA-113
- **Downgradient wells:** HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, and HGWC-118

Note that downgradient well HGWC-102 was first sampled in October 2019 and upgradient wells HGWA-47 and HGWA-48D were first sampled in September 2020 and currently have at least 8 samples; therefore, data from this well were evaluated during this

statistical analysis. Upgradient well data are included in construction of interwell prediction limits when a minimum of 2 samples are available and downgradient wells are evaluated with prediction limits once the wells have a minimum of 8 samples.

Piezometer HGWC-117A was reclassified as a downgradient well and was first sampled in February 2021. This well currently has a maximum of seven samples collected. Therefore, this well is included on the time series graphs and box plots, and also has reached the minimum number of samples for Appendix IV parameters to be evaluated with confidence intervals (n=4). Once a minimum of 8 samples are available, data will be evaluated with interwell prediction limits.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The Coal Combustion Residuals (CCR) program consists of the following constituents listed below. The terms "constituent" and "parameter" are interchangeable.

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. In the case of lithium, historical reporting limits vary among the wells. Therefore, the reporting limits of 0.030 mg/L, respectively, were substituted across all wells, which is the most recent reporting limit provided by the laboratory. Note that due to elevated historic reporting limits, the current reporting limit for arsenic of 0.005 mg/L was substituted across all wells in order to maintain statistical limits that are conservative from a regulatory perspective.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between

all wells. 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).

Data at all wells were initially evaluated during the background screening described below for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the screening and demonstrated that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. 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.

Statistical Methods – Appendix III Parameters

Appendix III parameters are evaluated using interwell prediction limits combined with a 1-of-2 resample plan for all constituents: boron, calcium, chloride, fluoride, pH, sulfate, and TDS.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.

- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as the original reporting limit.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, an earlier portion of data may require deselection prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs. When this step is required a summary of any adjusted records will be provided. No records were adjusted at this time.

Summary of Background Screening Conducted in April 2019

Outlier Analysis

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, a few outliers were identified. Often, 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.

Of the outliers identified by Tukey's method, only one outlier was flagged as all other values are similar to remaining measurements within a given well or neighboring wells, or were reported non-detects.

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.

Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

Trend Tests

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 was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses were included with the screening and showed a few statistically significant decreasing and increasing trends for the Appendix III parameters. Most trends noted were relatively low in magnitude when compared to average concentrations, and the background period is short; therefore, no adjustments were made to the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) is typically used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

Statistical Evaluation of Appendix III Parameters – February 2024

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were reassessed 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. No additional values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through February 2024 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The February 2024 sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, and HGWC-118
- Calcium: HGWC-102, HGWC-103, HGWC-105, and HGWC-118
- Chloride: HGWC-102, HGWC-103, and HGWC-105
- Sulfate: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, and HGWC-118
- TDS: HGWC-102, HGWC-103, HGWC-105, and HGWC-118

Trend Test Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (Figure E). Upgradient wells are included in the trend analyses for all parameters

found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. When trends are present in upgradient trends, it is an indication of variability in groundwater unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Boron: HGWC-101 and HGWC-103
- Calcium: HGWA-113 (upgradient), HGWC-103, and HGWC-105
- Chloride: HGWC-103 and HGWC-105
- TDS: HGWC-105

Decreasing trends:

- Boron: HGWC-109
- Sulfate: HGWA-113 (upgradient), HGWC-109, and HGWC-118

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (Maximum Containment Levels (MCL) or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Statistical Evaluation of Appendix IV Parameters – February 2024

For Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that have 100% non-detects do not require analysis. Data from upgradient wells for Appendix IV parameters are reassessed for outliers during each analysis. No additional values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Interwell upper tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through February 2024 for Appendix IV constituents (Figure F). Parametric tolerance limits are calculated, with a target of 95%

confidence and 95% coverage, when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. As mentioned above, reporting limits of 0.005 mg/L and 0.030 mg/L were substituted across all wells for arsenic and lithium, respectively.

Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure G).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient well (Figure H). As mentioned above, well/constituent pairs with 100% non-detects did not require statistics, which includes all downgradient wells for molybdenum.

The Sanitas software was used to calculate the confidence intervals. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals, which use the appropriate order statistics, depending on the sample size, as interval limits, were constructed when data

did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The achievable confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. A summary of the confidence intervals follows this letter. When the entire records were evaluated, no exceedances were identified.

Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test at the 95% confidence level to determine whether concentrations are statistically increasing, decreasing, or stable. Although the trend tests for Assessment monitoring pairs were previously evaluated using 99% confidence, the 95% confidence level more rapidly identifies statistically significant trends. Additionally, the 95% confidence level is recommended in cases with limited sample sizes and, particularly, for new assessment wells. Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient wells, it is an indication of variability in groundwater quality unrelated to practices at the site. Since no confidence interval exceedances were identified, no trend tests were required.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Hammond AP-4. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Abdul Diane
Groundwater Analyst



Andrew T. Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 4/11/2024 4:20 PM View: Confidence Intervals
Plant Hammond Data: Hammond AP-4

Antimony (mg/L)

HGWC-101, HGWC-105, HGWC-109, HGWC-117A, HGWC-118

Arsenic (mg/L)

HGWC-103, HGWC-105, HGWC-107, HGWC-117A

Beryllium (mg/L)

HGWC-102, HGWC-105, HGWC-107, HGWC-109, HGWC-117A

Cadmium (mg/L)

HGWC-105, HGWC-109, HGWC-118

Chromium (mg/L)

HGWC-117A

Cobalt (mg/L)

HGWC-107

Lead (mg/L)

HGWC-117A

Lithium (mg/L)

HGWC-101

Molybdenum (mg/L)

HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Selenium (mg/L)

HGWC-101, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Thallium (mg/L)

HGWC-101, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-117A, HGWC-118

Appendix III - Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 2:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	HGWC-101	0.04	n/a	2/16/2024	0.14	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-102	0.04	n/a	2/16/2024	2.7	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-103	0.04	n/a	2/16/2024	3.1	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-105	0.04	n/a	2/17/2024	1.3	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-107	0.04	n/a	2/16/2024	0.87	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-109	0.04	n/a	2/17/2024	0.22	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-118	0.04	n/a	2/17/2024	0.68	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-102	73.8	n/a	2/16/2024	127	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-103	73.8	n/a	2/16/2024	106	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-105	73.8	n/a	2/17/2024	130	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-118	73.8	n/a	2/17/2024	83.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-102	5.7	n/a	2/16/2024	7.4	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-103	5.7	n/a	2/16/2024	7.5	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-105	5.7	n/a	2/17/2024	6.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-101	19.7	n/a	2/16/2024	110	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-102	19.7	n/a	2/16/2024	363	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-103	19.7	n/a	2/16/2024	323	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-105	19.7	n/a	2/17/2024	251	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-107	19.7	n/a	2/16/2024	130	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-109	19.7	n/a	2/17/2024	22	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-118	19.7	n/a	2/17/2024	69.7	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-102	345	n/a	2/16/2024	718	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-103	345	n/a	2/16/2024	640	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	345	n/a	2/17/2024	716	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-118	345	n/a	2/17/2024	424	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 2:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	HGWC-101	0.04	n/a	2/16/2024	0.14	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-102	0.04	n/a	2/16/2024	2.7	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-103	0.04	n/a	2/16/2024	3.1	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-105	0.04	n/a	2/17/2024	1.3	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-107	0.04	n/a	2/16/2024	0.87	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-109	0.04	n/a	2/17/2024	0.22	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-118	0.04	n/a	2/17/2024	0.68	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-101	73.8	n/a	2/16/2024	22.2	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-102	73.8	n/a	2/16/2024	127	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-103	73.8	n/a	2/16/2024	106	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-105	73.8	n/a	2/17/2024	130	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-107	73.8	n/a	2/16/2024	61.9	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-109	73.8	n/a	2/17/2024	44.3	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-118	73.8	n/a	2/17/2024	83.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-101	5.7	n/a	2/16/2024	5.4	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-102	5.7	n/a	2/16/2024	7.4	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-103	5.7	n/a	2/16/2024	7.5	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-105	5.7	n/a	2/17/2024	6.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-107	5.7	n/a	2/16/2024	3.2	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-109	5.7	n/a	2/17/2024	3.9	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-118	5.7	n/a	2/17/2024	4.1	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-101	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-102	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-103	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-105	0.23	n/a	2/17/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-107	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-109	0.23	n/a	2/17/2024	0.094J	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-118	0.23	n/a	2/17/2024	0.068J	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-101	7.93	5.43	2/16/2024	5.47	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-102	7.93	5.43	2/16/2024	5.88	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-103	7.93	5.43	2/16/2024	5.74	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-105	7.93	5.43	2/17/2024	6.46	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-107	7.93	5.43	2/16/2024	6.27	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-109	7.93	5.43	2/17/2024	6.88	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-118	7.93	5.43	2/17/2024	6.94	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-101	19.7	n/a	2/16/2024	110	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-102	19.7	n/a	2/16/2024	363	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-103	19.7	n/a	2/16/2024	323	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-105	19.7	n/a	2/17/2024	251	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-107	19.7	n/a	2/16/2024	130	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-109	19.7	n/a	2/17/2024	22	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-118	19.7	n/a	2/17/2024	69.7	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-101	345	n/a	2/16/2024	222	No	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-102	345	n/a	2/16/2024	718	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-103	345	n/a	2/16/2024	640	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	345	n/a	2/17/2024	716	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-107	345	n/a	2/16/2024	325	No	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-109	345	n/a	2/17/2024	265	No	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-118	345	n/a	2/17/2024	424	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2

Appendix III - Trend Test Summary - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 3:03 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron, total (mg/L)	HGWC-101	0.009376	100	74	Yes	19	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-103	0.1338	97	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-109	-0.02961	-136	-81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-113 (bg)	0.2427	87	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-103	5.695	112	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-105	7.259	156	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-103	0.3815	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-105	0.3883	120	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-113 (bg)	-0.9433	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-109	-2.777	-118	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-118	-2.113	-87	-81	Yes	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	29.56	120	81	Yes	20	0	n/a	n/a	0.01	NP

Appendix III - Trend Test Summary - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 3:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	HGWA-111 (bg)	0.0004744	45	74	No	19	36.84	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-112 (bg)	0.000137	23	74	No	19	36.84	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-113 (bg)	0.0006948	36	74	No	19	21.05	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-47 (bg)	0.0009768	18	34	No	11	54.55	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-48D (bg)	0.00529	11	34	No	11	27.27	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-101	0.009376	100	74	Yes	19	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-102	-0.1134	-30	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-103	0.1338	97	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-105	0.003065	30	74	No	19	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-107	0.01551	60	81	No	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-109	-0.02961	-136	-81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-118	-0.004488	-13	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-111 (bg)	1.584	35	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-112 (bg)	0.04239	37	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-113 (bg)	0.2427	87	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-47 (bg)	-1.639	-15	-34	No	11	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-48D (bg)	-0.6536	-8	-34	No	11	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-102	2.06	13	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-103	5.695	112	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-105	7.259	156	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-118	0.8192	64	81	No	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-111 (bg)	0	-1	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-112 (bg)	-0.01921	-24	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-113 (bg)	-0.0351	-62	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-47 (bg)	0	-6	-34	No	11	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-48D (bg)	0	0	34	No	11	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-102	0.05911	12	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-103	0.3815	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-105	0.3883	120	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-111 (bg)	-0.0153	-23	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-112 (bg)	0.007861	11	74	No	19	21.05	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-113 (bg)	-0.9433	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-47 (bg)	-0.1094	-7	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-48D (bg)	-0.6353	-34	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-101	-0.9319	-38	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-102	-2.616	-6	-53	No	15	6.667	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-103	5.96	49	81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-105	4.021	33	81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-107	-1.338	-70	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-109	-2.777	-118	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-118	-2.113	-87	-81	Yes	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-111 (bg)	5.041	35	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-112 (bg)	-0.4021	-6	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-113 (bg)	0.3489	6	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-47 (bg)	-2.72	-3	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-48D (bg)	1.637	6	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-102	0	0	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-103	19.49	66	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	29.56	120	81	Yes	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-118	-0.4617	-6	-81	No	20	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/26/2024, 12:16 PM

Constituent	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	68	94.12	n/a	0.03056	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	n/a	n/a	82	93.9	n/a	0.01491	NP Inter(NDs)
Barium (mg/L)	0.12	n/a	n/a	n/a	n/a	82	0	n/a	0.01491	NP Inter(normality)
Beryllium (mg/L)	0.0019	n/a	n/a	n/a	n/a	82	91.46	n/a	0.01491	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	n/a	82	100	n/a	0.01491	NP Inter(NDs)
Chromium (mg/L)	0.0061	n/a	n/a	n/a	n/a	82	40.24	n/a	0.01491	NP Inter(normality)
Cobalt (mg/L)	0.005	n/a	n/a	n/a	n/a	82	90.24	n/a	0.01491	NP Inter(NDs)
Combined Radium 226 & 228 (pCi/L)	1.293	n/a	n/a	n/a	n/a	82	0	No	0.05	Inter
Fluoride, total (mg/L)	0.23	n/a	n/a	n/a	n/a	85	21.18	n/a	0.01278	NP Inter(normality)
Lead (mg/L)	0.0016	n/a	n/a	n/a	n/a	82	73.17	n/a	0.01491	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	n/a	82	37.8	n/a	0.01491	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	n/a	68	82.35	n/a	0.03056	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	n/a	68	82.35	n/a	0.03056	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	68	79.41	n/a	0.03056	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	n/a	68	100	n/a	0.03056	NP Inter(NDs)

PLANT HAMMOND AP-4 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.12	2
Beryllium, Total (mg/L)	0.004		0.0019	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0061	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.005	0.006
Combined Radium, Total (pCi/L)	5		1.29	5
Fluoride, Total (mg/L)	4		0.23	4
Lead, Total (mg/L)	n/a	0.015	0.0016	0.015
Lithium, Total (mg/L)	n/a	0.040	0.030	0.040
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

Confidence Intervals Summary Table - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/26/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-102	0.003	0.003	0.006	No	14	0.0005987	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-103	0.003	0.0022	0.006	No	16	0.0002	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-107	0.003	0.0011	0.006	No	16	0.000475	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-101	0.005	0.00039	0.01	No	20	0.001031	95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-102	0.005	0.00083	0.01	No	15	0.001976	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-109	0.003093	0.001678	0.01	No	20	0.001366	15	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	HGWC-118	0.005	0.001	0.01	No	20	0.0008944	95	None	No	0.01	NP (NDs)
Barium (mg/L)	HGWC-101	0.04449	0.03824	2	No	20	0.005495	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-102	0.03192	0.02701	2	No	15	0.003623	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-103	0.03953	0.03463	2	No	20	0.004318	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-105	0.085	0.0668	2	No	20	0.01003	0	None	No	0.01	NP (normality)
Barium (mg/L)	HGWC-107	0.03861	0.03554	2	No	20	0.0027	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-109	0.0865	0.08025	2	No	20	0.005505	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-117A	0.06883	0.04281	2	No	7	0.01176	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	HGWC-118	0.05989	0.04957	2	No	20	0.009093	0	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-101	0.0005	0.000062	0.004	No	20	0.0002243	50	None	No	0.01	NP (normality)
Beryllium (mg/L)	HGWC-103	0.0005	0.000088	0.004	No	20	0.000177	80	None	No	0.01	NP (NDs)
Beryllium (mg/L)	HGWC-118	0.0005	0.000093	0.004	No	20	0.00009101	95	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-101	0.0002477	0.0001389	0.005	No	20	0.0001321	15	None	ln(x)	0.01	Param.
Cadmium (mg/L)	HGWC-102	0.0006432	0.0003368	0.005	No	15	0.0002261	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-103	0.0007812	0.0006838	0.005	No	20	0.00008577	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-107	0.0005	0.0001	0.005	No	20	0.0001959	65	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-117A	0.0005	0.00016	0.005	No	7	0.0001285	85.71	None	No	0.008	NP (NDs)
Chromium (mg/L)	HGWC-101	0.005	0.00098	0.1	No	20	0.001749	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-102	0.005	0.00063	0.1	No	15	0.001559	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-103	0.005	0.0013	0.1	No	20	0.001925	65	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-105	0.005	0.0013	0.1	No	20	0.001759	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-107	0.005	0.00074	0.1	No	20	0.0009526	95	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-109	0.005	0.0014	0.1	No	20	0.001235	90	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-118	0.005	0.0021	0.1	No	20	0.00169	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-101	0.002752	0.002168	0.006	No	20	0.0005134	5	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-102	0.0019	0.00098	0.006	No	15	0.0007565	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-103	0.002237	0.001833	0.006	No	20	0.0003558	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-105	0.005	0.00047	0.006	No	20	0.002064	30	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-109	0.001968	0.001216	0.006	No	20	0.0006617	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-117A	0.00173	0.0003088	0.006	No	7	0.0006974	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	HGWC-118	0.005	0.00045	0.006	No	20	0.002302	50	None	No	0.01	NP (normality)
Combined Radium 226 & 228 (pCi/L)	HGWC-101	0.8319	0.4335	5	No	20	0.3508	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-102	1.123	0.574	5	No	14	0.3872	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-103	0.8694	0.478	5	No	20	0.3447	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-105	0.8481	0.4931	5	No	20	0.3127	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-107	1.014	0.517	5	No	20	0.4375	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-109	0.7432	0.4253	5	No	20	0.2799	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-117A	0.9694	0.09314	5	No	7	0.3689	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-118	1.068	0.4602	5	No	19	0.5188	0	None	No	0.01	Param.
Fluoride, total (mg/L)	HGWC-101	0.1	0.065	4	No	21	0.01934	85.71	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-102	0.22	0.076	4	No	15	0.03203	86.67	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-103	0.13	0.071	4	No	21	0.02133	76.19	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-105	0.13	0.074	4	No	21	0.02828	57.14	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-107	0.1	0.064	4	No	21	0.03356	57.14	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-109	0.1241	0.08388	4	No	21	0.03647	9.524	None	No	0.01	Param.
Fluoride, total (mg/L)	HGWC-117A	0.0987	0.04401	4	No	7	0.02624	28.57	Kaplan-Meier	No	0.01	Param.
Fluoride, total (mg/L)	HGWC-118	0.14	0.072	4	No	22	0.1819	0	None	No	0.01	NP (normality)
Lead (mg/L)	HGWC-101	0.001	0.0009	0.015	No	20	0.00002236	95	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-102	0.001	0.00011	0.015	No	15	0.0002298	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-103	0.001	0.00028	0.015	No	20	0.0003596	70	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-105	0.001	0.000085	0.015	No	20	0.0003838	80	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-107	0.001	0.00034	0.015	No	20	0.00034	80	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-109	0.001	0.000058	0.015	No	20	0.0002906	90	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-118	0.001	0.00088	0.015	No	20	0.0003159	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	HGWC-102	0.0013	0.001	0.04	No	15	0.003572	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-103	0.002	0.0015	0.04	No	20	0.01166	20	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-105	0.004193	0.003877	0.04	No	20	0.0002777	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-107	0.03	0.00091	0.04	No	20	0.01484	45	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-109	0.03	0.0009	0.04	No	20	0.01487	50	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-117A	0.0051	0.0035	0.04	No	7	0.0005442	0	None	No	0.008	NP (normality)
Lithium (mg/L)	HGWC-118	0.03	0.0017	0.04	No	20	0.01374	35	None	No	0.01	NP (normality)
Mercury (mg/L)	HGWC-101	0.0002	0.000099	0.002	No	16	0.00003554	87.5	None	No	0.01	NP (NDs)

Confidence Intervals Summary Table - All Results (No Significant) ^{Page 2}

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/26/2024, 12:13 PM

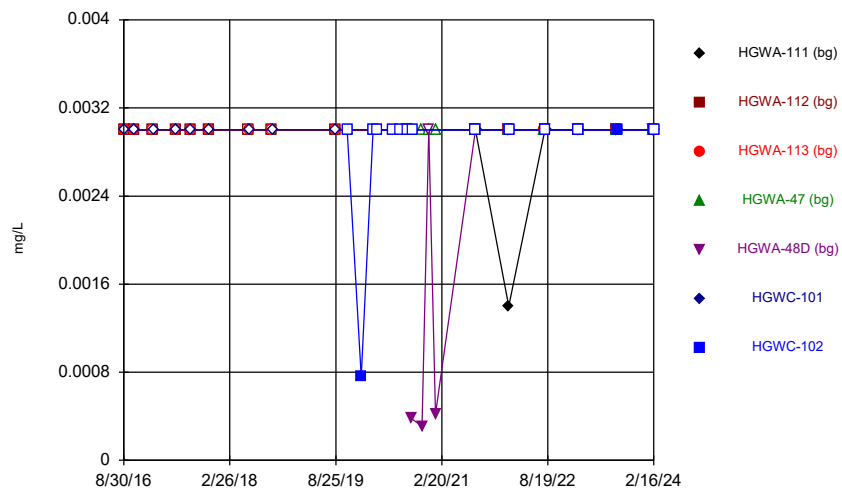
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	HGWC-102	0.0002	0.0001	0.002	No	14	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-103	0.00025	0.00017	0.002	No	16	0.00003885	75	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-105	0.00022	0.0002	0.002	No	16	0.000005	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-107	0.0002	0.000084	0.002	No	16	0.000029	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-109	0.0002	0.00008	0.002	No	16	0.00004099	87.5	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-117A	0.0002	0.000094	0.002	No	7	0.00004006	85.71	None	No	0.008	NP (NDs)
Mercury (mg/L)	HGWC-118	0.0002	0.00009	0.002	No	16	0.00003914	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-102	0.005	0.0015	0.05	No	14	0.0009354	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	HGWC-102	0.001	0.00008	0.002	No	14	0.0002459	92.86	None	No	0.01	NP (NDs)

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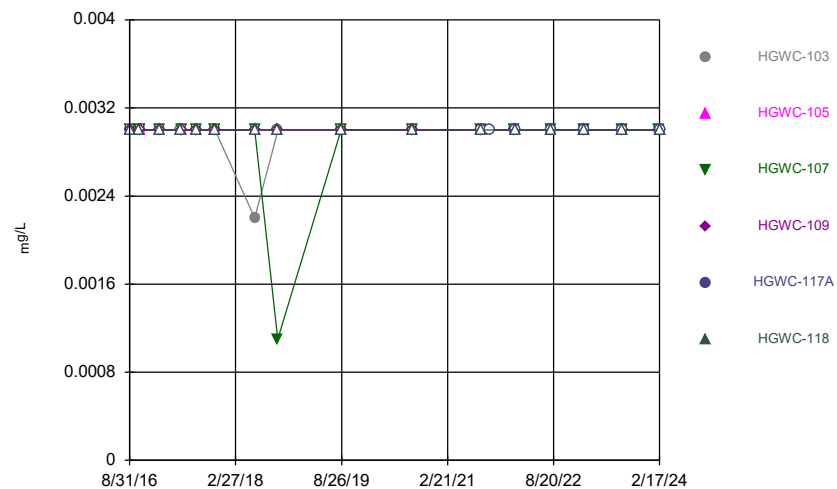
FIGURE A.

Time Series



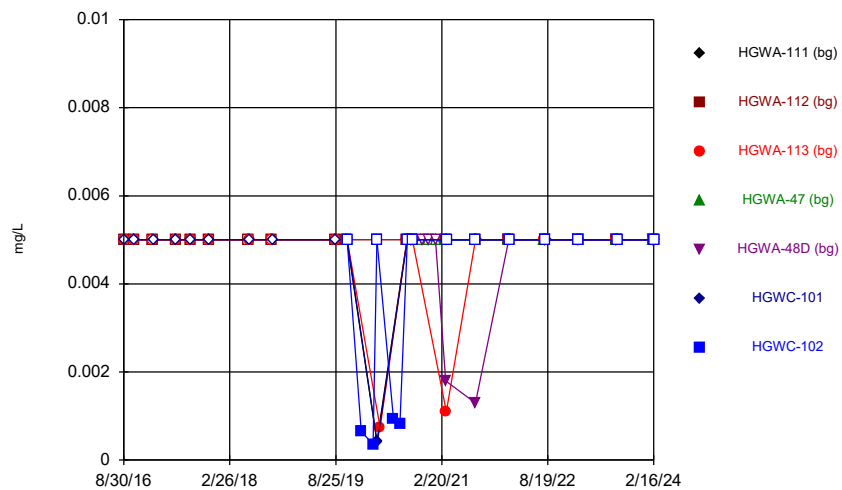
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



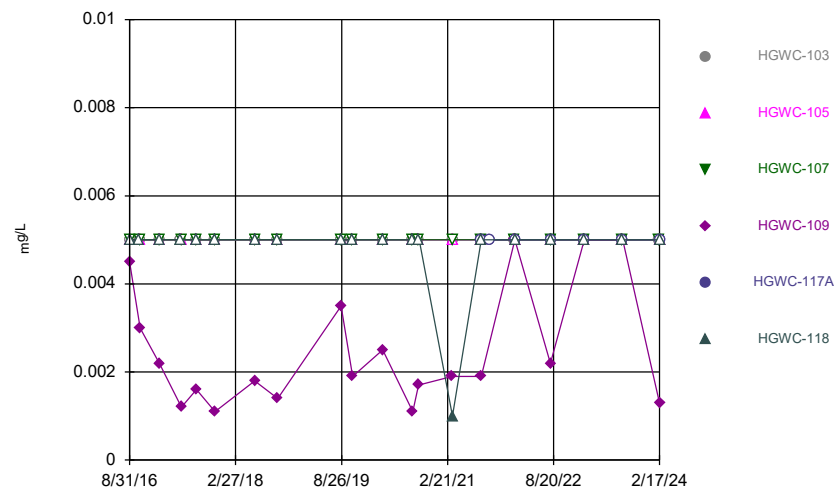
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



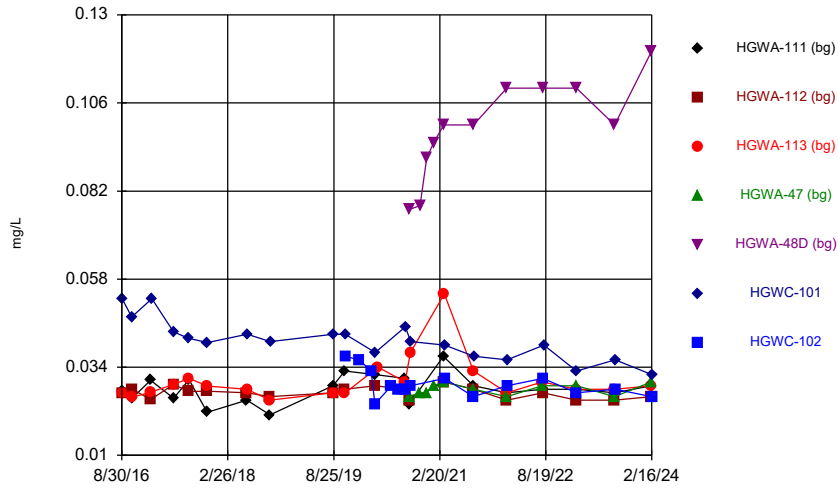
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Time Series



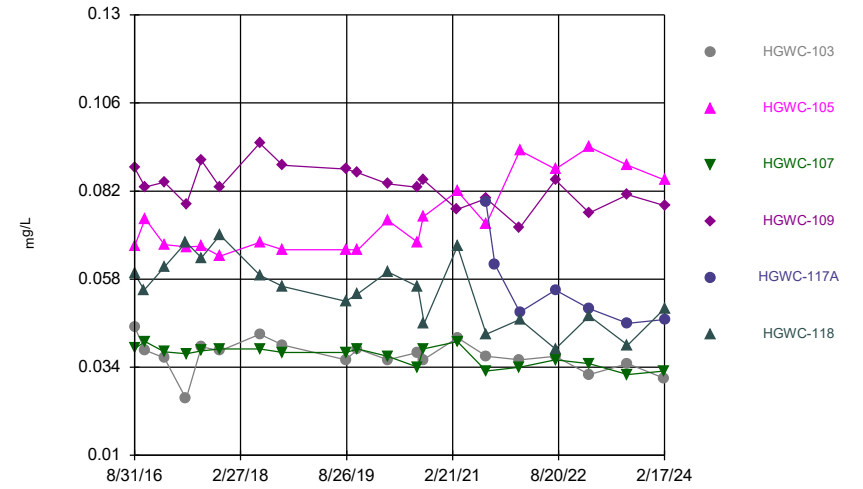
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Time Series



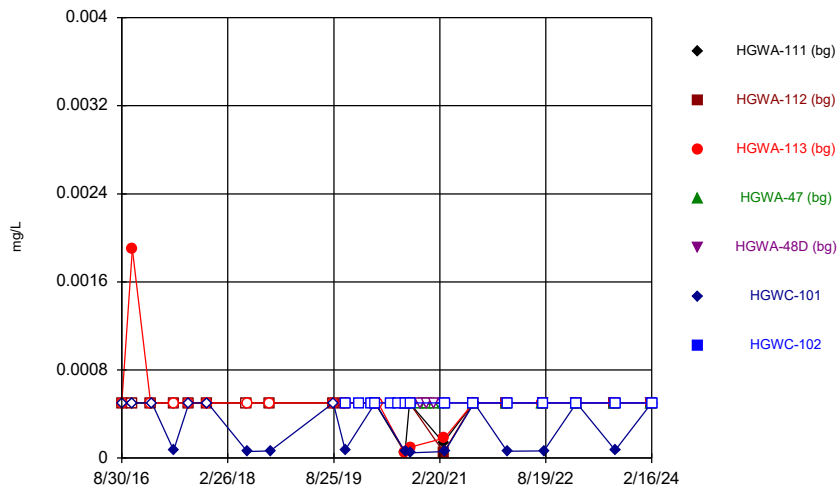
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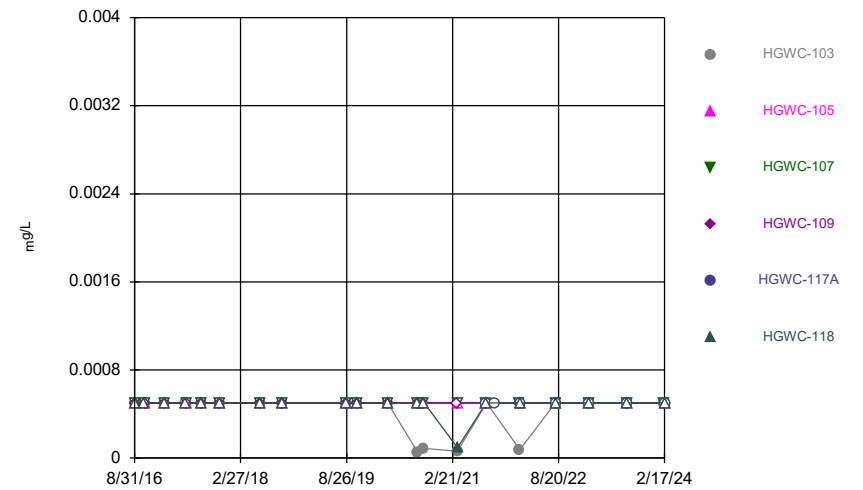
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Time Series



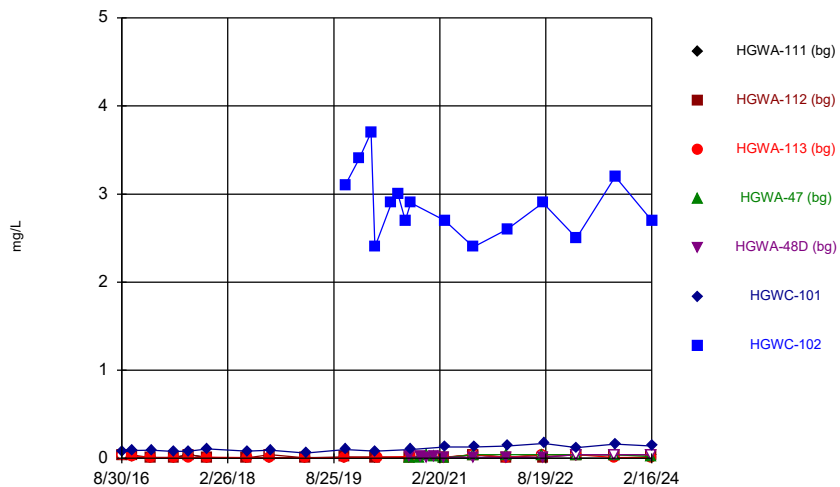
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Time Series



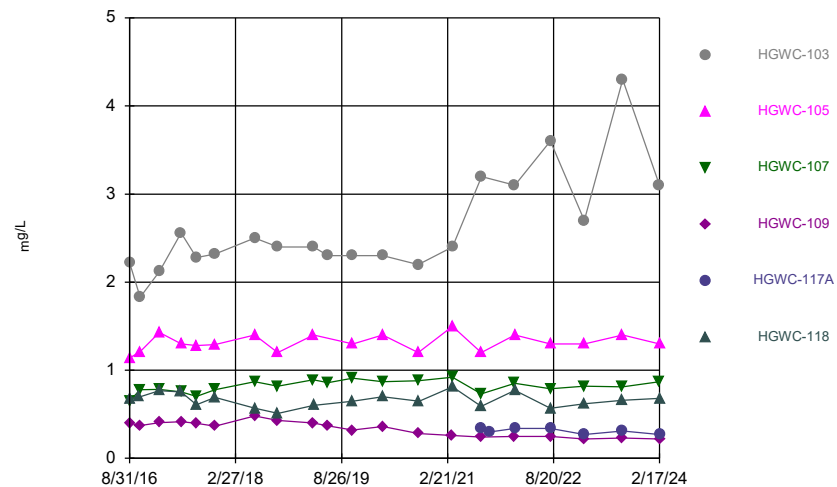
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Time Series



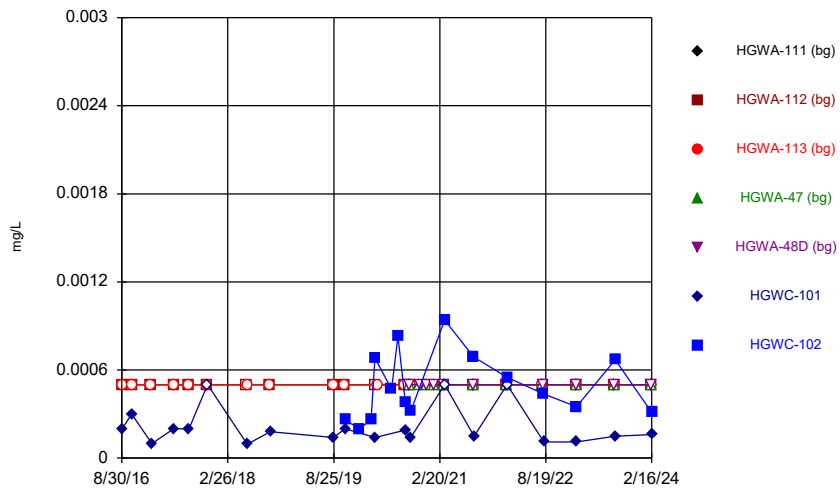
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Time Series



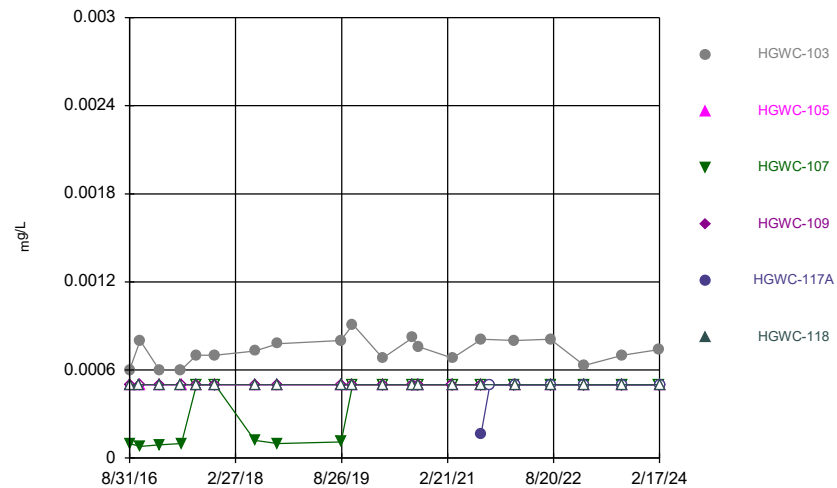
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Time Series



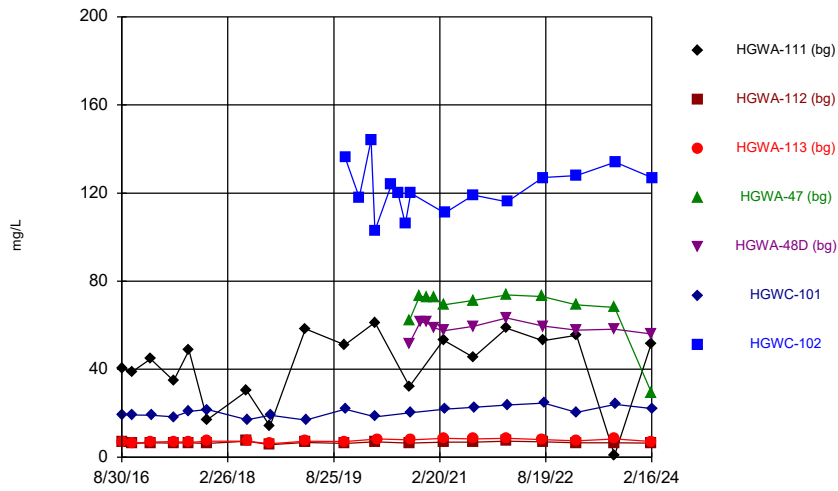
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



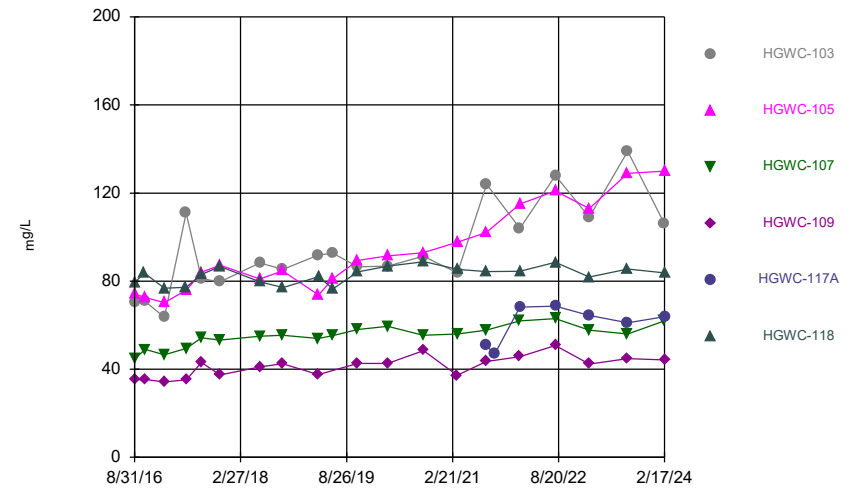
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Time Series



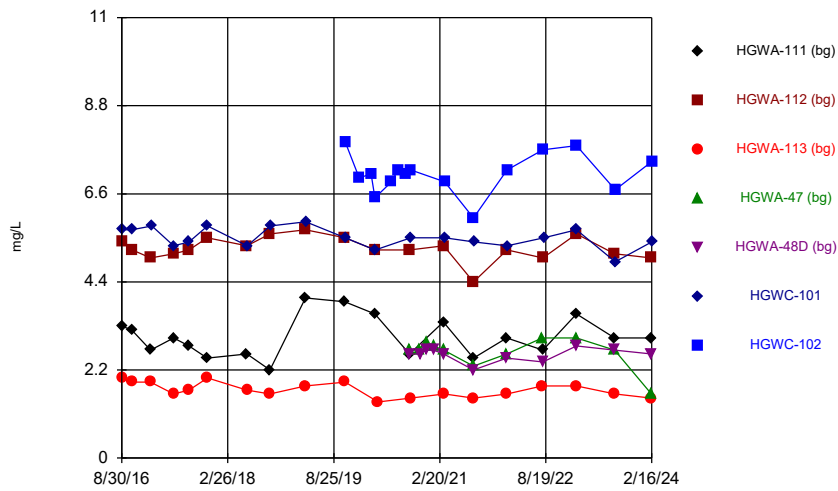
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Time Series



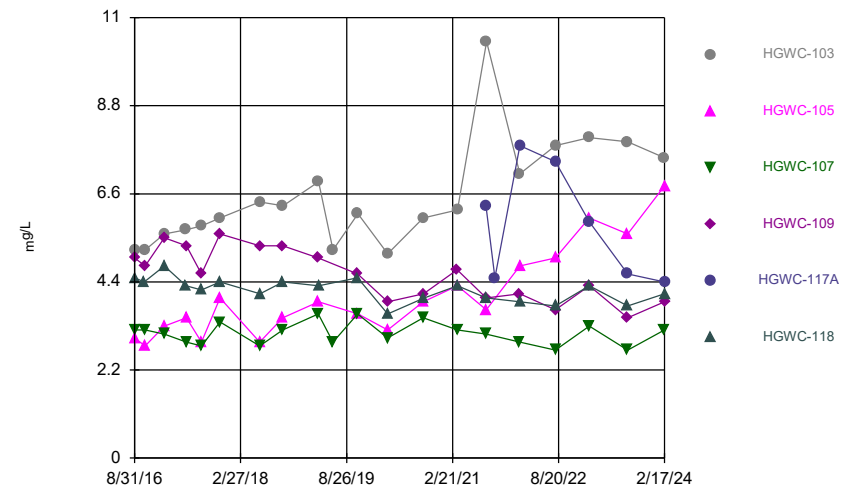
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Time Series



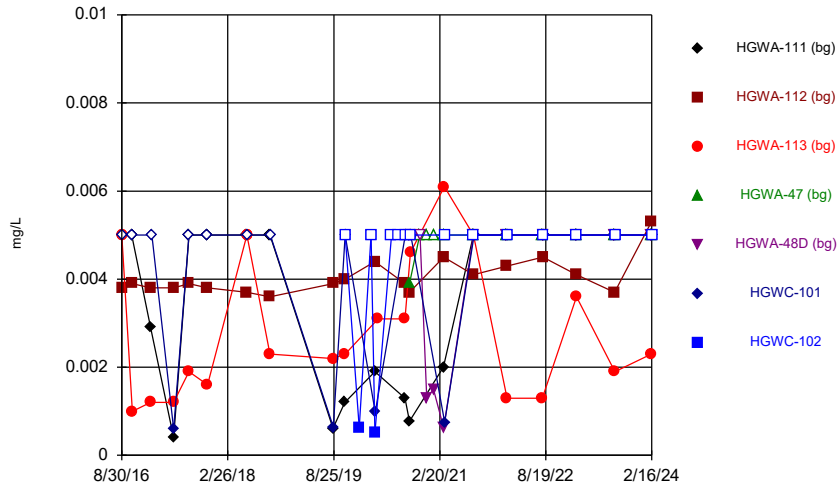
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Time Series



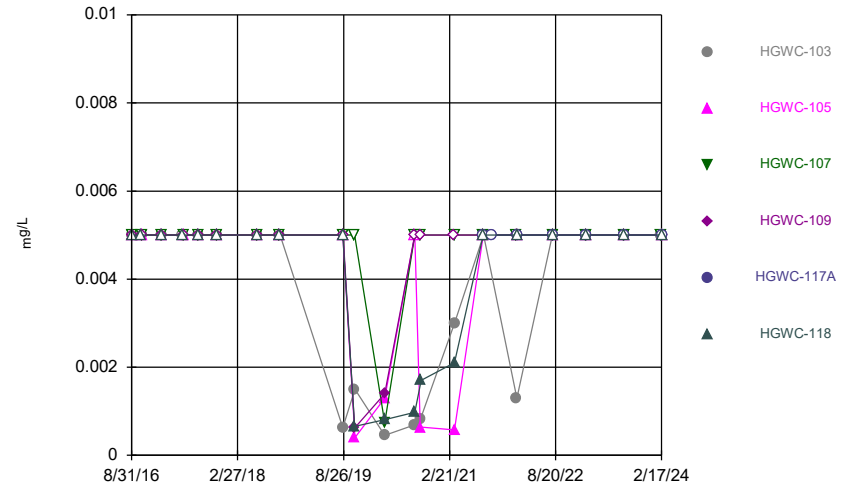
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Time Series



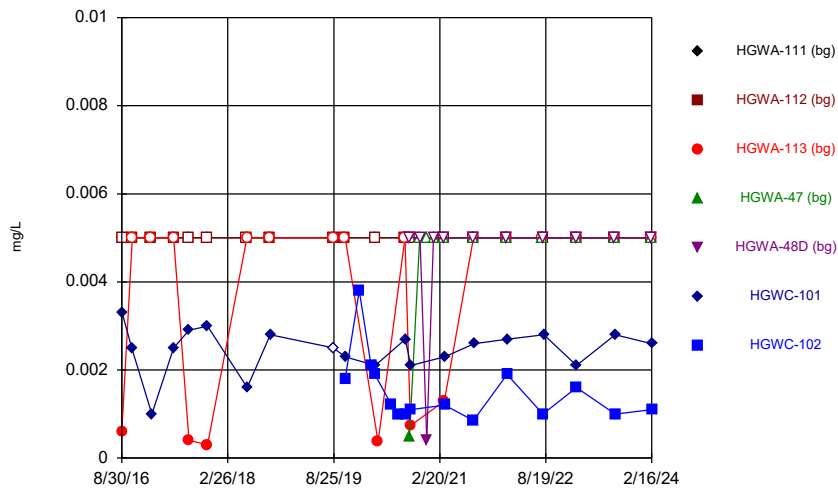
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Time Series



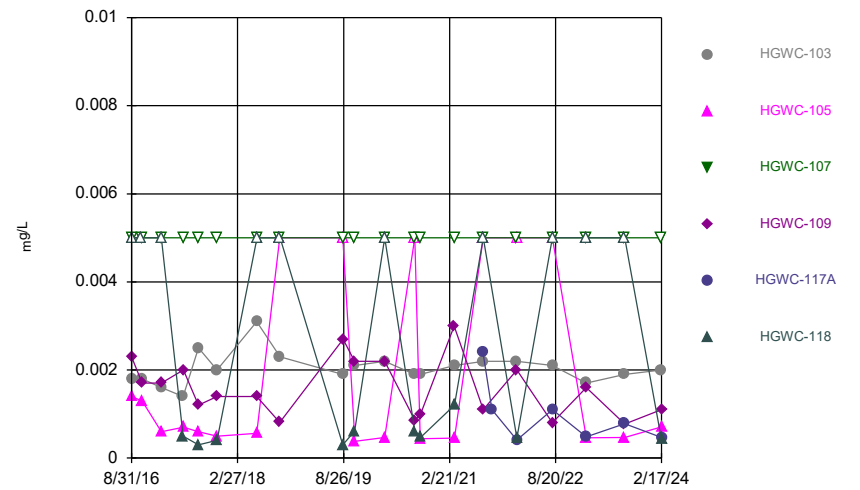
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Time Series



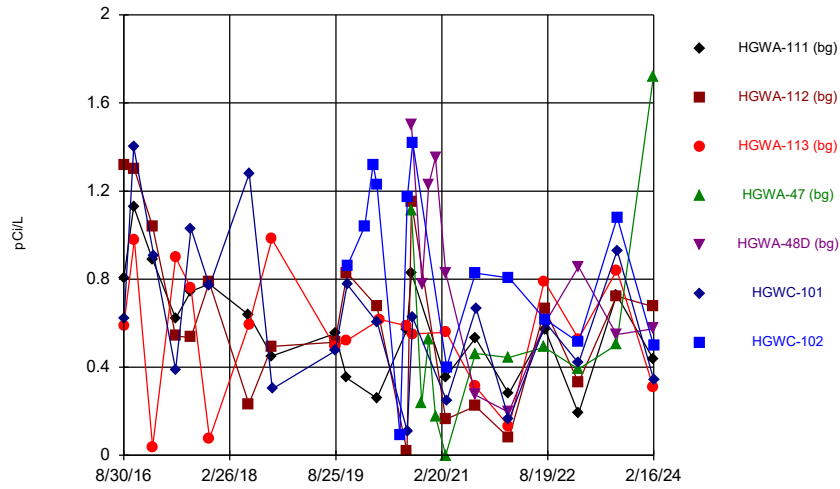
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Time Series



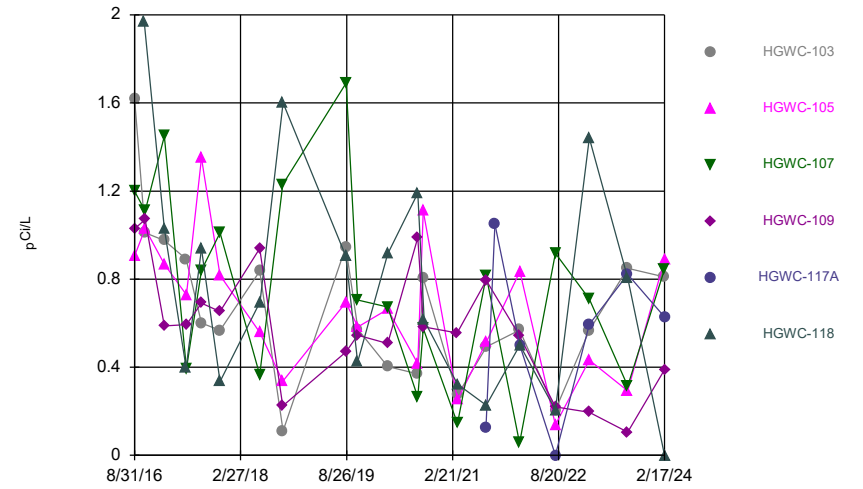
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Time Series



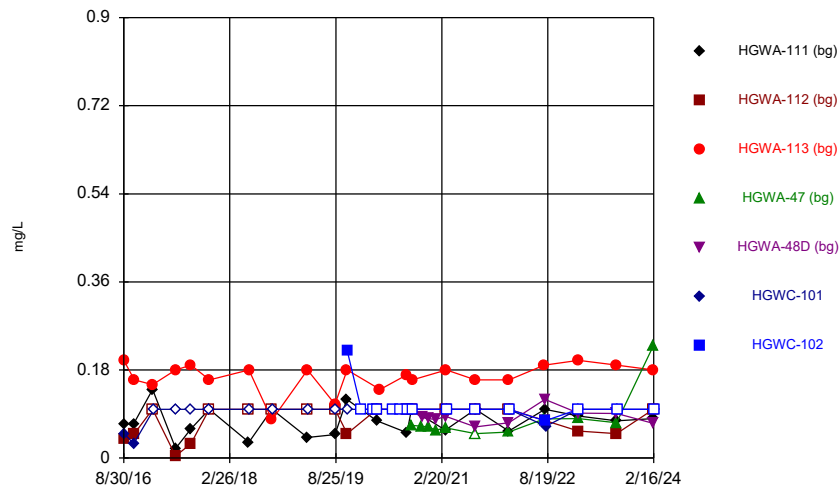
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



