Prepared for

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DRAFT REMEDY SELECTION REPORT

GEORGIA POWER COMPANY
PLANT HAMMOND ASH POND 1 (AP-1)

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Project Number GW6581B

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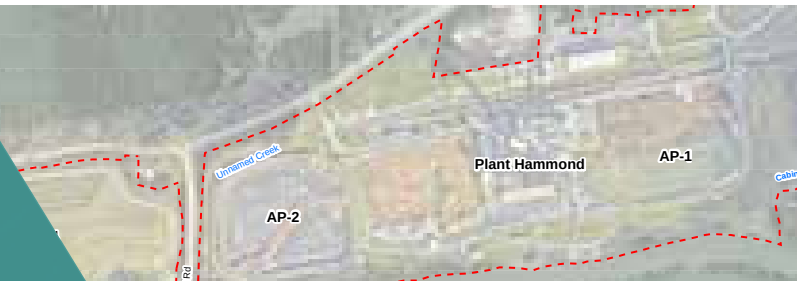
Plant Hammond AP-1 : Executive Summary



Plant Hammond is a former coal-fired electric generation facility, located 10-miles west of Rome, Georgia, that was decommissioned in July 2019. A component of the facility are man-made surface impoundments, or "ash ponds", historically used to hold coal combustion residuals (CCR). "CCR", commonly referred to as "coal ash", is a non-hazardous material generated from burning coal for the purpose of generating electricity by electric utilities[1]. Ash ponds were designed, installed, and operated to function as a treatment system for power plant wastewaters, and they have effectively served in this capacity for decades in compliance with the National Pollutant Discharge Elimination System (NPDES) permits under which they were regulated. As part of a comprehensive approach to managing CCR, Georgia Power has undertaken actions to close Ash Pond 1 (AP-1) in accordance with federal and state regulations and completed a detailed evaluation of corrective measures to remove arsenic and molybdenum above the Groundwater Protection Standard (GWPS) at AP-1 at Plant Hammond.

ASH POND CLOSURE

Georgia Power will close AP-1 through the removal of approximately 565,000 cubic yards of CCR material from the CCR unit for disposal at an off-site, permitted lined solid waste disposal facility. The closure of AP-1 is regulated by the United States Environmental Protection Agency (USEPA) and the Georgia Environmental Protection Division (GA EPD). Closure activities are authorized under GA EPD approved closure permit No. 057-023D(CCR). The proposed closure by removal approach provides source control benefits that reduce the potential for migration of CCR constituents to groundwater.

GROUNDWATER MONITORING AND ASSESSMENT

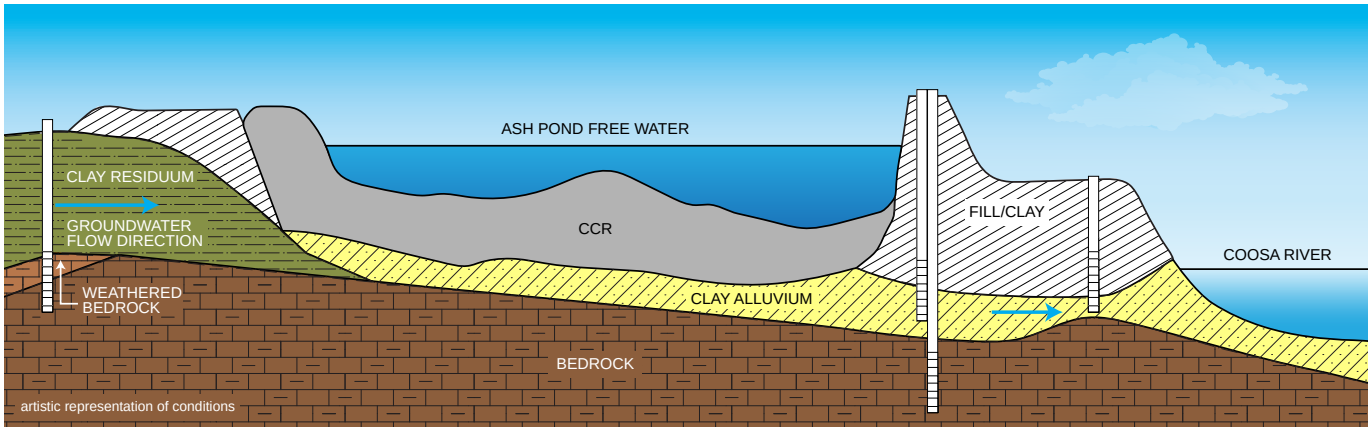
Georgia Power has performed CCR groundwater monitoring at AP-1 since May 2016. Over the period of Georgia Power's monitoring, concentrations of arsenic (As) and molybdenum (Mo) were identified above the GWPS in only two wells (HGWC-8, HGWC-13) downgradient of AP-1. The As and Mo groundwater concentrations above the GWPS are located wholly on Georgia Power property and do not move offsite.

RISK EVALUATION FOR HUMAN HEALTH & ENVIRONMENT

Georgia Power completed a risk evaluation that confirmed that As and Mo identified on-site are not expected to pose a risk to human health or the environment. Extended groundwater monitoring indicates the As and Mo groundwater concentrations identified in HGWC-13 and HGWC-8, respectively, are horizontally and vertically delineated within the plant's property to levels below their respective GWPS. Arsenic and Mo concentrations are limited in extent due to natural physical and chemical processes currently occurring in the aquifer which reduce dissolved concentrations.

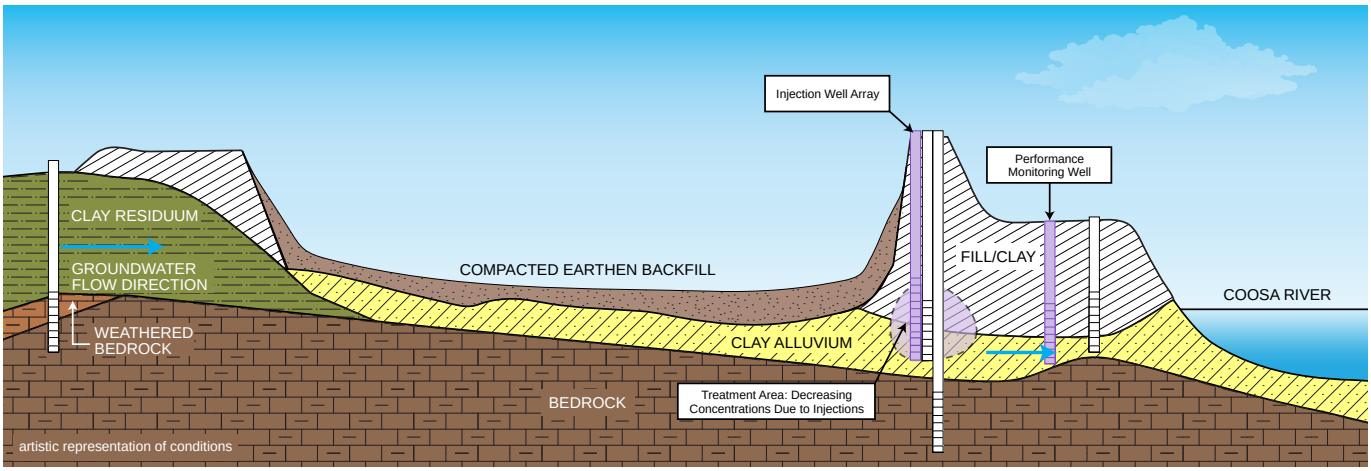
[1] 40 Code of Federal Regulations (CFR) § 257.53