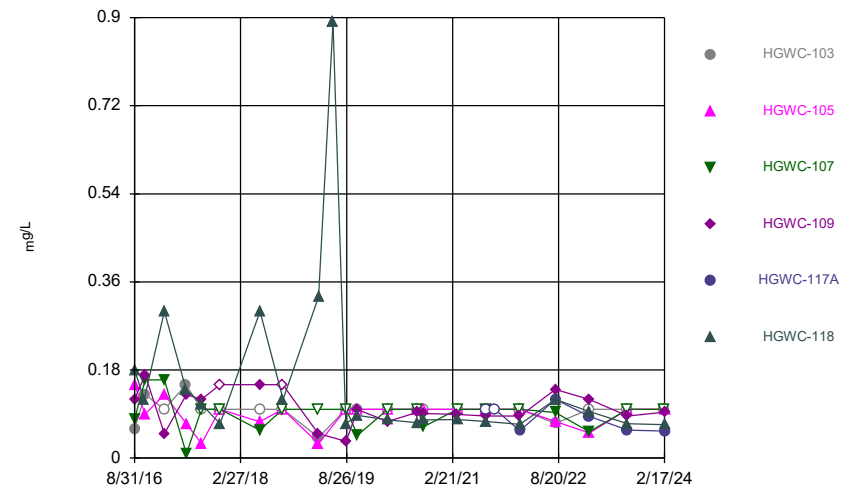
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Time Series



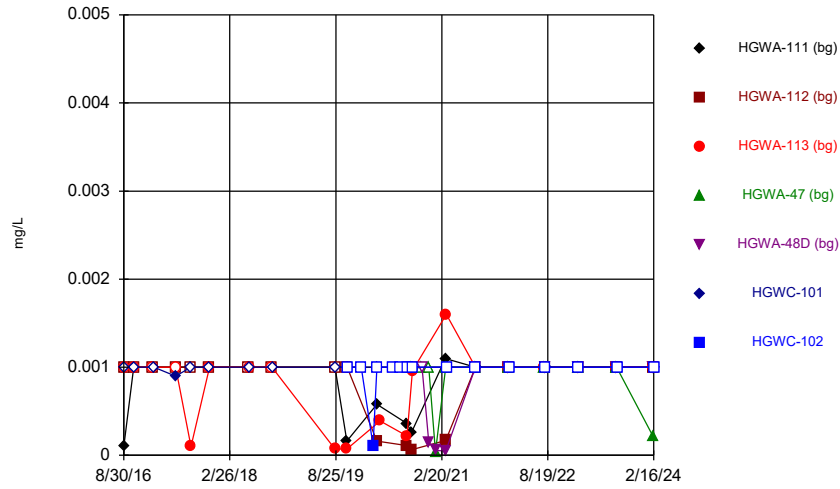
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



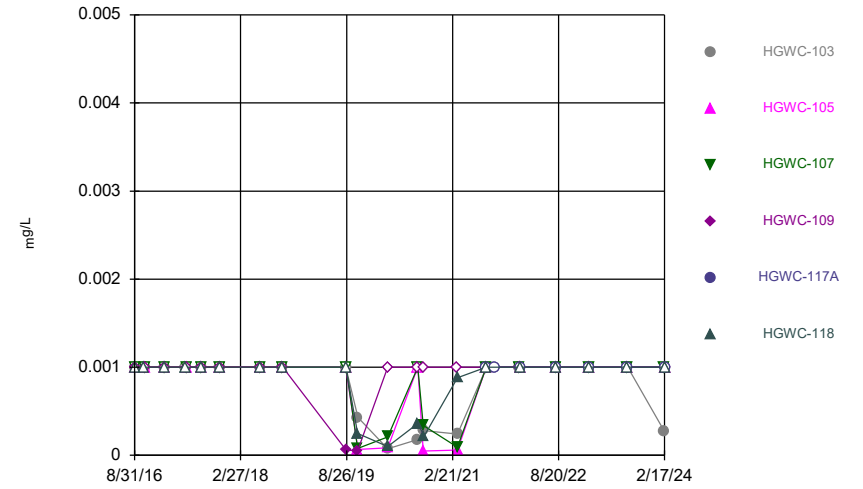
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Time Series



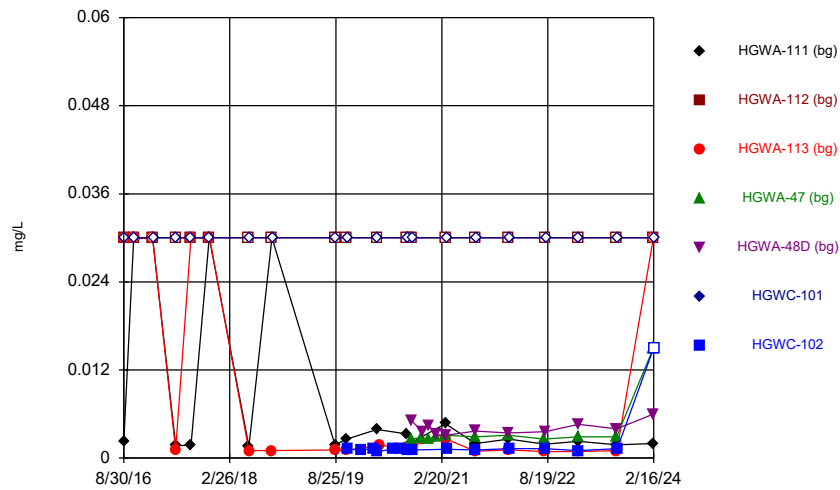
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



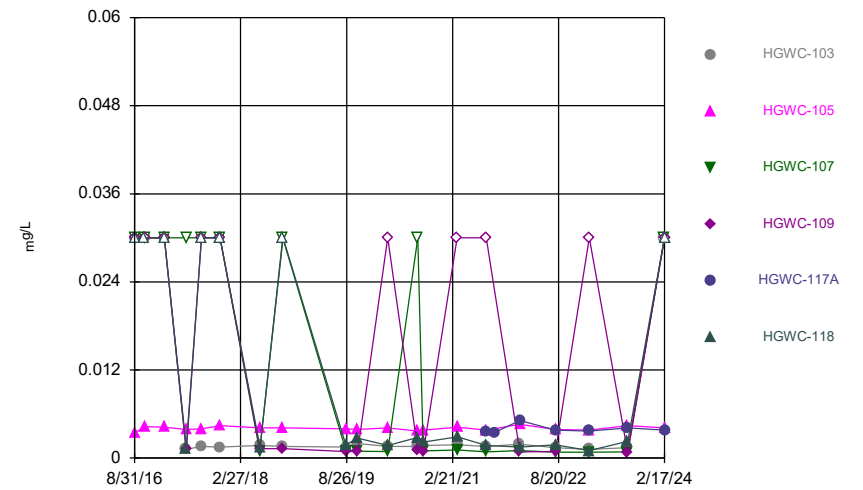
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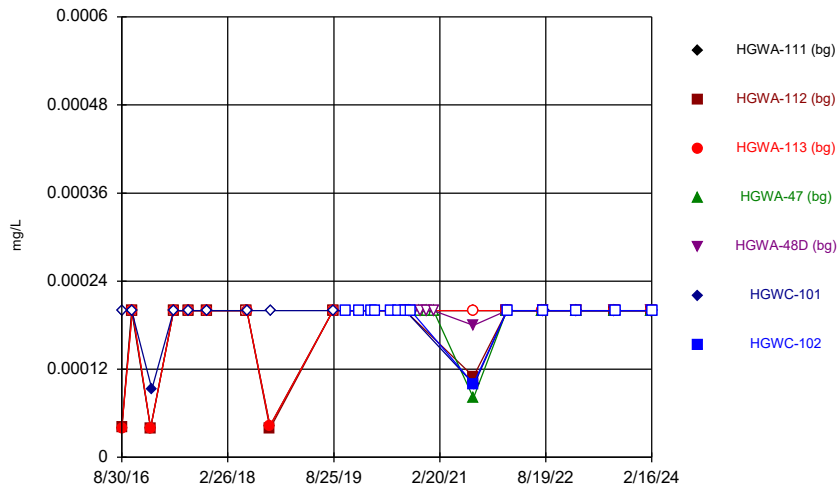
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Time Series



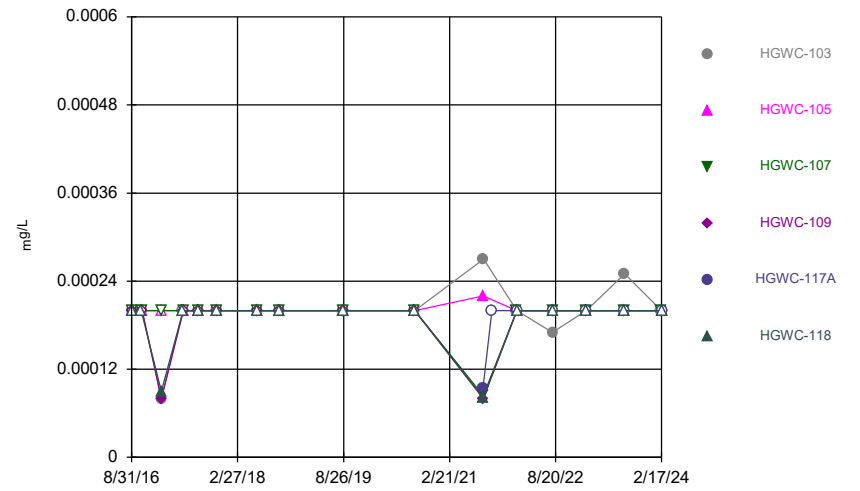
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Time Series



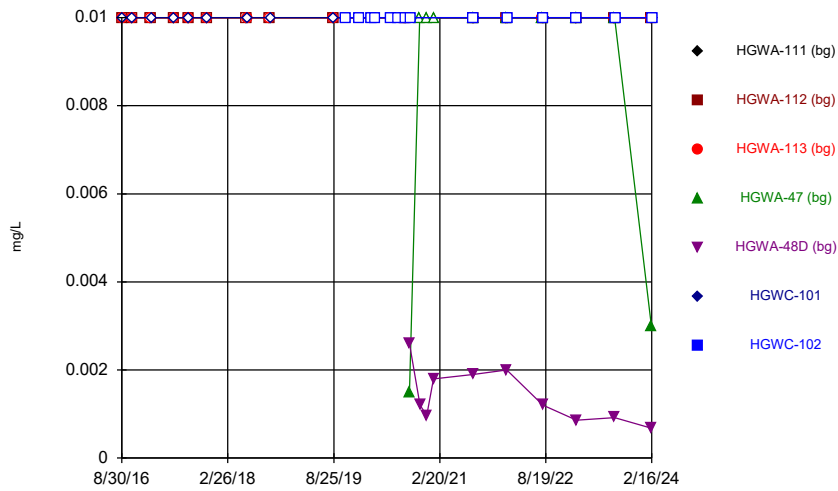
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



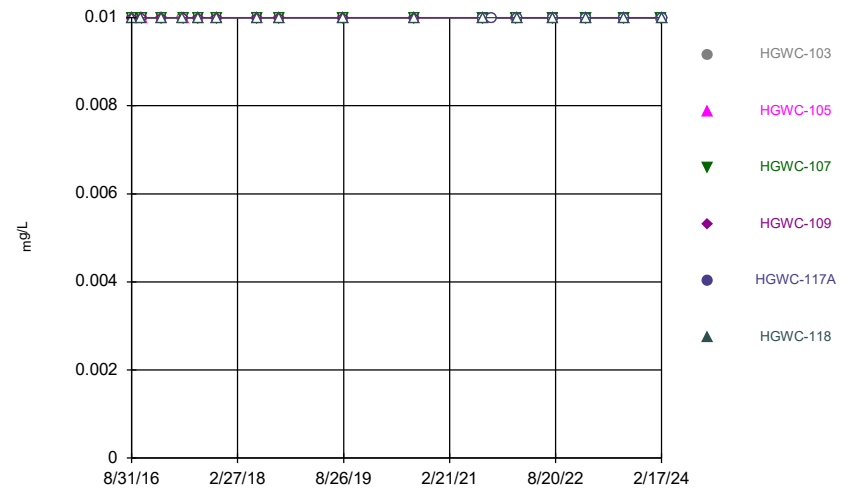
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



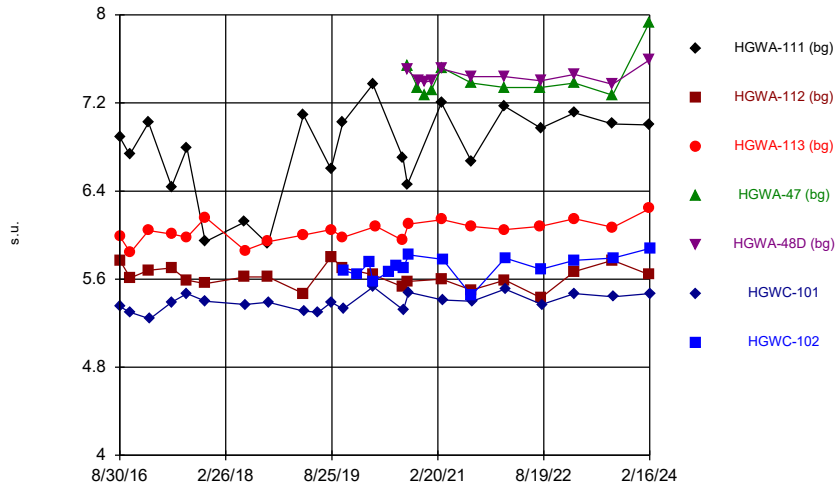
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



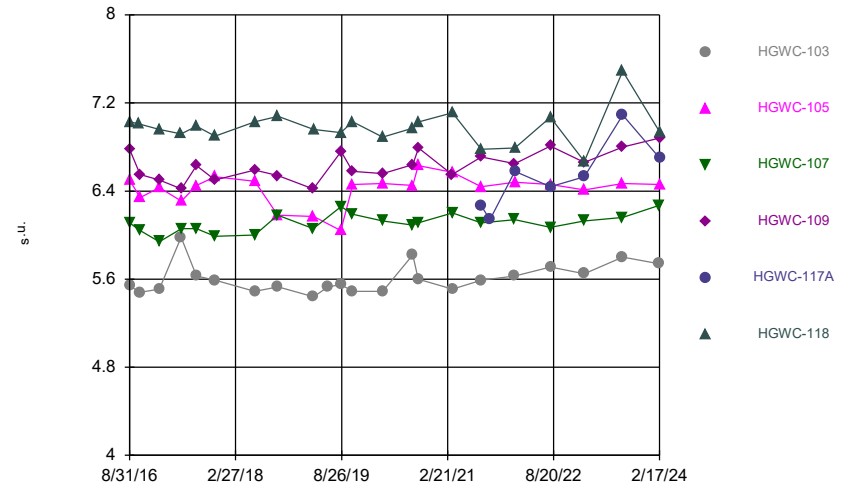
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



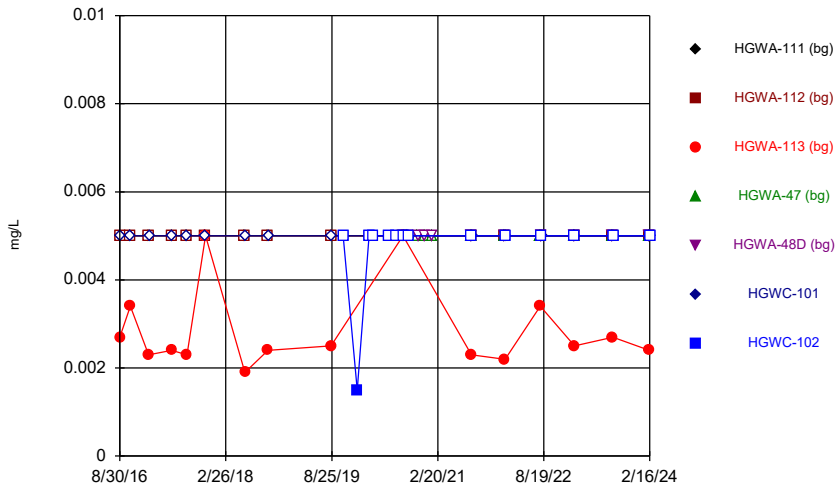
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



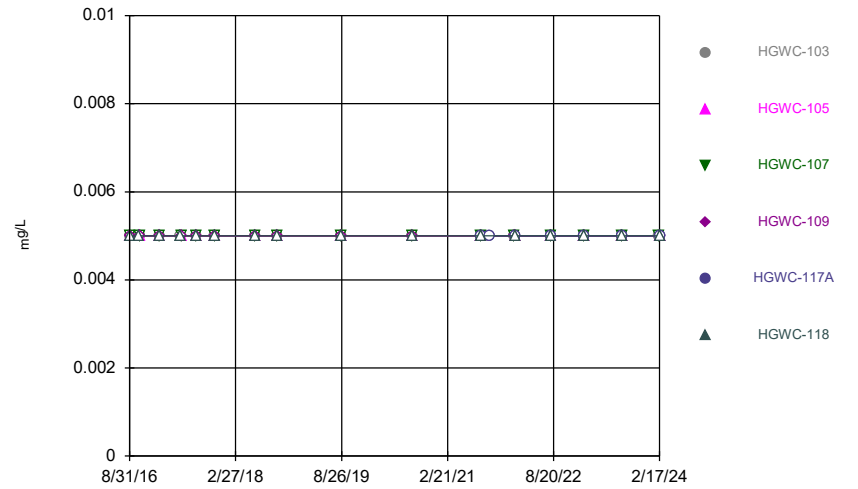
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



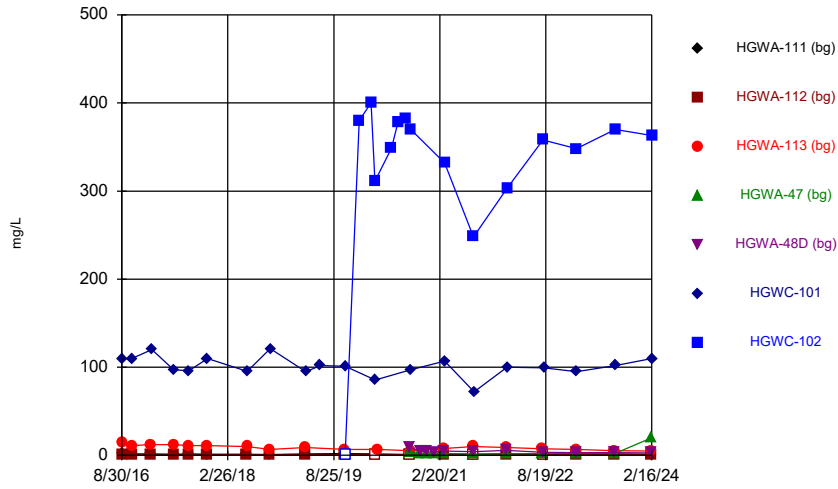
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Time Series



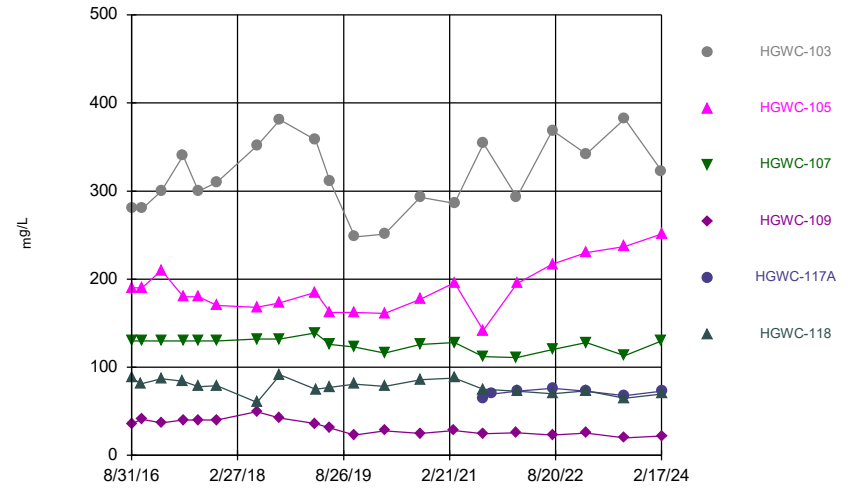
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



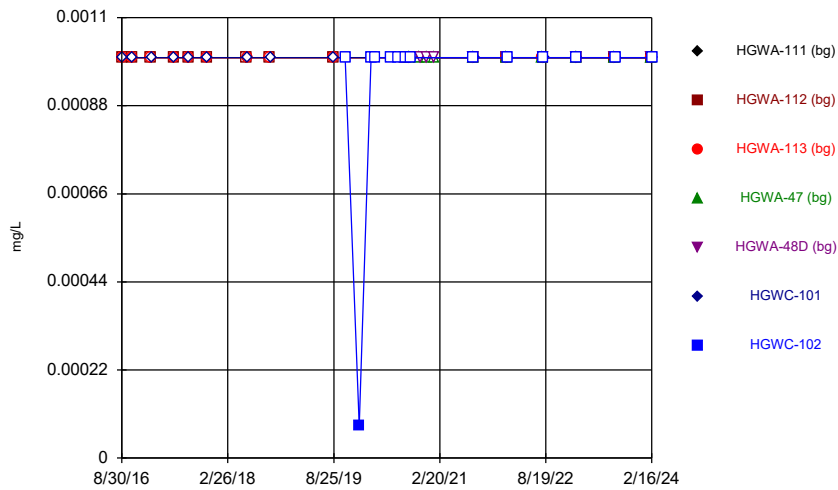
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Time Series



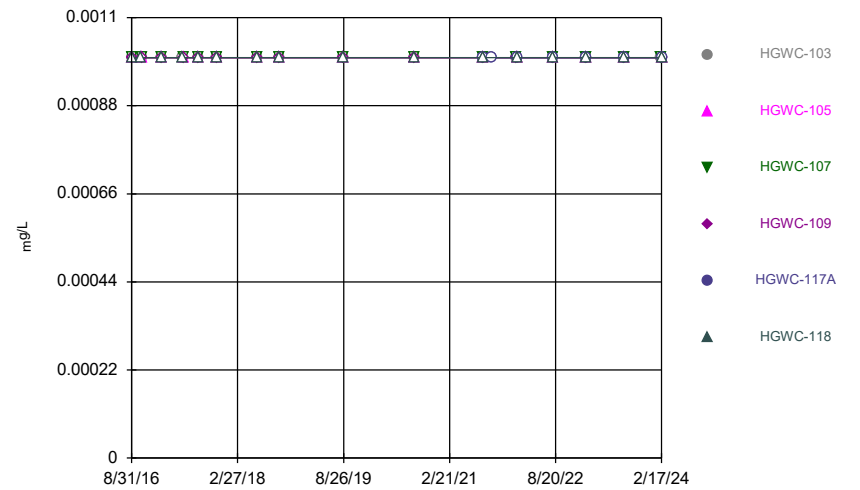
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



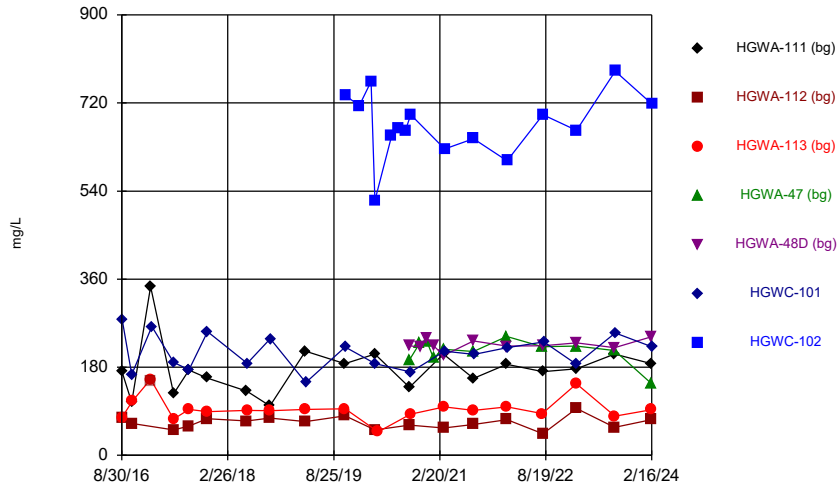
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Time Series



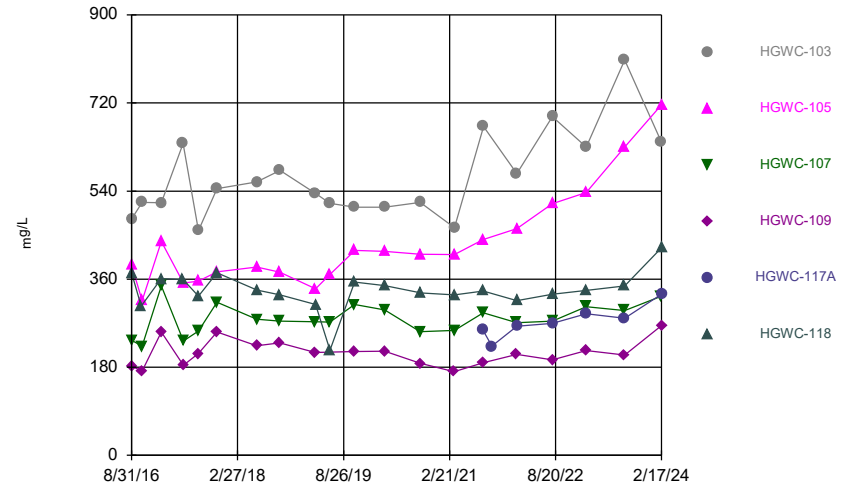
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

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8/31/2016						<0.003	
10/20/2016	<0.003					<0.003	
10/24/2016		<0.003	<0.003				
1/25/2017	<0.003	<0.003	<0.003				
1/31/2017						<0.003	
5/23/2017		<0.003	<0.003			<0.003	
5/24/2017	<0.003						
8/10/2017	<0.003	<0.003	<0.003			<0.003	
11/13/2017	<0.003	<0.003					
11/14/2017			<0.003			<0.003	
6/4/2018	<0.003	<0.003					
6/5/2018			<0.003				
6/6/2018						<0.003	
10/1/2018	<0.003	<0.003	<0.003				
10/3/2018						<0.003	
8/21/2019	<0.003	<0.003	<0.003				
8/22/2019						<0.003	
10/23/2019							<0.003
1/3/2020							0.00076 (J)
3/4/2020							<0.003
3/24/2020							<0.003
6/18/2020							<0.003
7/21/2020							<0.003
8/25/2020	<0.003	<0.003	<0.003				
8/27/2020						<0.003	<0.003
9/18/2020				<0.003	0.00038 (J)		
9/24/2020							<0.003
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11/11/2020					0.00031 (J)		
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1/19/2021				<0.003	0.00042 (J)		
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8/16/2021						<0.003	
1/31/2022	0.0014 (J)			<0.003	<0.003		
2/1/2022		<0.003	<0.003				
2/2/2022						<0.003	<0.003
8/2/2022			<0.003	<0.003			
8/5/2022	<0.003	<0.003			<0.003		<0.003
8/10/2022						<0.003	
1/24/2023	<0.003	<0.003	<0.003	<0.003	<0.003		
1/25/2023						<0.003	<0.003
8/8/2023	<0.003	<0.003		<0.003	<0.003		
8/10/2023			<0.003				
8/11/2023						<0.003	0.003
2/13/2024		<0.003			<0.003		
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2/16/2024						<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.003	<0.003	<0.003	<0.003		<0.003
10/20/2016						<0.003
10/24/2016	<0.003					
10/25/2016		<0.003	<0.003	<0.003		
1/31/2017	<0.003	<0.003	<0.003	<0.003		<0.003
5/23/2017	<0.003					<0.003
5/24/2017		<0.003	<0.003	<0.003		
8/10/2017	<0.003	<0.003	<0.003	<0.003		<0.003
11/14/2017	<0.003	<0.003	<0.003	<0.003		<0.003
6/6/2018	0.0022 (J)	<0.003	<0.003	<0.003		
6/7/2018						<0.003
10/2/2018		<0.003	0.0011 (J)	<0.003		
10/3/2018	<0.003					<0.003
8/22/2019	<0.003	<0.003				<0.003
8/23/2019			<0.003	<0.003		
8/26/2020						<0.003
8/27/2020	<0.003	<0.003	<0.003	<0.003		
8/12/2021					<0.003	
8/13/2021		<0.003	<0.003	<0.003		<0.003
8/16/2021	<0.003					
9/27/2021					<0.003	
2/2/2022	<0.003		<0.003	<0.003		
2/3/2022		<0.003			<0.003	<0.003
8/5/2022	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/25/2023	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/11/2023	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/16/2024	<0.003		<0.003			
2/17/2024		<0.003		<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	<0.005	<0.005				
8/31/2016						<0.005	
10/20/2016	<0.005					<0.005	
10/24/2016		<0.005	<0.005				
1/25/2017	<0.005	<0.005	<0.005				
1/31/2017						<0.005	
5/23/2017		<0.005	<0.005			<0.005	
5/24/2017	<0.005						
8/10/2017	<0.005	<0.005	<0.005			<0.005	
11/13/2017	<0.005	<0.005					
11/14/2017			<0.005			<0.005	
6/4/2018	<0.005	<0.005					
6/5/2018			<0.005				
6/6/2018						<0.005	
10/1/2018	<0.005	<0.005	<0.005				
10/3/2018						<0.005	
8/21/2019	<0.005	<0.005	<0.005				
8/22/2019						<0.005	
10/21/2019	<0.005						
10/22/2019		<0.005	<0.005				
10/23/2019						<0.005	<0.005
1/3/2020							0.00065 (J)
3/4/2020							0.00036 (J)
3/24/2020	0.00042 (J)	<0.005					<0.005
3/25/2020						0.00039 (J)	
4/9/2020			0.00074 (J)				
6/18/2020							0.00092 (J)
7/21/2020							0.00083 (J)
8/25/2020	<0.005	<0.005	<0.005				
8/27/2020						<0.005	<0.005
9/18/2020	<0.005	<0.005		<0.005	<0.005		
9/22/2020			<0.005				
9/24/2020						<0.005	<0.005
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	<0.005		
1/19/2021				<0.005	<0.005		
3/11/2021	<0.005						
3/12/2021		<0.005		<0.005	0.0018 (J)		
3/16/2021			0.0011 (J)				
3/17/2021						<0.005	<0.005
8/12/2021	<0.005	<0.005	<0.005	<0.005	0.0013 (J)		
8/13/2021							<0.005
8/16/2021						<0.005	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		<0.005	<0.005				
2/2/2022						<0.005	<0.005
8/2/2022			<0.005	<0.005			
8/5/2022	<0.005	<0.005			<0.005		<0.005
8/10/2022						<0.005	
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005		
1/25/2023						<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.005	<0.005		<0.005	<0.005		
8/10/2023			<0.005				
8/11/2023						<0.005	<0.005
2/13/2024		<0.005			<0.005		
2/14/2024	<0.005		<0.005	<0.005			
2/16/2024						<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.005	<0.005	<0.005	0.0045 (J)		<0.005
10/20/2016						<0.005
10/24/2016	<0.005					
10/25/2016		<0.005	<0.005	0.003 (J)		
1/31/2017	<0.005	<0.005	<0.005	0.0022 (J)		<0.005
5/23/2017	<0.005					<0.005
5/24/2017		<0.005	<0.005	0.0012 (J)		
8/10/2017	<0.005	<0.005	<0.005	0.0016 (J)		<0.005
11/14/2017	<0.005	<0.005	<0.005	0.0011 (J)		<0.005
6/6/2018	<0.005	<0.005	<0.005	0.0018 (J)		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	0.0014 (J)		
10/3/2018	<0.005					<0.005
8/22/2019	<0.005	<0.005				<0.005
8/23/2019			<0.005	0.0035 (J)		
10/22/2019			<0.005	0.0019 (J)		<0.005
10/23/2019	<0.005	<0.005				
3/25/2020	<0.005	<0.005	<0.005	0.0025 (J)		<0.005
8/26/2020						<0.005
8/27/2020	<0.005	<0.005	<0.005	0.0011 (J)		
9/24/2020	<0.005	<0.005	<0.005			
9/25/2020				0.0017 (J)		
9/28/2020						<0.005
3/17/2021				0.0019 (J)		
3/18/2021	<0.005	<0.005	<0.005			0.001 (J)
8/12/2021					<0.005	
8/13/2021		<0.005	<0.005	0.0019 (J)		<0.005
8/16/2021	<0.005					
9/27/2021					<0.005	
2/2/2022	<0.005		<0.005	<0.005		
2/3/2022		<0.005			<0.005	<0.005
8/5/2022	<0.005	<0.005	<0.005	0.0022 (J)	<0.005	<0.005
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/16/2024	<0.005		<0.005			
2/17/2024		<0.005		0.0013 (J)	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.0275	0.0269	0.0269				
8/31/2016						0.0527	
10/20/2016	0.0255					0.0477	
10/24/2016		0.028	0.0258				
1/25/2017	0.0304	0.0252	0.0272				
1/31/2017						0.0527	
5/23/2017		0.0293	0.0293			0.0436	
5/24/2017	0.0256						
8/10/2017	0.0306	0.0274	0.031			0.0419	
11/13/2017	0.0217	0.0275					
11/14/2017			0.0289			0.0407	
6/4/2018	0.025	0.027					
6/5/2018			0.028				
6/6/2018						0.043	
10/1/2018	0.021	0.026	0.025				
10/3/2018						0.041	
8/21/2019	0.029	0.027	0.027				
8/22/2019						0.043	
10/21/2019	0.033						
10/22/2019		0.028	0.027				
10/23/2019						0.043	0.037
1/3/2020							0.036
3/4/2020							0.033
3/24/2020	0.032	0.029					0.024
3/25/2020						0.038	
4/9/2020			0.034				
6/18/2020							0.029
7/21/2020							0.028
8/25/2020	0.031	0.028	0.03				
8/27/2020						0.045	0.028
9/18/2020	0.024	0.025		0.026	0.077		
9/22/2020			0.038				
9/24/2020						0.041	0.029
11/10/2020				0.027			
11/11/2020					0.078		
12/15/2020				0.027	0.091		
1/19/2021				0.029	0.095		
3/11/2021	0.037						
3/12/2021		0.03		0.03	0.1		
3/16/2021			0.054				
3/17/2021						0.04	0.031
8/12/2021	0.029	0.028	0.033	0.028	0.1		
8/13/2021							0.026
8/16/2021						0.037	
1/31/2022	0.027			0.026	0.11		
2/1/2022		0.025	0.027				
2/2/2022						0.036	0.029
8/2/2022			0.03	0.029			
8/5/2022	0.028	0.027			0.11		0.031
8/10/2022						0.04	
1/24/2023	0.028	0.025	0.028	0.029	0.11		
1/25/2023						0.033	0.027

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	0.027	0.025		0.026	0.1		
8/10/2023			0.028				
8/11/2023						0.036	0.028
2/13/2024		0.026			0.12		
2/14/2024	0.029		0.029	0.03			
2/16/2024						0.032	0.026

Time Series

Constituent: Barium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.045	0.067	0.0391	0.0883		0.0595
10/20/2016						0.055
10/24/2016	0.0386					
10/25/2016		0.0745	0.041	0.0831		
1/31/2017	0.0365	0.0674	0.0382	0.0844		0.0613
5/23/2017	0.0254					0.068
5/24/2017		0.0668	0.0377	0.0784		
8/10/2017	0.0396	0.067	0.0385	0.0903		0.0638
11/14/2017	0.0385	0.0643	0.039	0.083		0.07
6/6/2018	0.043	0.068	0.039	0.095		
6/7/2018						0.059
10/2/2018		0.066	0.038	0.089		
10/3/2018	0.04					0.056
8/22/2019	0.036	0.066				0.052
8/23/2019			0.038	0.088		
10/22/2019			0.039	0.087		0.054
10/23/2019	0.039	0.066				
3/25/2020	0.036	0.074	0.037	0.084		0.06
8/26/2020						0.056
8/27/2020	0.038	0.068	0.034	0.083		
9/24/2020	0.036	0.075	0.039			
9/25/2020				0.085		
9/28/2020						0.046
3/17/2021				0.077		
3/18/2021	0.042	0.082	0.041			0.067
8/12/2021					0.079	
8/13/2021		0.073	0.033	0.08		0.043
8/16/2021	0.037					
9/27/2021					0.062	
2/2/2022	0.036		0.034	0.072		
2/3/2022		0.093			0.049	0.047
8/5/2022	0.037	0.088	0.036	0.085	0.055	0.039
1/25/2023	0.032	0.094	0.035	0.076	0.05	0.048
8/11/2023	0.035	0.089	0.032	0.081	0.046	0.04
2/16/2024	0.031		0.033			
2/17/2024		0.085		0.078	0.047	0.05

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.0005	<0.0005	<0.0005				
8/31/2016						<0.0005	
10/20/2016	<0.0005					<0.0005	
10/24/2016		<0.0005	0.0019 (J)				
1/25/2017	<0.0005	<0.0005	<0.0005				
1/31/2017						<0.0005	
5/23/2017		<0.0005	<0.0005			7E-05 (J)	
5/24/2017	<0.0005						
8/10/2017	<0.0005	<0.0005	<0.0005			<0.0005	
11/13/2017	<0.0005	<0.0005					
11/14/2017			<0.0005			<0.0005	
6/4/2018	<0.0005	<0.0005					
6/5/2018			<0.0005				
6/6/2018						5.9E-05 (J)	
10/1/2018	<0.0005	<0.0005	<0.0005				
10/3/2018						6.5E-05 (J)	
8/21/2019	<0.0005	<0.0005	<0.0005				
8/22/2019						<0.0005	
10/21/2019	<0.0005						
10/22/2019		<0.0005	<0.0005				
10/23/2019						7.5E-05 (J)	<0.0005
1/3/2020							<0.0005
3/4/2020							<0.0005
3/24/2020	<0.0005	<0.0005					<0.0005
3/25/2020						<0.0005	
4/9/2020			<0.0005				
6/18/2020							<0.0005
7/21/2020							<0.0005
8/25/2020	4.7E-05 (J)	<0.0005	4.6E-05 (J)				
8/27/2020						5.7E-05 (J)	<0.0005
9/18/2020	<0.0005	<0.0005		<0.0005	<0.0005		
9/22/2020			9.9E-05 (J)				
9/24/2020						4.8E-05 (J)	<0.0005
11/10/2020				<0.0005			
11/11/2020					<0.0005		
12/15/2020				<0.0005	<0.0005		
1/19/2021				<0.0005	<0.0005		
3/11/2021	0.00014 (J)						
3/12/2021		5.4E-05 (J)		<0.0005	<0.0005		
3/16/2021			0.00018 (J)				
3/17/2021						5.9E-05 (J)	<0.0005
8/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
8/13/2021							<0.0005
8/16/2021						<0.0005	
1/31/2022	<0.0005			<0.0005	<0.0005		
2/1/2022		<0.0005	<0.0005				
2/2/2022						6.2E-05 (J)	<0.0005
8/2/2022			<0.0005	<0.0005			
8/5/2022	<0.0005	<0.0005			<0.0005		<0.0005
8/10/2022						6.4E-05 (J)	
1/24/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
1/25/2023						<0.0005	<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.0005	<0.0005		<0.0005	<0.0005		
8/10/2023			<0.0005				
8/11/2023						7E-05 (J)	<0.0005
2/13/2024		<0.0005			<0.0005		
2/14/2024	<0.0005		<0.0005	<0.0005			
2/16/2024						<0.0005	<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
10/20/2016						<0.0005
10/24/2016	<0.0005					
10/25/2016		<0.0005	<0.0005	<0.0005		
1/31/2017	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
5/23/2017	<0.0005					<0.0005
5/24/2017		<0.0005	<0.0005	<0.0005		
8/10/2017	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
11/14/2017	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
6/6/2018	<0.0005	<0.0005	<0.0005	<0.0005		
6/7/2018						<0.0005
10/2/2018		<0.0005	<0.0005	<0.0005		
10/3/2018	<0.0005					<0.0005
8/22/2019	<0.0005	<0.0005				<0.0005
8/23/2019			<0.0005	<0.0005		
10/22/2019			<0.0005	<0.0005		<0.0005
10/23/2019	<0.0005	<0.0005				
3/25/2020	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
8/26/2020						<0.0005
8/27/2020	5E-05 (J)	<0.0005	<0.0005	<0.0005		
9/24/2020	8.8E-05 (J)	<0.0005	<0.0005			
9/25/2020				<0.0005		
9/28/2020						<0.0005
3/17/2021				<0.0005		
3/18/2021	6.1E-05 (J)	<0.0005	<0.0005			9.3E-05 (J)
8/12/2021					<0.0005	
8/13/2021		<0.0005	<0.0005	<0.0005		<0.0005
8/16/2021	<0.0005					
9/27/2021					<0.0005	
2/2/2022	7.7E-05 (J)		<0.0005	<0.0005		
2/3/2022		<0.0005			<0.0005	<0.0005
8/5/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/25/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/11/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2/16/2024	<0.0005		<0.0005			
2/17/2024		<0.0005		<0.0005	<0.0005	<0.0005

Time Series

Constituent: Boron, total (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.04	<0.04	<0.04				
8/31/2016						0.0724 (J)	
10/20/2016	0.016 (J)					0.0877 (J)	
10/24/2016		0.0367 (J)	0.0226 (J)				
1/25/2017	0.0095 (J)	0.0075 (J)	0.009 (J)				
1/31/2017						0.0928	
5/23/2017		0.0073 (J)	0.0082 (J)			0.0795	
5/24/2017	0.0094 (J)						
8/10/2017	<0.04	<0.04	0.0061 (J)			0.0814	
11/13/2017	0.0103 (J)	0.0089 (J)					
11/14/2017			0.012 (J)			0.108	
6/4/2018	0.0065 (J)	0.007 (J)					
6/5/2018			0.0085 (J)				
6/6/2018						0.081	
10/1/2018	0.0054 (J)	<0.04	0.0042 (J)				
10/3/2018						0.092	
4/1/2019	0.0076 (J)						
4/2/2019		0.0043 (J)	0.0059 (J)				
4/4/2019						0.06 (X)	
10/21/2019	0.0097 (J)						
10/22/2019		0.016 (J)	0.01 (J)				
10/23/2019						0.1	3.1
1/3/2020							3.4
3/4/2020							3.7
3/24/2020	0.011 (J)	0.012 (J)					2.4
3/25/2020						0.08 (J)	
4/9/2020			0.012 (J)				
6/18/2020							2.9
7/21/2020							3
8/27/2020							2.7
9/18/2020	0.011 (J)	0.008 (J)		0.0082 (J)	0.015 (J)		
9/22/2020			0.021 (J)				
9/24/2020						0.1	2.9
11/10/2020				0.0064 (J)			
11/11/2020					0.014 (J)		
12/15/2020				<0.04	0.0083 (J)		
1/19/2021				0.015 (J)	0.015 (J)		
3/11/2021	0.01 (J)						
3/12/2021		0.0061 (J)		0.0067 (J)	0.012 (J)		
3/16/2021			0.011 (J)				
3/17/2021						0.13	2.7
8/12/2021	<0.04	<0.04	<0.04	<0.04	0.012 (J)		
8/13/2021							2.4
8/16/2021						0.13	
1/31/2022	0.0099 (J)			<0.04	0.011 (J)		
2/1/2022		0.011 (J)	0.012 (J)				
2/2/2022						0.14	2.6
8/2/2022			<0.04	<0.04			
8/5/2022	<0.04	0.012 (J)			0.011 (J)		2.9
8/10/2022						0.17	
1/24/2023	<0.04	<0.04	<0.04	<0.04	<0.04		
1/25/2023						0.12	2.5

Time Series

Constituent: Boron, total (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.04	<0.04		<0.04	<0.04		
8/10/2023			0.0091 (J)				
8/11/2023						0.16	3.2
2/13/2024		<0.04			<0.04		
2/14/2024	<0.04		0.013 (J)	0.018 (J)			
2/16/2024						0.14	2.7

Time Series

Constituent: Boron, total (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	2.22	1.14	0.651	0.402		0.681
10/20/2016						0.697
10/24/2016	1.83					
10/25/2016		1.21	0.778	0.372		
1/31/2017	2.12	1.43	0.782	0.404		0.768
5/23/2017	2.56					0.754
5/24/2017		1.3	0.753	0.415		
8/10/2017	2.28	1.28	0.702	0.397		0.608
11/14/2017	2.32	1.29	0.78	0.366		0.691
6/6/2018	2.5	1.4	0.87	0.48		
6/7/2018						0.57
10/2/2018		1.2	0.82	0.43		
10/3/2018	2.4					0.51
4/3/2019			0.89	0.4		
4/4/2019	2.4	1.4 (X)				
4/5/2019						0.6 (X)
6/17/2019	2.3		0.86	0.37		
10/22/2019			0.91	0.32		0.65
10/23/2019	2.3	1.3				
3/25/2020	2.3	1.4	0.87	0.36		0.7
9/24/2020	2.2	1.2	0.88			
9/25/2020				0.28		
9/28/2020						0.65
3/17/2021				0.26		
3/18/2021	2.4	1.5	0.92			0.81
8/12/2021					0.34	
8/13/2021		1.2	0.73	0.24		0.59
8/16/2021	3.2					
9/27/2021					0.3	
2/2/2022	3.1		0.85	0.25		
2/3/2022		1.4			0.34	0.77
8/5/2022	3.6	1.3	0.79	0.25	0.34	0.57
1/25/2023	2.7	1.3	0.82	0.22	0.27	0.62
8/11/2023	4.3	1.4	0.81	0.23	0.31	0.66
2/16/2024	3.1		0.87			
2/17/2024		1.3		0.22	0.27	0.68

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.0005	<0.0005	<0.0005				
8/31/2016						0.0002 (J)	
10/20/2016	<0.0005					0.0003 (J)	
10/24/2016		<0.0005	<0.0005				
1/25/2017	<0.0005	<0.0005	<0.0005				
1/31/2017						0.0001 (J)	
5/23/2017		<0.0005	<0.0005			0.0002 (J)	
5/24/2017	<0.0005						
8/10/2017	<0.0005	<0.0005	<0.0005			0.0002 (J)	
11/13/2017	<0.0005	<0.0005					
11/14/2017			<0.0005			<0.0005	
6/4/2018	<0.0005	<0.0005					
6/5/2018			<0.0005				
6/6/2018						9.5E-05 (J)	
10/1/2018	<0.0005	<0.0005	<0.0005				
10/3/2018						0.00018 (J)	
8/21/2019	<0.0005	<0.0005	<0.0005				
8/22/2019						0.00014 (J)	
10/21/2019	<0.0005						
10/22/2019		<0.0005	<0.0005				
10/23/2019						0.0002 (J)	0.00026 (J)
1/3/2020							0.0002 (J)
3/4/2020							0.00026 (J)
3/24/2020	<0.0005	<0.0005					0.00068 (J)
3/25/2020						0.00014 (J)	
4/9/2020			<0.0005				
6/18/2020							0.00047 (J)
7/21/2020							0.00083 (J)
8/25/2020	<0.0005	<0.0005	<0.0005				
8/27/2020						0.00019 (J)	0.00038 (J)
9/18/2020	<0.0005	<0.0005		<0.0005	<0.0005		
9/22/2020			<0.0005				
9/24/2020						0.00014 (J)	0.00032 (J)
11/10/2020				<0.0005			
11/11/2020					<0.0005		
12/15/2020				<0.0005	<0.0005		
1/19/2021				<0.0005	<0.0005		
3/11/2021	<0.0005						
3/12/2021		<0.0005		<0.0005	<0.0005		
3/16/2021			<0.0005				
3/17/2021						<0.0005	0.00094
8/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
8/13/2021							0.00069
8/16/2021						0.00015 (J)	
1/31/2022	<0.0005			<0.0005	<0.0005		
2/1/2022		<0.0005	<0.0005				
2/2/2022						<0.0005	0.00055
8/2/2022			<0.0005	<0.0005			
8/5/2022	<0.0005	<0.0005			<0.0005		0.00044 (J)
8/10/2022						0.00011 (J)	
1/24/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
1/25/2023						0.00011 (J)	0.00035 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.0005	<0.0005		<0.0005	<0.0005		
8/10/2023			<0.0005				
8/11/2023						0.00015 (J)	0.00067
2/13/2024		<0.0005			<0.0005		
2/14/2024	<0.0005		<0.0005	<0.0005			
2/16/2024						0.00016 (J)	0.00031 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.0006 (J)	<0.0005	0.0001 (J)	<0.0005		<0.0005
10/20/2016						<0.0005
10/24/2016	0.0008 (J)					
10/25/2016		<0.0005	8E-05 (J)	<0.0005		
1/31/2017	0.0006 (J)	<0.0005	9E-05 (J)	<0.0005		<0.0005
5/23/2017	0.0006 (J)					<0.0005
5/24/2017		<0.0005	0.0001 (J)	<0.0005		
8/10/2017	0.0007 (J)	<0.0005	<0.0005	<0.0005		<0.0005
11/14/2017	0.0007 (J)	<0.0005	<0.0005	<0.0005		<0.0005
6/6/2018	0.00073 (J)	<0.0005	0.00012 (J)	<0.0005		
6/7/2018						<0.0005
10/2/2018		<0.0005	0.0001 (J)	<0.0005		
10/3/2018	0.00078 (J)					<0.0005
8/22/2019	0.0008 (J)	<0.0005				<0.0005
8/23/2019			0.00011 (J)	<0.0005		
10/22/2019			<0.0005	<0.0005		<0.0005
10/23/2019	0.00091 (J)	<0.0005				
3/25/2020	0.00068 (J)	<0.0005	<0.0005	<0.0005		<0.0005
8/26/2020						<0.0005
8/27/2020	0.00082 (J)	<0.0005	<0.0005	<0.0005		
9/24/2020	0.00076 (J)	<0.0005	<0.0005			
9/25/2020				<0.0005		
9/28/2020						<0.0005
3/17/2021				<0.0005		
3/18/2021	0.00068	<0.0005	<0.0005			<0.0005
8/12/2021					0.00016 (J)	
8/13/2021		<0.0005	<0.0005	<0.0005		<0.0005
8/16/2021	0.00081					
9/27/2021					<0.0005	
2/2/2022	0.0008		<0.0005	<0.0005		
2/3/2022		<0.0005			<0.0005	<0.0005
8/5/2022	0.00081	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/25/2023	0.00063	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/11/2023	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
2/16/2024	0.00074		<0.0005			
2/17/2024		<0.0005		<0.0005	<0.0005	<0.0005

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	40.3	6.69	6.72				
8/31/2016						19.4	
10/20/2016	38.7					19.3	
10/24/2016		6.25	6.4				
1/25/2017	44.6	6.58	6.87				
1/31/2017						19.1	
5/23/2017		6.4	7.13			18.3	
5/24/2017	34.8						
8/10/2017	48.6	6.54	6.71			20.9	
11/13/2017	17.1	6.26					
11/14/2017			7.4			21.7	
6/4/2018	30.1	7.4					
6/5/2018			7.4				
6/6/2018						17	
10/1/2018	14.2 (J)	5.8	6.2				
10/3/2018						19.1 (J)	
4/1/2019	58.4						
4/2/2019		6.7	7.4				
4/4/2019						16.9	
10/21/2019	51						
10/22/2019		6.3	7.2				
10/23/2019						21.9	136
1/3/2020							118
3/4/2020							144
3/24/2020	61.2	7					103
3/25/2020						18.4	
4/9/2020			8.3				
6/18/2020							124
7/21/2020							120
8/27/2020							106
9/18/2020	32.2	6.5		62.2	51.8		
9/22/2020			7.9				
9/24/2020						20.3	120
11/10/2020				73.3			
11/11/2020					61.3		
12/15/2020				72.5	61.3		
1/19/2021				72.5	58.9		
3/11/2021	53.2						
3/12/2021		6.9		69.2	57.5		
3/16/2021			8.6				
3/17/2021						21.8	111
8/12/2021	45.4	6.9	8.4	71.2	59.5		
8/13/2021							119
8/16/2021						22.8	
1/31/2022	58.6			73.8	63.2		
2/1/2022		7.4	8.6				
2/2/2022						23.8	116
8/2/2022			8	73			
8/5/2022	53	7.1			59.6		127
8/10/2022						24.6	
1/24/2023	55.4	6.6	7.5	69.2	57.8		
1/25/2023						20.4	128

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	0.94 (J)	6.6		68	58.2		
8/10/2023			8.4				
8/11/2023						24.1	134
2/13/2024		6.5			56		
2/14/2024	51.8		7.2	29.4			
2/16/2024						22.2	127

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	70.4	74.2	44.7	35.1		79.3
10/20/2016						83.7
10/24/2016	70.9					
10/25/2016		72.5	49	35.4		
1/31/2017	63.6	70.3	46.6	34.2		76.8
5/23/2017	111					77.2
5/24/2017		75.9	49.5	35.3		
8/10/2017	81.2	84	54.2	43.1		83.1
11/14/2017	79.7	87.2	53.2	37.4		86.7
6/6/2018	88.3	81	55	41.1		
6/7/2018						79.7
10/2/2018		84.7	55.4	42.5		
10/3/2018	85.3					77.1
4/3/2019			54	37.5		
4/4/2019	91.9	73.8				
4/5/2019						82
6/17/2019	92.6	81.2	55.3			
6/18/2019						76.5
10/22/2019			58.1	42.6		84.2
10/23/2019	86.5	89.4				
3/25/2020	86.8	91.4	59.5	42.6		86.8
9/24/2020	91.3	92.9	55.4			
9/25/2020				48.5		
9/28/2020						88.9
3/17/2021				37.3		
3/18/2021	83.7	97.7	56			85.4
8/12/2021					50.7	
8/13/2021		102	57.8	43.5		84.3
8/16/2021	124					
9/27/2021					47.2	
2/2/2022	104		62	45.7		
2/3/2022		115			68.2	84.5
8/5/2022	128	121	63	50.8	68.6	88.5
1/25/2023	109	113	57.8	42.4	64.5	81.8
8/11/2023	139	129	56	44.8	61.1	85.5
2/16/2024	106		61.9			
2/17/2024		130		44.3	63.9	83.8

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	3	5.1		2.7	2.7		
8/10/2023			1.6				
8/11/2023						4.9	6.7
2/13/2024		5			2.6		
2/14/2024	3		1.5	1.6			
2/16/2024						5.4	7.4

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	5.2	3	3.2	5		4.5
10/20/2016						4.4
10/24/2016	5.2					
10/25/2016		2.8	3.2	4.8		
1/31/2017	5.6	3.3	3.1	5.5		4.8
5/23/2017	5.7					4.3
5/24/2017		3.5	2.9	5.3		
8/10/2017	5.8	2.9	2.8	4.6		4.2
11/14/2017	6	4	3.4	5.6		4.4
6/6/2018	6.4	2.9	2.8	5.3		
6/7/2018						4.1
10/2/2018		3.5	3.2	5.3		
10/3/2018	6.3					4.4
4/3/2019			3.6	5		
4/4/2019	6.9	3.9				
4/5/2019						4.3
6/17/2019	5.2		2.9			
10/22/2019			3.6	4.6		4.5
10/23/2019	6.1	3.6				
3/25/2020	5.1	3.2	3	3.9		3.6
9/24/2020	6	3.9	3.5			
9/25/2020				4.1		
9/28/2020						4
3/17/2021				4.7		
3/18/2021	6.2	4.3	3.2			4.3
8/12/2021					6.3	
8/13/2021		3.7	3.1	4		4
8/16/2021	10.4					
9/27/2021					4.5	
2/2/2022	7.1		2.9	4.1		
2/3/2022		4.8			7.8	3.9
8/5/2022	7.8	5	2.7	3.7	7.4	3.8
1/25/2023	8	6	3.3	4.3	5.9	4.3
8/11/2023	7.9	5.6	2.7	3.5	4.6	3.8
2/16/2024	7.5		3.2			
2/17/2024		6.8		3.9	4.4	4.1

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	0.0038 (J)	<0.005				
8/31/2016						<0.005	
10/20/2016	<0.005					<0.005	
10/24/2016		0.0039 (J)	0.001 (J)				
1/25/2017	0.0029 (J)	0.0038 (J)	0.0012 (J)				
1/31/2017						<0.005	
5/23/2017		0.0038 (J)	0.0012 (J)			0.0006 (J)	
5/24/2017	0.0004 (J)						
8/10/2017	<0.005	0.0039 (J)	0.0019 (J)			<0.005	
11/13/2017	<0.005	0.0038 (J)					
11/14/2017			0.0016 (J)			<0.005	
6/4/2018	<0.005	0.0037 (J)					
6/5/2018			<0.005				
6/6/2018						<0.005	
10/1/2018	<0.005	0.0036 (J)	0.0023 (J)				
10/3/2018						<0.005	
8/21/2019	0.00061 (J)	0.0039 (J)	0.0022 (J)				
8/22/2019						0.00064 (J)	
10/21/2019	0.0012 (J)						
10/22/2019		0.004 (J)	0.0023 (J)				
10/23/2019						<0.005	<0.005
1/3/2020							0.00063 (J)
3/4/2020							<0.005
3/24/2020	0.0019 (J)	0.0044 (J)					0.00051 (J)
3/25/2020						0.00098 (J)	
4/9/2020			0.0031 (J)				
6/18/2020							<0.005
7/21/2020							<0.005
8/25/2020	0.0013 (J)	0.0039 (J)	0.0031 (J)				
8/27/2020						<0.005	<0.005
9/18/2020	0.00077 (J)	0.0037 (J)		0.0039 (J)	<0.005		
9/22/2020			0.0046 (J)				
9/24/2020						<0.005	<0.005
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	0.0013 (J)		
1/19/2021				<0.005	0.0015 (J)		
3/11/2021	0.002 (J)						
3/12/2021		0.0045 (J)		<0.005	0.00062 (J)		
3/16/2021			0.0061				
3/17/2021						0.00075 (J)	<0.005
8/12/2021	<0.005	0.0041 (J)	<0.005	<0.005	<0.005		
8/13/2021							<0.005
8/16/2021						<0.005	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		0.0043 (J)	0.0013 (J)				
2/2/2022						<0.005	<0.005
8/2/2022			0.0013 (J)	<0.005			
8/5/2022	<0.005	0.0045 (J)			<0.005		<0.005
8/10/2022						<0.005	
1/24/2023	<0.005	0.0041 (J)	0.0036 (J)	<0.005	<0.005		
1/25/2023						<0.005	<0.005

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.005	0.0037 (J)		<0.005	<0.005		
8/10/2023			0.0019 (J)				
8/11/2023						<0.005	<0.005
2/13/2024		0.0053			<0.005		
2/14/2024	<0.005		0.0023 (J)	<0.005			
2/16/2024						<0.005	<0.005

Time Series

Constituent: Chromium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.005	<0.005	<0.005	<0.005		<0.005
10/20/2016						<0.005
10/24/2016	<0.005					
10/25/2016		<0.005	<0.005	<0.005		
1/31/2017	<0.005	<0.005	<0.005	<0.005		<0.005
5/23/2017	<0.005					<0.005
5/24/2017		<0.005	<0.005	<0.005		
8/10/2017	<0.005	<0.005	<0.005	<0.005		<0.005
11/14/2017	<0.005	<0.005	<0.005	<0.005		<0.005
6/6/2018	<0.005	<0.005	<0.005	<0.005		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	<0.005		
10/3/2018	<0.005					<0.005
8/22/2019	0.00063 (J)	<0.005				<0.005
8/23/2019			<0.005	<0.005		
10/22/2019			<0.005	0.00062 (J)		0.00066 (J)
10/23/2019	0.0015 (J)	0.0004 (J)				
3/25/2020	0.00045 (J)	0.0013 (J)	0.00074 (J)	0.0014 (J)		0.00081 (J)
8/26/2020						0.00098 (J)
8/27/2020	0.00069 (J)	<0.005	<0.005	<0.005		
9/24/2020	0.00081 (J)	0.00064 (J)	<0.005			
9/25/2020				<0.005		
9/28/2020						0.0017 (J)
3/17/2021				<0.005		
3/18/2021	0.003 (J)	0.00058 (J)	<0.005			0.0021 (J)
8/12/2021					<0.005	
8/13/2021		<0.005	<0.005	<0.005		<0.005
8/16/2021	<0.005					
9/27/2021					<0.005	
2/2/2022	0.0013 (J)		<0.005	<0.005		
2/3/2022		<0.005			<0.005	<0.005
8/5/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/16/2024	<0.005		<0.005			
2/17/2024		<0.005		<0.005	<0.005	<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	<0.005	0.0006 (J)				
8/31/2016						0.0033 (J)	
10/20/2016	<0.005					0.0025 (J)	
10/24/2016		<0.005	<0.005				
1/25/2017	<0.005	<0.005	<0.005				
1/31/2017						0.001 (J)	
5/23/2017		<0.005	<0.005			0.0025 (J)	
5/24/2017	<0.005						
8/10/2017	<0.005	<0.005	0.0004 (J)			0.0029 (J)	
11/13/2017	<0.005	<0.005					
11/14/2017			0.0003 (J)			0.003 (J)	
6/4/2018	<0.005	<0.005					
6/5/2018			<0.005				
6/6/2018						0.0016 (J)	
10/1/2018	<0.005	<0.005	<0.005				
10/3/2018						0.0028 (J)	
8/21/2019	<0.005	<0.005	<0.005				
8/22/2019						<0.005	
10/21/2019	<0.005						
10/22/2019		<0.005	<0.005				
10/23/2019						0.0023 (J)	0.0018 (J)
1/3/2020							0.0038 (J)
3/4/2020							0.0021 (J)
3/24/2020	<0.005	<0.005					0.0019 (J)
3/25/2020						0.0021 (J)	
4/9/2020			0.00037 (J)				
6/18/2020							0.0012 (J)
7/21/2020							0.00098 (J)
8/25/2020	<0.005	<0.005	<0.005				
8/27/2020						0.0027 (J)	0.001 (J)
9/18/2020	<0.005	<0.005		0.00049 (J)	<0.005		
9/22/2020			0.00074 (J)				
9/24/2020						0.0021 (J)	0.0011 (J)
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	0.00039 (J)		
1/19/2021				<0.005	<0.005		
3/11/2021	<0.005						
3/12/2021		<0.005		<0.005	<0.005		
3/16/2021			0.0013 (J)				
3/17/2021						0.0023 (J)	0.0012 (J)
8/12/2021	<0.005	<0.005	<0.005	<0.005	<0.005		
8/13/2021							0.00085 (J)
8/16/2021						0.0026 (J)	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		<0.005	<0.005				
2/2/2022						0.0027 (J)	0.0019 (J)
8/2/2022			<0.005	<0.005			
8/5/2022	<0.005	<0.005			<0.005		0.001 (J)
8/10/2022						0.0028 (J)	
1/24/2023	<0.005	<0.005	<0.005	<0.005	<0.005		
1/25/2023						0.0021 (J)	0.0016 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.005	<0.005		<0.005	<0.005		
8/10/2023			<0.005				
8/11/2023						0.0028 (J)	0.001 (J)
2/13/2024		<0.005			<0.005		
2/14/2024	<0.005		<0.005	<0.005			
2/16/2024						0.0026 (J)	0.0011 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.0018 (J)	0.0014 (J)	<0.005	0.0023 (J)		<0.005
10/20/2016						<0.005
10/24/2016	0.0018 (J)					
10/25/2016		0.0013 (J)	<0.005	0.0017 (J)		
1/31/2017	0.0016 (J)	0.0006 (J)	<0.005	0.0017 (J)		<0.005
5/23/2017	0.0014 (J)					0.0005 (J)
5/24/2017		0.0007 (J)	<0.005	0.002 (J)		
8/10/2017	0.0025 (J)	0.0006 (J)	<0.005	0.0012 (J)		0.0003 (J)
11/14/2017	0.002 (J)	0.0005 (J)	<0.005	0.0014 (J)		0.0004 (J)
6/6/2018	0.0031 (J)	0.00056 (J)	<0.005	0.0014 (J)		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	0.00081 (J)		
10/3/2018	0.0023 (J)					<0.005
8/22/2019	0.0019 (J)	<0.005				0.0003 (J)
8/23/2019			<0.005	0.0027 (J)		
10/22/2019			<0.005	0.0022 (J)		0.00061 (J)
10/23/2019	0.0021 (J)	0.00038 (J)				
3/25/2020	0.0022 (J)	0.00047 (J)	<0.005	0.0022 (J)		<0.005
8/26/2020						0.00061 (J)
8/27/2020	0.0019 (J)	<0.005	<0.005	0.00086 (J)		
9/24/2020	0.0019 (J)	0.00044 (J)	<0.005			
9/25/2020				0.001 (J)		
9/28/2020						0.00048 (J)
3/17/2021				0.003 (J)		
3/18/2021	0.0021 (J)	0.00045 (J)	<0.005			0.0012 (J)
8/12/2021					0.0024 (J)	
8/13/2021		<0.005	<0.005	0.0011 (J)		<0.005
8/16/2021	0.0022 (J)					
9/27/2021					0.0011 (J)	
2/2/2022	0.0022 (J)		<0.005	0.002 (J)		
2/3/2022		<0.005			0.00041 (J)	0.00045 (J)
8/5/2022	0.0021 (J)	<0.005	<0.005	0.0008 (J)	0.0011 (J)	<0.005
1/25/2023	0.0017 (J)	0.00046 (J)	<0.005	0.0016 (J)	0.00048 (J)	<0.005
8/11/2023	0.0019 (J)	0.00047 (J)	<0.005	0.00077 (J)	0.00078 (J)	<0.005
2/16/2024	0.002 (J)		<0.005			
2/17/2024		0.00071 (J)		0.0011 (J)	0.00047 (J)	0.00042 (J)

Time Series

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.804 (U)	1.32 (U)	0.587 (U)				
8/31/2016						0.621 (U)	
10/20/2016	1.13 (U)					1.4	
10/24/2016		1.3 (U)	0.979 (U)				
1/25/2017	0.888 (U)	1.04 (U)	0.038 (U)				
1/31/2017						0.906 (U)	
5/23/2017		0.541 (U)	0.898 (U)			0.388 (U)	
5/24/2017	0.622 (U)						
8/10/2017	0.745 (U)	0.536 (U)	0.759 (U)			1.03 (U)	
11/13/2017	0.778 (U)	0.786 (U)					
11/14/2017			0.0762 (U)			0.769 (U)	
6/4/2018	0.637 (U)	0.233 (U)					
6/5/2018			0.594 (U)				
6/6/2018						1.28 (U)	
10/1/2018	0.451 (U)	0.494 (U)	0.982				
10/3/2018						0.302 (U)	
8/21/2019	0.553 (U)	0.514 (U)	0.492 (U)				
8/22/2019						0.474 (U)	
10/21/2019	0.351 (U)						
10/22/2019		0.828 (U)	0.523 (U)				
10/23/2019						0.776 (U)	0.858 (U)
1/22/2020							1.04 (U)
3/4/2020							1.32
3/24/2020	0.26 (U)	0.677 (U)					1.23 (U)
3/25/2020						0.603 (U)	
4/9/2020			0.617 (U)				
7/21/2020							0.0938 (U)
8/25/2020	0.57 (U)	0.0182 (U)	0.587 (U)				
8/27/2020						0.109 (U)	1.17 (U)
9/18/2020	0.828 (U)	1.15 (U)		1.11 (U)	1.5 (U)		
9/22/2020			0.551 (U)				
9/24/2020						0.625 (U)	1.42
11/10/2020				0.234 (U)			
11/11/2020					0.776 (U)		
12/15/2020				0.529 (U)	1.23 (U)		
1/19/2021				0.176 (U)	1.35 (U)		
3/11/2021	0.354 (U)						
3/12/2021		0.164 (U)		0 (U)	0.829 (U)		
3/16/2021			0.559 (U)				
3/17/2021						0.248 (U)	0.401 (U)
8/12/2021	0.532 (U)	0.223 (U)	0.312 (U)	0.462 (U)	0.274 (U)		
8/13/2021							0.828 (U)
8/16/2021						0.667 (U)	
1/31/2022	0.279 (U)			0.444 (U)	0.196 (U)		
2/1/2022		0.0793 (U)	0.132 (U)			0.162 (U)	0.806 (U)
8/2/2022			0.791 (U)	0.491 (U)			
8/5/2022	0.573 (U)	0.665 (U)			0.599 (U)		0.618 (U)
8/10/2022						0.601 (U)	
1/24/2023	0.19 (U)	0.331 (U)	0.529 (U)	0.391 (U)	0.856		
1/25/2023						0.419 (U)	0.513 (U)
8/8/2023	0.728 (U)	0.723 (U)		0.502 (U)	0.549 (U)		
8/10/2023			0.841 (U)				

Time Series

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/11/2023						0.93 (U)	1.08
2/13/2024		0.675 (U)			0.575 (U)		
2/14/2024	0.436 (U)		0.307 (U)	1.72			
2/16/2024						0.344 (U)	0.498 (U)

Time Series

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	1.62	0.906 (U)	1.2	1.03		
10/20/2016						1.97
10/24/2016	1.01 (U)					
10/25/2016		1.03	1.11 (U)	1.07		
1/31/2017	0.976 (U)	0.868 (U)	1.45	0.588 (U)		1.03
5/23/2017	0.891 (U)					0.398 (U)
5/24/2017		0.728 (U)	0.393 (U)	0.593 (U)		
8/10/2017	0.601 (U)	1.35	0.84 (U)	0.691 (U)		0.938 (U)
11/14/2017	0.567 (U)	0.817 (U)	1.01 (U)	0.653 (U)		0.335 (U)
6/6/2018	0.836 (U)	0.559 (U)	0.365 (U)	0.939 (U)		
6/7/2018						0.696 (U)
10/2/2018		0.336 (U)	1.23	0.225 (U)		
10/3/2018	0.111 (U)					1.6 (U)
8/22/2019	0.946 (U)	0.694 (U)				0.904 (U)
8/23/2019			1.69	0.47 (U)		
10/22/2019			0.705 (U)	0.545 (U)		0.424 (U)
10/23/2019	0.571 (U)	0.584 (U)				
3/25/2020	0.403 (U)	0.663 (U)	0.673 (U)	0.508 (U)		0.915 (U)
8/26/2020						1.19
8/27/2020	0.37 (U)	0.416 (U)	0.264 (U)	0.989 (U)		
9/24/2020	0.804 (U)	1.11 (U)	0.576 (U)			
9/25/2020				0.584 (U)		
9/28/2020						0.613 (U)
3/17/2021				0.556 (U)		
3/18/2021	0.274 (U)	0.252 (U)	0.145 (U)			0.323 (U)
8/12/2021					0.124 (U)	
8/13/2021		0.513 (U)	0.815 (U)	0.794 (U)		0.228 (U)
8/16/2021	0.493 (U)					
9/27/2021					1.05 (U)	
2/1/2022	0.569 (U)		0.0564 (U)	0.542 (U)		
2/3/2022		0.835			0.499 (U)	0.5 (U)
8/5/2022	0.205 (U)	0.139 (U)	0.917 (U)	0.22 (U)	0 (U)	0.206 (U)
1/25/2023	0.568 (U)	0.432 (U)	0.71 (U)	0.195 (U)	0.595 (U)	1.44
8/11/2023	0.849 (U)	0.292 (U)	0.314 (U)	0.105 (U)	0.822 (U)	0.806 (U)
2/16/2024	0.81 (U)		0.845 (U)			
2/17/2024		0.888 (U)		0.388 (U)	0.629 (U)	0 (U)

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.07 (J)	0.04 (J)	0.2 (J)				
8/31/2016						0.05 (J)	
10/20/2016	0.07 (J)					0.03 (J)	
10/24/2016		0.05 (J)	0.16 (J)				
1/25/2017	0.14 (J)	<0.1	0.15 (J)				
1/31/2017						<0.1	
5/23/2017		0.004 (J)	0.18 (J)			<0.1	
5/24/2017	0.02 (J)						
8/10/2017	0.06 (J)	0.03 (J)	0.19 (J)			<0.1	
11/13/2017	<0.1	<0.1					
11/14/2017			0.16 (J)			<0.1	
6/4/2018	0.032 (J)	<0.1					
6/5/2018			0.18 (J)				
6/6/2018						<0.1	
10/1/2018	<0.1	<0.1	0.078 (J)				
10/3/2018						<0.1	
4/1/2019	0.042 (J)						
4/2/2019		<0.1	0.18 (J)				
4/4/2019						<0.1	
8/21/2019	0.048 (J)	<0.1	0.11 (J)				
8/22/2019						<0.1	
10/21/2019	0.12 (J)						
10/22/2019		0.05 (J)	0.18 (J)				
10/23/2019						<0.1	0.22 (J)
1/3/2020							<0.1
3/4/2020							<0.1
3/24/2020	0.076 (J)	<0.1					<0.1
3/25/2020						<0.1	
4/9/2020			0.14 (J)				
6/18/2020							<0.1
7/21/2020							<0.1
8/25/2020	0.052 (J)	<0.1	0.17				
8/27/2020						<0.1	<0.1
9/18/2020	<0.1	<0.1		0.067 (J)	0.098 (J)		
9/22/2020			0.16				
9/24/2020						<0.1	<0.1
11/10/2020				0.065 (J)			
11/11/2020					0.083 (J)		
12/15/2020				0.064 (J)	0.081 (J)		
1/19/2021				0.057 (J)	0.079 (J)		
3/11/2021	0.057 (J)						
3/12/2021		<0.1		0.062 (J)	0.085 (J)		
3/16/2021			0.18				
3/17/2021						<0.1	<0.1
8/12/2021	<0.1	<0.1	0.16	<0.1	0.064 (J)		
8/13/2021							<0.1
8/16/2021						<0.1	
1/31/2022	0.055 (J)			0.053 (J)	0.072 (J)		
2/1/2022		<0.1	0.16				
2/2/2022						<0.1	<0.1
8/2/2022			0.19	0.08 (J)			
8/5/2022	0.1	0.077 (J)			0.12		0.076 (J)

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/10/2022						0.065 (J)	
1/24/2023	0.086 (J)	0.055 (J)	0.2	0.081 (J)	0.092 (J)		
1/25/2023						<0.1	<0.1
8/8/2023	0.076 (J)	0.05 (J)		0.072 (J)	0.091 (J)		
8/10/2023			0.19				
8/11/2023						<0.1	<0.1
2/13/2024		<0.1			0.071 (J)		
2/14/2024	0.081 (J)		0.18	0.23			
2/16/2024						<0.1	<0.1

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.06 (J)	0.15 (J)	0.08 (J)	0.12 (J)		0.18 (J)
10/20/2016						0.12 (J)
10/24/2016	0.13 (J)					
10/25/2016		0.09 (J)	0.16 (J)	0.17 (J)		
1/31/2017	<0.1	0.13 (J)	0.16 (J)	0.05 (J)		0.3
5/23/2017	0.15 (J)					0.14 (J)
5/24/2017		0.07 (J)	0.009 (J)	0.13 (J)		
8/10/2017	<0.1	0.03 (J)	<0.1	0.12 (J)		0.11 (J)
11/14/2017	<0.1	<0.1	<0.1	<0.3		0.07 (J)
6/6/2018	<0.1	0.074 (J)	0.057 (J)	0.15 (J)		
6/7/2018						0.3
10/2/2018		<0.1	<0.1	<0.3		
10/3/2018	<0.1					0.12 (J)
4/3/2019			<0.1	0.05 (J)		
4/4/2019	0.042 (J)	0.03 (J)				
4/5/2019						0.33
6/18/2019						0.89
8/22/2019	<0.1	<0.1				0.07 (J)
8/23/2019			<0.1	0.034 (J)		
10/22/2019			0.047 (J)	0.099 (J)		0.087 (J)
10/23/2019	<0.1	<0.1				
3/25/2020	<0.1	<0.1	<0.1	0.075 (J)		0.078 (J)
8/26/2020						0.072 (J)
8/27/2020	<0.1	<0.1	<0.1	0.094 (J)		
9/24/2020	<0.1	<0.1	0.064 (J)			
9/25/2020				0.091 (J)		
9/28/2020						0.078 (J)
3/17/2021				0.089 (J)		
3/18/2021	<0.1	<0.1	<0.1			0.079 (J)
8/12/2021					<0.1	
8/13/2021		<0.1	<0.1	0.086 (J)		0.075 (J)
8/16/2021	<0.1					
9/27/2021					<0.1	
2/2/2022	<0.1		<0.1	0.086 (J)		
2/3/2022		<0.1			0.056 (J)	0.069 (J)
8/5/2022	0.071 (J)	0.075 (J)	0.093 (J)	0.14	0.12	0.12
1/25/2023	<0.1	0.051 (J)	0.054 (J)	0.12	0.085 (J)	0.095 (J)
8/11/2023	<0.1	<0.1	<0.1	0.086 (J)	0.057 (J)	0.07 (J)
2/16/2024	<0.1		<0.1			
2/17/2024		<0.1		0.094 (J)	0.055 (J)	0.068 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.0001 (J)	<0.001	<0.001				
8/31/2016						<0.001	
10/20/2016	<0.001					<0.001	
10/24/2016		<0.001	<0.001				
1/25/2017	<0.001	<0.001	<0.001				
1/31/2017						<0.001	
5/23/2017		<0.001	<0.001			0.0009 (J)	
5/24/2017	<0.001						
8/10/2017	<0.001	<0.001	0.0001 (J)			<0.001	
11/13/2017	<0.001	<0.001					
11/14/2017			<0.001			<0.001	
6/4/2018	<0.001	<0.001					
6/5/2018			<0.001				
6/6/2018						<0.001	
10/1/2018	<0.001	<0.001	<0.001				
10/3/2018						<0.001	
8/21/2019	<0.001	<0.001	7.1E-05 (J)				
8/22/2019						<0.001	
10/21/2019	0.00016 (J)						
10/22/2019		<0.001	7.3E-05 (J)				
10/23/2019						<0.001	<0.001
1/3/2020							<0.001
3/4/2020							0.00011 (J)
3/24/2020	0.00058 (J)	0.00016 (J)					<0.001
3/25/2020						<0.001	
4/9/2020			0.00039 (J)				
6/18/2020							<0.001
7/21/2020							<0.001
8/25/2020	0.00036 (J)	0.00011 (J)	0.00022 (J)				
8/27/2020						<0.001	<0.001
9/18/2020	0.00026 (J)	6.5E-05 (J)		<0.001	<0.001		
9/22/2020			0.00096 (J)				
9/24/2020						<0.001	<0.001
11/10/2020				<0.001			
11/11/2020					<0.001		
12/15/2020				<0.001	0.00015 (J)		
1/19/2021				3.8E-05 (J)	5.6E-05 (J)		
3/11/2021	0.0011						
3/12/2021		0.00017 (J)		<0.001	4.8E-05 (J)		
3/16/2021			0.0016				
3/17/2021						<0.001	<0.001
8/12/2021	<0.001	<0.001	<0.001	<0.001	<0.001		
8/13/2021							<0.001
8/16/2021						<0.001	
1/31/2022	<0.001			<0.001	<0.001		
2/1/2022		<0.001	<0.001				
2/2/2022						<0.001	<0.001
8/2/2022			<0.001	<0.001			
8/5/2022	<0.001	<0.001			<0.001		<0.001
8/10/2022						<0.001	
1/24/2023	<0.001	<0.001	<0.001	<0.001	<0.001		
1/25/2023						<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	<0.001	<0.001		<0.001	<0.001		
8/10/2023			<0.001				
8/11/2023						<0.001	<0.001
2/13/2024		<0.001			<0.001		
2/14/2024	<0.001		<0.001	0.00021 (J)			
2/16/2024						<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.001	<0.001	<0.001	<0.001		<0.001
10/20/2016						<0.001
10/24/2016	<0.001					
10/25/2016		<0.001	<0.001	<0.001		
1/31/2017	<0.001	<0.001	<0.001	<0.001		<0.001
5/23/2017	<0.001					<0.001
5/24/2017		<0.001	<0.001	<0.001		
8/10/2017	<0.001	<0.001	<0.001	<0.001		<0.001
11/14/2017	<0.001	<0.001	<0.001	<0.001		<0.001
6/6/2018	<0.001	<0.001	<0.001	<0.001		
6/7/2018						<0.001
10/2/2018		<0.001	<0.001	<0.001		
10/3/2018	<0.001					<0.001
8/22/2019	<0.001	<0.001				<0.001
8/23/2019			<0.001	5.8E-05 (J)		
10/22/2019			7.9E-05 (J)	5.4E-05 (J)		0.00025 (J)
10/23/2019	0.00043 (J)	6.8E-05 (J)				
3/25/2020	7.6E-05 (J)	8.5E-05 (J)	0.00021 (J)	<0.001		0.0001 (J)
8/26/2020						0.00036 (J)
8/27/2020	0.00018 (J)	<0.001	<0.001	<0.001		
9/24/2020	0.00028 (J)	4.9E-05 (J)	0.00034 (J)			
9/25/2020				<0.001		
9/28/2020						0.00022 (J)
3/17/2021				<0.001		
3/18/2021	0.00024 (J)	5.8E-05 (J)	9.1E-05 (J)			0.00088 (J)
8/12/2021					<0.001	
8/13/2021		<0.001	<0.001	<0.001		<0.001
8/16/2021	<0.001					
9/27/2021					<0.001	
2/2/2022	<0.001		<0.001	<0.001		
2/3/2022		<0.001			<0.001	<0.001
8/5/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/25/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/11/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/16/2024	0.00027 (J)		<0.001			
2/17/2024		<0.001		<0.001	<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	0.0022 (J)	<0.03	<0.03				
8/31/2016						<0.03	
10/20/2016	<0.03					<0.03	
10/24/2016		<0.03	<0.03				
1/25/2017	<0.03	<0.03	<0.03				
1/31/2017						<0.03	
5/23/2017		<0.03	0.0011 (J)			<0.03	
5/24/2017	0.0017 (J)						
8/10/2017	0.0017 (J)	<0.03	<0.03			<0.03	
11/13/2017	<0.03	<0.03					
11/14/2017			<0.03			<0.03	
6/4/2018	0.0016 (J)	<0.03					
6/5/2018			0.001 (J)				
6/6/2018						<0.03	
10/1/2018	<0.03	<0.03	0.001 (J)				
10/3/2018						<0.03	
8/21/2019	0.0018 (J)	<0.03	0.0011 (J)				
8/22/2019						<0.03	
10/21/2019	0.0026 (J)						
10/22/2019		<0.03	0.0011 (J)				
10/23/2019						<0.03	0.0012 (J)
1/3/2020							0.0011 (J)
3/4/2020							0.0013 (J)
3/24/2020	0.0039 (J)	<0.03					0.00084 (J)
3/25/2020						<0.03	
4/9/2020			0.0017 (J)				
6/18/2020							0.0013 (J)
7/21/2020							0.0013 (J)
8/25/2020	0.0033 (J)	<0.03	0.0014 (J)				
8/27/2020						<0.03	0.0011 (J)
9/18/2020	0.0021 (J)	<0.03		0.0026 (J)	0.0051 (J)		
9/22/2020			0.0018 (J)				
9/24/2020						<0.03	0.0011 (J)
11/10/2020				0.0028 (J)			
11/11/2020					0.0036 (J)		
12/15/2020				0.0026 (J)	0.0045 (J)		
1/19/2021				0.003 (J)	0.0032 (J)		
3/11/2021	0.0047 (J)						
3/12/2021		<0.03		0.0031 (J)	0.0031 (J)		
3/16/2021			0.0026 (J)				
3/17/2021						<0.03	0.0012 (J)
8/12/2021	0.002 (J)	<0.03	0.00094 (J)	0.0029 (J)	0.0037 (J)		
8/13/2021							0.0011 (J)
8/16/2021						<0.03	
1/31/2022	0.0026 (J)			0.0031 (J)	0.0034 (J)		
2/1/2022		<0.03	0.0011 (J)				
2/2/2022						<0.03	0.0013 (J)
8/2/2022			0.00089 (J)	0.0026 (J)			
8/5/2022	0.0019 (J)	<0.03			0.0036 (J)		0.0013 (J)
8/10/2022						<0.03	
1/24/2023	0.0023 (J)	<0.03	0.00091 (J)	0.0029 (J)	0.0046 (J)		
1/25/2023						<0.03	0.001 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	0.0018 (J)	<0.03		0.0029 (J)	0.004 (J)		
8/10/2023			0.001 (J)				
8/11/2023						<0.03	0.0013 (J)
2/13/2024		<0.03			0.006 (J)		
2/14/2024	0.002 (J)		<0.03	<0.03			
2/16/2024						<0.03	<0.03

Time Series

Constituent: Lithium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.03	0.0034 (J)	<0.03	<0.03		<0.03
10/20/2016						<0.03
10/24/2016	<0.03					
10/25/2016		0.0043 (J)	<0.03	<0.03		
1/31/2017	<0.03	0.0042 (J)	<0.03	<0.03		<0.03
5/23/2017	0.0012 (J)					0.0012 (J)
5/24/2017		0.0039 (J)	<0.03	0.0012 (J)		
8/10/2017	0.0016 (J)	0.004 (J)	<0.03	<0.03		<0.03
11/14/2017	0.0015 (J)	0.0044 (J)	<0.03	<0.03		<0.03
6/6/2018	0.0017 (J)	0.0041 (J)	0.00099 (J)	0.0013 (J)		
6/7/2018						0.0015 (J)
10/2/2018		0.0041 (J)	<0.03	0.0013 (J)		
10/3/2018	0.0016 (J)					<0.03
8/22/2019	0.0015 (J)	0.004 (J)				0.0018 (J)
8/23/2019			0.00092 (J)	0.0009 (J)		
10/22/2019			0.00094 (J)	0.00088 (J)		0.0027 (J)
10/23/2019	0.002 (J)	0.0039 (J)				
3/25/2020	0.0016 (J)	0.0041 (J)	0.00091 (J)	<0.03		0.0017 (J)
8/26/2020						0.0028 (J)
8/27/2020	0.0016 (J)	0.0037 (J)	<0.03	0.0011 (J)		
9/24/2020	0.0017 (J)	0.0038 (J)	0.00098 (J)			
9/25/2020				0.001 (J)		
9/28/2020						0.0022 (J)
3/17/2021				<0.03		
3/18/2021	0.0018 (J)	0.0042 (J)	0.0011 (J)			0.0029 (J)
8/12/2021					0.0036 (J)	
8/13/2021		0.0038 (J)	0.00084 (J)	<0.03		0.0017 (J)
8/16/2021	0.0016 (J)					
9/27/2021					0.0035 (J)	
2/2/2022	0.0019 (J)		0.001 (J)	0.00084 (J)		
2/3/2022		0.0046 (J)			0.0051 (J)	0.0015 (J)
8/5/2022	0.0014 (J)	0.0039 (J)	0.00082 (J)	0.00087 (J)	0.0038 (J)	0.0018 (J)
1/25/2023	0.0012 (J)	0.0038 (J)	0.00081 (J)	<0.03	0.0037 (J)	0.001 (J)
8/11/2023	0.0014 (J)	0.0044 (J)	0.00083 (J)	0.00076 (J)	0.0041 (J)	0.0023 (J)
2/16/2024	<0.03		<0.03			
2/17/2024		0.0041 (J)		<0.03	0.0038 (J)	<0.03

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	4E-05 (J)	4.1E-05 (J)	4E-05 (J)				
8/31/2016						<0.0002	
10/20/2016	<0.0002					<0.0002	
10/24/2016		<0.0002	<0.0002				
1/25/2017	4E-05 (J)	4E-05 (J)	4E-05 (J)				
1/31/2017						9.3E-05 (J)	
5/23/2017		<0.0002	<0.0002			<0.0002	
5/24/2017	<0.0002						
8/10/2017	<0.0002	<0.0002	<0.0002			<0.0002	
11/13/2017	<0.0002	<0.0002					
11/14/2017			<0.0002			<0.0002	
6/4/2018	<0.0002	<0.0002					
6/5/2018			<0.0002				
6/6/2018						<0.0002	
10/1/2018	4.3E-05 (J)	3.9E-05 (J)	4.3E-05 (J)				
10/3/2018						<0.0002	
8/21/2019	<0.0002	<0.0002	<0.0002				
8/22/2019						<0.0002	
10/23/2019							<0.0002
1/3/2020							<0.0002
3/4/2020							<0.0002
3/24/2020							<0.0002
6/18/2020							<0.0002
7/21/2020							<0.0002
8/25/2020	<0.0002	<0.0002	<0.0002				
8/27/2020						<0.0002	<0.0002
9/18/2020				<0.0002	<0.0002		
9/24/2020							<0.0002
11/10/2020				<0.0002			
11/11/2020					<0.0002		
12/15/2020				<0.0002	<0.0002		
1/19/2021				<0.0002	<0.0002		
8/12/2021	<0.0002	0.00011 (J)	<0.0002	8.1E-05 (J)	0.00018 (J)		
8/13/2021							0.0001 (J)
8/16/2021						9.9E-05 (J)	
1/31/2022	<0.0002			<0.0002	<0.0002		
2/1/2022		<0.0002	<0.0002				
2/2/2022						<0.0002	<0.0002
8/2/2022			<0.0002	<0.0002			
8/5/2022	<0.0002	<0.0002			<0.0002		<0.0002
8/10/2022						<0.0002	
1/24/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
1/25/2023						<0.0002	<0.0002
8/8/2023	<0.0002	<0.0002		<0.0002	<0.0002		
8/10/2023			<0.0002				
8/11/2023						<0.0002	<0.0002
2/13/2024		<0.0002			<0.0002		
2/14/2024	<0.0002		<0.0002	<0.0002			
2/16/2024						<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
10/20/2016						<0.0002
10/24/2016	<0.0002					
10/25/2016		<0.0002	<0.0002	<0.0002		
1/31/2017	8E-05 (J)	<0.0002	<0.0002	8E-05 (J)		9E-05 (J)
5/23/2017	<0.0002					<0.0002
5/24/2017		<0.0002	<0.0002	<0.0002		
8/10/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/14/2017	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
6/6/2018	<0.0002	<0.0002	<0.0002	<0.0002		
6/7/2018						<0.0002
10/2/2018		<0.0002	<0.0002	<0.0002		
10/3/2018	<0.0002					<0.0002
8/22/2019	<0.0002	<0.0002				<0.0002
8/23/2019			<0.0002	<0.0002		
8/26/2020						<0.0002
8/27/2020	<0.0002	<0.0002	<0.0002	<0.0002		
8/12/2021					9.4E-05 (J)	
8/13/2021		0.00022	8.4E-05 (J)	8E-05 (J)		8.1E-05 (J)
8/16/2021	0.00027					
9/27/2021					<0.0002	
2/2/2022	<0.0002		<0.0002	<0.0002		
2/3/2022		<0.0002			<0.0002	<0.0002
8/5/2022	0.00017 (J)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/25/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/11/2023	0.00025	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/16/2024	<0.0002		<0.0002			
2/17/2024		<0.0002		<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.01	<0.01	<0.01				
8/31/2016						<0.01	
10/20/2016	<0.01					<0.01	
10/24/2016		<0.01	<0.01				
1/25/2017	<0.01	<0.01	<0.01				
1/31/2017						<0.01	
5/23/2017		<0.01	<0.01			<0.01	
5/24/2017	<0.01						
8/10/2017	<0.01	<0.01	<0.01			<0.01	
11/13/2017	<0.01	<0.01					
11/14/2017			<0.01			<0.01	
6/4/2018	<0.01	<0.01					
6/5/2018			<0.01				
6/6/2018						<0.01	
10/1/2018	<0.01	<0.01	<0.01				
10/3/2018						<0.01	
8/21/2019	<0.01	<0.01	<0.01				
8/22/2019						<0.01	
10/23/2019							<0.01
1/3/2020							<0.01
3/4/2020							<0.01
3/24/2020							<0.01
6/18/2020							<0.01
7/21/2020							<0.01
8/25/2020	<0.01	<0.01	<0.01				
8/27/2020						<0.01	<0.01
9/18/2020				0.0015 (J)	0.0026 (J)		
9/24/2020							<0.01
11/10/2020				<0.01			
11/11/2020					0.0012 (J)		
12/15/2020				<0.01	0.00097 (J)		
1/19/2021				<0.01	0.0018 (J)		
8/12/2021	<0.01	<0.01	<0.01	<0.01	0.0019 (J)		
8/13/2021							<0.01
8/16/2021						<0.01	
1/31/2022	<0.01			<0.01	0.002 (J)		
2/1/2022		<0.01	<0.01				
2/2/2022						<0.01	<0.01
8/2/2022			<0.01	<0.01			
8/5/2022	<0.01	<0.01			0.0012 (J)		<0.01
8/10/2022						<0.01	
1/24/2023	<0.01	<0.01	<0.01	<0.01	0.00086 (J)		
1/25/2023						<0.01	<0.01
8/8/2023	<0.01	<0.01		<0.01	0.00092 (J)		
8/10/2023			<0.01				
8/11/2023						<0.01	<0.01
2/13/2024		<0.01			0.00068 (J)		
2/14/2024	<0.01		<0.01	0.003 (J)		<0.01	<0.01
2/16/2024						<0.01	<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.01	<0.01	<0.01	<0.01		<0.01
10/20/2016						<0.01
10/24/2016	<0.01					
10/25/2016		<0.01	<0.01	<0.01		
1/31/2017	<0.01	<0.01	<0.01	<0.01		<0.01
5/23/2017	<0.01					<0.01
5/24/2017		<0.01	<0.01	<0.01		
8/10/2017	<0.01	<0.01	<0.01	<0.01		<0.01
11/14/2017	<0.01	<0.01	<0.01	<0.01		<0.01
6/6/2018	<0.01	<0.01	<0.01	<0.01		
6/7/2018						<0.01
10/2/2018		<0.01	<0.01	<0.01		
10/3/2018	<0.01					<0.01
8/22/2019	<0.01	<0.01				<0.01
8/23/2019			<0.01	<0.01		
8/26/2020						<0.01
8/27/2020	<0.01	<0.01	<0.01	<0.01		
8/12/2021					<0.01	
8/13/2021		<0.01	<0.01	<0.01		<0.01
8/16/2021	<0.01					
9/27/2021					<0.01	
2/2/2022	<0.01		<0.01	<0.01		
2/3/2022		<0.01			<0.01	<0.01
8/5/2022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/25/2023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8/11/2023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2/16/2024	<0.01		<0.01			
2/17/2024		<0.01		<0.01	<0.01	<0.01

Time Series

Constituent: pH, Field (s.u.) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	6.89	5.77	5.99				
8/31/2016						5.35	
10/20/2016	6.73					5.3	
10/24/2016		5.61	5.84				
1/25/2017	7.02	5.68	6.04				
1/31/2017						5.24	
5/23/2017		5.7	6.01			5.39	
5/24/2017	6.44						
8/10/2017	6.79	5.59	5.98			5.47	
11/13/2017	5.94	5.56					
11/14/2017			6.16			5.4	
6/4/2018	6.12	5.62					
6/5/2018			5.86				
6/6/2018						5.37	
10/1/2018	5.92	5.62	5.94				
10/3/2018						5.39	
4/1/2019	7.09						
4/2/2019		5.47	6				
4/4/2019						5.31	
6/18/2019						5.3	
8/21/2019	6.6	5.8	6.05				
8/22/2019						5.39	
10/21/2019	7.02						
10/22/2019		5.7	5.98				
10/23/2019						5.33	5.68
1/3/2020							5.64
3/4/2020							5.75
3/24/2020	7.37	5.64					5.58
3/25/2020						5.53	
4/9/2020			6.08				
6/18/2020							5.67
7/21/2020							5.72
8/25/2020	6.7	5.53	5.95				
8/27/2020						5.32	5.7
9/18/2020	6.46	5.58		7.54	7.5		
9/22/2020			6.1				
9/24/2020						5.48	5.82
11/10/2020				7.34			
11/11/2020					7.4		
12/15/2020				7.27	7.39		
1/19/2021				7.32	7.4		
3/11/2021	7.2						
3/12/2021		5.6		7.52	7.51		
3/16/2021			6.14				
3/17/2021						5.41	5.78
8/12/2021	6.67	5.5	6.08	7.38	7.44		
8/13/2021							5.45
8/16/2021						5.4	
1/31/2022	7.17			7.34	7.44		
2/1/2022		5.59	6.05				
2/2/2022						5.51	5.79
8/2/2022			6.08	7.34			

Time Series

Constituent: pH, Field (s.u.) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/5/2022	6.97	5.43			7.4		5.69
8/10/2022						5.37	
1/24/2023	7.11	5.67	6.15	7.38	7.46		
1/25/2023						5.47	5.77
8/8/2023	7.01	5.77		7.27	7.37		
8/10/2023			6.07				
8/11/2023						5.44	5.79
2/13/2024		5.64			7.59		
2/14/2024	7		6.24	7.93			
2/16/2024						5.47	5.88

Time Series

Constituent: pH, Field (s.u.) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	5.54	6.5	6.11	6.78		7.03
10/20/2016						7.01
10/24/2016	5.48					
10/25/2016		6.34	6.04	6.55		
1/31/2017	5.51	6.43	5.94	6.5		6.96
5/23/2017	5.98					6.92
5/24/2017		6.31	6.06	6.42		
8/10/2017	5.63	6.45	6.06	6.63		6.99
11/14/2017	5.59	6.53	5.99	6.5		6.9
6/6/2018	5.49	6.49	6	6.59		
6/7/2018						7.03
10/2/2018		6.18	6.18	6.54		
10/3/2018	5.53					7.08
4/3/2019			6.06	6.42		
4/4/2019	5.44	6.17				
4/5/2019						6.96
6/17/2019	5.53					
8/22/2019	5.55	6.04				6.93
8/23/2019			6.26	6.76		
10/22/2019			6.19	6.58		7.03
10/23/2019	5.49	6.46				
3/25/2020	5.49	6.47	6.13	6.56		6.89
8/26/2020						6.97
8/27/2020	5.82	6.45	6.09	6.64		
9/24/2020	5.6	6.63	6.11			
9/25/2020				6.79		
9/28/2020						7.03
3/17/2021				6.55		
3/18/2021	5.51	6.57	6.2			7.11
8/12/2021					6.27	
8/13/2021		6.44	6.11	6.71		6.78
8/16/2021	5.59					
9/27/2021					6.14	
2/2/2022	5.63		6.14	6.65		
2/3/2022		6.48			6.58	6.79
8/5/2022	5.71	6.46	6.07	6.81	6.44	7.07
1/25/2023	5.65	6.41	6.13	6.66	6.53	6.67
8/11/2023	5.8	6.47	6.16	6.8	7.09	7.49
2/16/2024	5.74		6.27			
2/17/2024		6.46		6.88	6.7	6.94

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.005	<0.005	0.0027 (J)				
8/31/2016						<0.005	
10/20/2016	<0.005					<0.005	
10/24/2016		<0.005	0.0034 (J)				
1/25/2017	<0.005	<0.005	0.0023 (J)				
1/31/2017						<0.005	
5/23/2017		<0.005	0.0024 (J)			<0.005	
5/24/2017	<0.005						
8/10/2017	<0.005	<0.005	0.0023 (J)			<0.005	
11/13/2017	<0.005	<0.005					
11/14/2017			<0.01			<0.005	
6/4/2018	<0.005	<0.005					
6/5/2018			0.0019 (J)				
6/6/2018						<0.005	
10/1/2018	<0.005	<0.005	0.0024 (J)				
10/3/2018						<0.005	
8/21/2019	<0.005	<0.005	0.0025 (J)				
8/22/2019						<0.005	
10/23/2019							<0.005
1/3/2020							0.0015 (J)
3/4/2020							<0.005
3/24/2020							<0.005
6/18/2020							<0.005
7/21/2020							<0.005
8/25/2020	<0.005	<0.005	<0.01				
8/27/2020						<0.005	<0.005
9/18/2020				<0.005	<0.005		
9/24/2020							<0.005
11/10/2020				<0.005			
11/11/2020					<0.005		
12/15/2020				<0.005	<0.005		
1/19/2021				<0.005	<0.005		
8/12/2021	<0.005	<0.005	0.0023 (J)	<0.005	<0.005		
8/13/2021							<0.005
8/16/2021						<0.005	
1/31/2022	<0.005			<0.005	<0.005		
2/1/2022		<0.005	0.0022 (J)				
2/2/2022						<0.005	<0.005
8/2/2022			0.0034 (J)	<0.005			
8/5/2022	<0.005	<0.005			<0.005		<0.005
8/10/2022						<0.005	
1/24/2023	<0.005	<0.005	0.0025 (J)	<0.005	<0.005		
1/25/2023						<0.005	<0.005
8/8/2023	<0.005	<0.005		<0.005	<0.005		
8/10/2023			0.0027 (J)				
8/11/2023						<0.005	<0.005
2/13/2024		<0.005			<0.005		
2/14/2024	<0.005		0.0024 (J)	<0.005			
2/16/2024						<0.005	<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.005	<0.005	<0.005	<0.005		<0.005
10/20/2016						<0.005
10/24/2016	<0.005					
10/25/2016		<0.005	<0.005	<0.005		
1/31/2017	<0.005	<0.005	<0.005	<0.005		<0.005
5/23/2017	<0.005					<0.005
5/24/2017		<0.005	<0.005	<0.005		
8/10/2017	<0.005	<0.005	<0.005	<0.005		<0.005
11/14/2017	<0.005	<0.005	<0.005	<0.005		<0.005
6/6/2018	<0.005	<0.005	<0.005	<0.005		
6/7/2018						<0.005
10/2/2018		<0.005	<0.005	<0.005		
10/3/2018	<0.005					<0.005
8/22/2019	<0.005	<0.005				<0.005
8/23/2019			<0.005	<0.005		
8/26/2020						<0.005
8/27/2020	<0.005	<0.005	<0.005	<0.005		
8/12/2021					<0.005	
8/13/2021		<0.005	<0.005	<0.005		<0.005
8/16/2021	<0.005					
9/27/2021					<0.005	
2/2/2022	<0.005		<0.005	<0.005		
2/3/2022		<0.005			<0.005	<0.005
8/5/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/16/2024	<0.005		<0.005			
2/17/2024		<0.005		<0.005	<0.005	<0.005

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	1.6	0.63 (J)	14				
8/31/2016						110	
10/20/2016	1.6					110	
10/24/2016		0.62 (J)	11				
1/25/2017	1.6	0.62 (J)	12				
1/31/2017						120	
5/23/2017		0.55 (J)	12			97	
5/24/2017	1.4						
8/10/2017	1.6	0.66 (J)	11			96	
11/13/2017	1.3	0.61 (J)					
11/14/2017			11			110	
6/4/2018	1.4	0.73 (J)					
6/5/2018			9.9				
6/6/2018						95.5	
10/1/2018	1	0.52 (J)	6.7				
10/3/2018						121	
4/1/2019	1.7						
4/2/2019		0.78 (J)	8.7				
4/4/2019						95.1	
6/18/2019						102	
10/21/2019	1.8						
10/22/2019		0.6 (J)	6.8				
10/23/2019						101	<1
1/3/2020							380
3/4/2020							400
3/24/2020	1.6	<1					311
3/25/2020						85.5	
4/9/2020			6.6				
6/18/2020							349
7/21/2020							378
8/27/2020							382
9/18/2020	1	<1		3.5	9.5		
9/22/2020			5.3				
9/24/2020						97	370
11/10/2020				2.3			
11/11/2020					4.5		
12/15/2020				2.4	4.2		
1/19/2021				2.6	3.9		
3/11/2021	1.5						
3/12/2021		0.52 (J)		1.9	4.7		
3/16/2021			7.7				
3/17/2021						107	332
8/12/2021	1.3	<1	10	1.4	4.3		
8/13/2021							248
8/16/2021						72.1	
1/31/2022	1.5			1.7	5.6		
2/1/2022		0.5 (J)	8.9				
2/2/2022						100	303
8/2/2022			7.5	2.1			
8/5/2022	1.4	<1			3.4		358
8/10/2022						99.5	
1/24/2023	1.9	0.81 (J)	6.6	2.2	2.9		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
1/25/2023						95	348
8/8/2023	1.5	0.71 (J)		2	2.9		
8/10/2023			5.1				
8/11/2023						102	370
2/13/2024		0.51 (J)			2.8		
2/14/2024	1.2		4.9	19.7			
2/16/2024						110	363