CURRENT PRE-CLOSURE CONDITIONS



PROPOSED CORRECTIVE MEASURES FOR GROUNDWATER

Geochemical Approaches (In-situ Injection) and Monitored Natural Attenuation



Georgia Power initiated an assessment of corrective measures (ACM) program for AP-1 in January 2019. Since initiating the ACM program, Georgia Power has worked with GA EPD to adhere to regulations and select a comprehensive and technically sound approach for implementing corrective measures to address As and Mo in groundwater. Using the criteria described in the CCR Rule, 40 Code of Federal Regulations (CFR) Part 257.97, the draft remedy proposed includes:

- **Geochemical Approaches (In-situ Injections):** In-situ injections are a well-recognized remediation approach utilizing a network of injection wells to introduce reagents into the subsurface to improve groundwater quality. Georgia Power will work with GA EPD on the permitting and approval of the reagent prior to use at the site. Injections will target the areas of highest groundwater concentrations of As and Mo to immobilize these constituents. Groundwater monitoring will be performed to confirm the effectiveness of the in-situ injections.
- **Monitored Natural Attenuation (MNA):** Natural attenuation of As and Mo in groundwater at the site is primarily due to adsorption and co-precipitation of the dissolved metals into the aquifer matrix. These mechanisms have been demonstrated to be occurring at the site through extensive laboratory testing and study. Groundwater monitoring will continue to document natural attenuation, which is expected to be enhanced by the geochemical in-situ injections.

ADAPTIVE SITE MANAGEMENT

The remedy performance will be monitored and evaluated, and if needed, the remedy will be adjusted or augmented to meet remedial objectives.

LONG-TERM GROUNDWATER MONITORING

Georgia Power will monitor the performance of applied corrective measures in accordance with regulatory requirements.

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CERTIFICATION STATEMENT

I, Whitney B. Law, am a professional engineer and licensed in the State of Georgia. I hereby certify that this Draft Remedy Selection Report was prepared by, or under the direct supervision of, a Qualified Groundwater Scientist, in accordance with the Georgia Environmental Protection Division Rules of Solid Waste Management. According to 391-3-4-.01, a Qualified Groundwater Scientist is "a professional engineer or geologist registered to practice in Georgia who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields that enable individuals to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action." By affixing my professional seal and signature, I hereby acknowledge that this report has been prepared in conformance with the United States Environmental Protection Agency coal combustion residual rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10.

August 31, 2022

Whitney B. Law
Georgia Professional Engineer No. 36641

Date

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LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Assessment of Corrective Measures
AP	ash pond
As	arsenic
CCR	coal combustion residuals
CFR	Code of Federal Regulations
CSM	conceptual site model
DPT	direct-push technology
EPRI	Electric Power Research Institute
F	fluoride
Fe	iron
FeS_2	pyrite
ft/day	feet per day
ft/ft	feet per foot
ft MSL	feet above mean sea level
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
Golder	Golder Associates, Inc.
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
Li	lithium
MCL	maximum contaminant level
mg/L	milligrams per liter
MNA	monitored natural attenuation
Mo	molybdenum
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
PDI	Pre-design Investigation
PRB	permeable reactive barrier
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
SSL	statistically significant level
UIC	Underground Injection Control
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) prepared this *Draft Remedy Selection Report* on behalf of Georgia Power Company (Georgia Power) for Plant Hammond Ash Pond 1 (AP-1, or the CCR unit). As documented herein, Georgia Power has completed a detailed evaluation of corrective measures to address constituents in groundwater at statistically significant levels (SSLs) above the Groundwater Protection Standards (GWPS). The evaluation was completed in accordance with the United States Environmental Protection Agency's (USEPA's) Coal Combustion Residuals (CCR) Rule, 40 Code of Federal Regulations (CFR) Parts 257 effective October 19, 2015 (CCR Rule) including subsequent revisions and Georgia Environmental Protection Division's (GA EPD's) Rule for Solid Waste Management Rule 391-3-4-.10 for CCR.