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	280	190	130	36		88
10/20/2016						81
10/24/2016	280					
10/25/2016		190	130	41		
1/31/2017	300	210	130	37		87
5/23/2017	340					84
5/24/2017		180	130	40		
8/10/2017	300	180	130	40		78
11/14/2017	310	170	130	40		79
6/6/2018	351	168	132	49.7		
6/7/2018						60.1
10/2/2018		173	132	42.3		
10/3/2018	381					91.5
4/3/2019			139	36		
4/4/2019	358	185				
4/5/2019						75.1
6/17/2019	311	162	126	30.9		
6/18/2019						77
10/22/2019			123	23.2		80.9
10/23/2019	248	162				
3/25/2020	251	161	116	27.9		78.4
9/24/2020	293	177	126			
9/25/2020				24.7		
9/28/2020						86
3/17/2021				28.3		
3/18/2021	286	196	128			87.8
8/12/2021					64.6	
8/13/2021		142	112	24.4		75.1
8/16/2021	354					
9/27/2021					69.7	
2/2/2022	293		111	25.5		
2/3/2022		195			72.9	72.7
8/5/2022	369	217	120	23	76.1	69.8
1/25/2023	342	230	128	25.4	72.9	73
8/11/2023	382	237	113	19.8	67.7	64.9
2/16/2024	323		130			
2/17/2024		251		22	72.7	69.7

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2024 11:59 AM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/30/2016	<0.001	<0.001	<0.001				
8/31/2016						<0.001	
10/20/2016	<0.001					<0.001	
10/24/2016		<0.001	<0.001				
1/25/2017	<0.001	<0.001	<0.001				
1/31/2017						<0.001	
5/23/2017		<0.001	<0.001			<0.001	
5/24/2017	<0.001						
8/10/2017	<0.001	<0.001	<0.001			<0.001	
11/13/2017	<0.001	<0.001					
11/14/2017			<0.001			<0.001	
6/4/2018	<0.001	<0.001					
6/5/2018			<0.001				
6/6/2018						<0.001	
10/1/2018	<0.001	<0.001	<0.001				
10/3/2018						<0.001	
8/21/2019	<0.001	<0.001	<0.001				
8/22/2019						<0.001	
10/23/2019							<0.001
1/3/2020							8E-05 (J)
3/4/2020							<0.001
3/24/2020							<0.001
6/18/2020							<0.001
7/21/2020							<0.001
8/25/2020	<0.001	<0.001	<0.001				
8/27/2020						<0.001	<0.001
9/18/2020				<0.001	<0.001		
9/24/2020							<0.001
11/10/2020				<0.001			
11/11/2020					<0.001		
12/15/2020				<0.001	<0.001		
1/19/2021				<0.001	<0.001		
8/12/2021	<0.001	<0.001	<0.001	<0.001	<0.001		
8/13/2021							<0.001
8/16/2021						<0.001	
1/31/2022	<0.001			<0.001	<0.001		
2/1/2022		<0.001	<0.001				
2/2/2022						<0.001	<0.001
8/2/2022			<0.001	<0.001			
8/5/2022	<0.001	<0.001			<0.001		<0.001
8/10/2022						<0.001	
1/24/2023	<0.001	<0.001	<0.001	<0.001	<0.001		
1/25/2023						<0.001	<0.001
8/8/2023	<0.001	<0.001		<0.001	<0.001		
8/10/2023			<0.001				
8/11/2023						<0.001	<0.001
2/13/2024		<0.001			<0.001		
2/14/2024	<0.001		<0.001	<0.001			
2/16/2024						<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.001	<0.001	<0.001	<0.001		<0.001
10/20/2016						<0.001
10/24/2016	<0.001					
10/25/2016		<0.001	<0.001	<0.001		
1/31/2017	<0.001	<0.001	<0.001	<0.001		<0.001
5/23/2017	<0.001					<0.001
5/24/2017		<0.001	<0.001	<0.001		
8/10/2017	<0.001	<0.001	<0.001	<0.001		<0.001
11/14/2017	<0.001	<0.001	<0.001	<0.001		<0.001
6/6/2018	<0.001	<0.001	<0.001	<0.001		
6/7/2018						<0.001
10/2/2018		<0.001	<0.001	<0.001		
10/3/2018	<0.001					<0.001
8/22/2019	<0.001	<0.001				<0.001
8/23/2019			<0.001	<0.001		
8/26/2020						<0.001
8/27/2020	<0.001	<0.001	<0.001	<0.001		
8/12/2021					<0.001	
8/13/2021		<0.001	<0.001	<0.001		<0.001
8/16/2021	<0.001					
9/27/2021					<0.001	
2/2/2022	<0.001		<0.001	<0.001		
2/3/2022		<0.001			<0.001	<0.001
8/5/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/25/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/11/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/16/2024	<0.001		<0.001			
2/17/2024		<0.001		<0.001	<0.001	<0.001

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/26/2024 11:59 AM
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-112 (bg)	HGWA-113 (bg)	HGWA-47 (bg)	HGWA-48D (bg)	HGWC-101	HGWC-102
8/8/2023	207	57		214	220		
8/10/2023			80				
8/11/2023						250	785
2/13/2024		73			242		
2/14/2024	187		93	147			
2/16/2024						222	718

Time Series

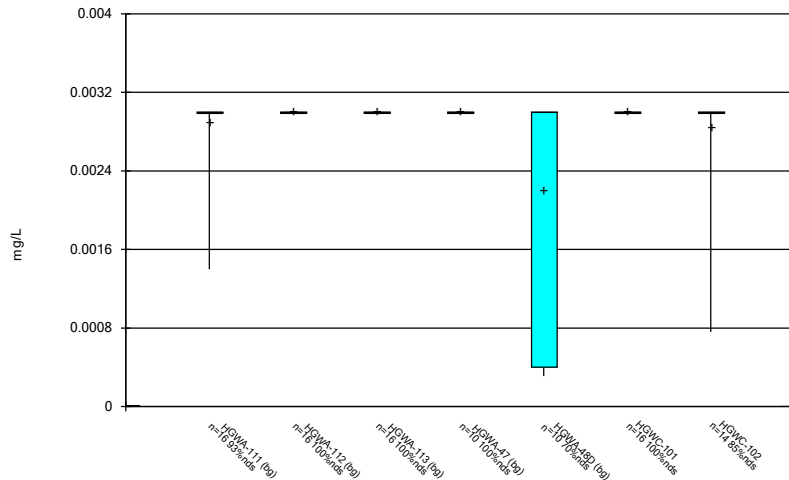
Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/26/2024 11:59 AM

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	483	389	235	182		373
10/20/2016						305
10/24/2016	517					
10/25/2016		316	223	172		
1/31/2017	516	437	346	252		361
5/23/2017	637					359
5/24/2017		352	234	184		
8/10/2017	459	356	254	208		325
11/14/2017	545	375	313	252		373
6/6/2018	559	385	278	224		
6/7/2018						338
10/2/2018		374	274	230		
10/3/2018	582					328
4/3/2019			273	210		
4/4/2019	535	340				
4/5/2019						308
6/17/2019	515	370	272			
6/18/2019						215
10/22/2019			308	212		354
10/23/2019	507	419				
3/25/2020	507	417	297	213		347
9/24/2020	517	411	253			
9/25/2020				188		
9/28/2020						332
3/17/2021				171		
3/18/2021	465	410	255			328
8/12/2021					256	
8/13/2021		441	291	189		336
8/16/2021	672					
9/27/2021					223	
2/2/2022	576		271	206		
2/3/2022		463			264	316
8/5/2022	692	514	274	195	270	329
1/25/2023	630	537	304	214	289	337
8/11/2023	808	630	296	205	280	346
2/16/2024	640		325			
2/17/2024		716		265	329	424

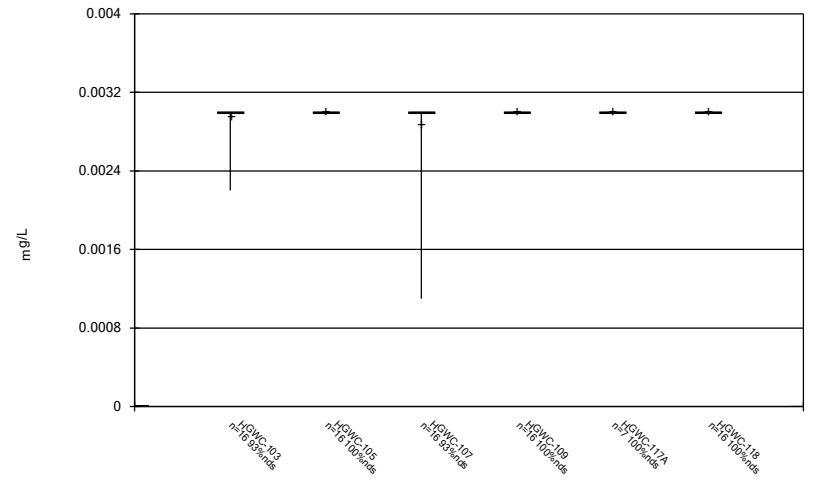
FIGURE B.

Box & Whiskers Plot



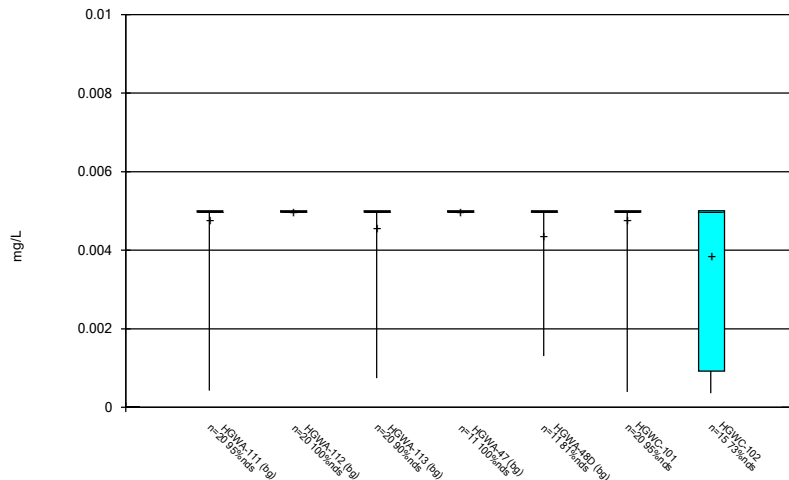
Constituent: Antimony Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



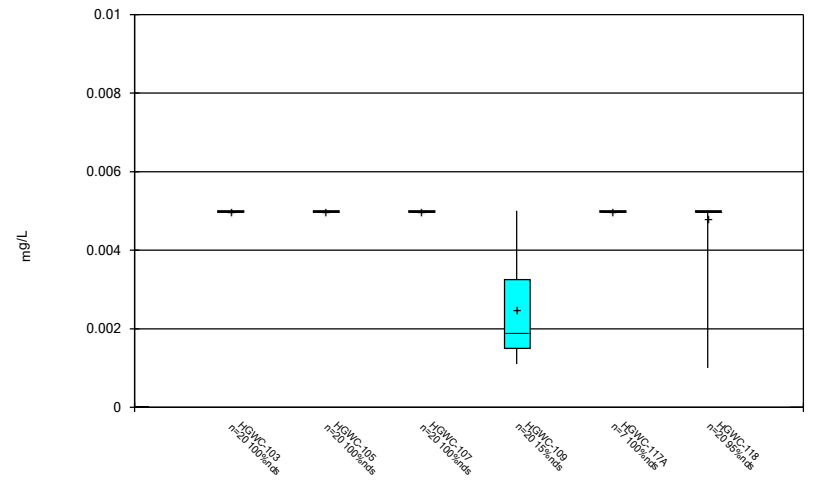
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



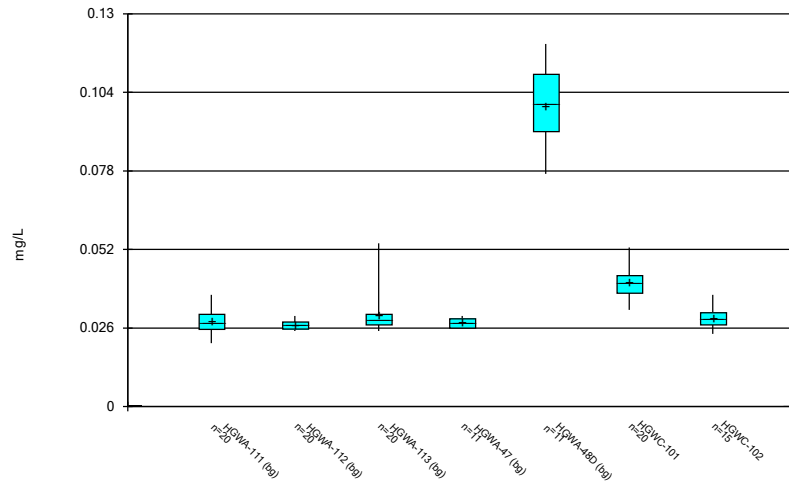
Constituent: Arsenic Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



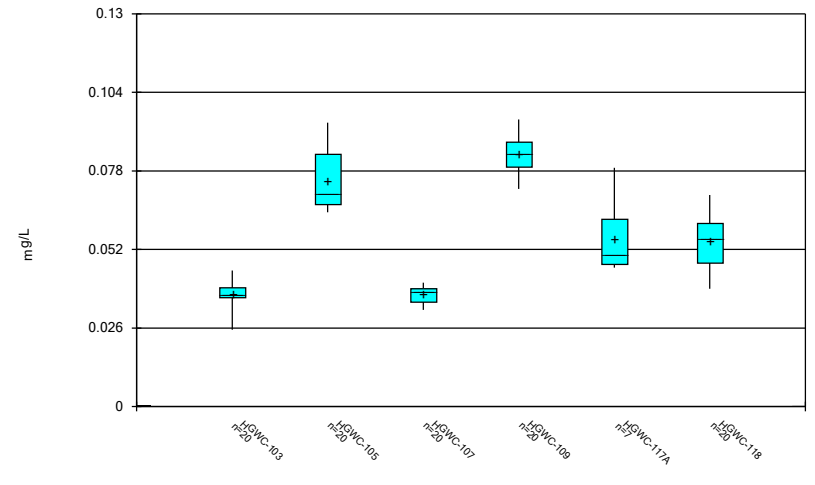
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



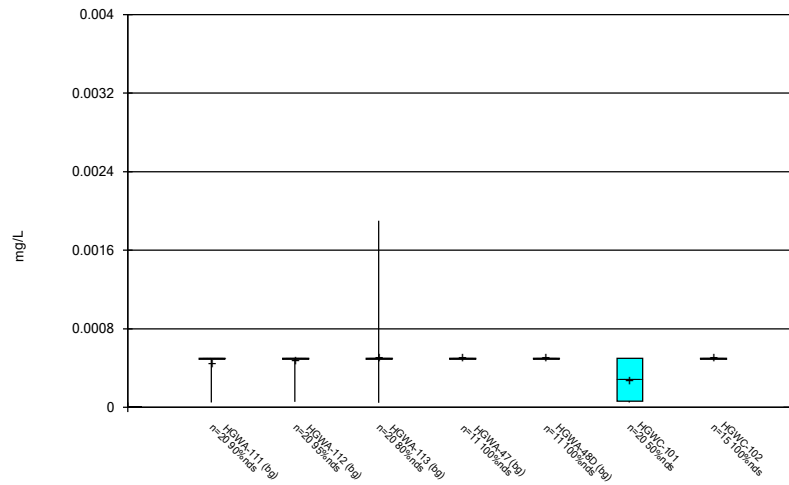
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



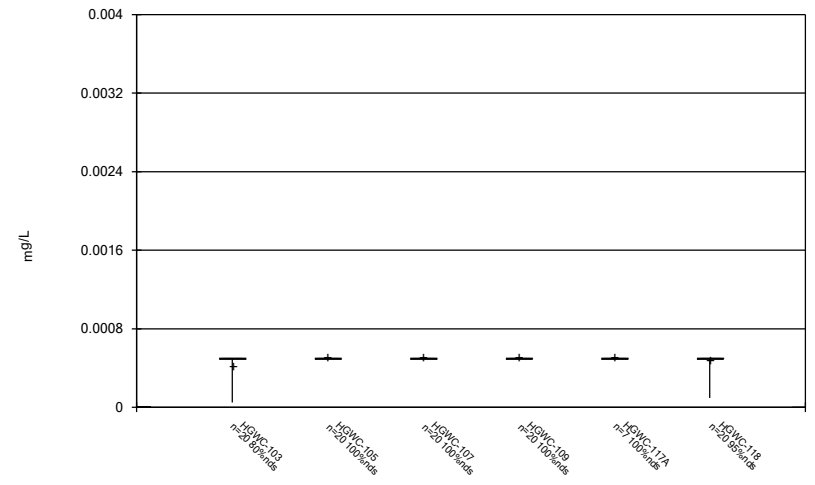
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 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



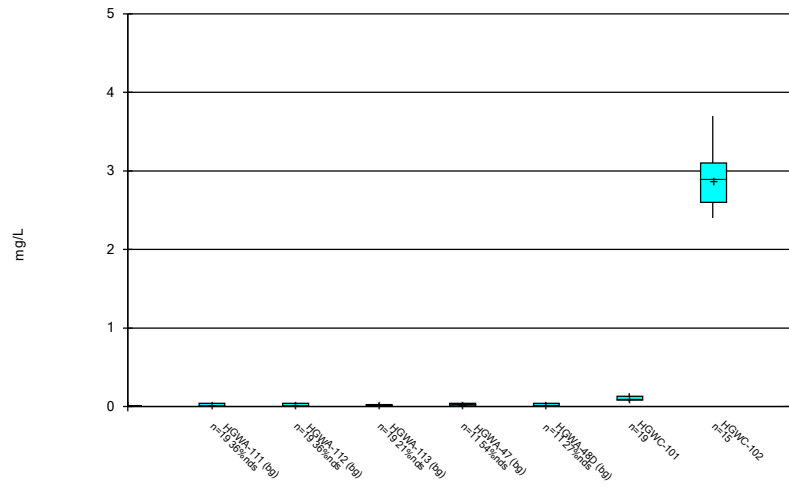
Constituent: Beryllium Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



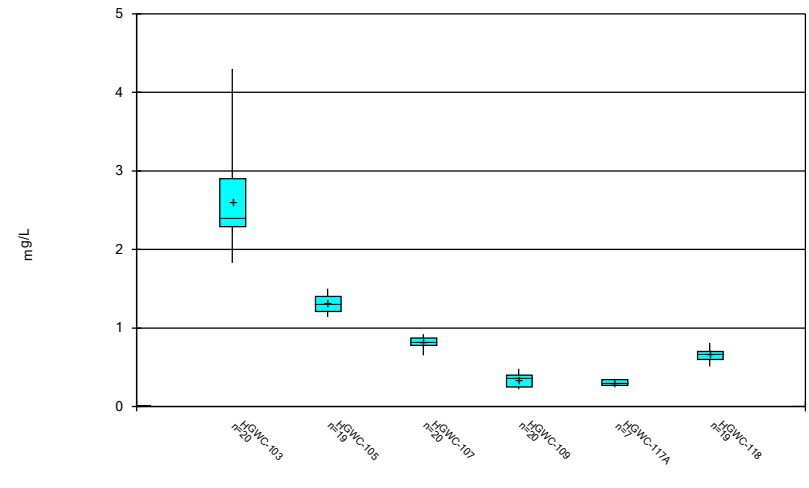
Constituent: Beryllium Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



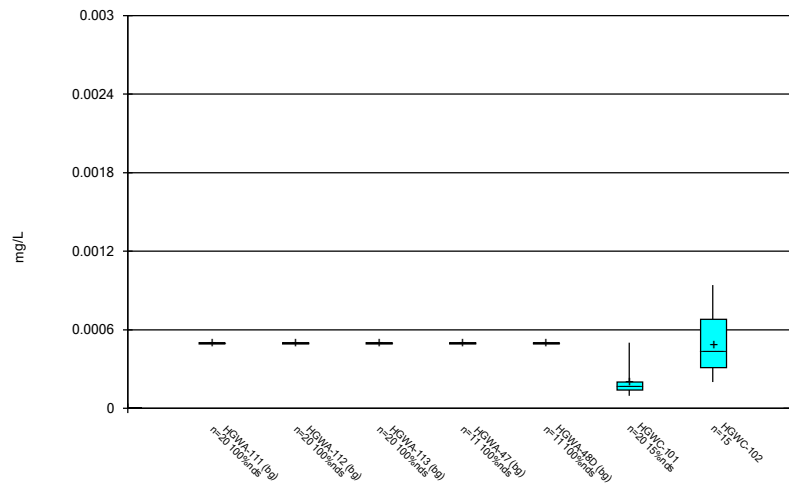
Constituent: Boron, total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



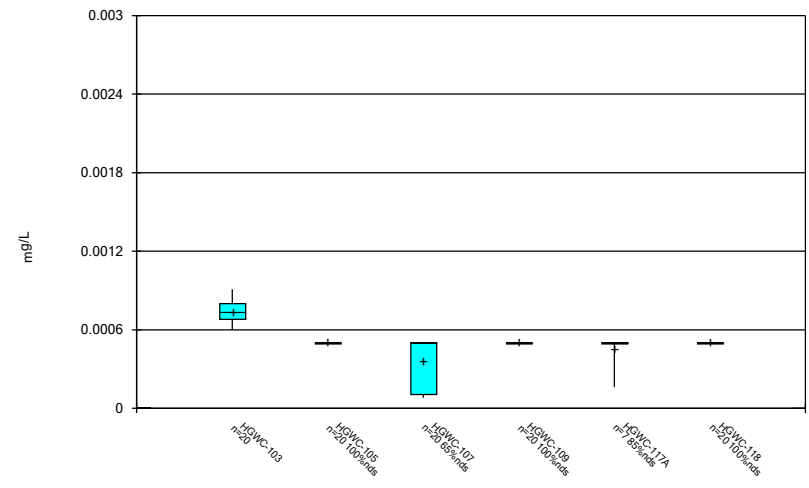
Constituent: Boron, total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



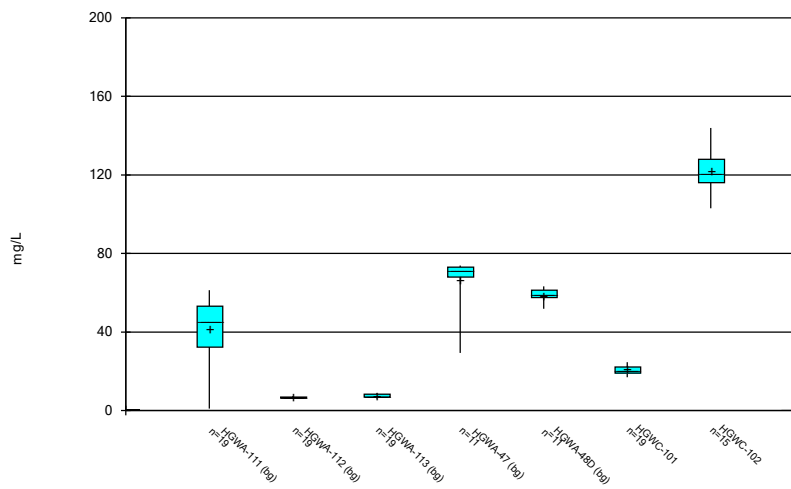
Constituent: Cadmium Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



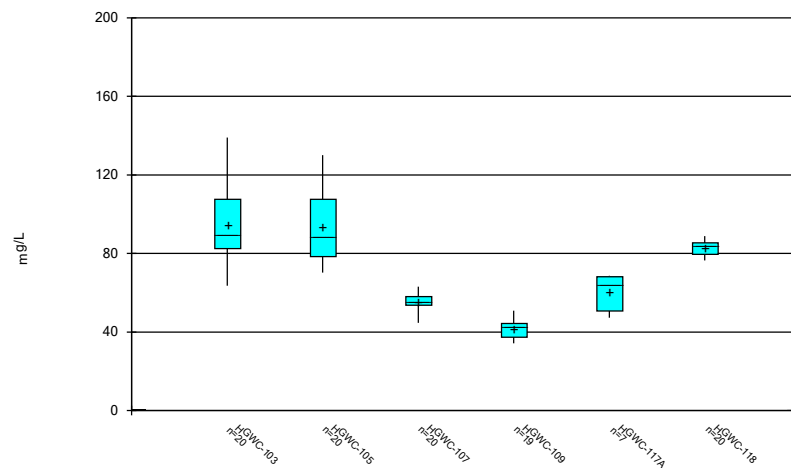
Constituent: Cadmium Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



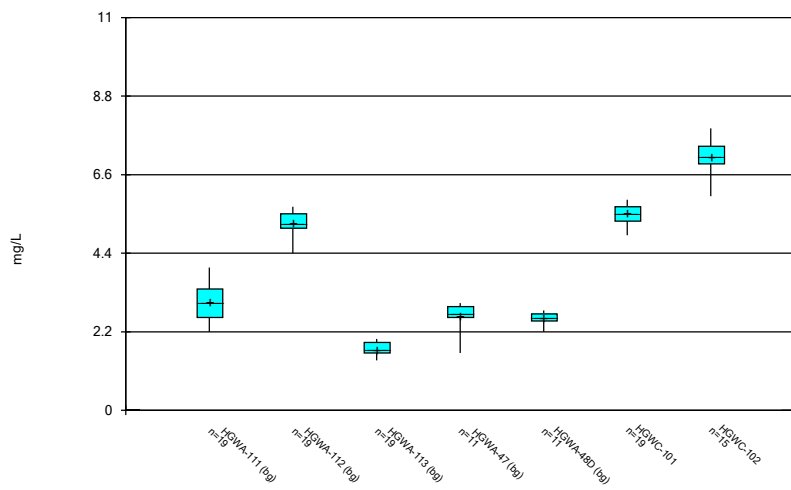
Constituent: Calcium, total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



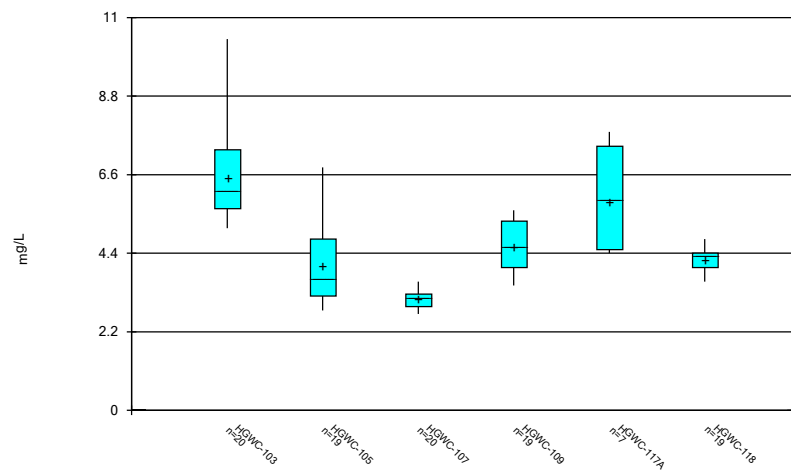
Constituent: Calcium, total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



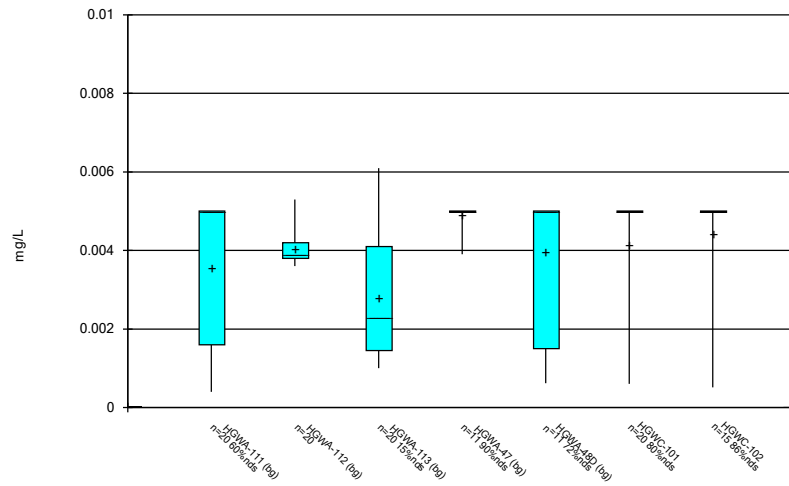
Constituent: Chloride, Total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



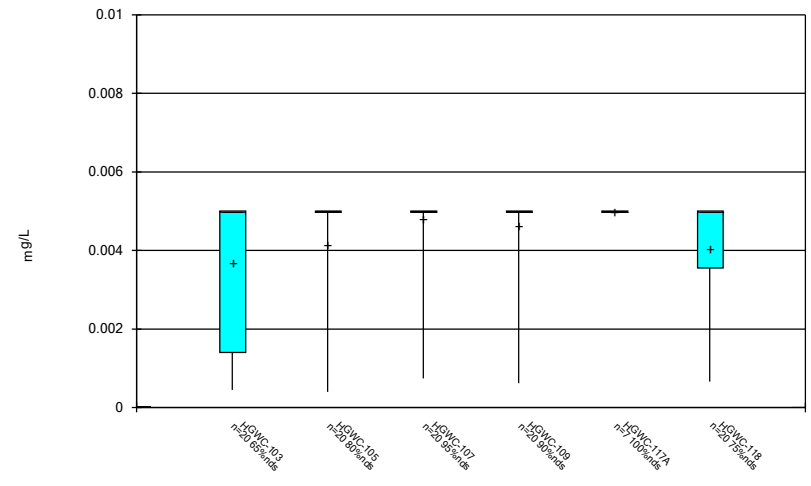
Constituent: Chloride, Total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



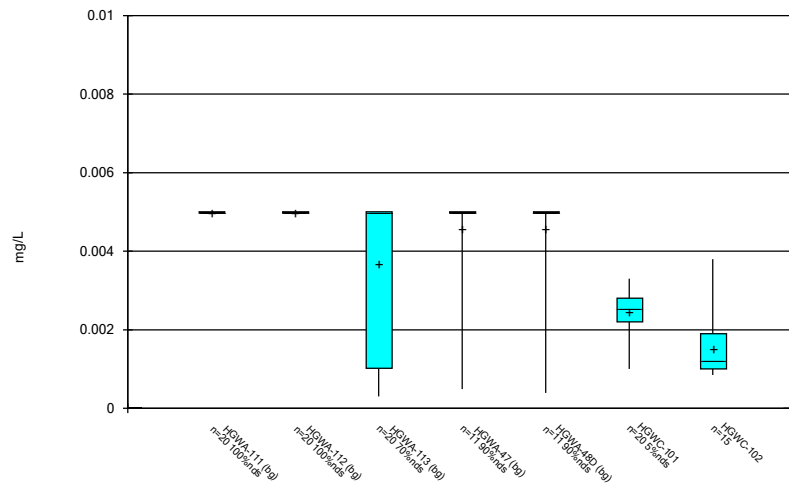
Constituent: Chromium Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



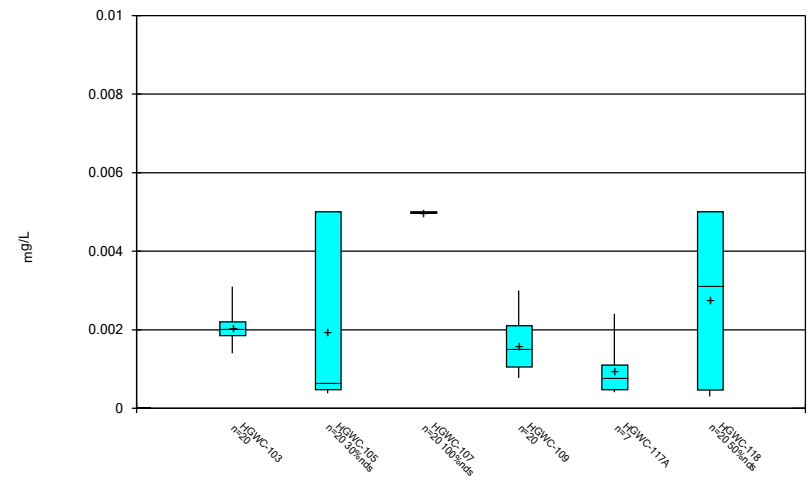
Constituent: Chromium Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



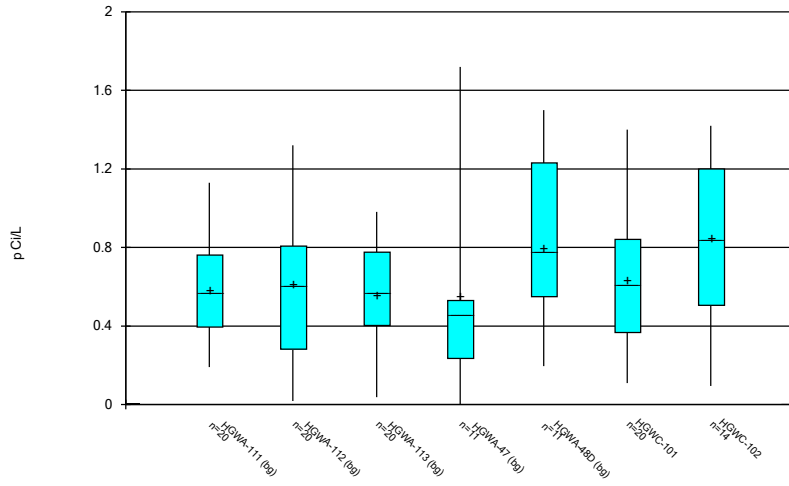
Constituent: Cobalt Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



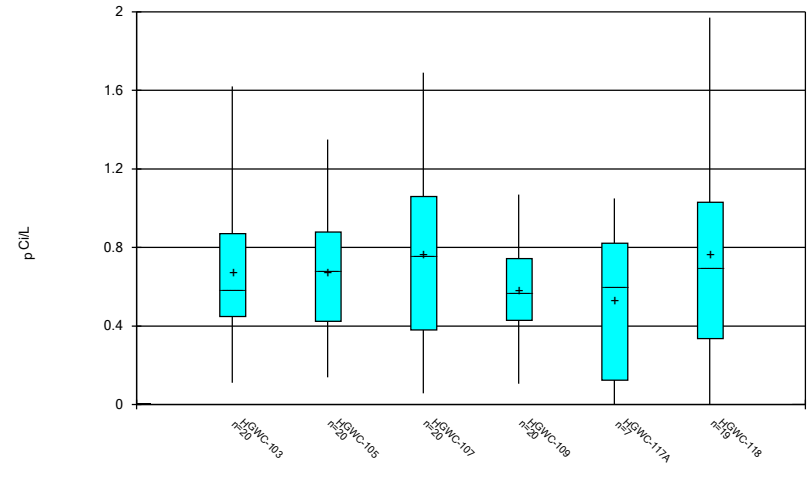
Constituent: Cobalt Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



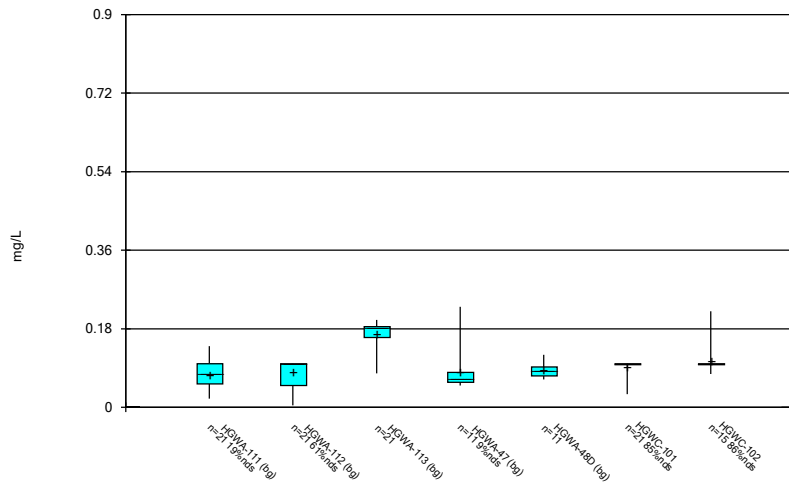
Constituent: Combined Radium 226 & 228 Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



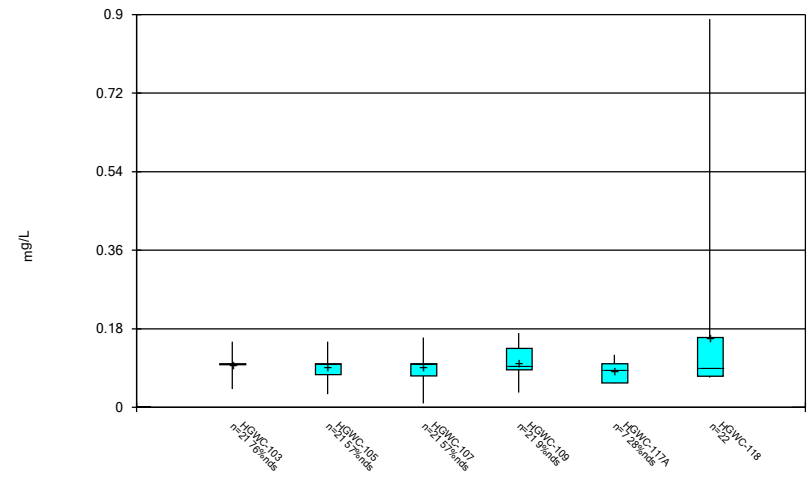
Constituent: Combined Radium 226 & 228 Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



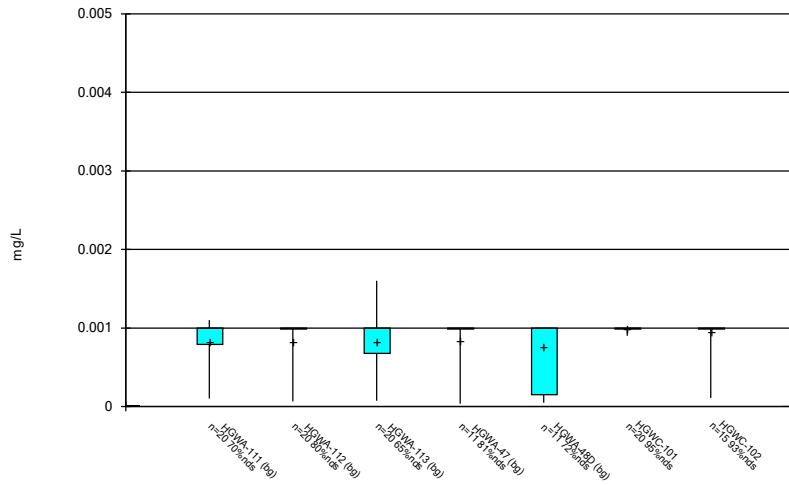
Constituent: Fluoride, total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



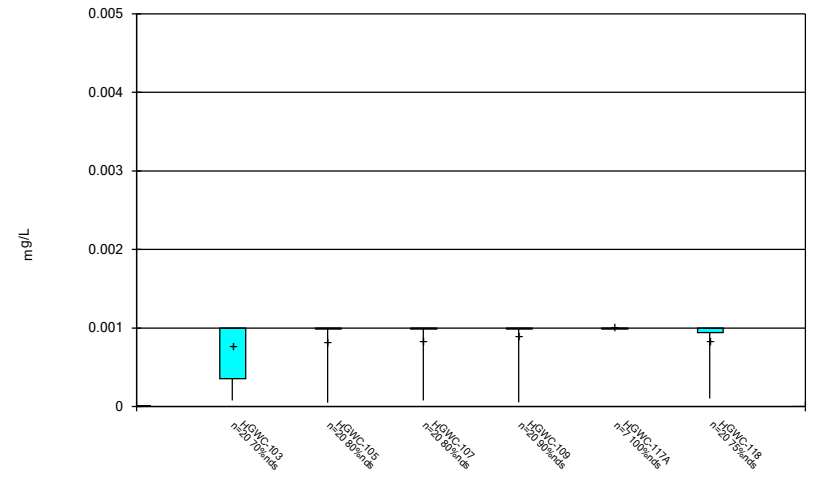
Constituent: Fluoride, total Analysis Run 4/26/2024 12:00 PM
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



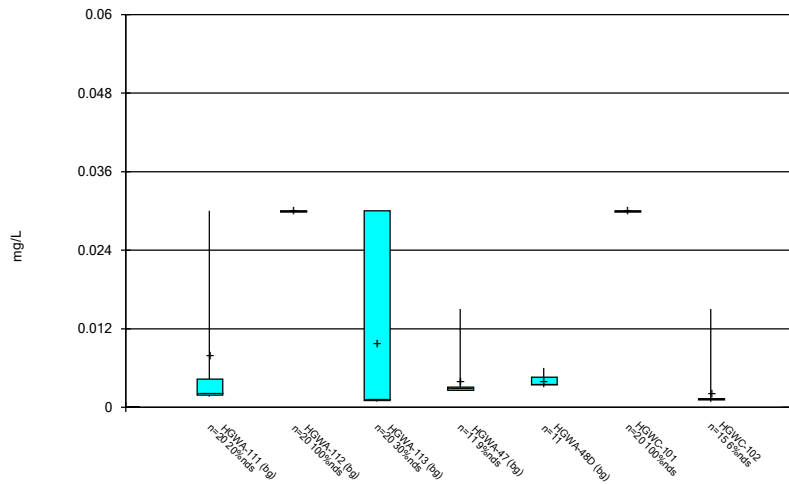
Constituent: Lead Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



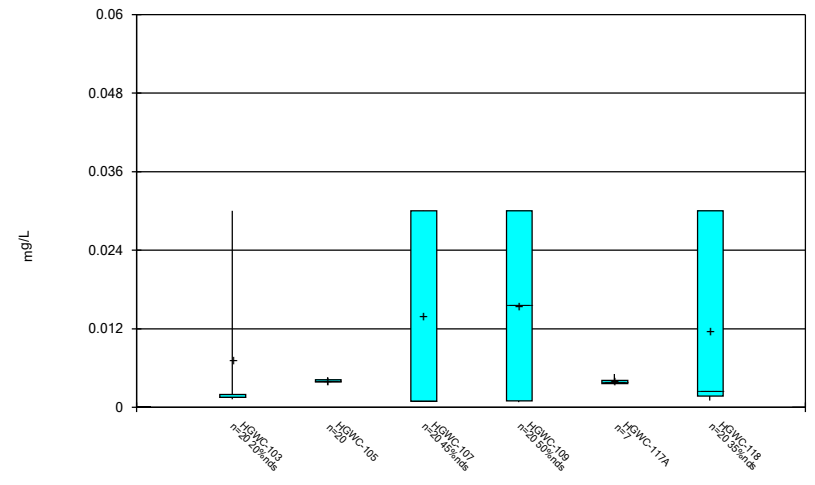
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



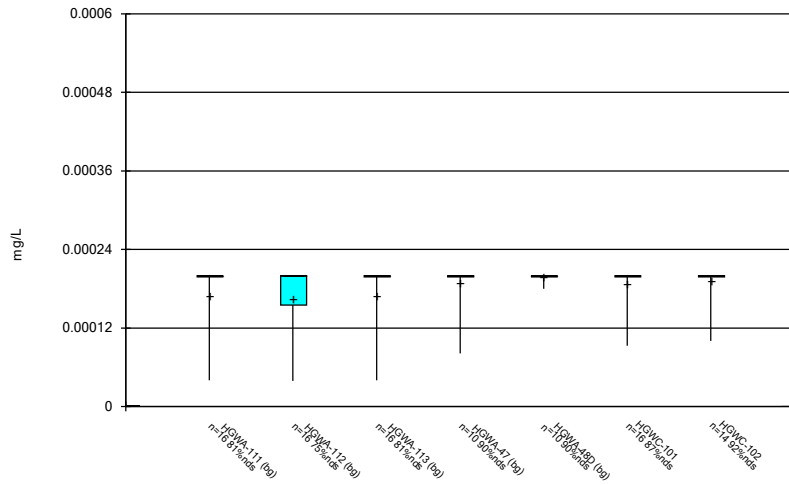
Constituent: Lithium Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



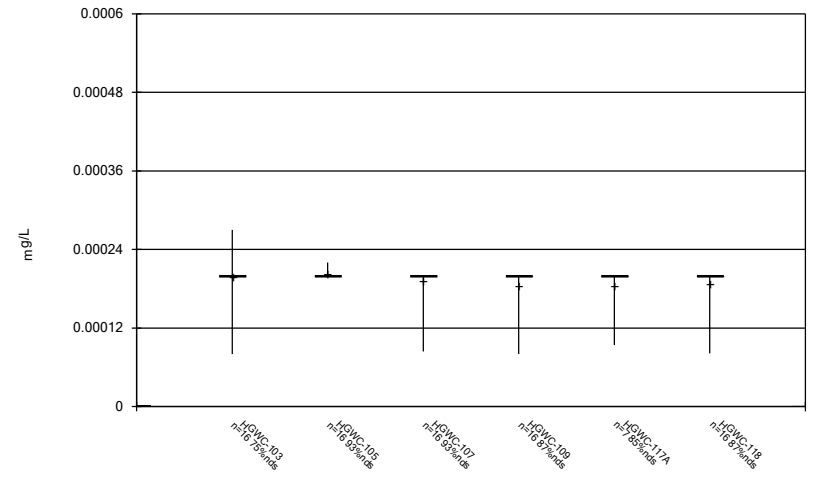
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Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



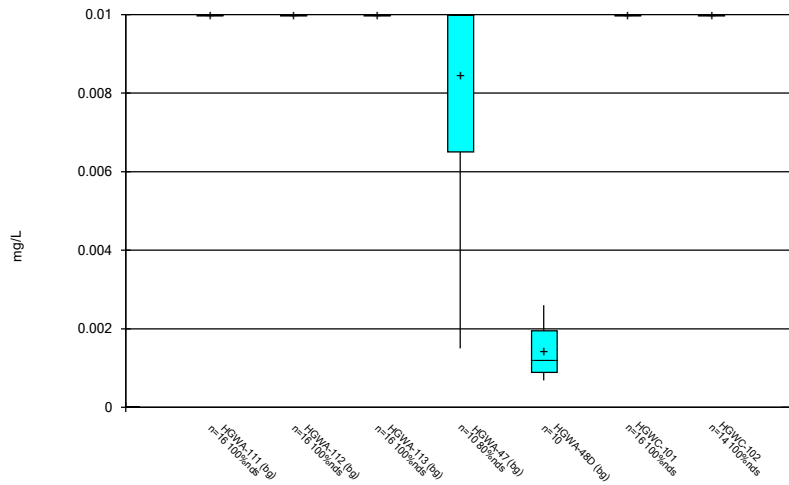
Constituent: Mercury Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



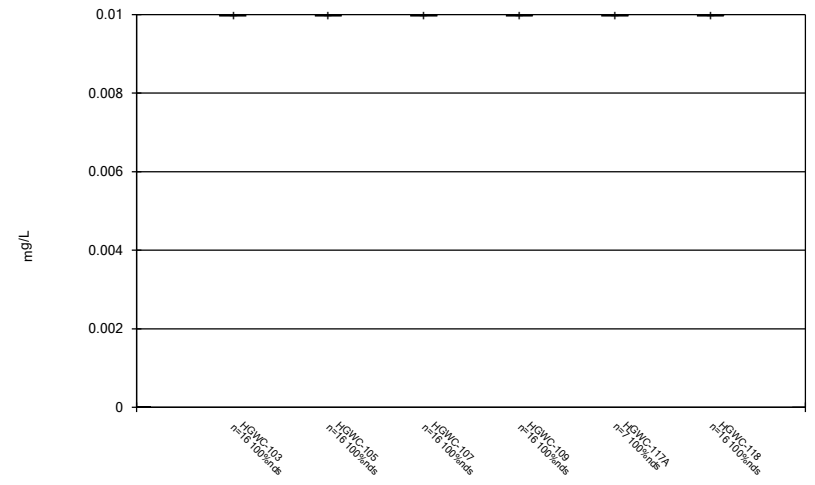
Constituent: Mercury Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



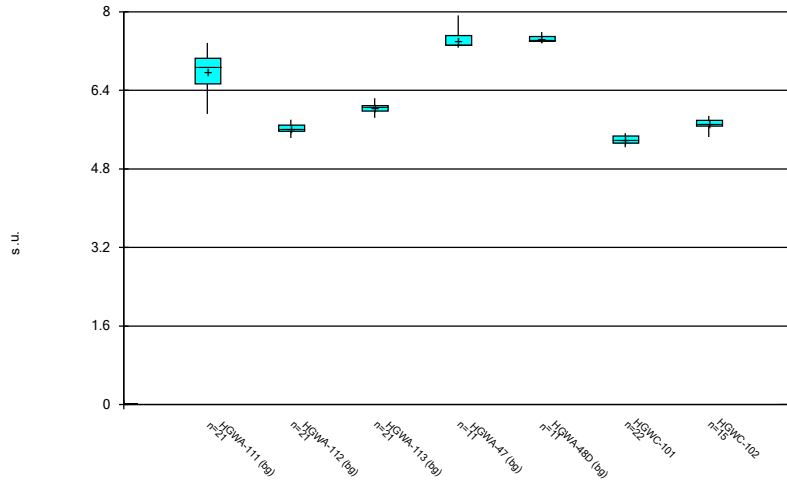
Constituent: Molybdenum Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



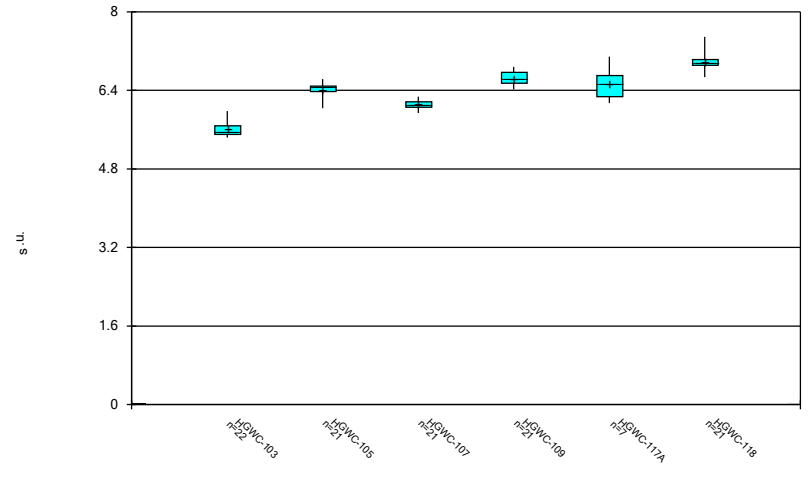
Constituent: Molybdenum Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



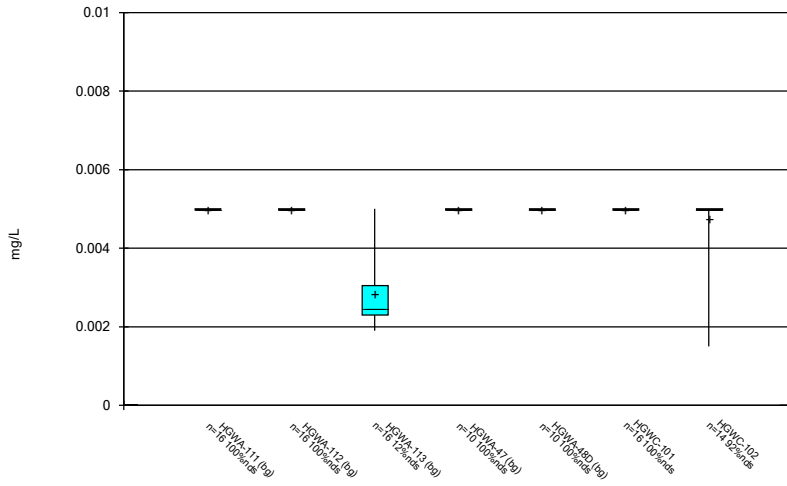
Constituent: pH, Field Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



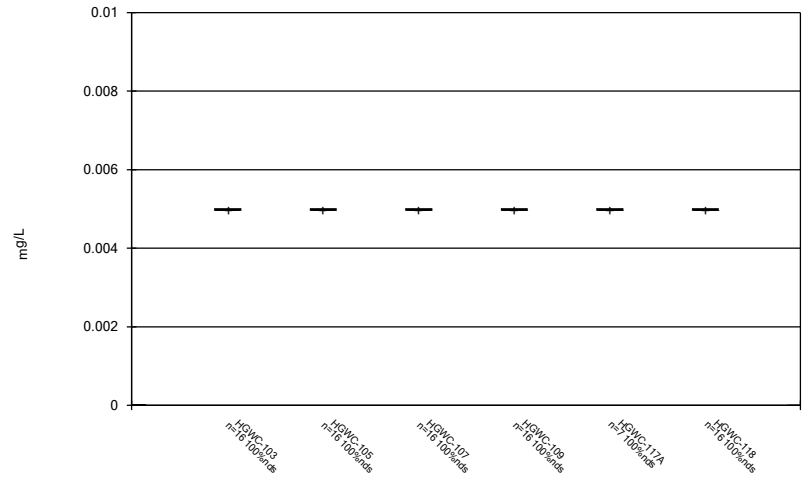
Constituent: pH, Field Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



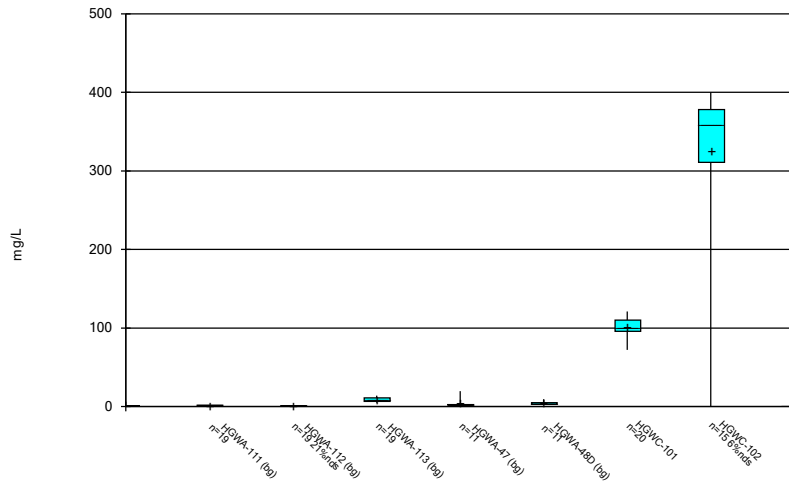
Constituent: Selenium Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



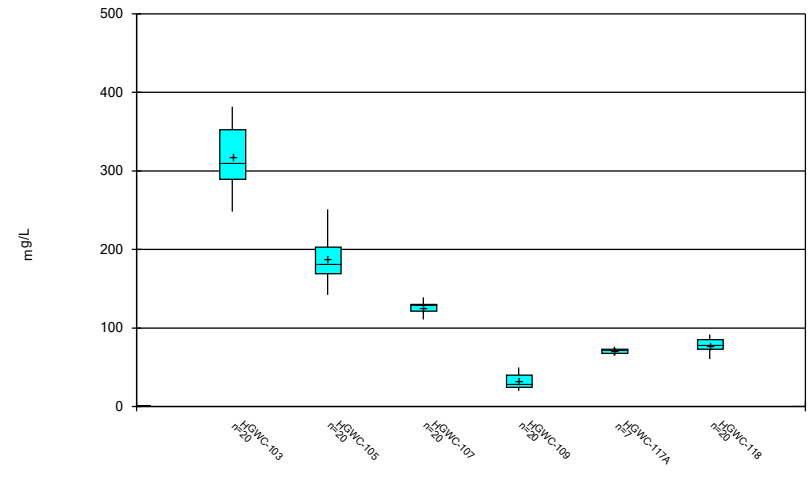
Constituent: Selenium Analysis Run 4/26/2024 12:00 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



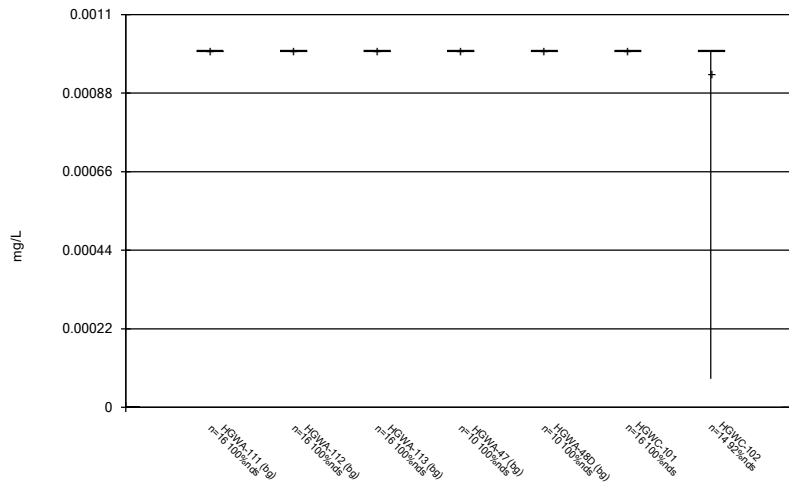
Constituent: Sulfate as SO4 Analysis Run 4/26/2024 12:01 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



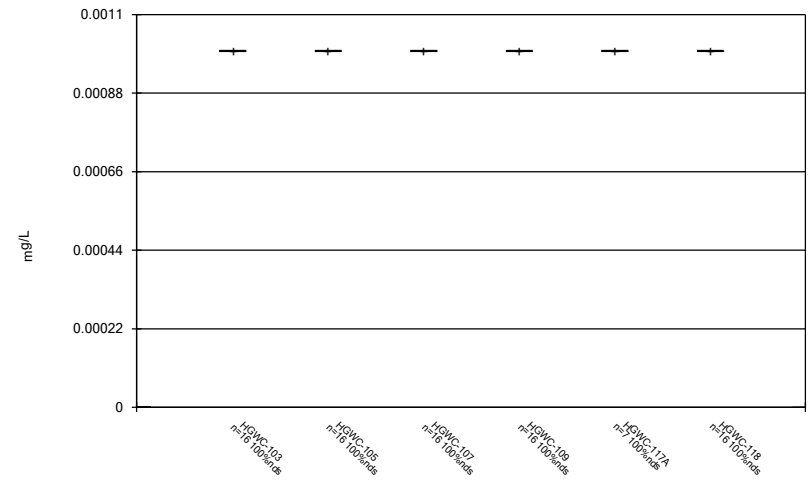
Constituent: Sulfate as SO4 Analysis Run 4/26/2024 12:01 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



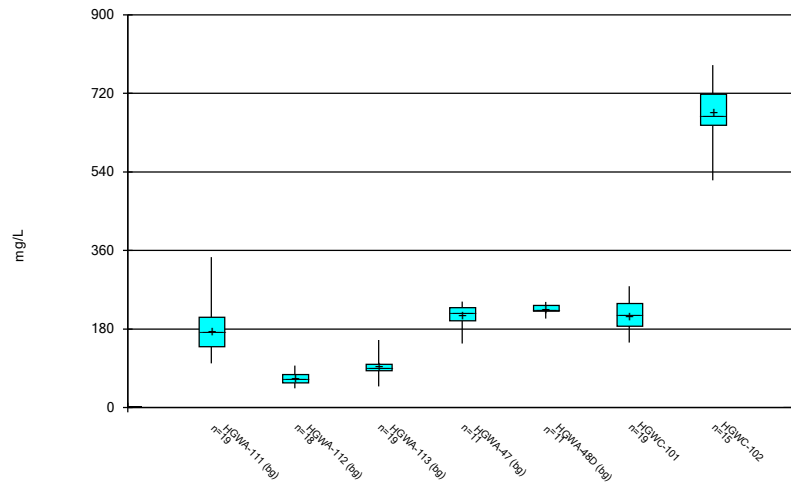
Constituent: Thallium Analysis Run 4/26/2024 12:01 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



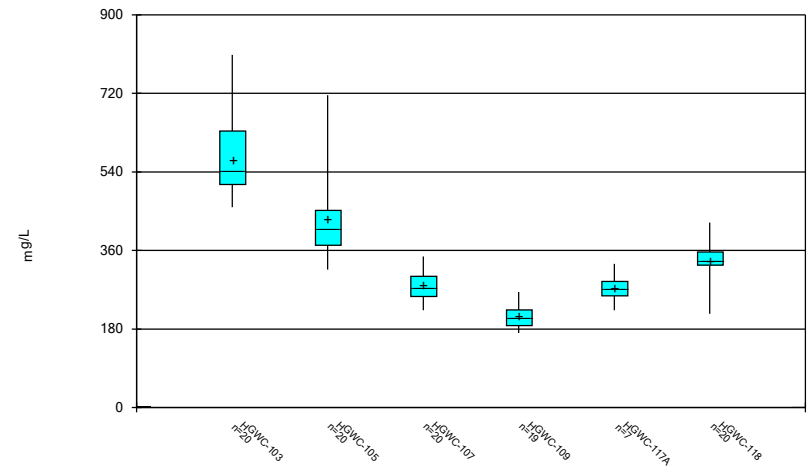
Constituent: Thallium Analysis Run 4/26/2024 12:01 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/26/2024 12:01 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/26/2024 12:01 PM
Plant Hammond Client: Southern Company Data: Hammond AP-4

FIGURE C.

Outlier Summary

Plant Hammond Data: Hammond AP-4 Printed 4/11/2024, 3:24 PM

HGWA112 Total Dissolved Solids [TDS] (mg/L)

1/25/2017

152 (O)

FIGURE D.

Appendix III - Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 2:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	HGWC-101	0.04	n/a	2/16/2024	0.14	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-102	0.04	n/a	2/16/2024	2.7	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-103	0.04	n/a	2/16/2024	3.1	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-105	0.04	n/a	2/17/2024	1.3	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-107	0.04	n/a	2/16/2024	0.87	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-109	0.04	n/a	2/17/2024	0.22	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-118	0.04	n/a	2/17/2024	0.68	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-102	73.8	n/a	2/16/2024	127	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-103	73.8	n/a	2/16/2024	106	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-105	73.8	n/a	2/17/2024	130	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-118	73.8	n/a	2/17/2024	83.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-102	5.7	n/a	2/16/2024	7.4	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-103	5.7	n/a	2/16/2024	7.5	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-105	5.7	n/a	2/17/2024	6.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-101	19.7	n/a	2/16/2024	110	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-102	19.7	n/a	2/16/2024	363	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-103	19.7	n/a	2/16/2024	323	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-105	19.7	n/a	2/17/2024	251	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-107	19.7	n/a	2/16/2024	130	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-109	19.7	n/a	2/17/2024	22	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-118	19.7	n/a	2/17/2024	69.7	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-102	345	n/a	2/16/2024	718	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-103	345	n/a	2/16/2024	640	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	345	n/a	2/17/2024	716	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-118	345	n/a	2/17/2024	424	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2

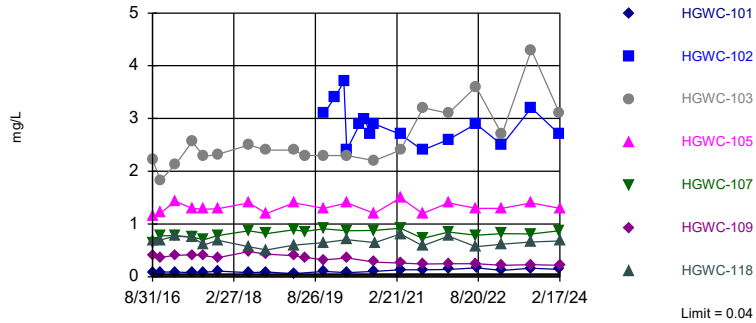
Appendix III - Interwell Prediction Limits - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 2:59 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	HGWC-101	0.04	n/a	2/16/2024	0.14	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-102	0.04	n/a	2/16/2024	2.7	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-103	0.04	n/a	2/16/2024	3.1	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-105	0.04	n/a	2/17/2024	1.3	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-107	0.04	n/a	2/16/2024	0.87	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-109	0.04	n/a	2/17/2024	0.22	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Boron, total (mg/L)	HGWC-118	0.04	n/a	2/17/2024	0.68	Yes	79	n/a	n/a	34.18	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-101	73.8	n/a	2/16/2024	22.2	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-102	73.8	n/a	2/16/2024	127	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-103	73.8	n/a	2/16/2024	106	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-105	73.8	n/a	2/17/2024	130	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-107	73.8	n/a	2/16/2024	61.9	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-109	73.8	n/a	2/17/2024	44.3	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	HGWC-118	73.8	n/a	2/17/2024	83.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-101	5.7	n/a	2/16/2024	5.4	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-102	5.7	n/a	2/16/2024	7.4	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-103	5.7	n/a	2/16/2024	7.5	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-105	5.7	n/a	2/17/2024	6.8	Yes	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-107	5.7	n/a	2/16/2024	3.2	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-109	5.7	n/a	2/17/2024	3.9	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	HGWC-118	5.7	n/a	2/17/2024	4.1	No	79	n/a	n/a	0	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-101	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-102	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-103	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-105	0.23	n/a	2/17/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-107	0.23	n/a	2/16/2024	0.1ND	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-109	0.23	n/a	2/17/2024	0.094J	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	HGWC-118	0.23	n/a	2/17/2024	0.068J	No	85	n/a	n/a	21.18	n/a	n/a	0.0002677	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-101	7.93	5.43	2/16/2024	5.47	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-102	7.93	5.43	2/16/2024	5.88	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-103	7.93	5.43	2/16/2024	5.74	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-105	7.93	5.43	2/17/2024	6.46	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-107	7.93	5.43	2/16/2024	6.27	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-109	7.93	5.43	2/17/2024	6.88	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
pH, Field (s.u.)	HGWC-118	7.93	5.43	2/17/2024	6.94	No	85	n/a	n/a	0	n/a	n/a	0.0005354	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-101	19.7	n/a	2/16/2024	110	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-102	19.7	n/a	2/16/2024	363	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-103	19.7	n/a	2/16/2024	323	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-105	19.7	n/a	2/17/2024	251	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-107	19.7	n/a	2/16/2024	130	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-109	19.7	n/a	2/17/2024	22	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	HGWC-118	19.7	n/a	2/17/2024	69.7	Yes	79	n/a	n/a	5.063	n/a	n/a	0.0003072	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-101	345	n/a	2/16/2024	222	No	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-102	345	n/a	2/16/2024	718	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-103	345	n/a	2/16/2024	640	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	345	n/a	2/17/2024	716	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-107	345	n/a	2/16/2024	325	No	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-109	345	n/a	2/17/2024	265	No	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	HGWC-118	345	n/a	2/17/2024	424	Yes	78	n/a	n/a	0	n/a	n/a	0.000316	NP Inter (normality) 1 of 2

Exceeds Limit: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-118

Prediction Limit
Interwell Non-parametric

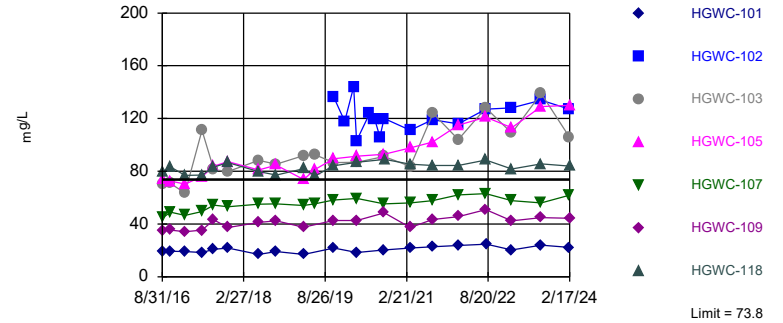


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 79 background values. 34.18% NDs. Annual per-constituent alpha = 0.004292. Individual comparison alpha = 0.0003072 (1 of 2). Comparing 7 points to limit.

Constituent: Boron, total Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Exceeds Limit: HGWC-102, HGWC-103, HGWC-105, HGWC-118

Prediction Limit
Interwell Non-parametric

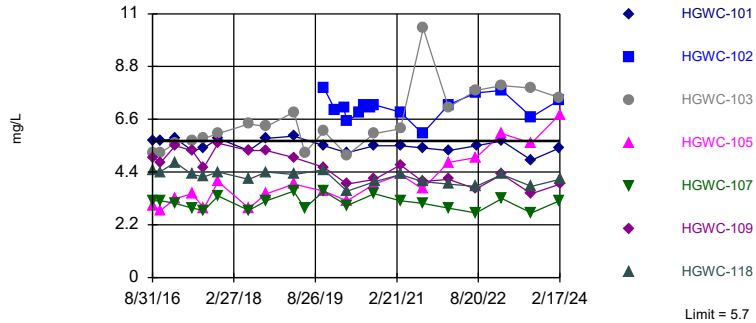


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 79 background values. Annual per-constituent alpha = 0.004292. Individual comparison alpha = 0.0003072 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium, total Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Exceeds Limit: HGWC-102, HGWC-103, HGWC-105

Prediction Limit
Interwell Non-parametric

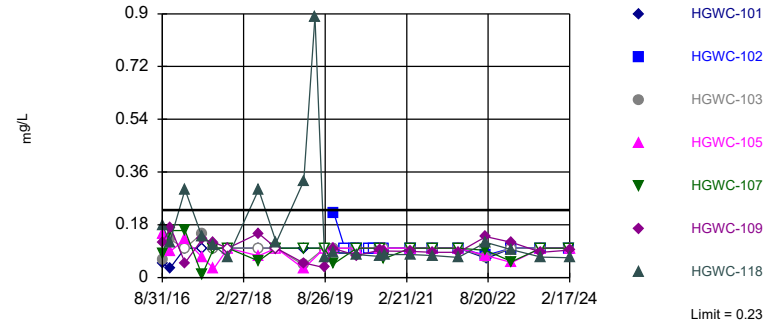


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 79 background values. Annual per-constituent alpha = 0.004292. Individual comparison alpha = 0.0003072 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride, Total Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Interwell Non-parametric

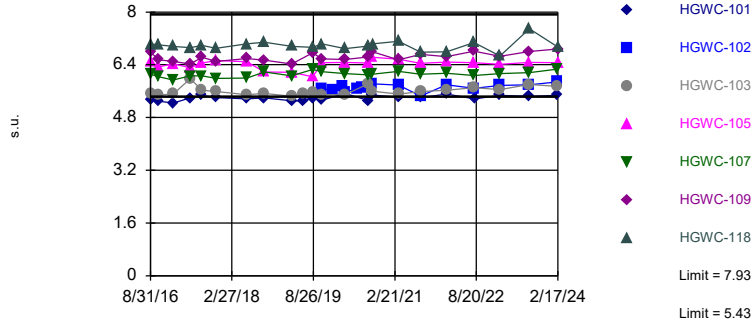


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 85 background values. 21.18% NDs. Annual per-constituent alpha = 0.003742. Individual comparison alpha = 0.0002677 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride, total Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Within Limits

Prediction Limit
Interwell Non-parametric



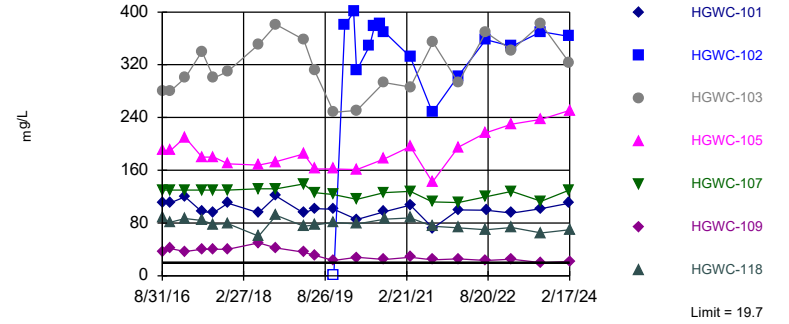
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limits are highest and lowest of 85 background values. Annual per-constituent alpha = 0.007483. Individual comparison alpha = 0.0005354 (1 of 2). Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Hollow symbols indicate censored values.

Exceeds Limit: HGWC-101, HGWC-102, HGWC-103, HGWC-105, HGWC-107, HGWC-109, HGWC-118

Prediction Limit
Interwell Non-parametric

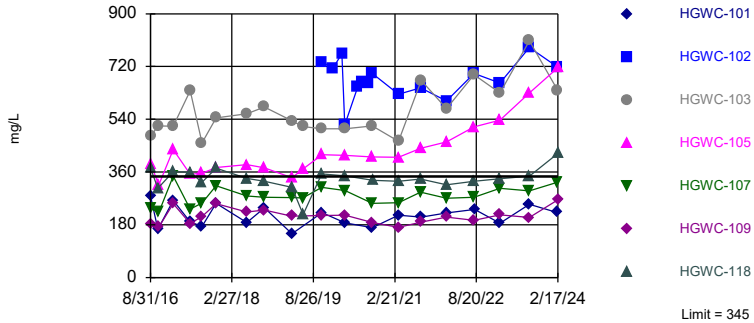


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 79 background values. 5.063% NDs. Annual per-constituent alpha = 0.004292. Individual comparison alpha = 0.0003072 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate as SO4 Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Exceeds Limit: HGWC-102, HGWC-103, HGWC-105, HGWC-118

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level after cube root transformation. Limit is highest of 78 background values. Annual per-constituent alpha = 0.004415. Individual comparison alpha = 0.000316 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 2:58 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-105	HGWC-101	HGWC-109	HGWC-118	HGWC-107
8/30/2016	<0.04	<0.04	<0.04						
8/31/2016				2.22	1.14	0.0724 (J)	0.402	0.681	0.651
10/20/2016	0.016 (J)					0.0877 (J)		0.697	
10/24/2016		0.0226 (J)	0.0367 (J)	1.83					
10/25/2016					1.21		0.372		0.778
1/25/2017	0.0095 (J)	0.009 (J)	0.0075 (J)						
1/31/2017				2.12	1.43	0.0928	0.404	0.768	0.782
5/23/2017		0.0082 (J)	0.0073 (J)	2.56		0.0795		0.754	
5/24/2017	0.0094 (J)				1.3		0.415		0.753
8/10/2017	<0.04	0.0061 (J)	<0.04	2.28	1.28	0.0814	0.397	0.608	0.702
11/13/2017	0.0103 (J)		0.0089 (J)						
11/14/2017		0.012 (J)		2.32	1.29	0.108	0.366	0.691	0.78
6/4/2018	0.0065 (J)		0.007 (J)						
6/5/2018		0.0085 (J)							
6/6/2018				2.5	1.4	0.081	0.48		0.87
6/7/2018								0.57	
10/1/2018	0.0054 (J)	0.0042 (J)	<0.04						
10/2/2018					1.2		0.43		0.82
10/3/2018				2.4		0.092		0.51	
4/1/2019	0.0076 (J)								
4/2/2019		0.0059 (J)	0.0043 (J)						
4/3/2019							0.4		0.89
4/4/2019				2.4	1.4 (X)	0.06 (X)			
4/5/2019								0.6 (X)	
6/17/2019				2.3			0.37		0.86
10/21/2019	0.0097 (J)								
10/22/2019		0.01 (J)	0.016 (J)				0.32	0.65	0.91
10/23/2019				2.3	1.3	0.1			
1/3/2020									
3/4/2020									
3/24/2020	0.011 (J)		0.012 (J)						
3/25/2020				2.3	1.4	0.08 (J)	0.36	0.7	0.87
4/9/2020		0.012 (J)							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	0.011 (J)		0.008 (J)						
9/22/2020		0.021 (J)							
9/24/2020				2.2	1.2	0.1			0.88
9/25/2020							0.28		
9/28/2020								0.65	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	0.01 (J)								
3/12/2021			0.0061 (J)						
3/16/2021		0.011 (J)							
3/17/2021						0.13	0.26		
3/18/2021				2.4	1.5			0.81	0.92
8/12/2021	<0.04	<0.04	<0.04						
8/13/2021					1.2		0.24	0.59	0.73

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-105	HGWC-101	HGWC-109	HGWC-118	HGWC-107
8/16/2021				3.2		0.13			
1/31/2022	0.0099 (J)								
2/1/2022		0.012 (J)	0.011 (J)						
2/2/2022				3.1		0.14	0.25		0.85
2/3/2022					1.4			0.77	
8/2/2022		<0.04							
8/5/2022	<0.04		0.012 (J)	3.6	1.3		0.25	0.57	0.79
8/10/2022						0.17			
1/24/2023	<0.04	<0.04	<0.04						
1/25/2023				2.7	1.3	0.12	0.22	0.62	0.82
8/8/2023	<0.04		<0.04						
8/10/2023		0.0091 (J)							
8/11/2023				4.3	1.4	0.16	0.23	0.66	0.81
2/13/2024			<0.04						
2/14/2024	<0.04	0.013 (J)							
2/16/2024				3.1		0.14			0.87
2/17/2024					1.3		0.22	0.68	

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/17/2019			
10/21/2019			
10/22/2019			
10/23/2019	3.1		
1/3/2020	3.4		
3/4/2020	3.7		
3/24/2020	2.4		
3/25/2020			
4/9/2020			
6/18/2020	2.9		
7/21/2020	3		
8/27/2020	2.7		
9/18/2020		0.0082 (J)	0.015 (J)
9/22/2020			
9/24/2020	2.9		
9/25/2020			
9/28/2020			
11/10/2020		0.0064 (J)	
11/11/2020			0.014 (J)
12/15/2020		<0.04	0.0083 (J)
1/19/2021		0.015 (J)	0.015 (J)
3/11/2021			
3/12/2021		0.0067 (J)	0.012 (J)
3/16/2021			
3/17/2021	2.7		
3/18/2021			
8/12/2021		<0.04	0.012 (J)
8/13/2021	2.4		

Prediction Limit

Constituent: Boron, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/16/2021			
1/31/2022		<0.04	0.011 (J)
2/1/2022			
2/2/2022	2.6		
2/3/2022			
8/2/2022		<0.04	
8/5/2022	2.9		0.011 (J)
8/10/2022			
1/24/2023		<0.04	<0.04
1/25/2023	2.5		
8/8/2023		<0.04	<0.04
8/10/2023			
8/11/2023	3.2		
2/13/2024			<0.04
2/14/2024		0.018 (J)	
2/16/2024	2.7		
2/17/2024			

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-105	HGWC-101	HGWC-109	HGWC-118	HGWC-107
8/30/2016	40.3	6.72	6.69						
8/31/2016				70.4	74.2	19.4	35.1	79.3	44.7
10/20/2016	38.7					19.3		83.7	
10/24/2016		6.4	6.25	70.9					
10/25/2016					72.5		35.4		49
1/25/2017	44.6	6.87	6.58						
1/31/2017				63.6	70.3	19.1	34.2	76.8	46.6
5/23/2017		7.13	6.4	111		18.3		77.2	
5/24/2017	34.8				75.9		35.3		49.5
8/10/2017	48.6	6.71	6.54	81.2	84	20.9	43.1	83.1	54.2
11/13/2017	17.1		6.26						
11/14/2017		7.4		79.7	87.2	21.7	37.4	86.7	53.2
6/4/2018	30.1		7.4						
6/5/2018		7.4							
6/6/2018				88.3	81	17	41.1		55
6/7/2018								79.7	
10/1/2018	14.2 (J)	6.2	5.8						
10/2/2018					84.7		42.5		55.4
10/3/2018				85.3		19.1 (J)		77.1	
4/1/2019	58.4								
4/2/2019		7.4	6.7						
4/3/2019							37.5		54
4/4/2019				91.9	73.8	16.9			
4/5/2019								82	
6/17/2019				92.6	81.2				55.3
6/18/2019								76.5	
10/21/2019	51								
10/22/2019		7.2	6.3				42.6	84.2	58.1
10/23/2019				86.5	89.4	21.9			
1/3/2020									
3/4/2020									
3/24/2020	61.2		7						
3/25/2020				86.8	91.4	18.4	42.6	86.8	59.5
4/9/2020		8.3							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	32.2		6.5						
9/22/2020		7.9							
9/24/2020				91.3	92.9	20.3			55.4
9/25/2020							48.5		
9/28/2020								88.9	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	53.2								
3/12/2021			6.9						
3/16/2021		8.6							
3/17/2021						21.8	37.3		
3/18/2021				83.7	97.7			85.4	56
8/12/2021	45.4	8.4	6.9						

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-105	HGWC-101	HGWC-109	HGWC-118	HGWC-107
8/13/2021					102		43.5	84.3	57.8
8/16/2021				124		22.8			
1/31/2022	58.6								
2/1/2022		8.6	7.4						
2/2/2022				104		23.8	45.7		62
2/3/2022					115			84.5	
8/2/2022		8							
8/5/2022	53		7.1	128	121		50.8	88.5	63
8/10/2022						24.6			
1/24/2023	55.4	7.5	6.6						
1/25/2023				109	113	20.4	42.4	81.8	57.8
8/8/2023	0.94 (J)		6.6						
8/10/2023		8.4							
8/11/2023				139	129	24.1	44.8	85.5	56
2/13/2024			6.5						
2/14/2024	51.8	7.2							
2/16/2024				106		22.2			61.9
2/17/2024					130		44.3	83.8	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/17/2019			
6/18/2019			
10/21/2019			
10/22/2019			
10/23/2019	136		
1/3/2020	118		
3/4/2020	144		
3/24/2020	103		
3/25/2020			
4/9/2020			
6/18/2020	124		
7/21/2020	120		
8/27/2020	106		
9/18/2020		62.2	51.8
9/22/2020			
9/24/2020	120		
9/25/2020			
9/28/2020			
11/10/2020		73.3	
11/11/2020			61.3
12/15/2020		72.5	61.3
1/19/2021		72.5	58.9
3/11/2021			
3/12/2021		69.2	57.5
3/16/2021			
3/17/2021	111		
3/18/2021			
8/12/2021		71.2	59.5

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/13/2021	119		
8/16/2021			
1/31/2022		73.8	63.2
2/1/2022			
2/2/2022	116		
2/3/2022			
8/2/2022		73	
8/5/2022	127		59.6
8/10/2022			
1/24/2023		69.2	57.8
1/25/2023	128		
8/8/2023		68	58.2
8/10/2023			
8/11/2023	134		
2/13/2024			56
2/14/2024		29.4	
2/16/2024	127		
2/17/2024			

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-101	HGWC-105	HGWC-107	HGWC-109	HGWC-118	HGWC-103
8/30/2016	3.3	2	5.4						
8/31/2016				5.7	3	3.2	5	4.5	5.2
10/20/2016	3.2			5.7				4.4	
10/24/2016		1.9	5.2						5.2
10/25/2016					2.8	3.2	4.8		
1/25/2017	2.7	1.9	5						
1/31/2017				5.8	3.3	3.1	5.5	4.8	5.6
5/23/2017		1.6	5.1	5.3				4.3	5.7
5/24/2017	3				3.5	2.9	5.3		
8/10/2017	2.8	1.7	5.2	5.4	2.9	2.8	4.6	4.2	5.8
11/13/2017	2.5		5.5						
11/14/2017		2		5.8	4	3.4	5.6	4.4	6
6/4/2018	2.6		5.3						
6/5/2018		1.7							
6/6/2018				5.3	2.9	2.8	5.3		6.4
6/7/2018								4.1	
10/1/2018	2.2	1.6	5.6						
10/2/2018					3.5	3.2	5.3		
10/3/2018				5.8				4.4	6.3
4/1/2019	4								
4/2/2019		1.8	5.7						
4/3/2019						3.6	5		
4/4/2019				5.9	3.9				6.9
4/5/2019								4.3	
6/17/2019						2.9			5.2
10/21/2019	3.9								
10/22/2019		1.9	5.5			3.6	4.6	4.5	
10/23/2019				5.5	3.6				6.1
1/3/2020									
3/4/2020									
3/24/2020	3.6		5.2						
3/25/2020				5.2	3.2	3	3.9	3.6	5.1
4/9/2020		1.4							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	2.6		5.2						
9/22/2020		1.5							
9/24/2020				5.5	3.9	3.5			6
9/25/2020							4.1		
9/28/2020								4	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	3.4								
3/12/2021			5.3						
3/16/2021		1.6							
3/17/2021				5.5			4.7		
3/18/2021					4.3	3.2		4.3	6.2
8/12/2021	2.5	1.5	4.4						
8/13/2021					3.7	3.1	4	4	

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-101	HGWC-105	HGWC-107	HGWC-109	HGWC-118	HGWC-103
8/16/2021				5.4					10.4
1/31/2022	3								
2/1/2022		1.6	5.2						
2/2/2022				5.3		2.9	4.1		7.1
2/3/2022					4.8			3.9	
8/2/2022		1.8							
8/5/2022	2.7		5		5	2.7	3.7	3.8	7.8
8/10/2022				5.5					
1/24/2023	3.6	1.8	5.6						
1/25/2023				5.7	6	3.3	4.3	4.3	8
8/8/2023	3		5.1						
8/10/2023		1.6							
8/11/2023				4.9	5.6	2.7	3.5	3.8	7.9
2/13/2024			5						
2/14/2024	3	1.5							
2/16/2024				5.4		3.2			7.5
2/17/2024					6.8		3.9	4.1	

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/17/2019			
10/21/2019			
10/22/2019			
10/23/2019	7.9		
1/3/2020	7		
3/4/2020	7.1		
3/24/2020	6.5		
3/25/2020			
4/9/2020			
6/18/2020	6.9		
7/21/2020	7.2		
8/27/2020	7.1		
9/18/2020		2.6	2.7
9/22/2020			
9/24/2020	7.2		
9/25/2020			
9/28/2020			
11/10/2020			2.7
11/11/2020		2.6	
12/15/2020		2.7	2.9
1/19/2021		2.7	2.8
3/11/2021			
3/12/2021		2.6	2.7
3/16/2021			
3/17/2021	6.9		
3/18/2021			
8/12/2021		2.2	2.3
8/13/2021	6		

Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)
8/16/2021			
1/31/2022		2.5	2.6
2/1/2022			
2/2/2022	7.2		
2/3/2022			
8/2/2022			3
8/5/2022	7.7	2.4	
8/10/2022			
1/24/2023		2.8	3
1/25/2023	7.8		
8/8/2023		2.7	2.7
8/10/2023			
8/11/2023	6.7		
2/13/2024		2.6	
2/14/2024			1.6
2/16/2024	7.4		
2/17/2024			

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-118	HGWC-103	HGWC-105	HGWC-109	HGWC-101	HGWC-107
8/30/2016	0.07 (J)	0.2 (J)	0.04 (J)						
8/31/2016				0.18 (J)	0.06 (J)	0.15 (J)	0.12 (J)	0.05 (J)	0.08 (J)
10/20/2016	0.07 (J)			0.12 (J)				0.03 (J)	
10/24/2016		0.16 (J)	0.05 (J)		0.13 (J)				
10/25/2016						0.09 (J)	0.17 (J)		0.16 (J)
1/25/2017	0.14 (J)	0.15 (J)	<0.1						
1/31/2017				0.3	<0.1	0.13 (J)	0.05 (J)	<0.1	0.16 (J)
5/23/2017		0.18 (J)	0.004 (J)	0.14 (J)	0.15 (J)			<0.1	
5/24/2017	0.02 (J)					0.07 (J)	0.13 (J)		0.009 (J)
8/10/2017	0.06 (J)	0.19 (J)	0.03 (J)	0.11 (J)	<0.1	0.03 (J)	0.12 (J)	<0.1	<0.1
11/13/2017	<0.1		<0.1						
11/14/2017		0.16 (J)		0.07 (J)	<0.1	<0.1	<0.1	<0.1	<0.1
6/4/2018	0.032 (J)		<0.1						
6/5/2018		0.18 (J)							
6/6/2018					<0.1	0.074 (J)	0.15 (J)	<0.1	0.057 (J)
6/7/2018				0.3					
10/1/2018	<0.1	0.078 (J)	<0.1						
10/2/2018						<0.1	<0.1		<0.1
10/3/2018				0.12 (J)	<0.1			<0.1	
4/1/2019	0.042 (J)								
4/2/2019		0.18 (J)	<0.1						
4/3/2019							0.05 (J)		<0.1
4/4/2019					0.042 (J)	0.03 (J)		<0.1	
4/5/2019				0.33					
6/18/2019				0.89					
8/21/2019	0.048 (J)	0.11 (J)	<0.1						
8/22/2019				0.07 (J)	<0.1	<0.1		<0.1	
8/23/2019							0.034 (J)		<0.1
10/21/2019	0.12 (J)								
10/22/2019		0.18 (J)	0.05 (J)	0.087 (J)			0.099 (J)		0.047 (J)
10/23/2019					<0.1	<0.1		<0.1	
1/3/2020									
3/4/2020									
3/24/2020	0.076 (J)		<0.1						
3/25/2020				0.078 (J)	<0.1	<0.1	0.075 (J)	<0.1	<0.1
4/9/2020		0.14 (J)							
6/18/2020									
7/21/2020									
8/25/2020	0.052 (J)	0.17	<0.1						
8/26/2020				0.072 (J)					
8/27/2020					<0.1	<0.1	0.094 (J)	<0.1	<0.1
9/18/2020	<0.1		<0.1						
9/22/2020		0.16							
9/24/2020					<0.1	<0.1		<0.1	0.064 (J)
9/25/2020							0.091 (J)		
9/28/2020				0.078 (J)					
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	0.057 (J)								
3/12/2021			<0.1						

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-118	HGWC-103	HGWC-105	HGWC-109	HGWC-101	HGWC-107
3/16/2021		0.18							
3/17/2021							0.089 (J)	<0.1	
3/18/2021				0.079 (J)	<0.1	<0.1			<0.1
8/12/2021	<0.1	0.16	<0.1						
8/13/2021				0.075 (J)		<0.1	0.086 (J)		<0.1
8/16/2021					<0.1			<0.1	
1/31/2022	0.055 (J)								
2/1/2022		0.16	<0.1						
2/2/2022					<0.1		0.086 (J)	<0.1	<0.1
2/3/2022				0.069 (J)		<0.1			
8/2/2022		0.19							
8/5/2022	0.1		0.077 (J)	0.12	0.071 (J)	0.075 (J)	0.14		0.093 (J)
8/10/2022								0.065 (J)	
1/24/2023	0.086 (J)	0.2	0.055 (J)						
1/25/2023				0.095 (J)	<0.1	0.051 (J)	0.12	<0.1	0.054 (J)
8/8/2023	0.076 (J)		0.05 (J)						
8/10/2023		0.19							
8/11/2023				0.07 (J)	<0.1	<0.1	0.086 (J)	<0.1	<0.1
2/13/2024			<0.1						
2/14/2024	0.081 (J)	0.18							
2/16/2024					<0.1			<0.1	<0.1
2/17/2024				0.068 (J)		<0.1	0.094 (J)		

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/18/2019			
8/21/2019			
8/22/2019			
8/23/2019			
10/21/2019			
10/22/2019			
10/23/2019	0.22 (J)		
1/3/2020	<0.1		
3/4/2020	<0.1		
3/24/2020	<0.1		
3/25/2020			
4/9/2020			
6/18/2020	<0.1		
7/21/2020	<0.1		
8/25/2020			
8/26/2020			
8/27/2020	<0.1		
9/18/2020		0.067 (J)	0.098 (J)
9/22/2020			
9/24/2020	<0.1		
9/25/2020			
9/28/2020			
11/10/2020		0.065 (J)	
11/11/2020			0.083 (J)
12/15/2020		0.064 (J)	0.081 (J)
1/19/2021		0.057 (J)	0.079 (J)
3/11/2021			
3/12/2021		0.062 (J)	0.085 (J)

Prediction Limit

Constituent: Fluoride, total (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
3/16/2021			
3/17/2021	<0.1		
3/18/2021			
8/12/2021		<0.1	0.064 (J)
8/13/2021	<0.1		
8/16/2021			
1/31/2022		0.053 (J)	0.072 (J)
2/1/2022			
2/2/2022	<0.1		
2/3/2022			
8/2/2022		0.08 (J)	
8/5/2022	0.076 (J)		0.12
8/10/2022			
1/24/2023		0.081 (J)	0.092 (J)
1/25/2023	<0.1		
8/8/2023		0.072 (J)	0.091 (J)
8/10/2023			
8/11/2023	<0.1		
2/13/2024			0.071 (J)
2/14/2024		0.23	
2/16/2024	<0.1		
2/17/2024			

Prediction Limit

Constituent: pH, Field (s.u.) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-105	HGWC-101	HGWC-107	HGWC-109	HGWC-103	HGWC-118
3/12/2021			5.6						
3/16/2021		6.14							
3/17/2021					5.41		6.55		
3/18/2021				6.57		6.2		5.51	7.11
8/12/2021	6.67	6.08	5.5						
8/13/2021				6.44		6.11	6.71		6.78
8/16/2021					5.4			5.59	
1/31/2022	7.17								
2/1/2022		6.05	5.59						
2/2/2022					5.51	6.14	6.65	5.63	
2/3/2022				6.48					6.79
8/2/2022		6.08							
8/5/2022	6.97		5.43	6.46		6.07	6.81	5.71	7.07
8/10/2022					5.37				
1/24/2023	7.11	6.15	5.67						
1/25/2023				6.41	5.47	6.13	6.66	5.65	6.67
8/8/2023	7.01		5.77						
8/10/2023		6.07							
8/11/2023				6.47	5.44	6.16	6.8	5.8	7.49
2/13/2024			5.64						
2/14/2024	7	6.24							
2/16/2024					5.47	6.27		5.74	
2/17/2024				6.46			6.88		6.94

Prediction Limit

Constituent: pH, Field (s.u.) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/17/2019			
6/18/2019			
8/21/2019			
8/22/2019			
8/23/2019			
10/21/2019			
10/22/2019			
10/23/2019	5.68		
1/3/2020	5.64		
3/4/2020	5.75		
3/24/2020	5.58		
3/25/2020			
4/9/2020			
6/18/2020	5.67		
7/21/2020	5.72		
8/25/2020			
8/26/2020			
8/27/2020	5.7		
9/18/2020		7.54	7.5
9/22/2020			
9/24/2020	5.82		
9/25/2020			
9/28/2020			
11/10/2020		7.34	
11/11/2020			7.4
12/15/2020		7.27	7.39
1/19/2021		7.32	7.4
3/11/2021			

Prediction Limit

Constituent: pH, Field (s.u.) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
3/12/2021		7.52	7.51
3/16/2021			
3/17/2021	5.78		
3/18/2021			
8/12/2021		7.38	7.44
8/13/2021	5.45		
8/16/2021			
1/31/2022		7.34	7.44
2/1/2022			
2/2/2022	5.79		
2/3/2022			
8/2/2022		7.34	
8/5/2022	5.69		7.4
8/10/2022			
1/24/2023		7.38	7.46
1/25/2023	5.77		
8/8/2023		7.27	7.37
8/10/2023			
8/11/2023	5.79		
2/13/2024			7.59
2/14/2024		7.93	
2/16/2024	5.88		
2/17/2024			

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-105	HGWC-101	HGWC-109	HGWC-118	HGWC-107
8/30/2016	1.6	14	0.63 (J)						
8/31/2016				280	190	110	36	88	130
10/20/2016	1.6					110		81	
10/24/2016		11	0.62 (J)	280					
10/25/2016					190		41		130
1/25/2017	1.6	12	0.62 (J)						
1/31/2017				300	210	120	37	87	130
5/23/2017		12	0.55 (J)	340		97		84	
5/24/2017	1.4				180		40		130
8/10/2017	1.6	11	0.66 (J)	300	180	96	40	78	130
11/13/2017	1.3		0.61 (J)						
11/14/2017		11		310	170	110	40	79	130
6/4/2018	1.4		0.73 (J)						
6/5/2018		9.9							
6/6/2018				351	168	95.5	49.7		132
6/7/2018								60.1	
10/1/2018	1	6.7	0.52 (J)						
10/2/2018					173		42.3		132
10/3/2018				381		121		91.5	
4/1/2019	1.7								
4/2/2019		8.7	0.78 (J)						
4/3/2019							36		139
4/4/2019				358	185	95.1			
4/5/2019								75.1	
6/17/2019				311	162		30.9		126
6/18/2019						102		77	
10/21/2019	1.8								
10/22/2019		6.8	0.6 (J)				23.2	80.9	123
10/23/2019				248	162	101			
1/3/2020									
3/4/2020									
3/24/2020	1.6		<1						
3/25/2020				251	161	85.5	27.9	78.4	116
4/9/2020		6.6							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	1		<1						
9/22/2020		5.3							
9/24/2020				293	177	97			126
9/25/2020							24.7		
9/28/2020								86	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	1.5								
3/12/2021			0.52 (J)						
3/16/2021		7.7							
3/17/2021						107	28.3		
3/18/2021				286	196			87.8	128
8/12/2021	1.3	10	<1						

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-105	HGWC-101	HGWC-109	HGWC-118	HGWC-107
8/13/2021					142		24.4	75.1	112
8/16/2021				354		72.1			
1/31/2022	1.5								
2/1/2022		8.9	0.5 (J)						
2/2/2022				293		100	25.5		111
2/3/2022					195			72.7	
8/2/2022		7.5							
8/5/2022	1.4		<1	369	217		23	69.8	120
8/10/2022						99.5			
1/24/2023	1.9	6.6	0.81 (J)						
1/25/2023				342	230	95	25.4	73	128
8/8/2023	1.5		0.71 (J)						
8/10/2023		5.1							
8/11/2023				382	237	102	19.8	64.9	113
2/13/2024			0.51 (J)						
2/14/2024	1.2	4.9							
2/16/2024				323		110			130
2/17/2024					251		22	69.7	

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/17/2019			
6/18/2019			
10/21/2019			
10/22/2019			
10/23/2019	<1		
1/3/2020	380		
3/4/2020	400		
3/24/2020	311		
3/25/2020			
4/9/2020			
6/18/2020	349		
7/21/2020	378		
8/27/2020	382		
9/18/2020		3.5	9.5
9/22/2020			
9/24/2020	370		
9/25/2020			
9/28/2020			
11/10/2020		2.3	
11/11/2020			4.5
12/15/2020		2.4	4.2
1/19/2021		2.6	3.9
3/11/2021			
3/12/2021		1.9	4.7
3/16/2021			
3/17/2021	332		
3/18/2021			
8/12/2021		1.4	4.3

Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-47 (bg)	HGWA-48D (bg)
8/13/2021	248		
8/16/2021			
1/31/2022		1.7	5.6
2/1/2022			
2/2/2022	303		
2/3/2022			
8/2/2022		2.1	
8/5/2022	358		3.4
8/10/2022			
1/24/2023		2.2	2.9
1/25/2023	348		
8/8/2023		2	2.9
8/10/2023			
8/11/2023	370		
2/13/2024			2.8
2/14/2024		19.7	
2/16/2024	363		
2/17/2024			

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-107	HGWC-101	HGWC-109	HGWC-118	HGWC-105
8/30/2016	172	77	76						
8/31/2016				483	235	278	182	373	389
10/20/2016	108					165		305	
10/24/2016		111	65	517					
10/25/2016					223		172		316
1/25/2017	345	155	152 (O)						
1/31/2017				516	346	263	252	361	437
5/23/2017		74	52	637		190		359	
5/24/2017	126				234		184		352
8/10/2017	174	94	60	459	254	175	208	325	356
11/13/2017	158		75						
11/14/2017		89		545	313	253	252	373	375
6/4/2018	131		70						
6/5/2018		92							
6/6/2018				559	278	188	224		385
6/7/2018								338	
10/1/2018	101	91	76						
10/2/2018					274		230		374
10/3/2018				582		238		328	
4/1/2019	213								
4/2/2019		94	69						
4/3/2019					273		210		
4/4/2019				535		149			340
4/5/2019								308	
6/17/2019				515	272				370
6/18/2019								215	
10/21/2019	187								
10/22/2019		95	81		308		212	354	
10/23/2019				507		221			419
1/3/2020									
3/4/2020									
3/24/2020	207		52						
3/25/2020				507	297	187	213	347	417
4/9/2020		48							
6/18/2020									
7/21/2020									
8/27/2020									
9/18/2020	139		62						
9/22/2020		84							
9/24/2020				517	253	170			411
9/25/2020							188		
9/28/2020								332	
11/10/2020									
11/11/2020									
12/15/2020									
1/19/2021									
3/11/2021	207								
3/12/2021			56						
3/16/2021		99							
3/17/2021						213	171		
3/18/2021				465	255			328	410
8/12/2021	157	92	63						

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWA-111 (bg)	HGWA-113 (bg)	HGWA-112 (bg)	HGWC-103	HGWC-107	HGWC-101	HGWC-109	HGWC-118	HGWC-105
8/13/2021					291		189	336	441
8/16/2021				672		206			
1/31/2022	186								
2/1/2022		99	73						
2/2/2022				576	271	220	206		
2/3/2022								316	463
8/2/2022		85							
8/5/2022	171		44	692	274		195	329	514
8/10/2022						232			
1/24/2023	177	146	96						
1/25/2023				630	304	186	214	337	537
8/8/2023	207		57						
8/10/2023		80							
8/11/2023				808	296	250	205	346	630
2/13/2024			73						
2/14/2024	187	93							
2/16/2024				640	325	222			
2/17/2024							265	424	716

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)
8/30/2016			
8/31/2016			
10/20/2016			
10/24/2016			
10/25/2016			
1/25/2017			
1/31/2017			
5/23/2017			
5/24/2017			
8/10/2017			
11/13/2017			
11/14/2017			
6/4/2018			
6/5/2018			
6/6/2018			
6/7/2018			
10/1/2018			
10/2/2018			
10/3/2018			
4/1/2019			
4/2/2019			
4/3/2019			
4/4/2019			
4/5/2019			
6/17/2019			
6/18/2019			
10/21/2019			
10/22/2019			
10/23/2019	736		
1/3/2020	714		
3/4/2020	764		
3/24/2020	521		
3/25/2020			
4/9/2020			
6/18/2020	652		
7/21/2020	669		
8/27/2020	663		
9/18/2020		224	195
9/22/2020			
9/24/2020	696		
9/25/2020			
9/28/2020			
11/10/2020			229
11/11/2020		221	
12/15/2020		239	233
1/19/2021		224	199
3/11/2021			
3/12/2021		204	217
3/16/2021			
3/17/2021	626		
3/18/2021			
8/12/2021		234	212

Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 4/30/2024 2:59 PM View: Interwell PLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWA-48D (bg)	HGWA-47 (bg)
8/13/2021	647		
8/16/2021			
1/31/2022		223	243
2/1/2022			
2/2/2022	602		
2/3/2022			
8/2/2022			222
8/5/2022	696	224	
8/10/2022			
1/24/2023		230	223
1/25/2023	664		
8/8/2023		220	214
8/10/2023			
8/11/2023	785		
2/13/2024		242	
2/14/2024			147
2/16/2024	718		
2/17/2024			

FIGURE E.

Appendix III - Trend Test Summary - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 3:03 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron, total (mg/L)	HGWC-101	0.009376	100	74	Yes	19	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-103	0.1338	97	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-109	-0.02961	-136	-81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-113 (bg)	0.2427	87	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-103	5.695	112	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-105	7.259	156	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-103	0.3815	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-105	0.3883	120	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-113 (bg)	-0.9433	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-109	-2.777	-118	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-118	-2.113	-87	-81	Yes	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	29.56	120	81	Yes	20	0	n/a	n/a	0.01	NP

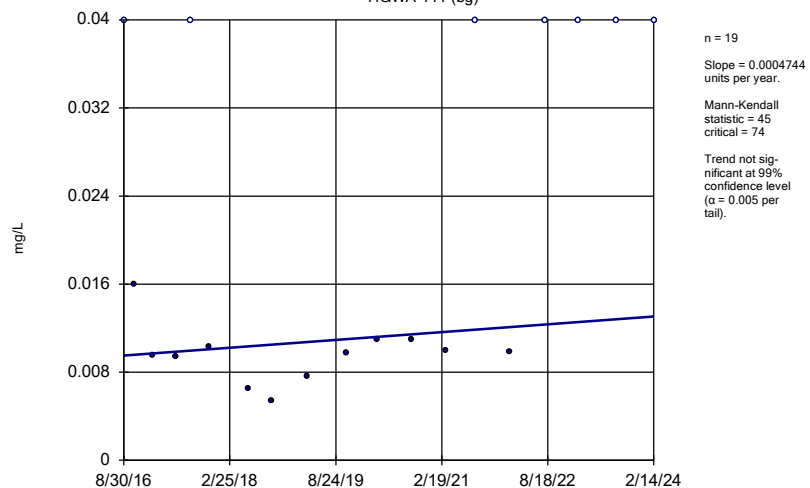
Appendix III - Trend Test Summary - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/30/2024, 3:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron, total (mg/L)	HGWA-111 (bg)	0.0004744	45	74	No	19	36.84	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-112 (bg)	0.000137	23	74	No	19	36.84	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-113 (bg)	0.0006948	36	74	No	19	21.05	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-47 (bg)	0.0009768	18	34	No	11	54.55	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWA-48D (bg)	0.00529	11	34	No	11	27.27	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-101	0.009376	100	74	Yes	19	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-102	-0.1134	-30	-53	No	15	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-103	0.1338	97	81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-105	0.003065	30	74	No	19	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-107	0.01551	60	81	No	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-109	-0.02961	-136	-81	Yes	20	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	HGWC-118	-0.004488	-13	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-111 (bg)	1.584	35	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-112 (bg)	0.04239	37	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-113 (bg)	0.2427	87	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-47 (bg)	-1.639	-15	-34	No	11	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWA-48D (bg)	-0.6536	-8	-34	No	11	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-102	2.06	13	53	No	15	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-103	5.695	112	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-105	7.259	156	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	HGWC-118	0.8192	64	81	No	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-111 (bg)	0	-1	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-112 (bg)	-0.01921	-24	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-113 (bg)	-0.0351	-62	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-47 (bg)	0	-6	-34	No	11	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWA-48D (bg)	0	0	34	No	11	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-102	0.05911	12	53	No	15	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-103	0.3815	110	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	HGWC-105	0.3883	120	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-111 (bg)	-0.0153	-23	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-112 (bg)	0.007861	11	74	No	19	21.05	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-113 (bg)	-0.9433	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-47 (bg)	-0.1094	-7	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWA-48D (bg)	-0.6353	-34	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-101	-0.9319	-38	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-102	-2.616	-6	-53	No	15	6.667	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-103	5.96	49	81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-105	4.021	33	81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-107	-1.338	-70	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-109	-2.777	-118	-81	Yes	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	HGWC-118	-2.113	-87	-81	Yes	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-111 (bg)	5.041	35	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-112 (bg)	-0.4021	-6	-68	No	18	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-113 (bg)	0.3489	6	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-47 (bg)	-2.72	-3	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWA-48D (bg)	1.637	6	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-102	0	0	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-103	19.49	66	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-105	29.56	120	81	Yes	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	HGWC-118	-0.4617	-6	-81	No	20	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

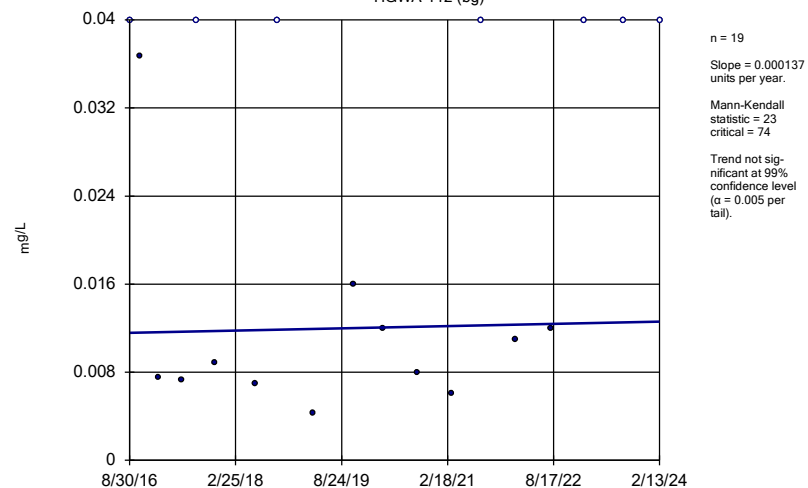
HGWA-111 (bg)



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

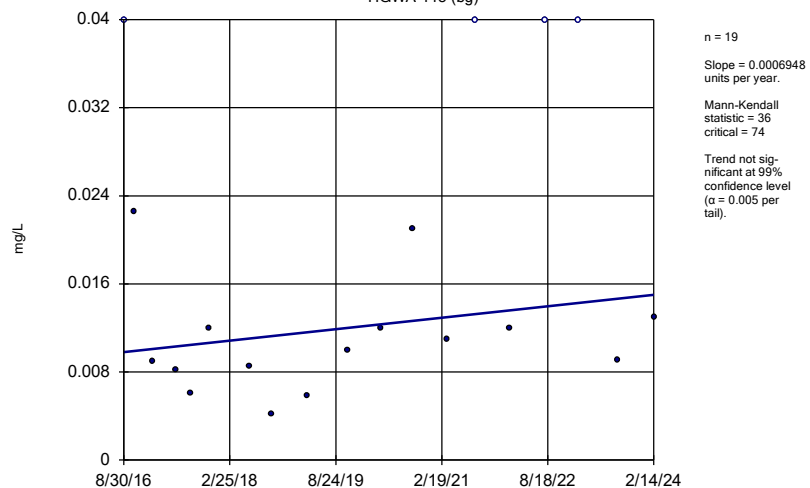
HGWA-112 (bg)



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

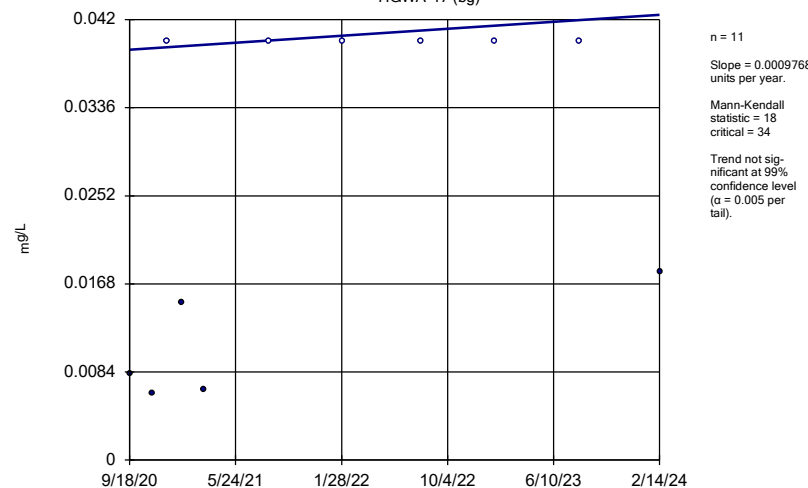
HGWA-113 (bg)



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

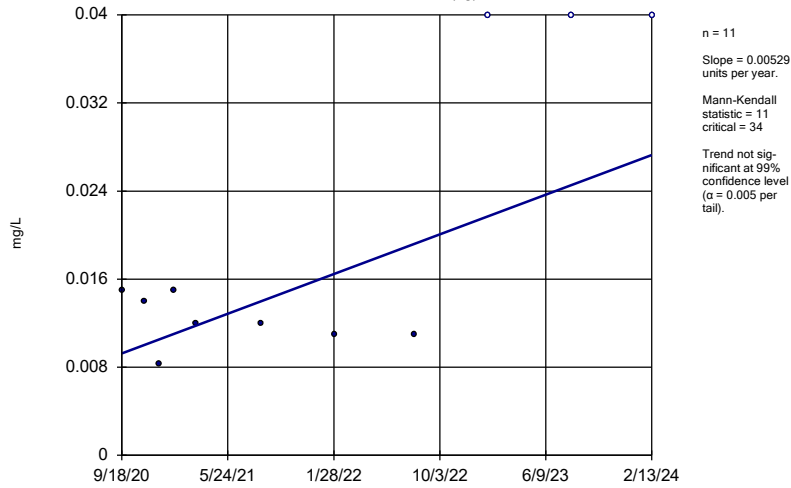
HGWA-47 (bg)



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

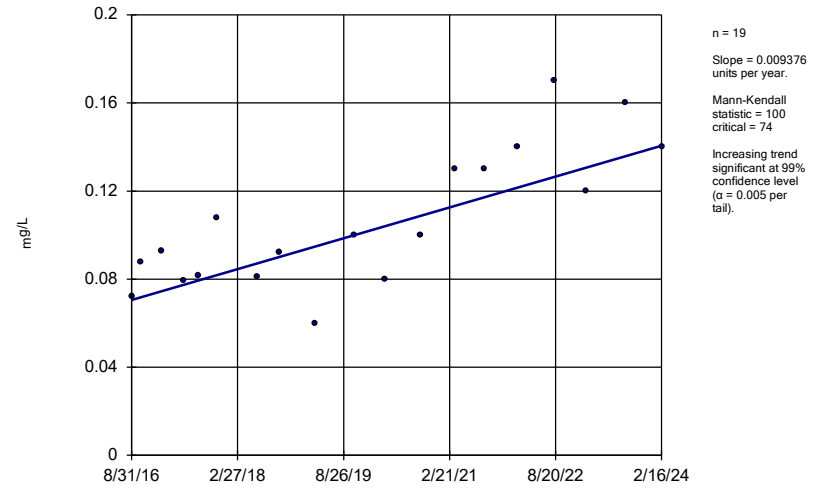
HGWA-48D (bg)



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

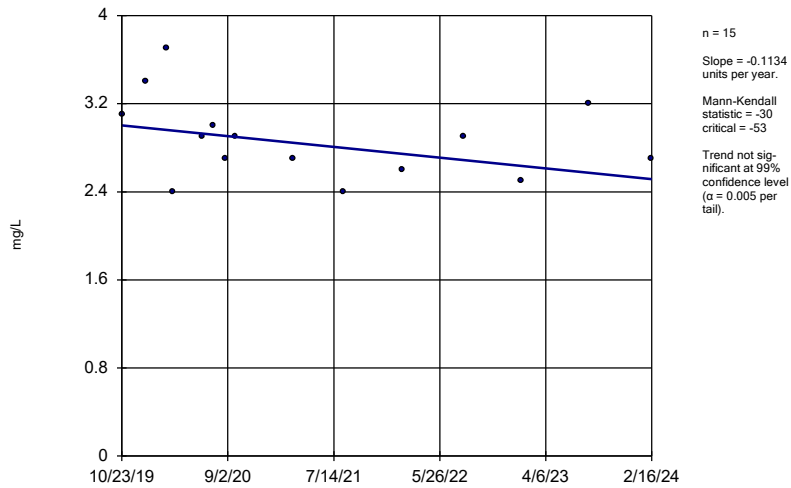
HGWC-101



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

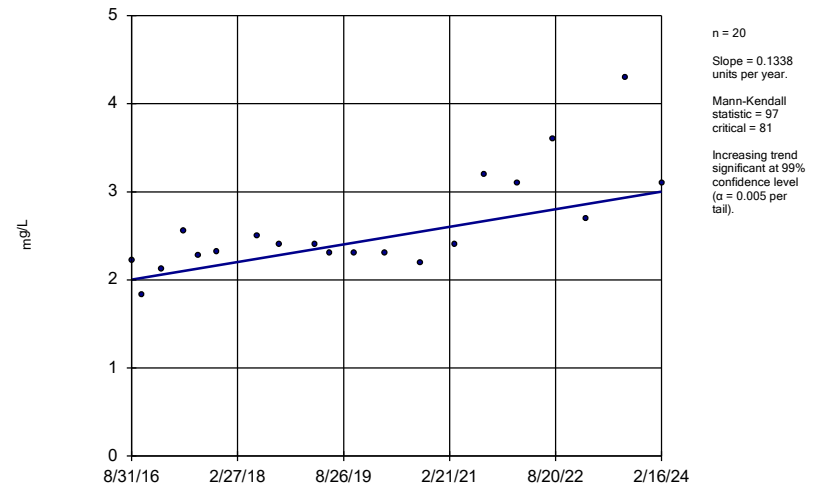
HGWC-102



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

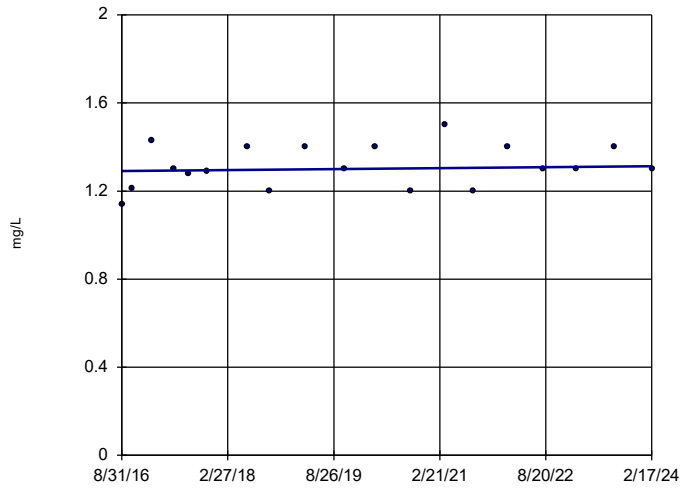
HGWC-103



Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-105

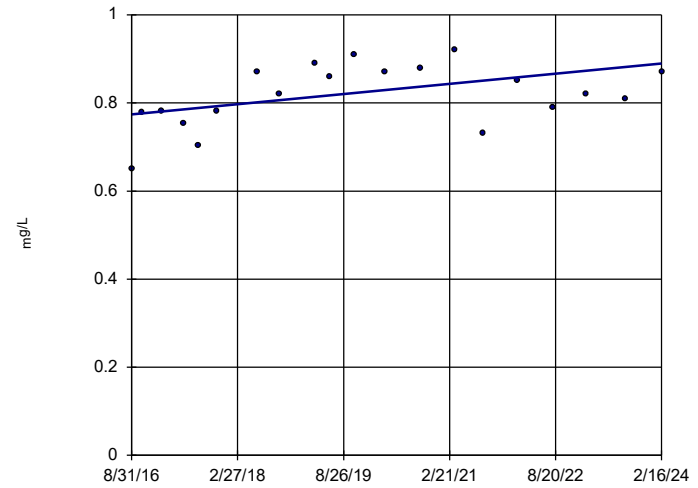


n = 19
 Slope = 0.003065 units per year.
 Mann-Kendall statistic = 30
 critical = 74
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-107

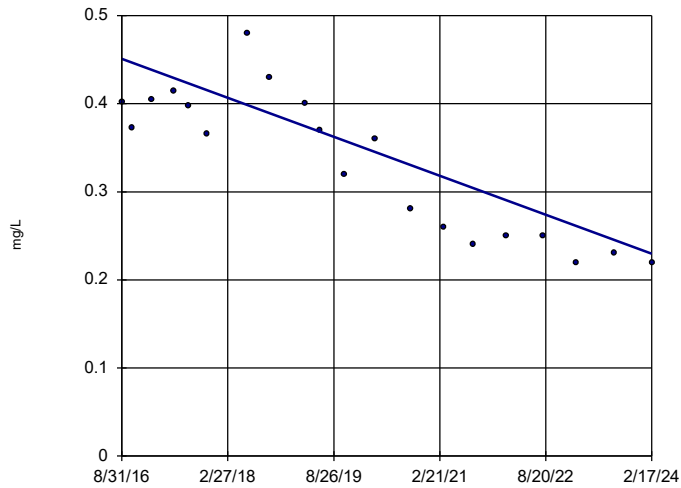


n = 20
 Slope = 0.01551 units per year.
 Mann-Kendall statistic = 60
 critical = 81
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-109

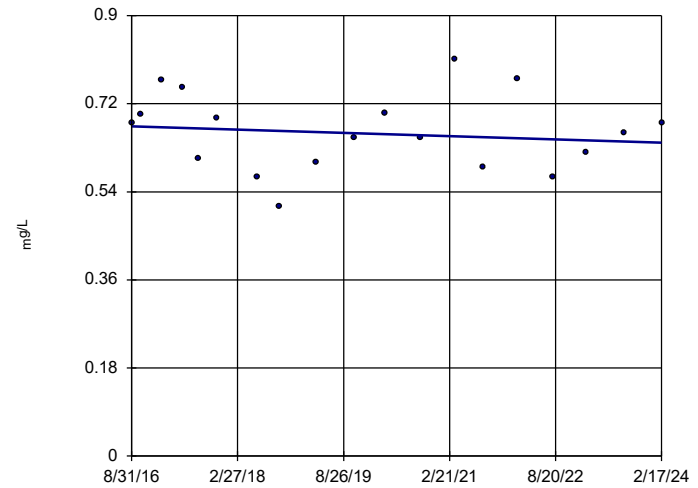


n = 20
 Slope = -0.02961 units per year.
 Mann-Kendall statistic = -136
 critical = -81
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-118

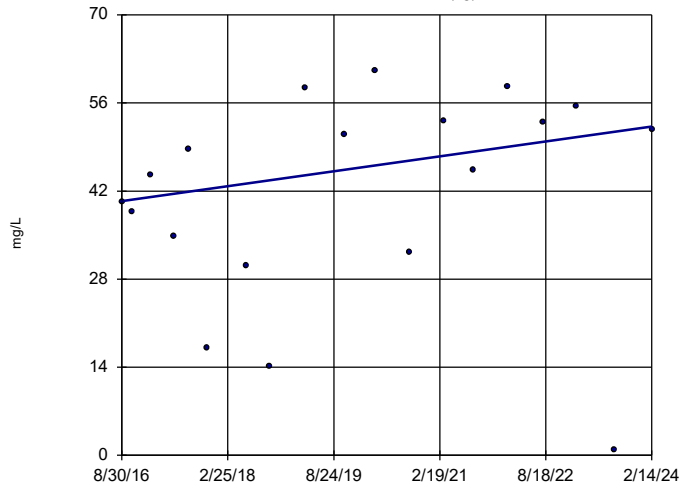


n = 19
 Slope = -0.004488 units per year.
 Mann-Kendall statistic = -13
 critical = -74
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron, total Analysis Run 4/30/2024 3:00 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

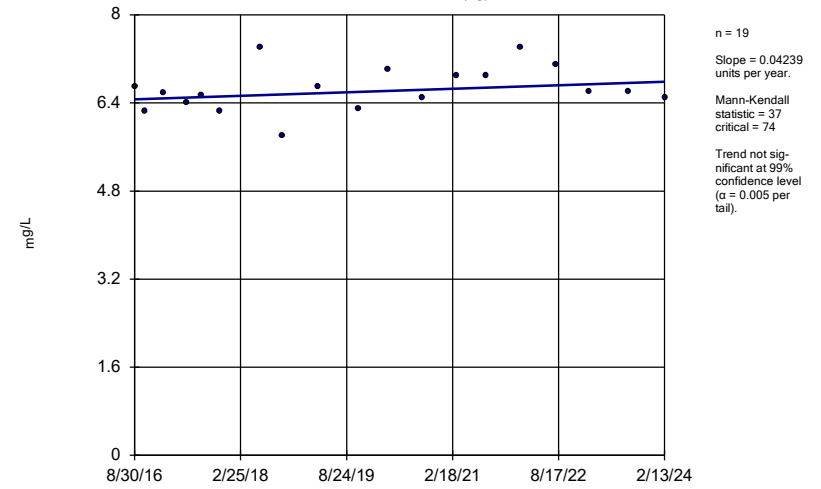
HGWA-111 (bg)



Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

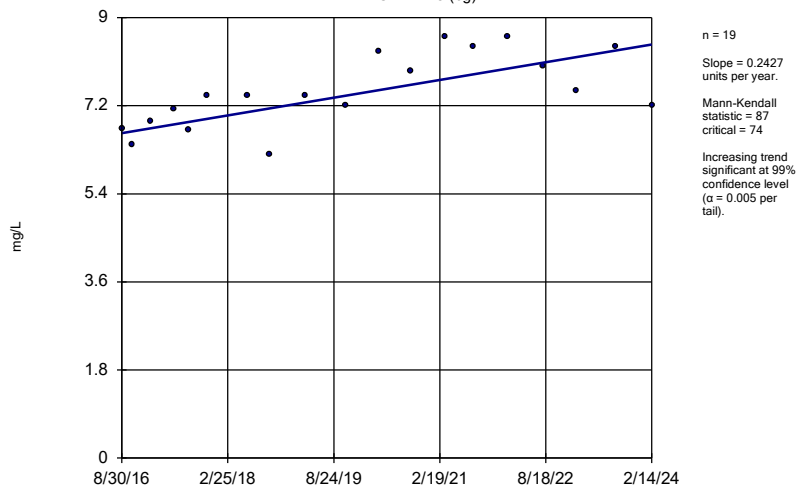
HGWA-112 (bg)



Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

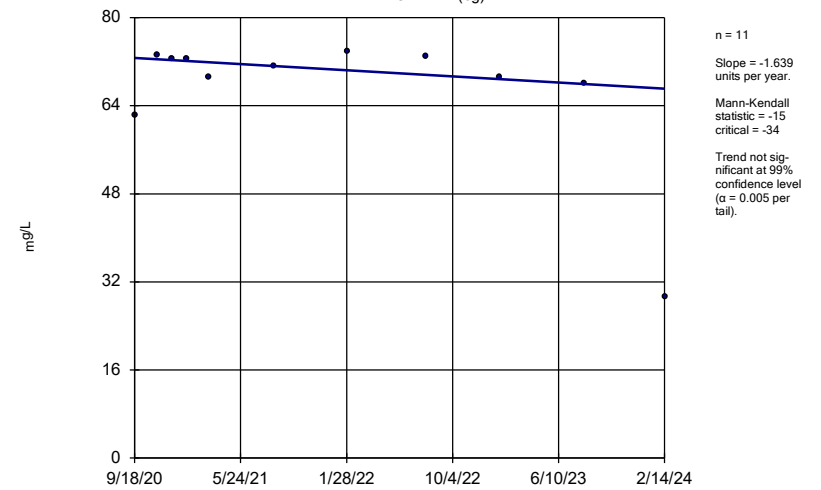
HGWA-113 (bg)



Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

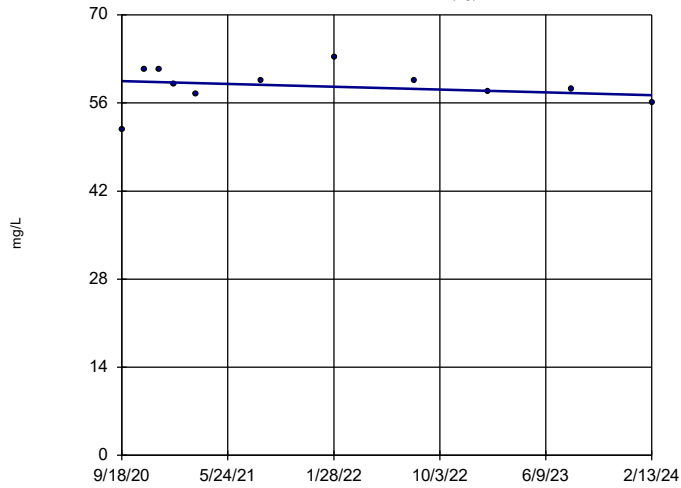
HGWA-47 (bg)



Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-48D (bg)

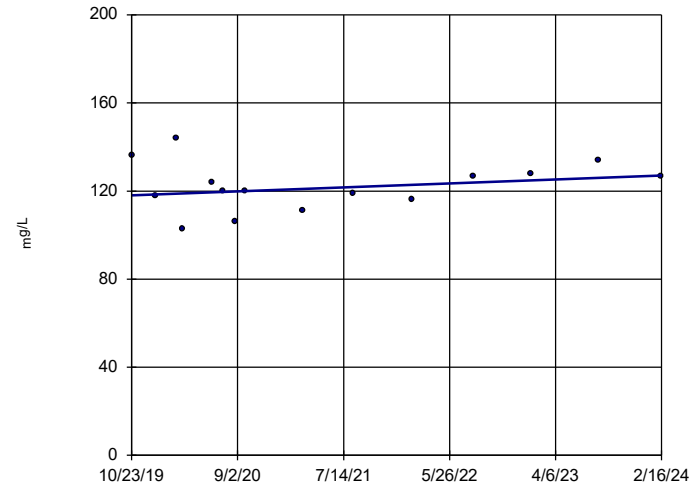


n = 11
 Slope = -0.6536
 units per year.
 Mann-Kendall
 statistic = -8
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-102

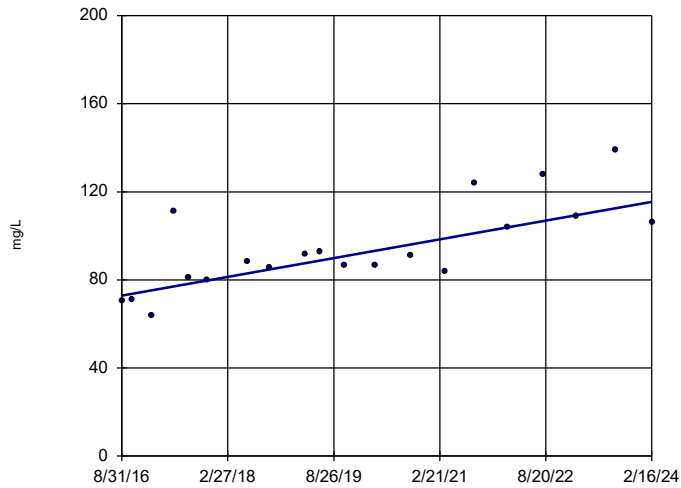


n = 15
 Slope = 2.06
 units per year.
 Mann-Kendall
 statistic = 13
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-103

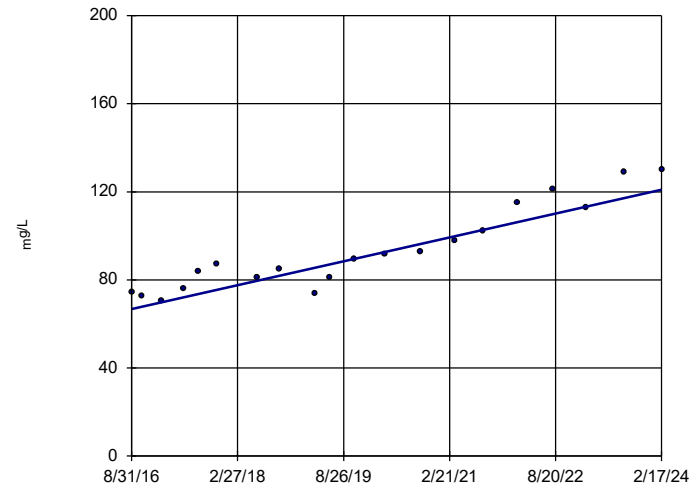


n = 20
 Slope = 5.695
 units per year.
 Mann-Kendall
 statistic = 112
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-105

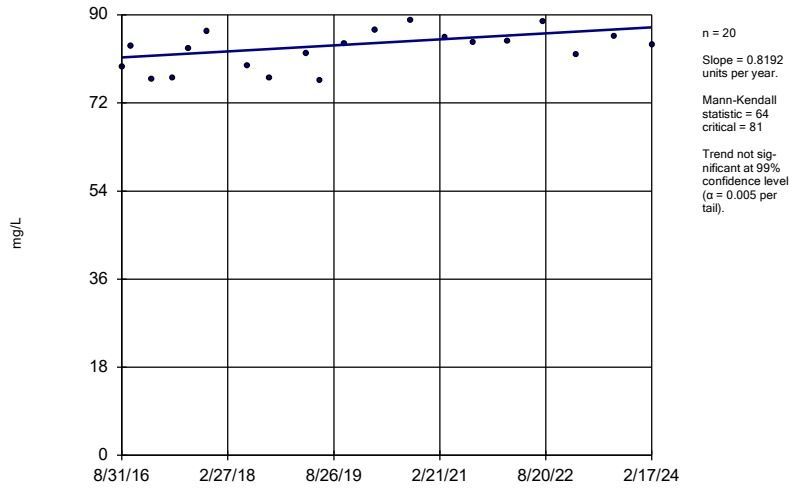


n = 20
 Slope = 7.259
 units per year.
 Mann-Kendall
 statistic = 156
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

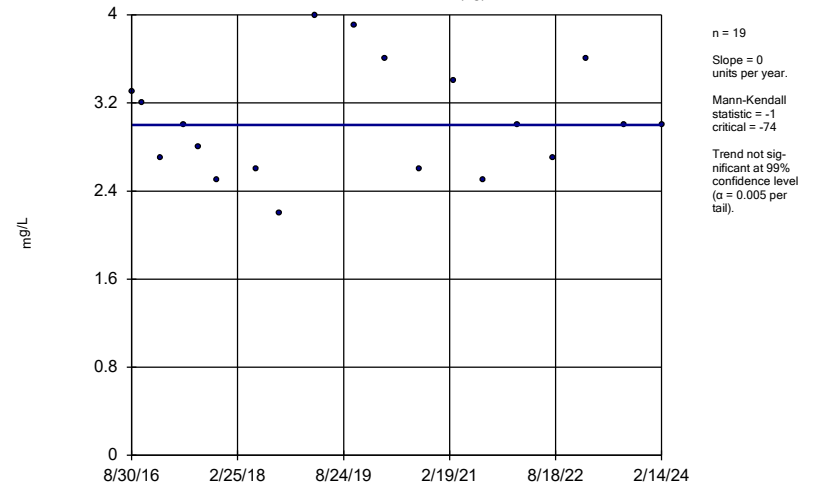
HGWC-118



Constituent: Calcium, total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

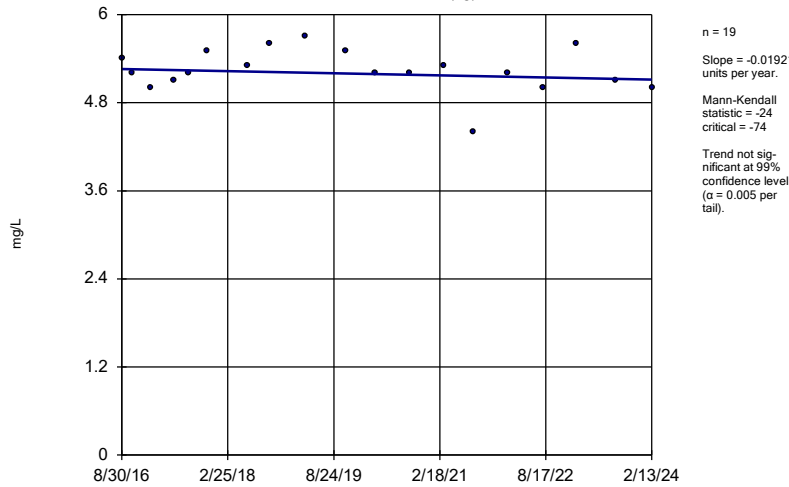
HGWA-111 (bg)



Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

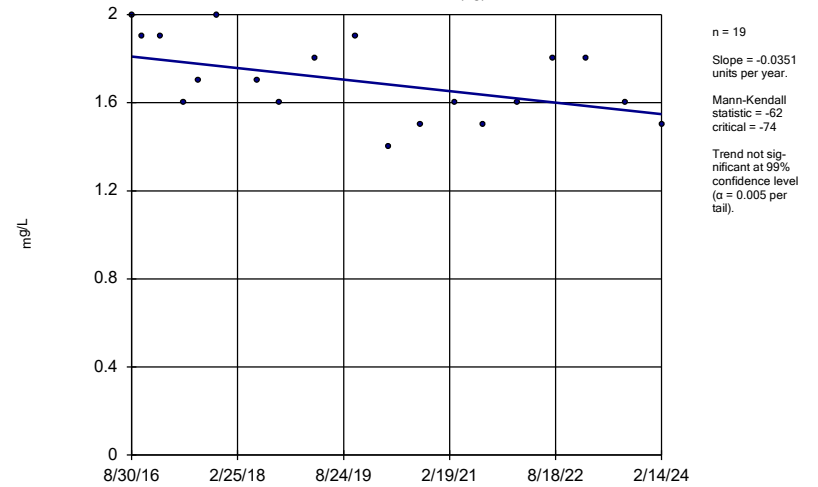
HGWA-112 (bg)



Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

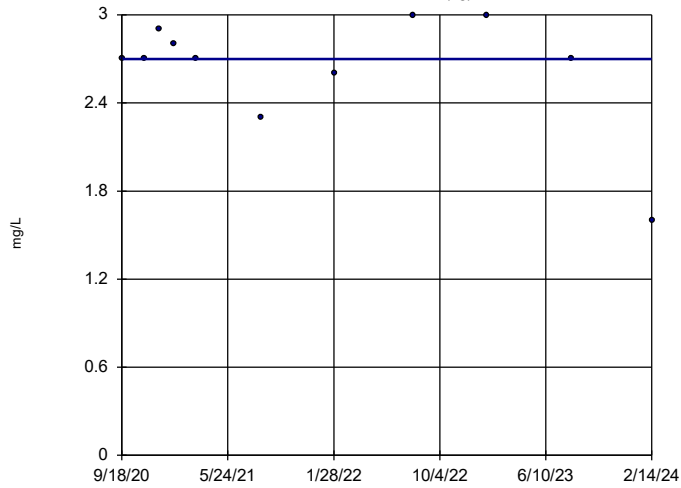
HGWA-113 (bg)



Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-47 (bg)

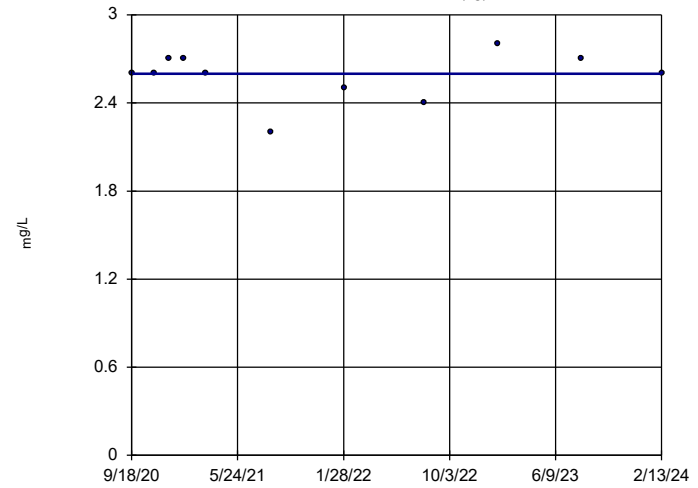


n = 11
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -6
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWA-48D (bg)

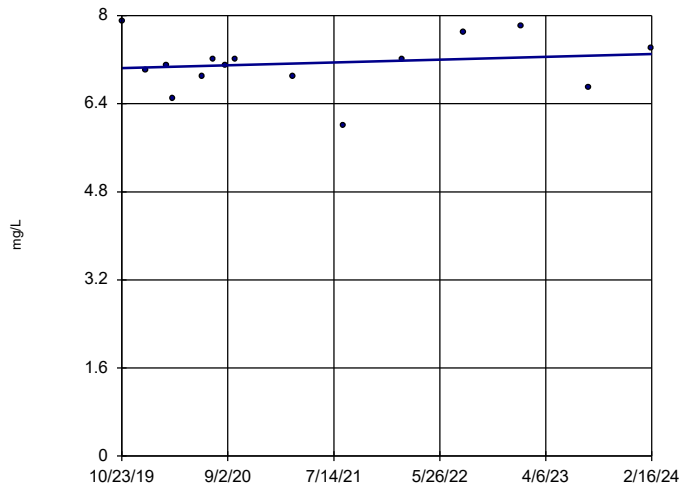


n = 11
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 0
 critical = 34
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-102

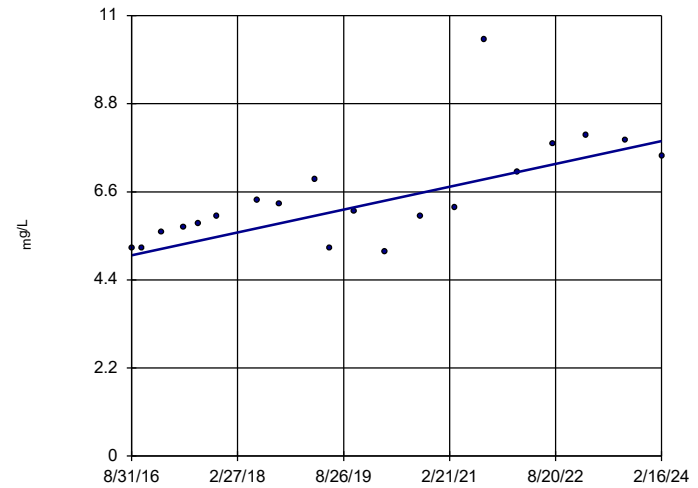


n = 15
 Slope = 0.05911
 units per year.
 Mann-Kendall
 statistic = 12
 critical = 53
 Trend not sig-
 nificant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-103

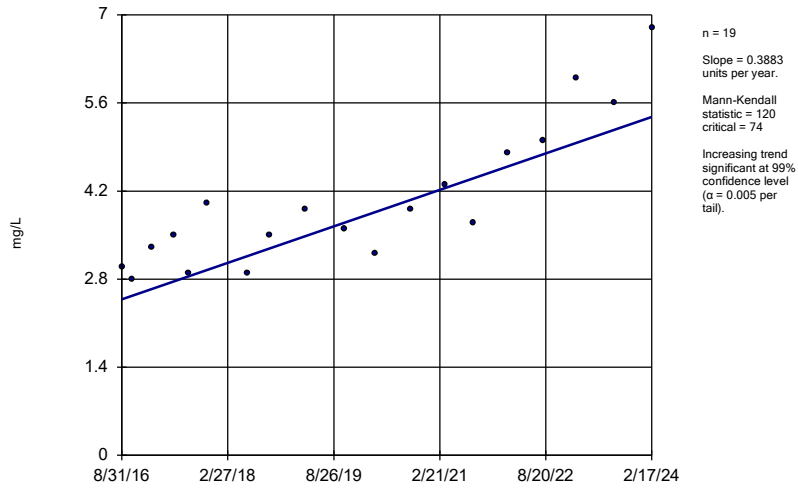


n = 20
 Slope = 0.3815
 units per year.
 Mann-Kendall
 statistic = 110
 critical = 81
 Increasing trend
 significant at 99%
 confidence level
 (α = 0.005 per
 tail).

Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
 Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

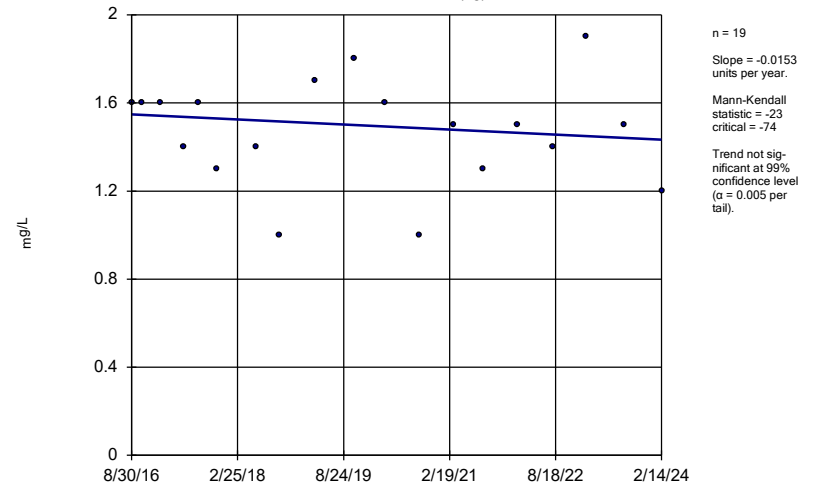
HGWC-105



Constituent: Chloride, Total Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

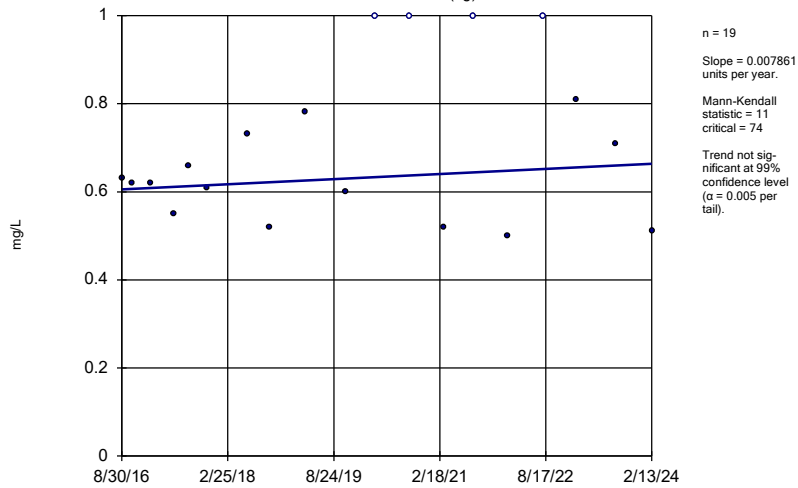
HGWA-111 (bg)



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

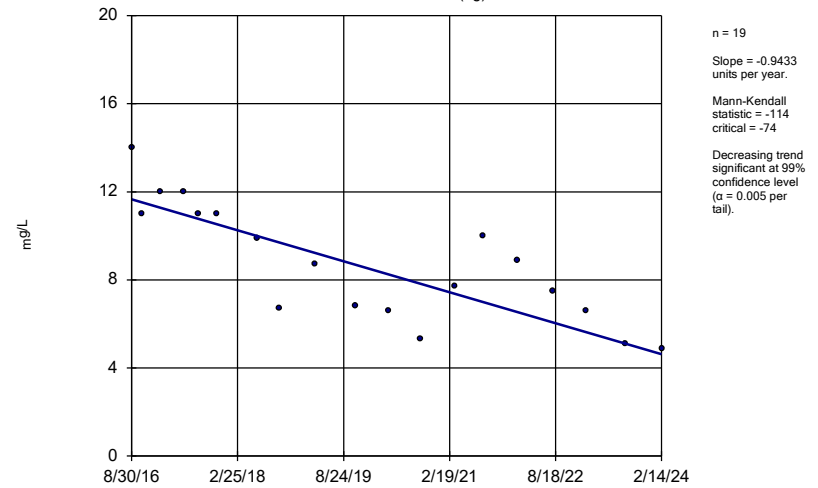
HGWA-112 (bg)



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

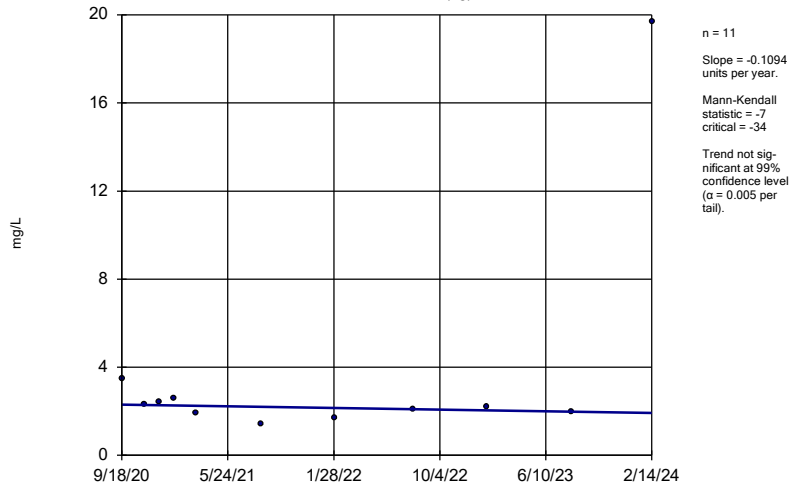
HGWA-113 (bg)



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

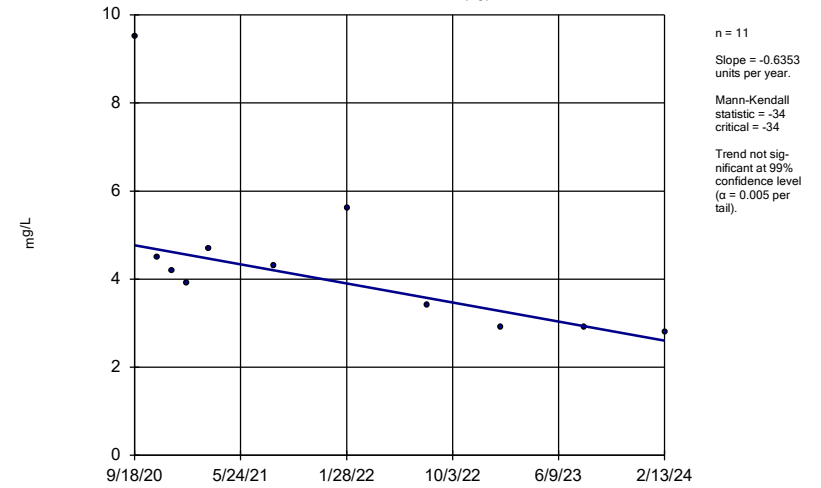
HGWA-47 (bg)



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

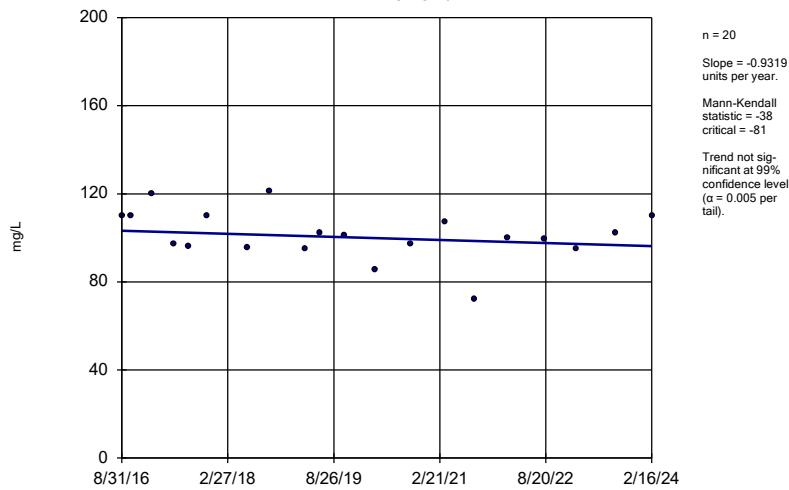
HGWA-48D (bg)



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-101

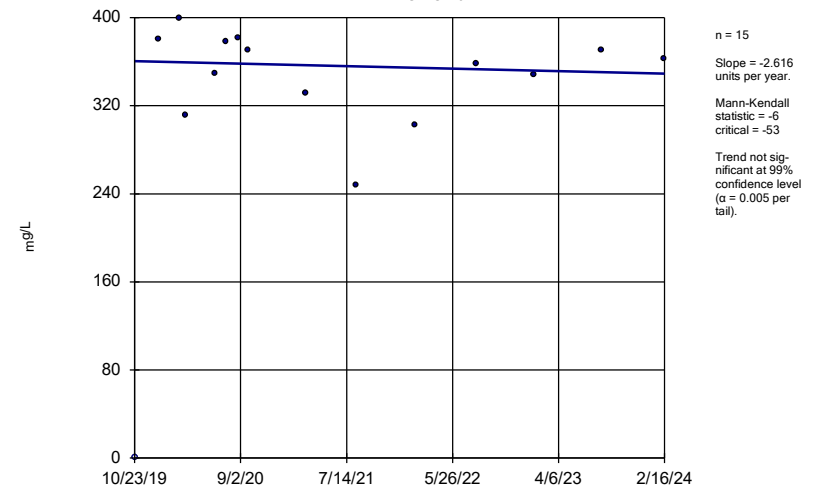


Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Hollow symbols indicate censored values.

Sen's Slope Estimator

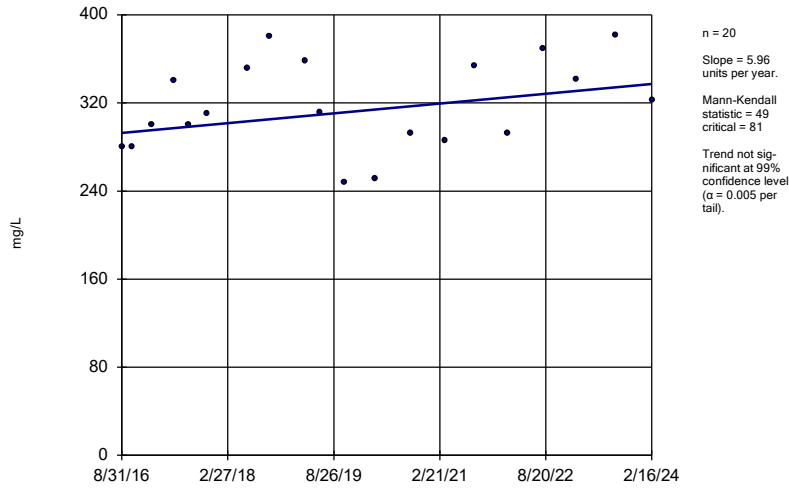
HGWC-102



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

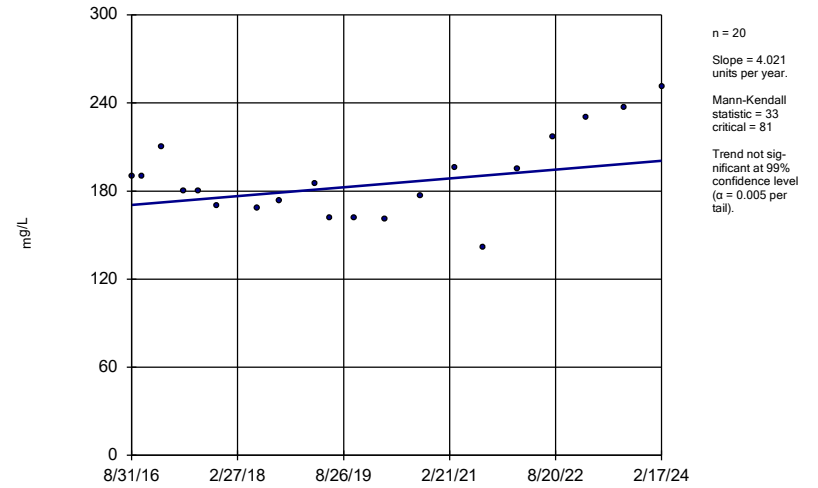
HGWC-103



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

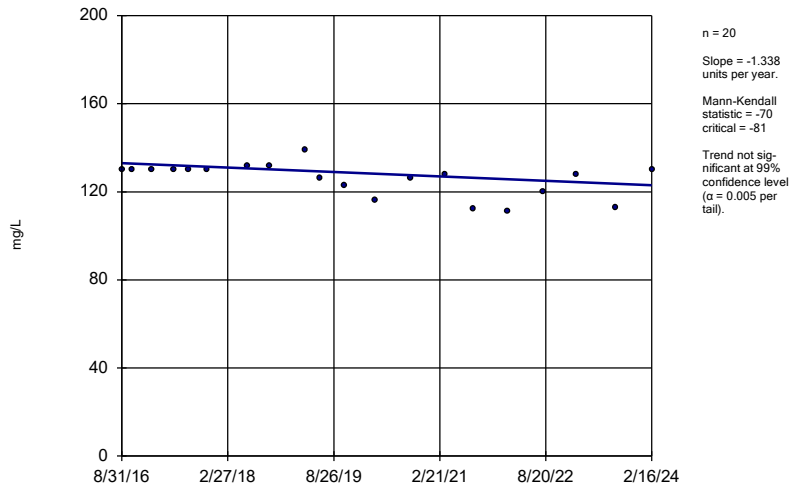
HGWC-105



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

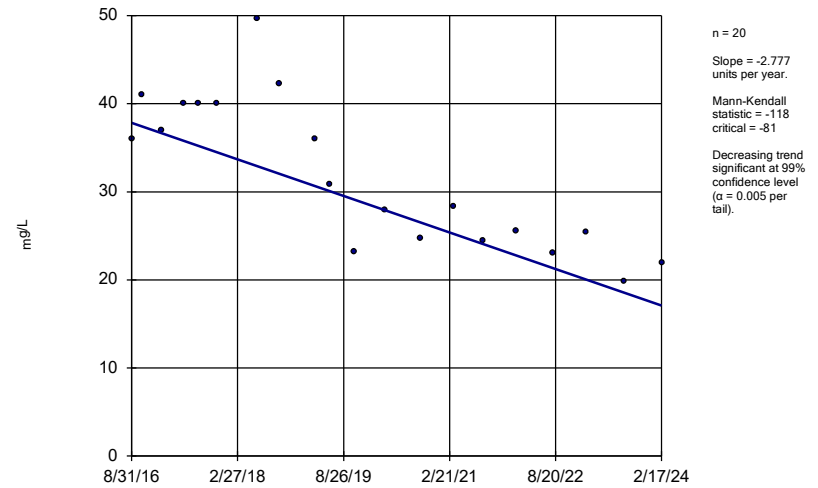
HGWC-107



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

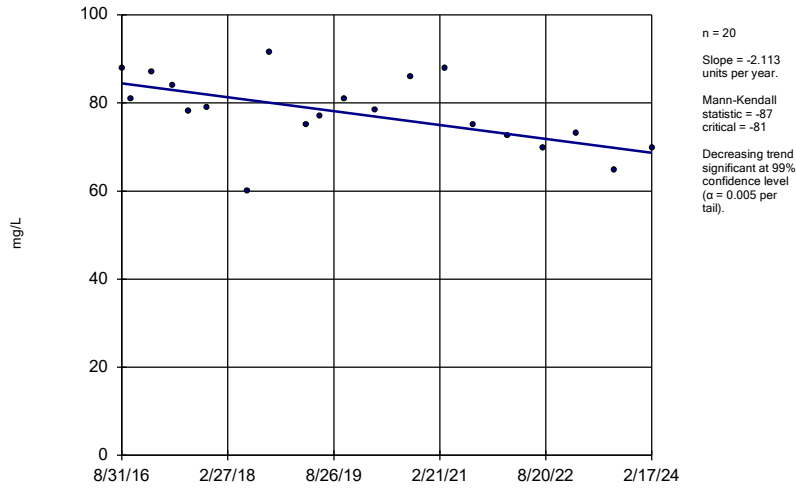
HGWC-109



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

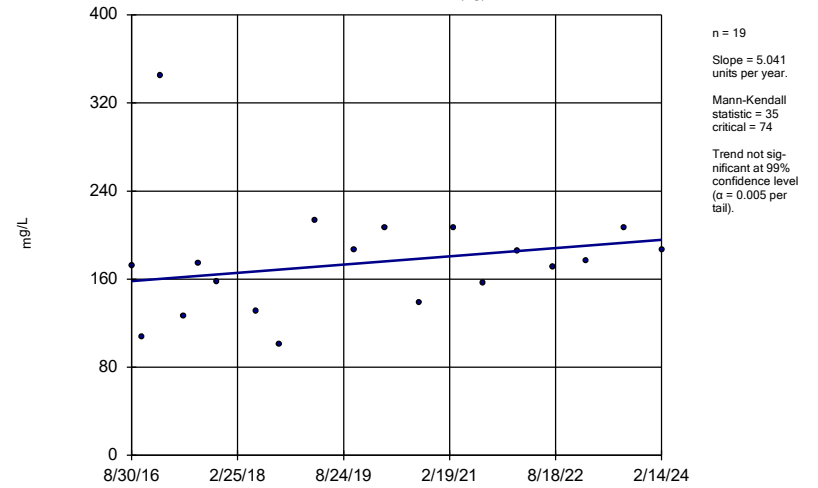
HGWC-118



Constituent: Sulfate as SO4 Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

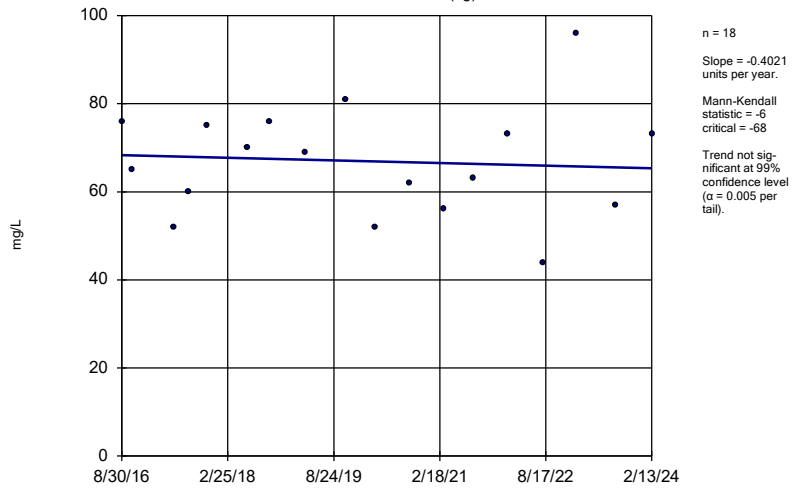
HGWA-111 (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

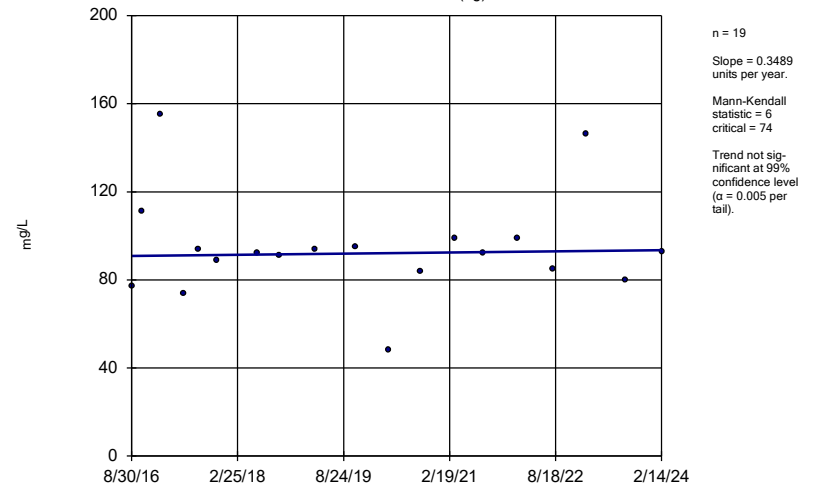
HGWA-112 (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

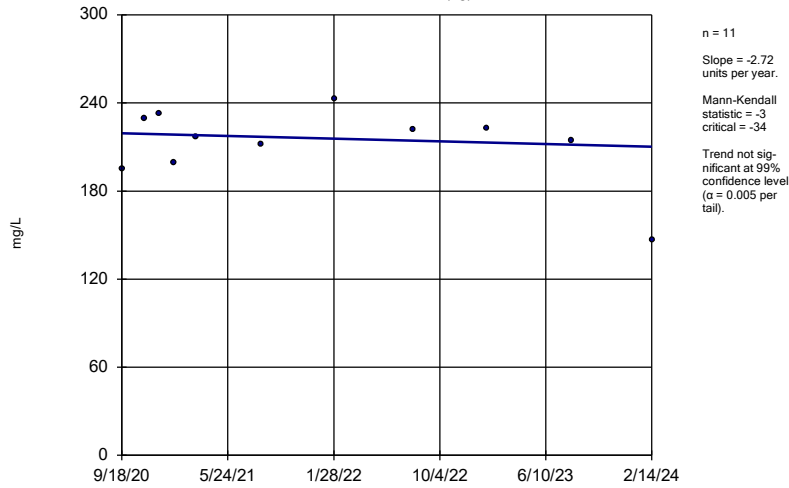
HGWA-113 (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

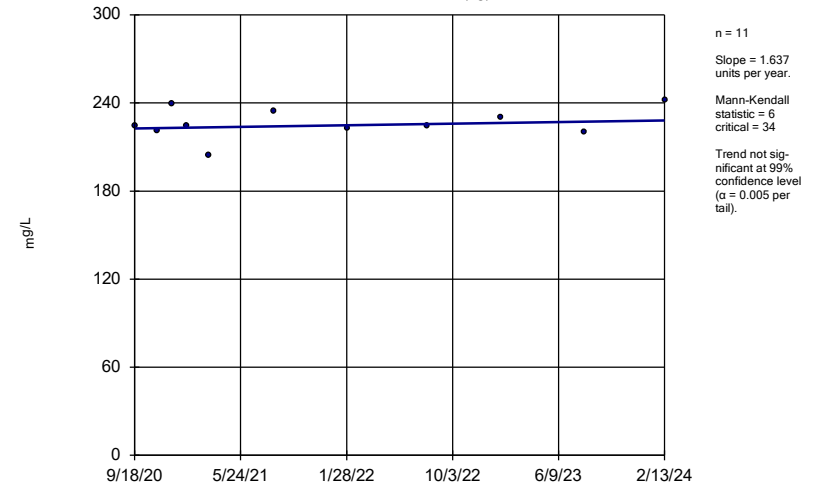
HGWA-47 (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

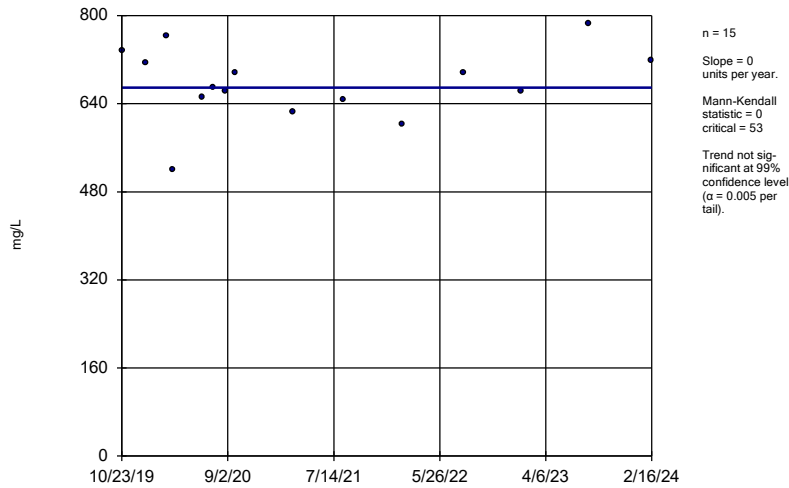
HGWA-48D (bg)



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

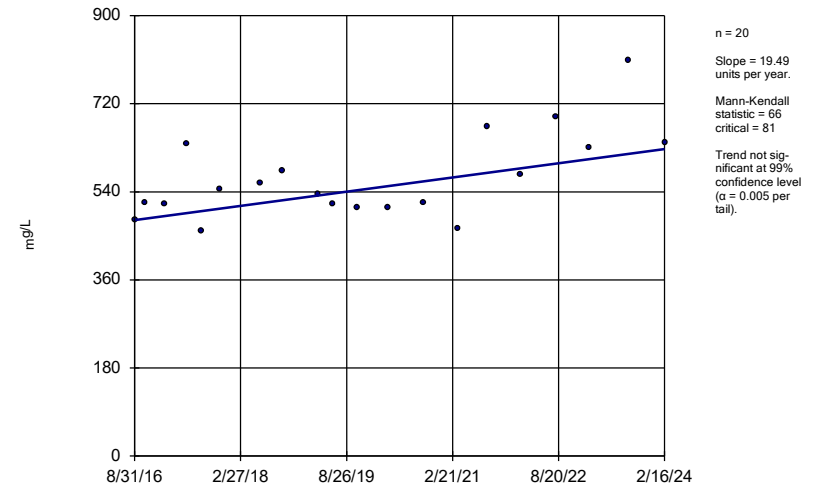
HGWC-102



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

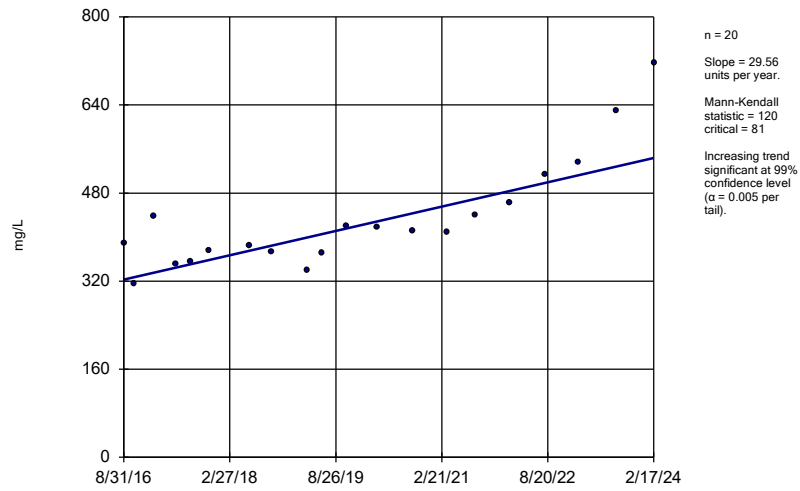
HGWC-103



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

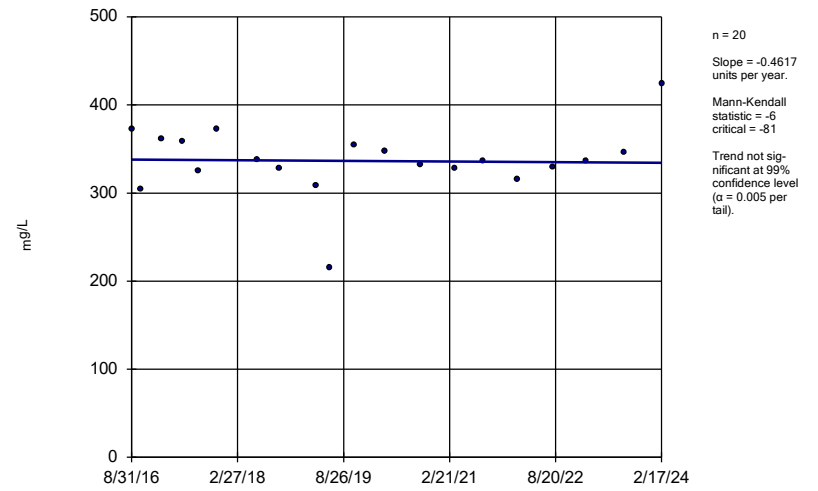
HGWC-105



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

Sen's Slope Estimator

HGWC-118



Constituent: Total Dissolved Solids [TDS] Analysis Run 4/30/2024 3:01 PM View: Trend Tests
Plant Hammond Client: Southern Company Data: Hammond AP-4

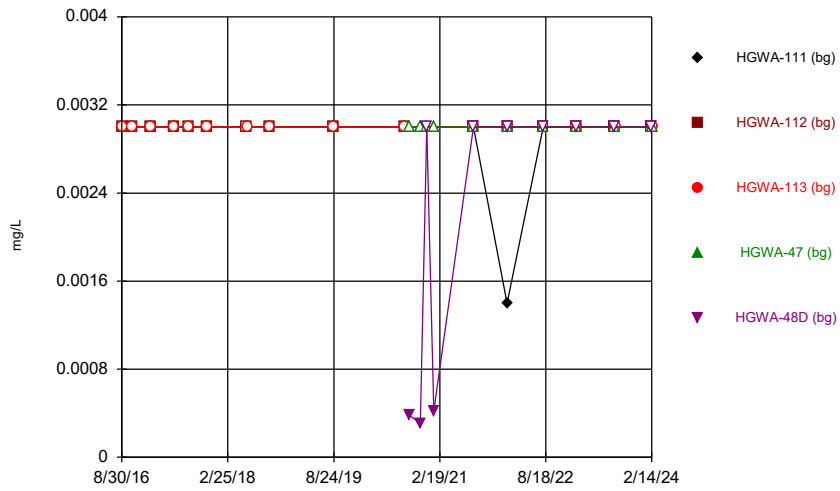
FIGURE F.

Upper Tolerance Limits Summary Table

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/26/2024, 12:16 PM

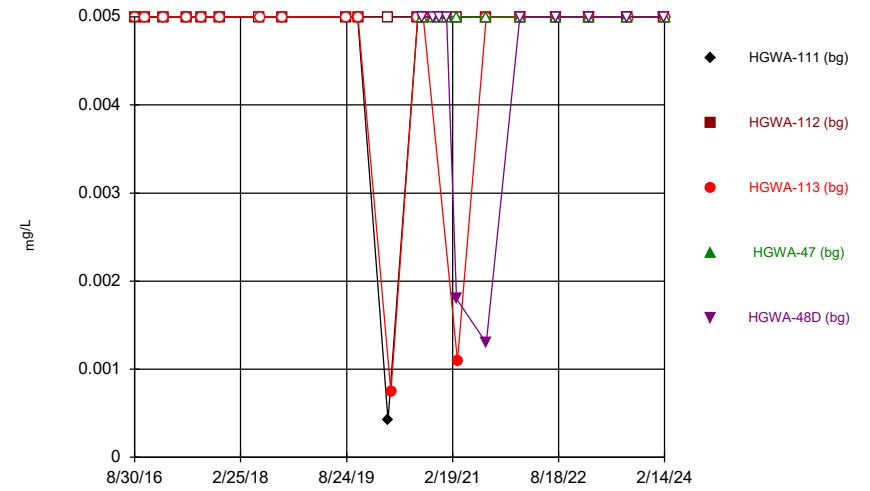
<u>Constituent</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	n/a	n/a	n/a	n/a	68	94.12	n/a	0.03056	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	n/a	n/a	82	93.9	n/a	0.01491	NP Inter(NDs)
Barium (mg/L)	0.12	n/a	n/a	n/a	n/a	82	0	n/a	0.01491	NP Inter(normality)
Beryllium (mg/L)	0.0019	n/a	n/a	n/a	n/a	82	91.46	n/a	0.01491	NP Inter(NDs)
Cadmium (mg/L)	0.0005	n/a	n/a	n/a	n/a	82	100	n/a	0.01491	NP Inter(NDs)
Chromium (mg/L)	0.0061	n/a	n/a	n/a	n/a	82	40.24	n/a	0.01491	NP Inter(normality)
Cobalt (mg/L)	0.005	n/a	n/a	n/a	n/a	82	90.24	n/a	0.01491	NP Inter(NDs)
Combined Radium 226 & 228 (pCi/L)	1.293	n/a	n/a	n/a	n/a	82	0	No	0.05	Inter
Fluoride, total (mg/L)	0.23	n/a	n/a	n/a	n/a	85	21.18	n/a	0.01278	NP Inter(normality)
Lead (mg/L)	0.0016	n/a	n/a	n/a	n/a	82	73.17	n/a	0.01491	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	n/a	n/a	82	37.8	n/a	0.01491	NP Inter(normality)
Mercury (mg/L)	0.0002	n/a	n/a	n/a	n/a	68	82.35	n/a	0.03056	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	n/a	n/a	n/a	68	82.35	n/a	0.03056	NP Inter(NDs)
Selenium (mg/L)	0.005	n/a	n/a	n/a	n/a	68	79.41	n/a	0.03056	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	n/a	n/a	68	100	n/a	0.03056	NP Inter(NDs)

Time Series



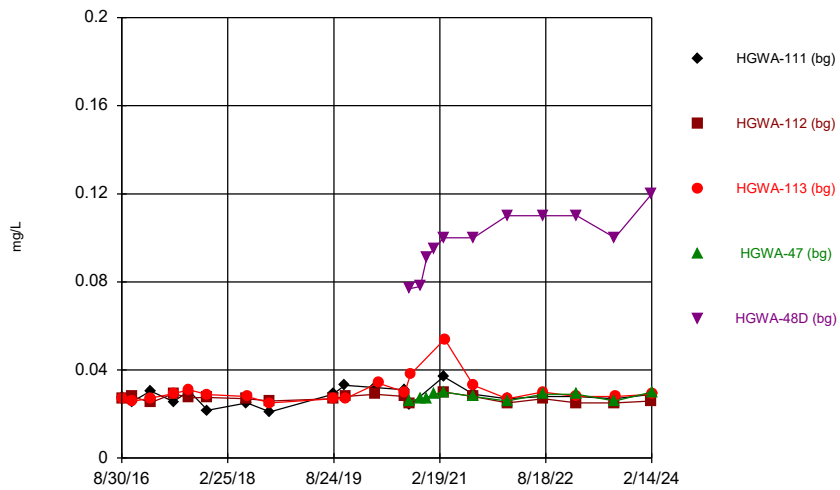
Constituent: Antimony Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



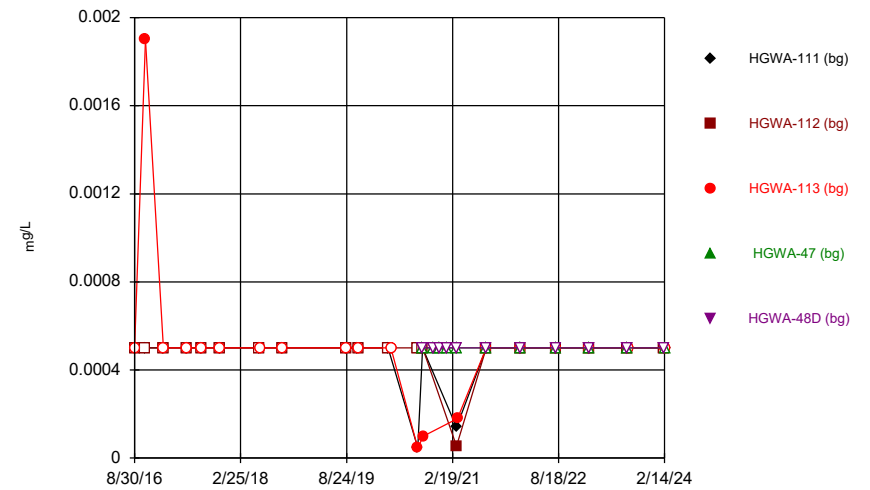
Constituent: Arsenic Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



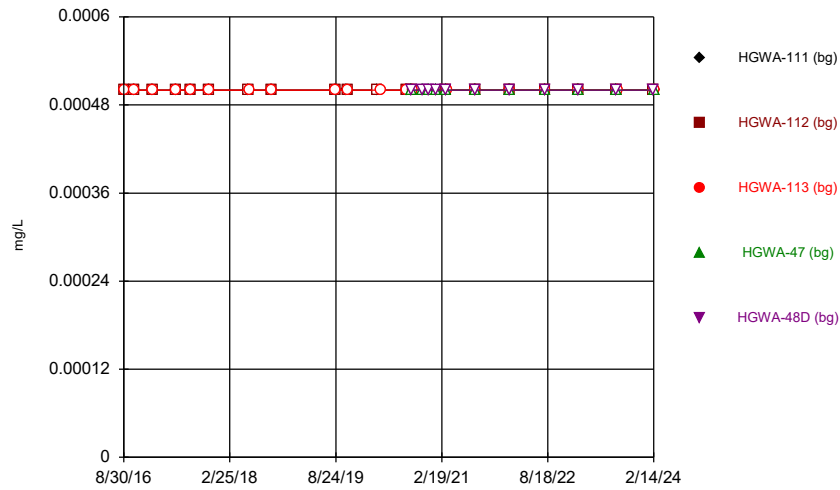
Constituent: Barium Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



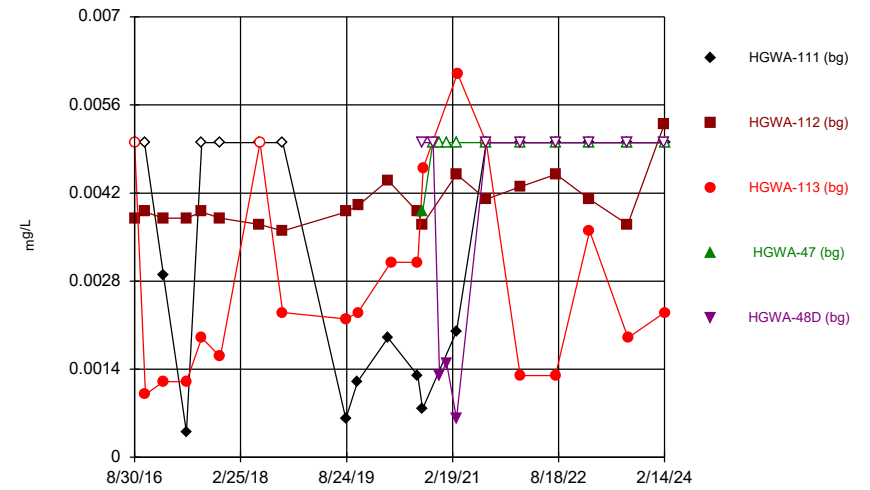
Constituent: Beryllium Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



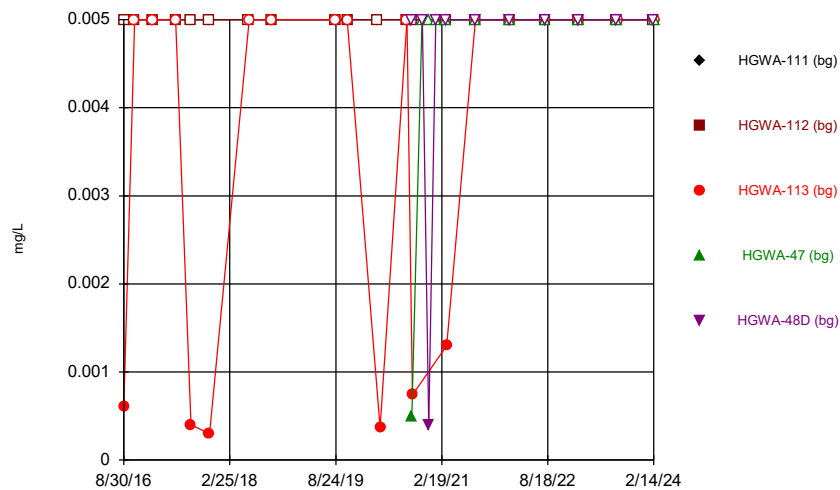
Constituent: Cadmium Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



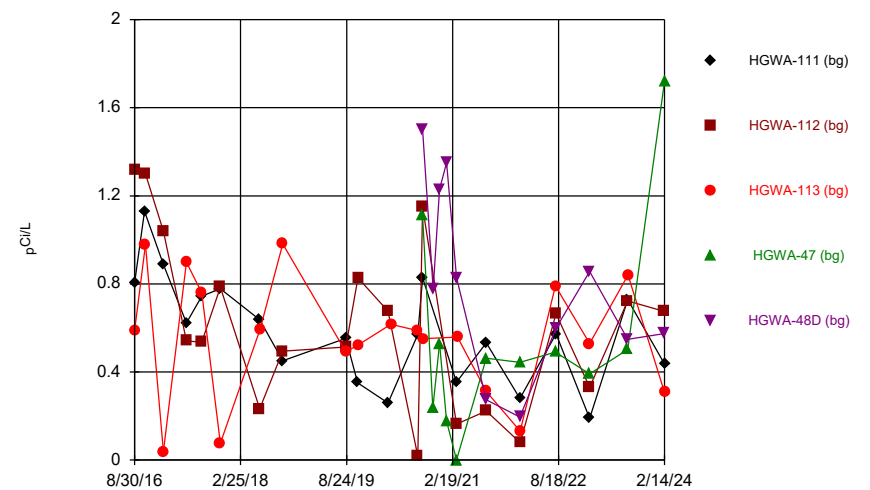
Constituent: Chromium Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



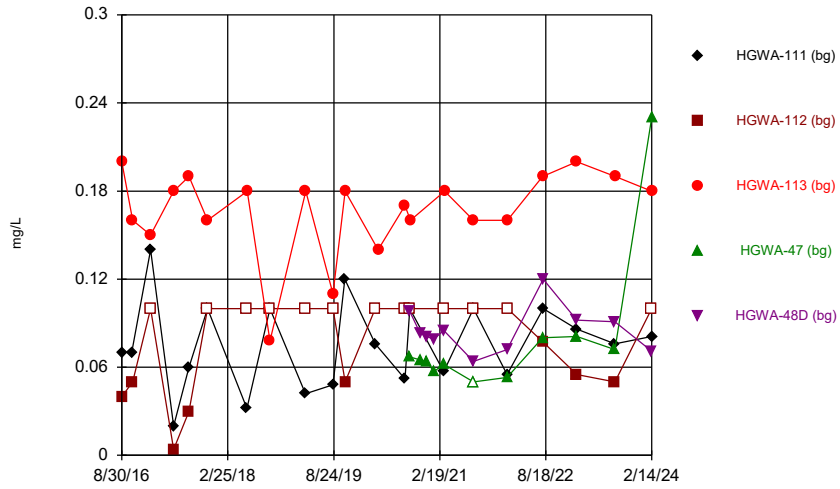
Constituent: Cobalt Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series

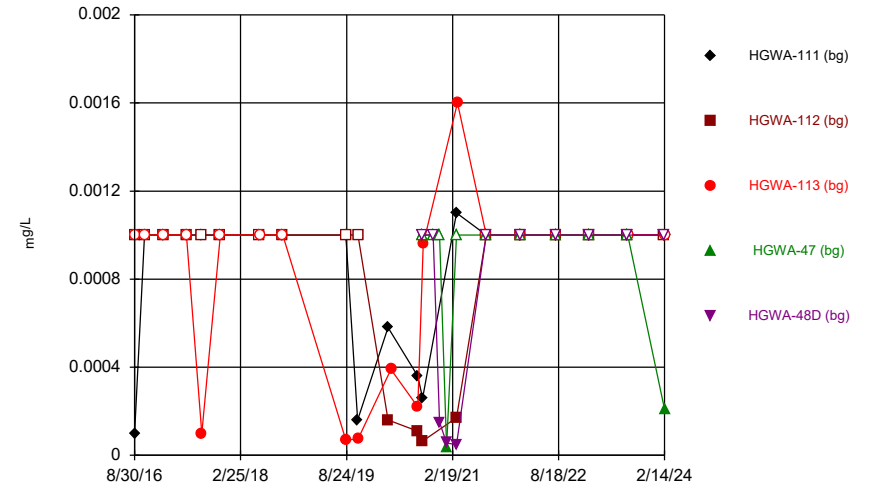


Constituent: Combined Radium 226 & 228 Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

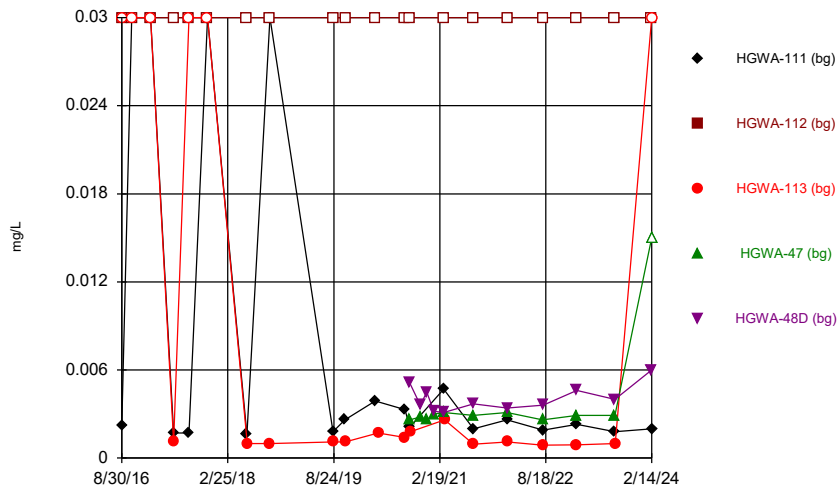
Time Series



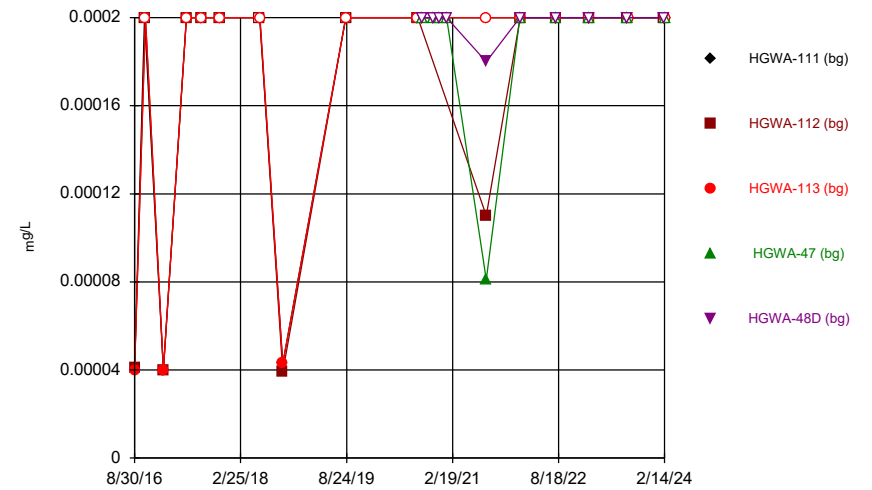
Time Series



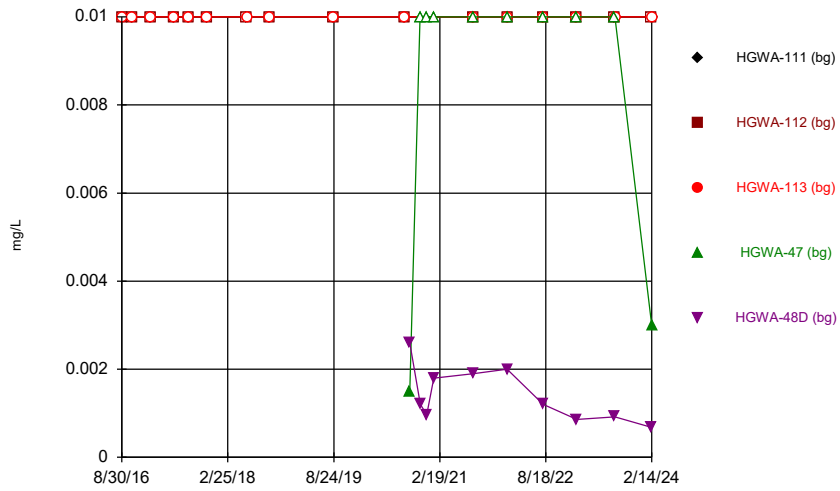
Time Series



Time Series

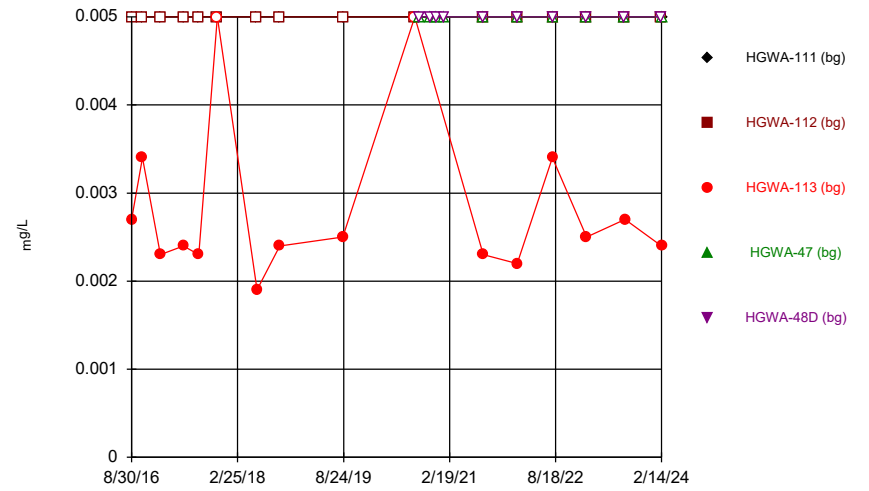


Time Series



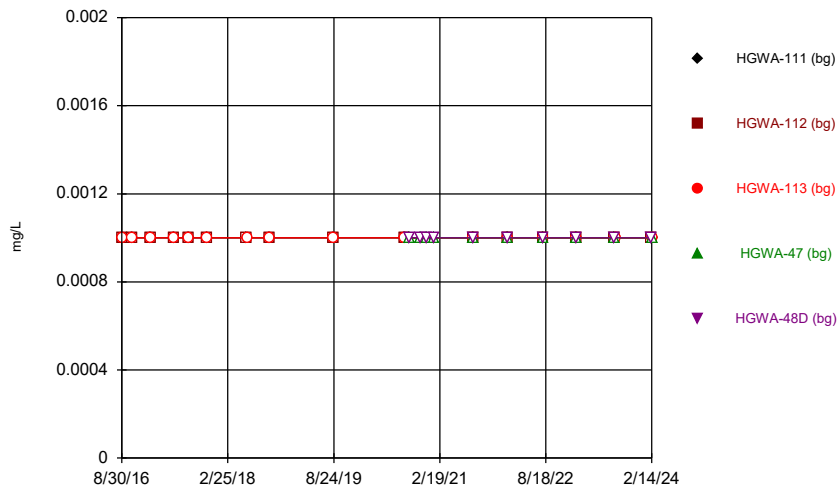
Constituent: Molybdenum Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



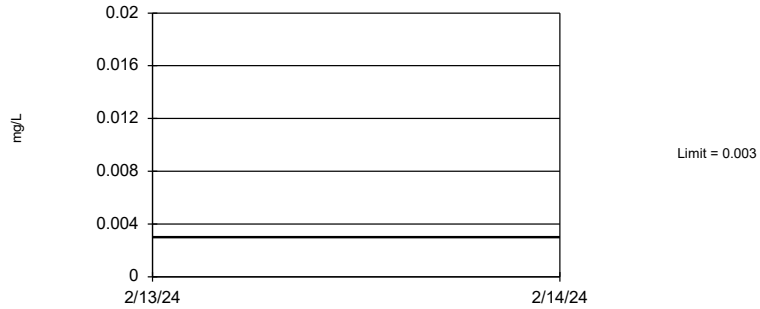
Constituent: Selenium Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Time Series



Constituent: Thallium Analysis Run 4/26/2024 12:15 PM View: UTLs
Plant Hammond Client: Southern Company Data: Hammond AP-4

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 68 background values. 94.12% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Antimony Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 82 background values. 93.9% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Arsenic Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

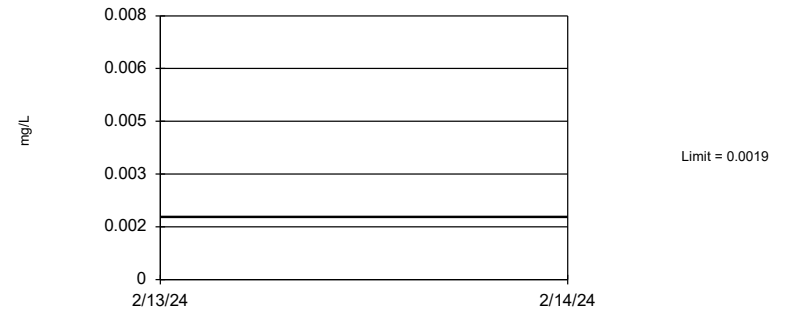
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Barium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

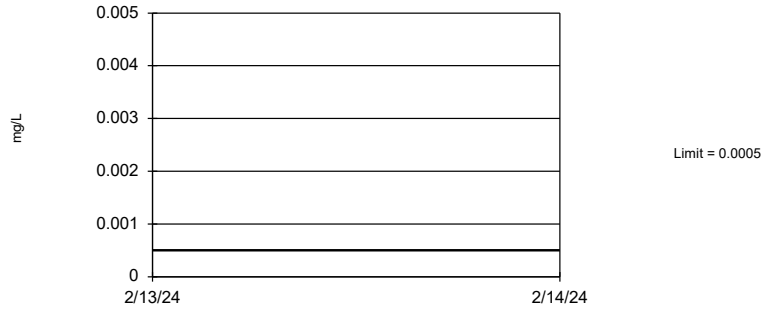
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 82 background values. 91.46% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Beryllium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

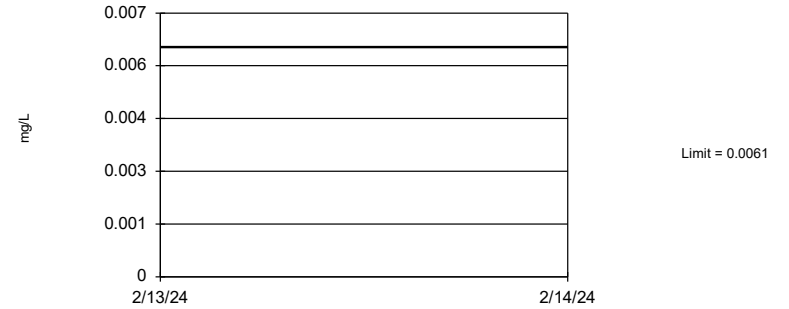
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Cadmium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

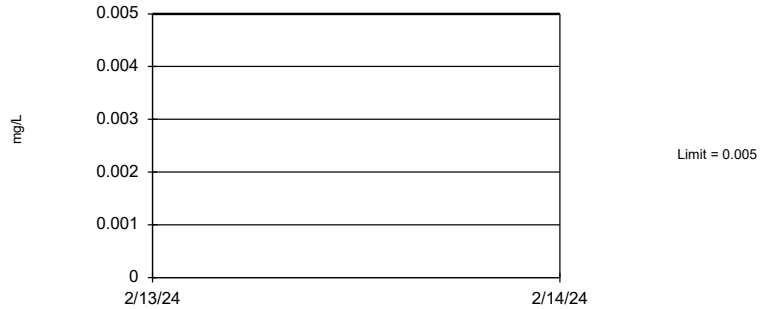
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 40.24% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Chromium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

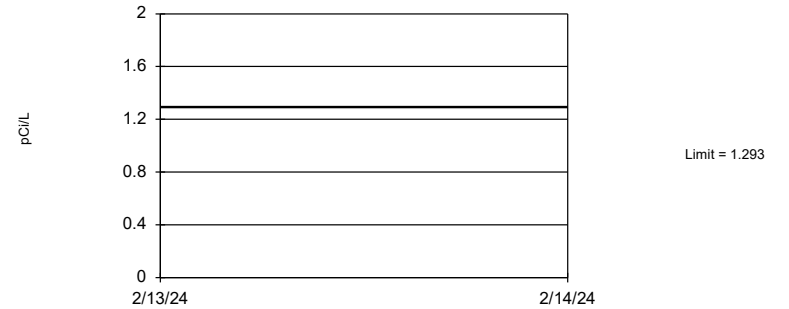
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 82 background values. 90.24% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Cobalt Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

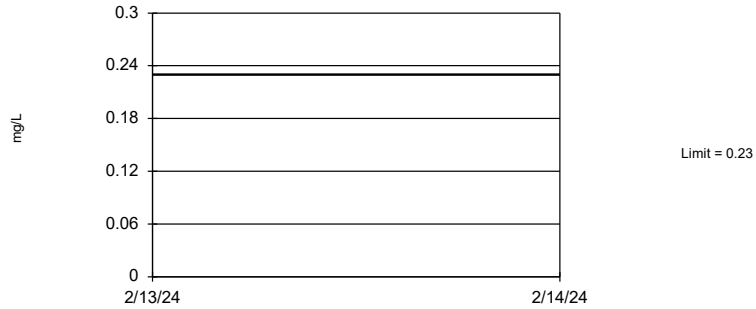
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.6092, Std. Dev.=0.3493, n=82. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9616, critical = 0.959. Report alpha = 0.05.

Constituent: Combined Radium 226 & 228 Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

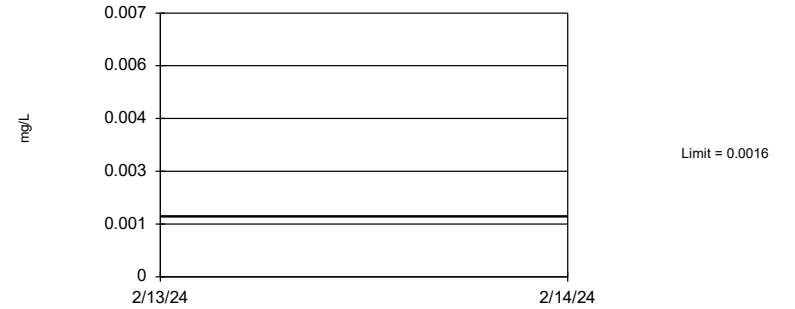
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 85 background values. 21.18% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01278.

Constituent: Fluoride, total Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 82 background values. 73.17% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Lead Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

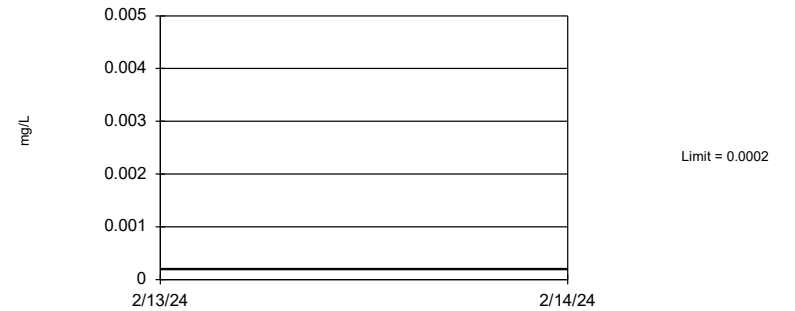
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 82 background values. 37.8% NDs. 94.73% coverage at alpha=0.01; 96.29% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01491.

Constituent: Lithium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 68 background values. 82.35% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Mercury Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

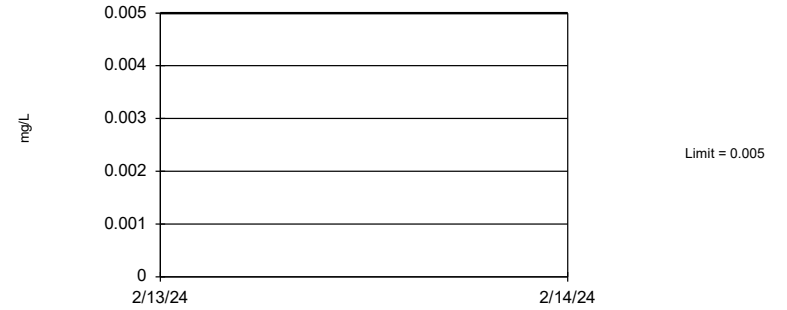
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 68 background values. 82.35% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Molybdenum Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 68 background values. 79.41% NDs. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Selenium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 93.55% coverage at alpha=0.01; 95.51% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.03056.

Constituent: Thallium Analysis Run 5/1/2024 9:40 AM View: UTLs
Plant Hammond Data: Hammond AP-4

FIGURE G.

PLANT HAMMOND AP-4 GWPS				
Constituent Name	MCL	CCR-Rule Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.12	2
Beryllium, Total (mg/L)	0.004		0.0019	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0061	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.005	0.006
Combined Radium, Total (pCi/L)	5		1.29	5
Fluoride, Total (mg/L)	4		0.23	4
Lead, Total (mg/L)	n/a	0.015	0.0016	0.015
Lithium, Total (mg/L)	n/a	0.040	0.030	0.040
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Standard*

FIGURE H.

Confidence Intervals Summary Table - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/26/2024, 12:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-102	0.003	0.003	0.006	No	14	0.0005987	85.71	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-103	0.003	0.0022	0.006	No	16	0.0002	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-107	0.003	0.0011	0.006	No	16	0.000475	93.75	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-101	0.005	0.00039	0.01	No	20	0.001031	95	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-102	0.005	0.00083	0.01	No	15	0.001976	73.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-109	0.003093	0.001678	0.01	No	20	0.001366	15	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	HGWC-118	0.005	0.001	0.01	No	20	0.0008944	95	None	No	0.01	NP (NDs)
Barium (mg/L)	HGWC-101	0.04449	0.03824	2	No	20	0.005495	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-102	0.03192	0.02701	2	No	15	0.003623	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-103	0.03953	0.03463	2	No	20	0.004318	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-105	0.085	0.0668	2	No	20	0.01003	0	None	No	0.01	NP (normality)
Barium (mg/L)	HGWC-107	0.03861	0.03554	2	No	20	0.0027	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-109	0.0865	0.08025	2	No	20	0.005505	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-117A	0.06883	0.04281	2	No	7	0.01176	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	HGWC-118	0.05989	0.04957	2	No	20	0.009093	0	None	No	0.01	Param.
Beryllium (mg/L)	HGWC-101	0.0005	0.000062	0.004	No	20	0.0002243	50	None	No	0.01	NP (normality)
Beryllium (mg/L)	HGWC-103	0.0005	0.000088	0.004	No	20	0.000177	80	None	No	0.01	NP (NDs)
Beryllium (mg/L)	HGWC-118	0.0005	0.000093	0.004	No	20	0.00009101	95	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-101	0.0002477	0.0001389	0.005	No	20	0.0001321	15	None	ln(x)	0.01	Param.
Cadmium (mg/L)	HGWC-102	0.0006432	0.0003368	0.005	No	15	0.0002261	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-103	0.0007812	0.0006838	0.005	No	20	0.00008577	0	None	No	0.01	Param.
Cadmium (mg/L)	HGWC-107	0.0005	0.0001	0.005	No	20	0.0001959	65	None	No	0.01	NP (NDs)
Cadmium (mg/L)	HGWC-117A	0.0005	0.00016	0.005	No	7	0.0001285	85.71	None	No	0.008	NP (NDs)
Chromium (mg/L)	HGWC-101	0.005	0.00098	0.1	No	20	0.001749	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-102	0.005	0.00063	0.1	No	15	0.001559	86.67	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-103	0.005	0.0013	0.1	No	20	0.001925	65	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-105	0.005	0.0013	0.1	No	20	0.001759	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-107	0.005	0.00074	0.1	No	20	0.0009526	95	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-109	0.005	0.0014	0.1	No	20	0.001235	90	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-118	0.005	0.0021	0.1	No	20	0.00169	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-101	0.002752	0.002168	0.006	No	20	0.0005134	5	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-102	0.0019	0.00098	0.006	No	15	0.0007565	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-103	0.002237	0.001833	0.006	No	20	0.0003558	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-105	0.005	0.00047	0.006	No	20	0.002064	30	None	No	0.01	NP (normality)
Cobalt (mg/L)	HGWC-109	0.001968	0.001216	0.006	No	20	0.0006617	0	None	No	0.01	Param.
Cobalt (mg/L)	HGWC-117A	0.00173	0.0003088	0.006	No	7	0.0006974	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	HGWC-118	0.005	0.00045	0.006	No	20	0.002302	50	None	No	0.01	NP (normality)
Combined Radium 226 & 228 (pCi/L)	HGWC-101	0.8319	0.4335	5	No	20	0.3508	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-102	1.123	0.574	5	No	14	0.3872	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-103	0.8694	0.478	5	No	20	0.3447	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-105	0.8481	0.4931	5	No	20	0.3127	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-107	1.014	0.517	5	No	20	0.4375	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-109	0.7432	0.4253	5	No	20	0.2799	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-117A	0.9694	0.09314	5	No	7	0.3689	0	None	No	0.01	Param.
Combined Radium 226 & 228 (pCi/L)	HGWC-118	1.068	0.4602	5	No	19	0.5188	0	None	No	0.01	Param.
Fluoride, total (mg/L)	HGWC-101	0.1	0.065	4	No	21	0.01934	85.71	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-102	0.22	0.076	4	No	15	0.03203	86.67	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-103	0.13	0.071	4	No	21	0.02133	76.19	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-105	0.13	0.074	4	No	21	0.02828	57.14	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-107	0.1	0.064	4	No	21	0.03356	57.14	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	HGWC-109	0.1241	0.08388	4	No	21	0.03647	9.524	None	No	0.01	Param.
Fluoride, total (mg/L)	HGWC-117A	0.0987	0.04401	4	No	7	0.02624	28.57	Kaplan-Meier	No	0.01	Param.
Fluoride, total (mg/L)	HGWC-118	0.14	0.072	4	No	22	0.1819	0	None	No	0.01	NP (normality)
Lead (mg/L)	HGWC-101	0.001	0.0009	0.015	No	20	0.00002236	95	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-102	0.001	0.00011	0.015	No	15	0.0002298	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-103	0.001	0.00028	0.015	No	20	0.0003596	70	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-105	0.001	0.000085	0.015	No	20	0.0003838	80	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-107	0.001	0.00034	0.015	No	20	0.00034	80	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-109	0.001	0.000058	0.015	No	20	0.0002906	90	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-118	0.001	0.00088	0.015	No	20	0.0003159	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	HGWC-102	0.0013	0.001	0.04	No	15	0.003572	6.667	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-103	0.002	0.0015	0.04	No	20	0.01166	20	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-105	0.004193	0.003877	0.04	No	20	0.0002777	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-107	0.03	0.00091	0.04	No	20	0.01484	45	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-109	0.03	0.0009	0.04	No	20	0.01487	50	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-117A	0.0051	0.0035	0.04	No	7	0.0005442	0	None	No	0.008	NP (normality)
Lithium (mg/L)	HGWC-118	0.03	0.0017	0.04	No	20	0.01374	35	None	No	0.01	NP (normality)
Mercury (mg/L)	HGWC-101	0.0002	0.000099	0.002	No	16	0.00003554	87.5	None	No	0.01	NP (NDs)

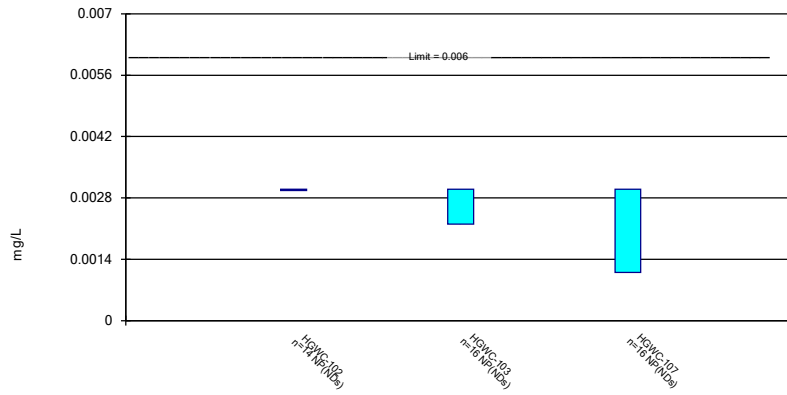
Confidence Intervals Summary Table - All Results (No Significant) ^{Page 2}

Plant Hammond Client: Southern Company Data: Hammond AP-4 Printed 4/26/2024, 12:13 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Mercury (mg/L)	HGWC-102	0.0002	0.0001	0.002	No	14	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-103	0.00025	0.00017	0.002	No	16	0.00003885	75	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-105	0.00022	0.0002	0.002	No	16	0.000005	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-107	0.0002	0.000084	0.002	No	16	0.000029	93.75	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-109	0.0002	0.00008	0.002	No	16	0.00004099	87.5	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-117A	0.0002	0.000094	0.002	No	7	0.00004006	85.71	None	No	0.008	NP (NDs)
Mercury (mg/L)	HGWC-118	0.0002	0.00009	0.002	No	16	0.00003914	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-102	0.005	0.0015	0.05	No	14	0.0009354	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	HGWC-102	0.001	0.00008	0.002	No	14	0.0002459	92.86	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

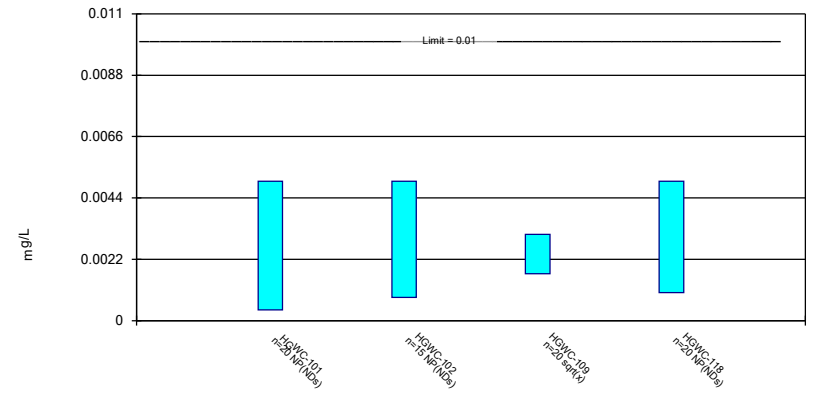
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

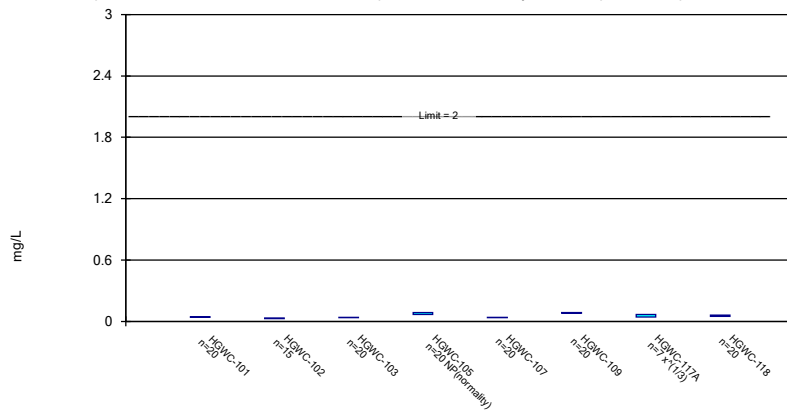
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

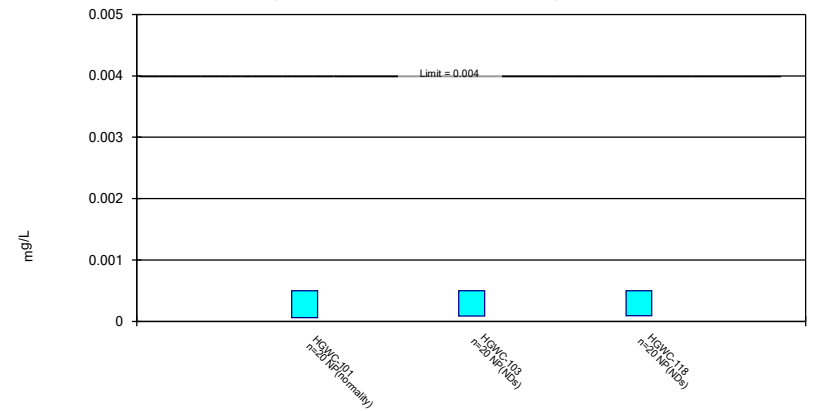
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Constituent: Barium Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

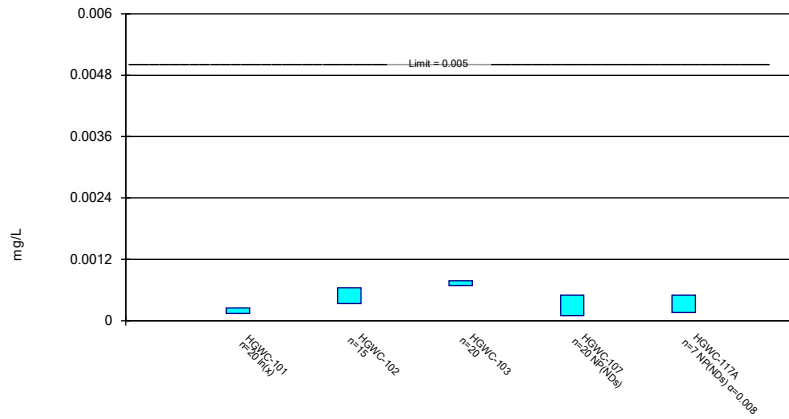
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Beryllium Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

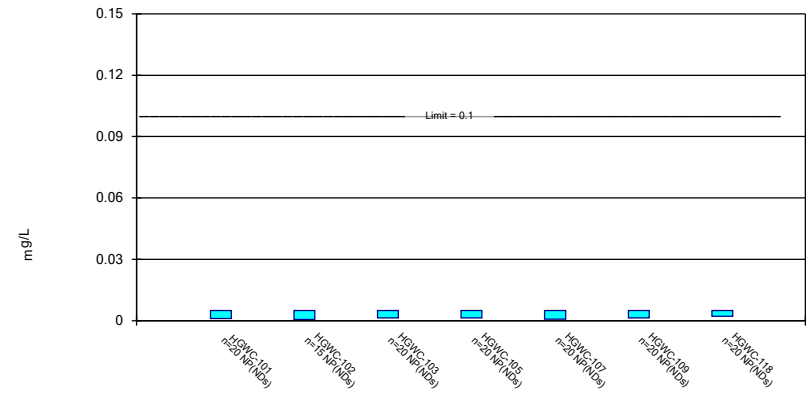
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Constituent: Cadmium Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

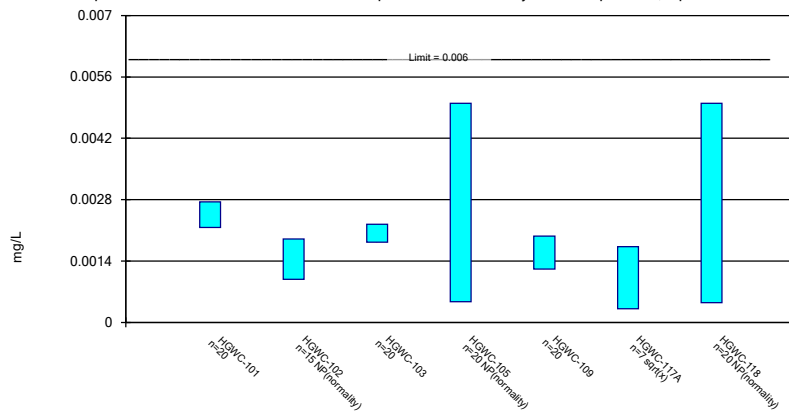
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

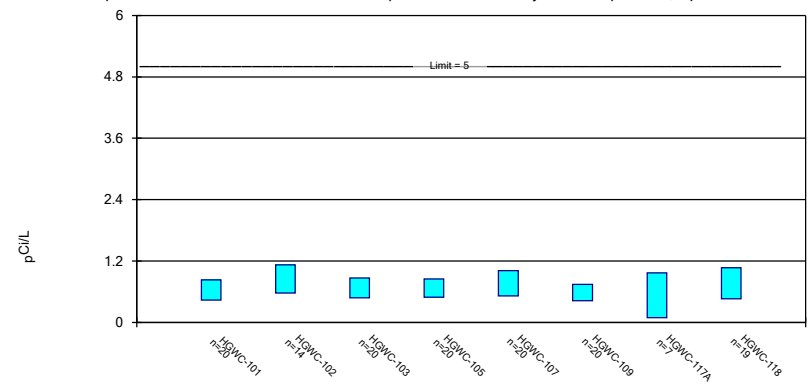
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric Confidence Interval

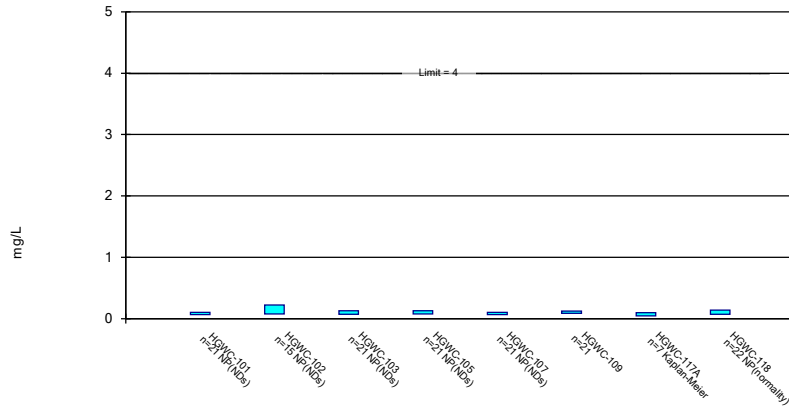
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 & 228 Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

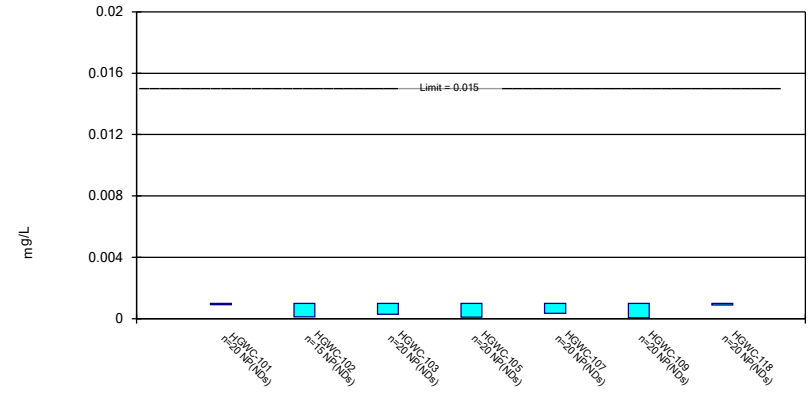
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride, total Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

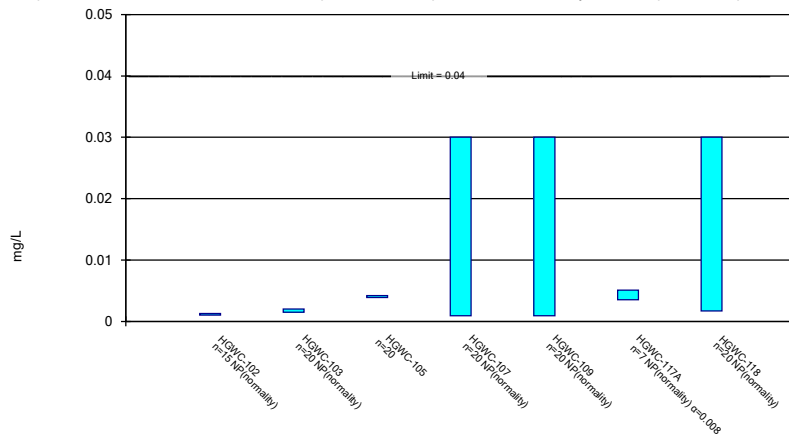
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Parametric and Non-Parametric (NP) Confidence Interval

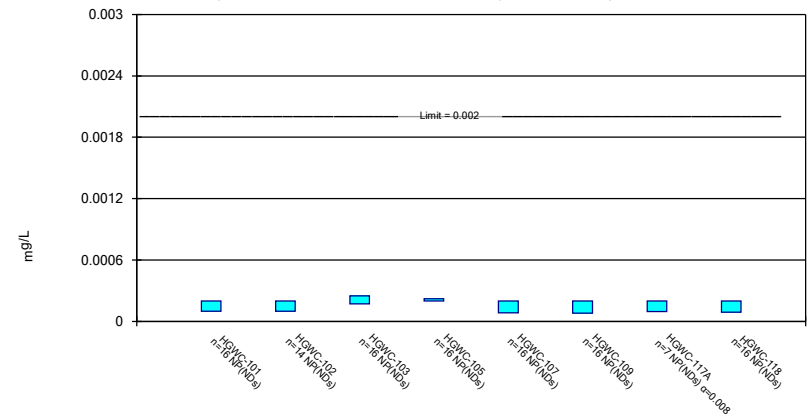
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

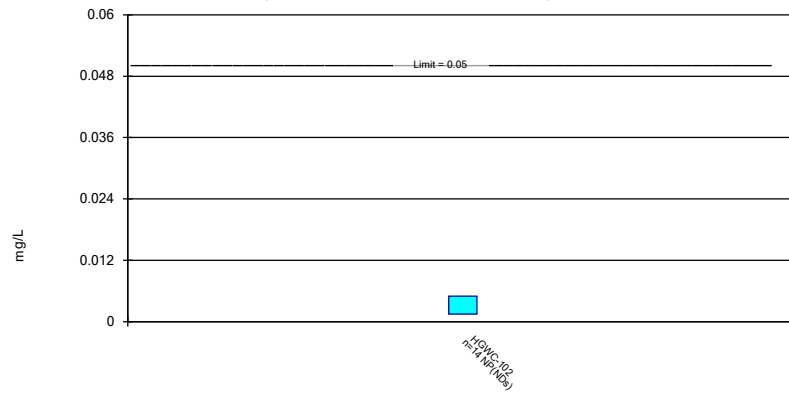
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Mercury Analysis Run 4/26/2024 12:07 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

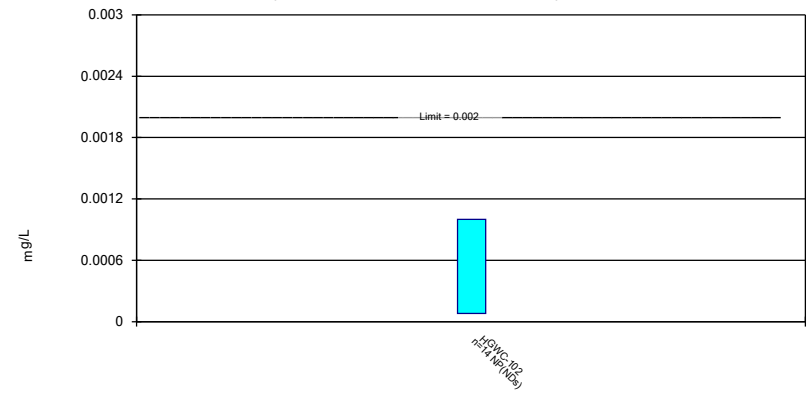
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 4/26/2024 12:08 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 4/26/2024 12:08 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWC-103	HGWC-107
8/31/2016		<0.003	<0.003
10/24/2016		<0.003	
10/25/2016			<0.003
1/31/2017		<0.003	<0.003
5/23/2017		<0.003	
5/24/2017			<0.003
8/10/2017		<0.003	<0.003
11/14/2017		<0.003	<0.003
6/6/2018		0.0022 (J)	<0.003
10/2/2018			0.0011 (J)
10/3/2018		<0.003	
8/22/2019		<0.003	
8/23/2019			<0.003
10/23/2019	<0.003		
1/3/2020	0.00076 (J)		
3/4/2020	<0.003		
3/24/2020	<0.003		
6/18/2020	<0.003		
7/21/2020	<0.003		
8/27/2020	<0.003	<0.003	<0.003
9/24/2020	<0.003		
8/13/2021	<0.003		<0.003
8/16/2021		<0.003	
2/2/2022	<0.003	<0.003	<0.003
8/5/2022	<0.003	<0.003	<0.003
1/25/2023	<0.003	<0.003	<0.003
8/11/2023	0.003	<0.003	<0.003
2/16/2024	<0.003	<0.003	<0.003
Mean	0.00284	0.00295	0.002881
Std. Dev.	0.0005987	0.0002	0.000475
Upper Lim.	0.003	0.003	0.003
Lower Lim.	0.003	0.0022	0.0011

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-109	HGWC-118
8/31/2016	<0.005		0.0045 (J)	<0.005
10/20/2016	<0.005			<0.005
10/25/2016			0.003 (J)	
1/31/2017	<0.005		0.0022 (J)	<0.005
5/23/2017	<0.005			<0.005
5/24/2017			0.0012 (J)	
8/10/2017	<0.005		0.0016 (J)	<0.005
11/14/2017	<0.005		0.0011 (J)	<0.005
6/6/2018	<0.005		0.0018 (J)	
6/7/2018				<0.005
10/2/2018			0.0014 (J)	
10/3/2018	<0.005			<0.005
8/22/2019	<0.005			<0.005
8/23/2019			0.0035 (J)	
10/22/2019			0.0019 (J)	<0.005
10/23/2019	<0.005	<0.005		
1/3/2020		0.00065 (J)		
3/4/2020		0.00036 (J)		
3/24/2020		<0.005		
3/25/2020	0.00039 (J)		0.0025 (J)	<0.005
6/18/2020		0.00092 (J)		
7/21/2020		0.00083 (J)		
8/26/2020				<0.005
8/27/2020	<0.005	<0.005	0.0011 (J)	
9/24/2020	<0.005	<0.005		
9/25/2020			0.0017 (J)	
9/28/2020				<0.005
3/17/2021	<0.005	<0.005	0.0019 (J)	
3/18/2021				0.001 (J)
8/13/2021		<0.005	0.0019 (J)	<0.005
8/16/2021	<0.005			
2/2/2022	<0.005	<0.005	<0.005	
2/3/2022				<0.005
8/5/2022		<0.005	0.0022 (J)	<0.005
8/10/2022	<0.005			
1/25/2023	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005
2/16/2024	<0.005	<0.005		
2/17/2024			0.0013 (J)	<0.005
Mean	0.004769	0.003851	0.00249	0.0048
Std. Dev.	0.001031	0.001976	0.001366	0.0008944
Upper Lim.	0.005	0.005	0.003093	0.005
Lower Lim.	0.00039	0.00083	0.001678	0.001

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.0527		0.045	0.067	0.0391	0.0883		0.0595
10/20/2016	0.0477							0.055
10/24/2016			0.0386					
10/25/2016				0.0745	0.041	0.0831		
1/31/2017	0.0527		0.0365	0.0674	0.0382	0.0844		0.0613
5/23/2017	0.0436		0.0254					0.068
5/24/2017				0.0668	0.0377	0.0784		
8/10/2017	0.0419		0.0396	0.067	0.0385	0.0903		0.0638
11/14/2017	0.0407		0.0385	0.0643	0.039	0.083		0.07
6/6/2018	0.043		0.043	0.068	0.039	0.095		
6/7/2018								0.059
10/2/2018				0.066	0.038	0.089		
10/3/2018	0.041		0.04					0.056
8/22/2019	0.043		0.036	0.066				0.052
8/23/2019					0.038	0.088		
10/22/2019					0.039	0.087		0.054
10/23/2019	0.043	0.037	0.039	0.066				
1/3/2020		0.036						
3/4/2020		0.033						
3/24/2020		0.024						
3/25/2020	0.038		0.036	0.074	0.037	0.084		0.06
6/18/2020		0.029						
7/21/2020		0.028						
8/26/2020								0.056
8/27/2020	0.045	0.028	0.038	0.068	0.034	0.083		
9/24/2020	0.041	0.029	0.036	0.075	0.039			
9/25/2020						0.085		
9/28/2020								0.046
3/17/2021	0.04	0.031				0.077		
3/18/2021			0.042	0.082	0.041			0.067
8/12/2021							0.079	
8/13/2021		0.026		0.073	0.033	0.08		0.043
8/16/2021	0.037		0.037					
9/27/2021							0.062	
2/2/2022	0.036	0.029	0.036		0.034	0.072		
2/3/2022				0.093			0.049	0.047
8/5/2022		0.031	0.037	0.088	0.036	0.085	0.055	0.039
8/10/2022	0.04							
1/25/2023	0.033	0.027	0.032	0.094	0.035	0.076	0.05	0.048
8/11/2023	0.036	0.028	0.035	0.089	0.032	0.081	0.046	0.04
2/16/2024	0.032	0.026	0.031		0.033			
2/17/2024				0.085		0.078	0.047	0.05
Mean	0.04137	0.02947	0.03708	0.0747	0.03708	0.08338	0.05543	0.05473
Std. Dev.	0.005495	0.003623	0.004318	0.01003	0.0027	0.005505	0.01176	0.009093
Upper Lim.	0.04449	0.03192	0.03953	0.085	0.03861	0.0865	0.06883	0.05989
Lower Lim.	0.03824	0.02701	0.03463	0.0668	0.03554	0.08025	0.04281	0.04957

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-103	HGWC-118
8/31/2016	<0.0005	<0.0005	<0.0005
10/20/2016	<0.0005		<0.0005
10/24/2016		<0.0005	
1/31/2017	<0.0005	<0.0005	<0.0005
5/23/2017	7E-05 (J)	<0.0005	<0.0005
8/10/2017	<0.0005	<0.0005	<0.0005
11/14/2017	<0.0005	<0.0005	<0.0005
6/6/2018	5.9E-05 (J)	<0.0005	
6/7/2018			<0.0005
10/3/2018	6.5E-05 (J)	<0.0005	<0.0005
8/22/2019	<0.0005	<0.0005	<0.0005
10/22/2019			<0.0005
10/23/2019	7.5E-05 (J)	<0.0005	
3/25/2020	<0.0005	<0.0005	<0.0005
8/26/2020			<0.0005
8/27/2020	5.7E-05 (J)	5E-05 (J)	
9/24/2020	4.8E-05 (J)	8.8E-05 (J)	
9/28/2020			<0.0005
3/17/2021	5.9E-05 (J)		
3/18/2021		6.1E-05 (J)	9.3E-05 (J)
8/13/2021			<0.0005
8/16/2021	<0.0005	<0.0005	
2/2/2022	6.2E-05 (J)	7.7E-05 (J)	
2/3/2022			<0.0005
8/5/2022		<0.0005	<0.0005
8/10/2022	6.4E-05 (J)		
1/25/2023	<0.0005	<0.0005	<0.0005
8/11/2023	7E-05 (J)	<0.0005	<0.0005
2/16/2024	<0.0005	<0.0005	
2/17/2024			<0.0005
Mean	0.0002815	0.0004138	0.0004797
Std. Dev.	0.0002243	0.000177	9.101E-05
Upper Lim.	0.0005	0.0005	0.0005
Lower Lim.	6.2E-05	8.8E-05	9.3E-05

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-107	HGWC-117A
8/31/2016	0.0002 (J)		0.0006 (J)	0.0001 (J)	
10/20/2016	0.0003 (J)				
10/24/2016			0.0008 (J)		
10/25/2016				8E-05 (J)	
1/31/2017	0.0001 (J)		0.0006 (J)	9E-05 (J)	
5/23/2017	0.0002 (J)		0.0006 (J)		
5/24/2017				0.0001 (J)	
8/10/2017	0.0002 (J)		0.0007 (J)	<0.0005	
11/14/2017	<0.0005		0.0007 (J)	<0.0005	
6/6/2018	9.5E-05 (J)		0.00073 (J)	0.00012 (J)	
10/2/2018				0.0001 (J)	
10/3/2018	0.00018 (J)		0.00078 (J)		
8/22/2019	0.00014 (J)		0.0008 (J)		
8/23/2019				0.00011 (J)	
10/22/2019				<0.0005	
10/23/2019	0.0002 (J)	0.00026 (J)	0.00091 (J)		
1/3/2020		0.0002 (J)			
3/4/2020		0.00026 (J)			
3/24/2020		0.00068 (J)			
3/25/2020	0.00014 (J)		0.00068 (J)	<0.0005	
6/18/2020		0.00047 (J)			
7/21/2020		0.00083 (J)			
8/27/2020	0.00019 (J)	0.00038 (J)	0.00082 (J)	<0.0005	
9/24/2020	0.00014 (J)	0.00032 (J)	0.00076 (J)	<0.0005	
3/17/2021	<0.0005	0.00094			
3/18/2021			0.00068	<0.0005	
8/12/2021					0.00016 (J)
8/13/2021		0.00069		<0.0005	
8/16/2021	0.00015 (J)		0.00081		
9/27/2021					<0.0005
2/2/2022	<0.0005	0.00055	0.0008	<0.0005	
2/3/2022					<0.0005
8/5/2022		0.00044 (J)	0.00081	<0.0005	<0.0005
8/10/2022	0.00011 (J)				
1/25/2023	0.00011 (J)	0.00035 (J)	0.00063	<0.0005	<0.0005
8/11/2023	0.00015 (J)	0.00067	0.0007	<0.0005	<0.0005
2/16/2024	0.00016 (J)	0.00031 (J)	0.00074	<0.0005	
2/17/2024					<0.0005
Mean	0.0002133	0.00049	0.0007325	0.00036	0.0004514
Std. Dev.	0.0001321	0.0002261	8.577E-05	0.0001959	0.0001285
Upper Lim.	0.0002477	0.0006432	0.0007812	0.0005	0.0005
Lower Lim.	0.0001389	0.0003368	0.0006838	0.0001	0.00016

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
10/20/2016	<0.005						<0.005
10/24/2016			<0.005				
10/25/2016				<0.005	<0.005	<0.005	
1/31/2017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
5/23/2017	0.0006 (J)		<0.005				<0.005
5/24/2017				<0.005	<0.005	<0.005	
8/10/2017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
11/14/2017	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2018	<0.005		<0.005	<0.005	<0.005	<0.005	
6/7/2018							<0.005
10/2/2018				<0.005	<0.005	<0.005	
10/3/2018	<0.005		<0.005				<0.005
8/22/2019	0.00064 (J)		0.00063 (J)	<0.005			<0.005
8/23/2019					<0.005	<0.005	
10/22/2019					<0.005	0.00062 (J)	0.00066 (J)
10/23/2019	<0.005	<0.005	0.0015 (J)	0.0004 (J)			
1/3/2020		0.00063 (J)					
3/4/2020		<0.005					
3/24/2020		0.00051 (J)					
3/25/2020	0.00098 (J)		0.00045 (J)	0.0013 (J)	0.00074 (J)	0.0014 (J)	0.00081 (J)
6/18/2020		<0.005					
7/21/2020		<0.005					
8/26/2020							0.00098 (J)
8/27/2020	<0.005	<0.005	0.00069 (J)	<0.005	<0.005	<0.005	
9/24/2020	<0.005	<0.005	0.00081 (J)	0.00064 (J)	<0.005		
9/25/2020						<0.005	
9/28/2020							0.0017 (J)
3/17/2021	0.00075 (J)	<0.005				<0.005	
3/18/2021			0.003 (J)	0.00058 (J)	<0.005		0.0021 (J)
8/13/2021		<0.005		<0.005	<0.005	<0.005	<0.005
8/16/2021	<0.005		<0.005				
2/2/2022	<0.005	<0.005	0.0013 (J)		<0.005	<0.005	
2/3/2022				<0.005			<0.005
8/5/2022		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/10/2022	<0.005						
1/25/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/11/2023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/16/2024	<0.005	<0.005	<0.005		<0.005		
2/17/2024				<0.005		<0.005	<0.005
Mean	0.004148	0.004409	0.003669	0.004146	0.004787	0.004601	0.004062
Std. Dev.	0.001749	0.001559	0.001925	0.001759	0.0009526	0.001235	0.00169
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00098	0.00063	0.0013	0.0013	0.00074	0.0014	0.0021

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.0033 (J)		0.0018 (J)	0.0014 (J)	0.0023 (J)		<0.005
10/20/2016	0.0025 (J)						<0.005
10/24/2016			0.0018 (J)				
10/25/2016				0.0013 (J)	0.0017 (J)		
1/31/2017	0.001 (J)		0.0016 (J)	0.0006 (J)	0.0017 (J)		<0.005
5/23/2017	0.0025 (J)		0.0014 (J)				0.0005 (J)
5/24/2017				0.0007 (J)	0.002 (J)		
8/10/2017	0.0029 (J)		0.0025 (J)	0.0006 (J)	0.0012 (J)		0.0003 (J)
11/14/2017	0.003 (J)		0.002 (J)	0.0005 (J)	0.0014 (J)		0.0004 (J)
6/6/2018	0.0016 (J)		0.0031 (J)	0.00056 (J)	0.0014 (J)		
6/7/2018							<0.005
10/2/2018				<0.005	0.00081 (J)		
10/3/2018	0.0028 (J)		0.0023 (J)				<0.005
8/22/2019	<0.005		0.0019 (J)	<0.005			0.0003 (J)
8/23/2019					0.0027 (J)		
10/22/2019					0.0022 (J)		0.00061 (J)
10/23/2019	0.0023 (J)	0.0018 (J)	0.0021 (J)	0.00038 (J)			
1/3/2020		0.0038 (J)					
3/4/2020		0.0021 (J)					
3/24/2020		0.0019 (J)					
3/25/2020	0.0021 (J)		0.0022 (J)	0.00047 (J)	0.0022 (J)		<0.005
6/18/2020		0.0012 (J)					
7/21/2020		0.00098 (J)					
8/26/2020							0.00061 (J)
8/27/2020	0.0027 (J)	0.001 (J)	0.0019 (J)	<0.005	0.00086 (J)		
9/24/2020	0.0021 (J)	0.0011 (J)	0.0019 (J)	0.00044 (J)			
9/25/2020					0.001 (J)		
9/28/2020							0.00048 (J)
3/17/2021	0.0023 (J)	0.0012 (J)			0.003 (J)		
3/18/2021			0.0021 (J)	0.00045 (J)			0.0012 (J)
8/12/2021						0.0024 (J)	
8/13/2021		0.00085 (J)		<0.005	0.0011 (J)		<0.005
8/16/2021	0.0026 (J)		0.0022 (J)				
9/27/2021						0.0011 (J)	
2/2/2022	0.0027 (J)	0.0019 (J)	0.0022 (J)		0.002 (J)		
2/3/2022				<0.005		0.00041 (J)	0.00045 (J)
8/5/2022		0.001 (J)	0.0021 (J)	<0.005	0.0008 (J)	0.0011 (J)	<0.005
8/10/2022	0.0028 (J)						
1/25/2023	0.0021 (J)	0.0016 (J)	0.0017 (J)	0.00046 (J)	0.0016 (J)	0.00048 (J)	<0.005
8/11/2023	0.0028 (J)	0.001 (J)	0.0019 (J)	0.00047 (J)	0.00077 (J)	0.00078 (J)	<0.005
2/16/2024	0.0026 (J)	0.0011 (J)	0.002 (J)				
2/17/2024				0.00071 (J)	0.0011 (J)	0.00047 (J)	0.00042 (J)
Mean	0.00246	0.001502	0.002035	0.001952	0.001592	0.0009629	0.002763
Std. Dev.	0.0005134	0.0007565	0.0003558	0.002064	0.0006617	0.0006974	0.002302
Upper Lim.	0.002752	0.0019	0.002237	0.005	0.001968	0.00173	0.005
Lower Lim.	0.002168	0.00098	0.001833	0.00047	0.001216	0.0003088	0.00045

Confidence Interval

Constituent: Combined Radium 226 & 228 (pCi/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.621 (U)		1.62	0.906 (U)	1.2	1.03		
10/20/2016	1.4							1.97
10/24/2016			1.01 (U)					
10/25/2016				1.03	1.11 (U)	1.07		
1/31/2017	0.906 (U)		0.976 (U)	0.868 (U)	1.45	0.588 (U)		1.03
5/23/2017	0.388 (U)		0.891 (U)					0.398 (U)
5/24/2017				0.728 (U)	0.393 (U)	0.593 (U)		
8/10/2017	1.03 (U)		0.601 (U)	1.35	0.84 (U)	0.691 (U)		0.938 (U)
11/14/2017	0.769 (U)		0.567 (U)	0.817 (U)	1.01 (U)	0.653 (U)		0.335 (U)
6/6/2018	1.28 (U)		0.836 (U)	0.559 (U)	0.365 (U)	0.939 (U)		
6/7/2018								0.696 (U)
10/2/2018				0.336 (U)	1.23	0.225 (U)		
10/3/2018	0.302 (U)		0.111 (U)					1.6 (U)
8/22/2019	0.474 (U)		0.946 (U)	0.694 (U)				0.904 (U)
8/23/2019					1.69	0.47 (U)		
10/22/2019					0.705 (U)	0.545 (U)		0.424 (U)
10/23/2019	0.776 (U)	0.858 (U)	0.571 (U)	0.584 (U)				
1/22/2020		1.04 (U)						
3/4/2020		1.32						
3/24/2020		1.23 (U)						
3/25/2020	0.603 (U)		0.403 (U)	0.663 (U)	0.673 (U)	0.508 (U)		0.915 (U)
7/21/2020		0.0938 (U)						
8/26/2020								1.19
8/27/2020	0.109 (U)	1.17 (U)	0.37 (U)	0.416 (U)	0.264 (U)	0.989 (U)		
9/24/2020	0.625 (U)	1.42	0.804 (U)	1.11 (U)	0.576 (U)			
9/25/2020						0.584 (U)		
9/28/2020								0.613 (U)
3/17/2021	0.248 (U)	0.401 (U)				0.556 (U)		
3/18/2021			0.274 (U)	0.252 (U)	0.145 (U)			0.323 (U)
8/12/2021							0.124 (U)	
8/13/2021		0.828 (U)		0.513 (U)	0.815 (U)	0.794 (U)		0.228 (U)
8/16/2021	0.667 (U)		0.493 (U)					
9/27/2021							1.05 (U)	
2/1/2022	0.162 (U)	0.806 (U)	0.569 (U)		0.0564 (U)	0.542 (U)		
2/3/2022				0.835			0.499 (U)	0.5 (U)
8/5/2022		0.618 (U)	0.205 (U)	0.139 (U)	0.917 (U)	0.22 (U)	0 (U)	0.206 (U)
8/10/2022	0.601 (U)							
1/25/2023	0.419 (U)	0.513 (U)	0.568 (U)	0.432 (U)	0.71 (U)	0.195 (U)	0.595 (U)	1.44
8/11/2023	0.93 (U)	1.08	0.849 (U)	0.292 (U)	0.314 (U)	0.105 (U)	0.822 (U)	0.806 (U)
2/16/2024	0.344 (U)	0.498 (U)	0.81 (U)		0.845 (U)			
2/17/2024				0.888 (U)		0.388 (U)	0.629 (U)	0 (U)
Mean	0.6327	0.8483	0.6737	0.6706	0.7654	0.5843	0.5313	0.764
Std. Dev.	0.3508	0.3872	0.3447	0.3127	0.4375	0.2799	0.3689	0.5188
Upper Lim.	0.8319	1.123	0.8694	0.8481	1.014	0.7432	0.9694	1.068
Lower Lim.	0.4335	0.574	0.478	0.4931	0.517	0.4253	0.09314	0.4602

Confidence Interval

Constituent: Fluoride, total (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	0.05 (J)		0.06 (J)	0.15 (J)	0.08 (J)	0.12 (J)		0.18 (J)
10/20/2016	0.03 (J)							0.12 (J)
10/24/2016			0.13 (J)					
10/25/2016				0.09 (J)	0.16 (J)	0.17 (J)		
1/31/2017	<0.1		<0.1	0.13 (J)	0.16 (J)	0.05 (J)		0.3
5/23/2017	<0.1		0.15 (J)					0.14 (J)
5/24/2017				0.07 (J)	0.009 (J)	0.13 (J)		
8/10/2017	<0.1		<0.1	0.03 (J)	<0.1	0.12 (J)		0.11 (J)
11/14/2017	<0.1		<0.1	<0.1	<0.1	<0.3		0.07 (J)
6/6/2018	<0.1		<0.1	0.074 (J)	0.057 (J)	0.15 (J)		
6/7/2018								0.3
10/2/2018				<0.1	<0.1	<0.3		
10/3/2018	<0.1		<0.1					0.12 (J)
4/3/2019					<0.1	0.05 (J)		
4/4/2019	<0.1		0.042 (J)	0.03 (J)				
4/5/2019								0.33
6/18/2019								0.89
8/22/2019	<0.1		<0.1	<0.1				0.07 (J)
8/23/2019					<0.1	0.034 (J)		
10/22/2019					0.047 (J)	0.099 (J)		0.087 (J)
10/23/2019	<0.1	0.22 (J)	<0.1	<0.1				
1/3/2020		<0.1						
3/4/2020		<0.1						
3/24/2020		<0.1						
3/25/2020	<0.1		<0.1	<0.1	<0.1	0.075 (J)		0.078 (J)
6/18/2020		<0.1						
7/21/2020		<0.1						
8/26/2020								0.072 (J)
8/27/2020	<0.1	<0.1	<0.1	<0.1	<0.1	0.094 (J)		
9/24/2020	<0.1	<0.1	<0.1	<0.1	0.064 (J)			
9/25/2020						0.091 (J)		
9/28/2020								0.078 (J)
3/17/2021	<0.1	<0.1				0.089 (J)		
3/18/2021			<0.1	<0.1	<0.1			0.079 (J)
8/12/2021							<0.1	
8/13/2021		<0.1		<0.1	<0.1	0.086 (J)		0.075 (J)
8/16/2021	<0.1		<0.1					
9/27/2021							<0.1	
2/2/2022	<0.1	<0.1	<0.1		<0.1	0.086 (J)		
2/3/2022				<0.1			0.056 (J)	0.069 (J)
8/5/2022		0.076 (J)	0.071 (J)	0.075 (J)	0.093 (J)	0.14	0.12	0.12
8/10/2022	0.065 (J)							
1/25/2023	<0.1	<0.1	<0.1	0.051 (J)	0.054 (J)	0.12	0.085 (J)	0.095 (J)
8/11/2023	<0.1	<0.1	<0.1	<0.1	<0.1	0.086 (J)	0.057 (J)	0.07 (J)
2/16/2024	<0.1	<0.1	<0.1		<0.1			
2/17/2024				<0.1		0.094 (J)	0.055 (J)	0.068 (J)
Mean	0.09262	0.1064	0.09776	0.09048	0.09162	0.104	0.08186	0.16
Std. Dev.	0.01934	0.03203	0.02133	0.02828	0.03356	0.03647	0.02624	0.1819
Upper Lim.	0.1	0.22	0.13	0.13	0.1	0.1241	0.0987	0.14
Lower Lim.	0.065	0.076	0.071	0.074	0.064	0.08388	0.04401	0.072

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals

Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-118
8/31/2016	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
10/20/2016	<0.001						<0.001
10/24/2016			<0.001				
10/25/2016				<0.001	<0.001	<0.001	
1/31/2017	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
5/23/2017	0.0009 (J)		<0.001				<0.001
5/24/2017				<0.001	<0.001	<0.001	
8/10/2017	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
11/14/2017	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2018	<0.001		<0.001	<0.001	<0.001	<0.001	
6/7/2018							<0.001
10/2/2018				<0.001	<0.001	<0.001	
10/3/2018	<0.001		<0.001				<0.001
8/22/2019	<0.001		<0.001	<0.001			<0.001
8/23/2019					<0.001	5.8E-05 (J)	
10/22/2019					7.9E-05 (J)	5.4E-05 (J)	0.00025 (J)
10/23/2019	<0.001	<0.001	0.00043 (J)	6.8E-05 (J)			
1/3/2020		<0.001					
3/4/2020		0.00011 (J)					
3/24/2020		<0.001					
3/25/2020	<0.001		7.6E-05 (J)	8.5E-05 (J)	0.00021 (J)	<0.001	0.0001 (J)
6/18/2020		<0.001					
7/21/2020		<0.001					
8/26/2020							0.00036 (J)
8/27/2020	<0.001	<0.001	0.00018 (J)	<0.001	<0.001	<0.001	
9/24/2020	<0.001	<0.001	0.00028 (J)	4.9E-05 (J)	0.00034 (J)		
9/25/2020						<0.001	
9/28/2020							0.00022 (J)
3/17/2021	<0.001	<0.001				<0.001	
3/18/2021			0.00024 (J)	5.8E-05 (J)	9.1E-05 (J)		0.00088 (J)
8/13/2021		<0.001		<0.001	<0.001	<0.001	<0.001
8/16/2021	<0.001		<0.001				
2/2/2022	<0.001	<0.001	<0.001		<0.001	<0.001	
2/3/2022				<0.001			<0.001
8/5/2022		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/10/2022	<0.001						
1/25/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/11/2023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/16/2024	<0.001	<0.001	0.00027 (J)		<0.001		
2/17/2024				<0.001		<0.001	<0.001
Mean	0.000995	0.0009407	0.0007738	0.000813	0.000836	0.0009056	0.0008405
Std. Dev.	2.236E-05	0.0002298	0.0003596	0.0003838	0.00034	0.0002906	0.0003159
Upper Lim.	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0009	0.00011	0.00028	8.5E-05	0.00034	5.8E-05	0.00088

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016		<0.03	0.0034 (J)	<0.03	<0.03		<0.03
10/20/2016							<0.03
10/24/2016		<0.03					
10/25/2016			0.0043 (J)	<0.03	<0.03		
1/31/2017		<0.03	0.0042 (J)	<0.03	<0.03		<0.03
5/23/2017		0.0012 (J)					0.0012 (J)
5/24/2017			0.0039 (J)	<0.03	0.0012 (J)		
8/10/2017		0.0016 (J)	0.004 (J)	<0.03	<0.03		<0.03
11/14/2017		0.0015 (J)	0.0044 (J)	<0.03	<0.03		<0.03
6/6/2018		0.0017 (J)	0.0041 (J)	0.00099 (J)	0.0013 (J)		
6/7/2018							0.0015 (J)
10/2/2018			0.0041 (J)	<0.03	0.0013 (J)		
10/3/2018		0.0016 (J)					<0.03
8/22/2019		0.0015 (J)	0.004 (J)				0.0018 (J)
8/23/2019				0.00092 (J)	0.0009 (J)		
10/22/2019				0.00094 (J)	0.00088 (J)		0.0027 (J)
10/23/2019	0.0012 (J)	0.002 (J)	0.0039 (J)				
1/3/2020	0.0011 (J)						
3/4/2020	0.0013 (J)						
3/24/2020	0.00084 (J)						
3/25/2020		0.0016 (J)	0.0041 (J)	0.00091 (J)	<0.03		0.0017 (J)
6/18/2020	0.0013 (J)						
7/21/2020	0.0013 (J)						
8/26/2020							0.0028 (J)
8/27/2020	0.0011 (J)	0.0016 (J)	0.0037 (J)	<0.03	0.0011 (J)		
9/24/2020	0.0011 (J)	0.0017 (J)	0.0038 (J)	0.00098 (J)			
9/25/2020					0.001 (J)		
9/28/2020							0.0022 (J)
3/17/2021	0.0012 (J)				<0.03		
3/18/2021		0.0018 (J)	0.0042 (J)	0.0011 (J)			0.0029 (J)
8/12/2021						0.0036 (J)	
8/13/2021	0.0011 (J)		0.0038 (J)	0.00084 (J)	<0.03		0.0017 (J)
8/16/2021		0.0016 (J)					
9/27/2021						0.0035 (J)	
2/2/2022	0.0013 (J)	0.0019 (J)		0.001 (J)	0.00084 (J)		
2/3/2022			0.0046 (J)			0.0051 (J)	0.0015 (J)
8/5/2022	0.0013 (J)	0.0014 (J)	0.0039 (J)	0.00082 (J)	0.00087 (J)	0.0038 (J)	0.0018 (J)
1/25/2023	0.001 (J)	0.0012 (J)	0.0038 (J)	0.00081 (J)	<0.03	0.0037 (J)	0.001 (J)
8/11/2023	0.0013 (J)	0.0014 (J)	0.0044 (J)	0.00083 (J)	0.00076 (J)	0.0041 (J)	0.0023 (J)
2/16/2024	<0.03	<0.03		<0.03			
2/17/2024			0.0041 (J)		<0.03	0.0038 (J)	<0.03
Mean	0.002096	0.007265	0.004035	0.01401	0.01551	0.003943	0.01175
Std. Dev.	0.003572	0.01166	0.0002777	0.01484	0.01487	0.0005442	0.01374
Upper Lim.	0.0013	0.002	0.004193	0.03	0.03	0.0051	0.03
Lower Lim.	0.001	0.0015	0.003877	0.00091	0.0009	0.0035	0.0017

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
 Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-101	HGWC-102	HGWC-103	HGWC-105	HGWC-107	HGWC-109	HGWC-117A	HGWC-118
8/31/2016	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
10/20/2016	<0.0002							<0.0002
10/24/2016			<0.0002					
10/25/2016				<0.0002	<0.0002	<0.0002		
1/31/2017	9.3E-05 (J)		8E-05 (J)	<0.0002	<0.0002	8E-05 (J)		9E-05 (J)
5/23/2017	<0.0002		<0.0002					<0.0002
5/24/2017				<0.0002	<0.0002	<0.0002		
8/10/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
11/14/2017	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
6/6/2018	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002		
6/7/2018								<0.0002
10/2/2018				<0.0002	<0.0002	<0.0002		
10/3/2018	<0.0002		<0.0002					<0.0002
8/22/2019	<0.0002		<0.0002	<0.0002				<0.0002
8/23/2019					<0.0002	<0.0002		
10/23/2019		<0.0002						
1/3/2020		<0.0002						
3/4/2020		<0.0002						
3/24/2020		<0.0002						
6/18/2020		<0.0002						
7/21/2020		<0.0002						
8/26/2020								<0.0002
8/27/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
9/24/2020		<0.0002						
8/12/2021							9.4E-05 (J)	
8/13/2021		0.0001 (J)		0.00022	8.4E-05 (J)	8E-05 (J)		8.1E-05 (J)
8/16/2021	9.9E-05 (J)		0.00027					
9/27/2021							<0.0002	
2/2/2022	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002		
2/3/2022				<0.0002			<0.0002	<0.0002
8/5/2022		<0.0002	0.00017 (J)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/10/2022	<0.0002							
1/25/2023	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/11/2023	<0.0002	<0.0002	0.00025	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/16/2024	<0.0002	<0.0002	<0.0002		<0.0002			
2/17/2024				<0.0002		<0.0002	<0.0002	<0.0002
Mean	0.000187	0.0001929	0.0001981	0.0002012	0.0001927	0.000185	0.0001849	0.0001857
Std. Dev.	3.554E-05	2.673E-05	3.885E-05	5E-06	2.9E-05	4.099E-05	4.006E-05	3.914E-05
Upper Lim.	0.0002	0.0002	0.00025	0.00022	0.0002	0.0002	0.0002	0.0002
Lower Lim.	9.9E-05	0.0001	0.00017	0.0002	8.4E-05	8E-05	9.4E-05	9E-05

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102
10/23/2019	<0.005
1/3/2020	0.0015 (J)
3/4/2020	<0.005
3/24/2020	<0.005
6/18/2020	<0.005
7/21/2020	<0.005
8/27/2020	<0.005
9/24/2020	<0.005
8/13/2021	<0.005
2/2/2022	<0.005
8/5/2022	<0.005
1/25/2023	<0.005
8/11/2023	<0.005
2/16/2024	<0.005
Mean	0.00475
Std. Dev.	0.0009354
Upper Lim.	0.005
Lower Lim.	0.0015

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 4/26/2024 12:13 PM View: Confidence Intervals
Plant Hammond Client: Southern Company Data: Hammond AP-4

	HGWC-102
10/23/2019	<0.001
1/3/2020	8E-05 (J)
3/4/2020	<0.001
3/24/2020	<0.001
6/18/2020	<0.001
7/21/2020	<0.001
8/27/2020	<0.001
9/24/2020	<0.001
8/13/2021	<0.001
2/2/2022	<0.001
8/5/2022	<0.001
1/25/2023	<0.001
8/11/2023	<0.001
2/16/2024	<0.001
Mean	0.0009343
Std. Dev.	0.0002459
Upper Lim.	0.001
Lower Lim.	8E-05