This *Draft Remedy Selection Report* includes an overview of ongoing geologic and hydrogeologic investigations to refine the conceptual site model (CSM), identifies Appendix IV constituents detected in groundwater at SSLs above the GWPS, discusses the nature and extent of these inorganic constituents in groundwater, evaluates potential corrective measures to address SSLs in groundwater, and presents geochemical approaches (in-situ injections) coupled with monitored natural attenuation (MNA) as the proposed groundwater remedy for preliminary review by GA EPD. At GA EPD's request, following their preliminary review, a public meeting will be held to discuss the assessment of corrective measures and proposed remedy, after which a remedy will be selected, and the Remedy Selection Report will be submitted to GA EPD. Once a remedy is selected and implemented, the remediation will be monitored routinely and is subject to potential modification based on adaptive management strategies, as appropriate.

2.0 BACKGROUND

2.1 Remedy Selection Process

The remedy selection process involves assessment of potentially applicable groundwater remediation approaches. To date, this process has occurred as reported in previous submittals including the *Assessment of Corrective Measures Report (ACM Report)* (Geosyntec, 2019a) and *Semiannual Remedy Selection and Design Progress Reports* (Semiannual Progress Reports) (Geosyntec, 2019b; 2020a; 2020b; 2021c; 2021d; 2022a).

The remedy selected for the CCR unit must meet the following required criteria:

§257.97 Selection of Remedy [Required Criteria]
(b) Remedies must:

> *(1) Be protective of human health and the environment;*
> *(2) Attain the groundwater protection standard as specified pursuant to §257.95(h);*
> *(3) Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents in Appendix IV to this part into the environment;*
> *(4) Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems;*
> *(5) Comply with standards for management of wastes as specified in §257.98(d).*

Technologies that meet the required criteria are then evaluated using the following comparative criteria:

§257.97 Selection of remedy [Comparative Criteria]
(c) In selecting a remedy that meets the standards of paragraph (b) of this section, the owner or operator of the CCR unit shall consider the following evaluation factors:

> *(1) The long- and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:*
> > *(i) magnitude of reduction of existing risks;*
> > *(ii) magnitude of residual risks in terms of likelihood of further releases due to CCR remaining following implementation of a remedy;*
> > *(iii) the type and degree of long-term management required, including monitoring, operation, and maintenance;*

(iv) short-term risks that might be posed to the community or the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and re-disposal of contaminant;
(v) time until full protection is achieved;
(vi) potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, re-disposal, or containment;
(vii) long-term reliability of the engineering and institutional controls; and
(viii) potential need for replacement of the remedy.

(2) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(i) the extent to which containment practices will reduce further releases; and
(ii) the extent to which treatment technologies may be used.

(3) The ease or difficulty of implementing a potential remedy(s) based on consideration of the following types of factors:

(i) degree of difficulty associated with constructing the technology;
(ii) expected operational reliability of the technologies;
(iii) need to coordinate with and obtain necessary approvals and permits from other agencies;
(iv) availability of necessary equipment and specialists; and
(v) available capacity and location of needed treatment, storage, and disposal services.

(4) The degree to which community concerns are addressed by a potential remedy(s).

Using the above criteria, this document evaluates the potential remedies identified in the ACM Report and subsequent updates to identify an appropriate groundwater remedy for the CCR unit. Selection of an appropriate groundwater remedy is significantly influenced by CCR constituent chemistry and characteristics of Appendix IV constituents, which are inorganic trace elements – metals and metalloids that have unique attenuation and remediation characteristics. Common chemical mechanisms of attenuation for CCR constituents include adsorption to, or coprecipitation with, oxides and hydrous oxides (oxyhydroxides) of iron and manganese; coprecipitation with, and adsorption to, iron sulfides such as pyrite (FeS_2); and precipitation as carbonates, sulfides, sulfates, and/or phosphates (USEPA, 2007; EPRI, 2018). The attenuation capacity can be evaluated through site-specific field and lab testing and geochemical modeling. Processes such as precipitation/co-precipitation and adsorption and other methods such as groundwater extraction and treatment and engineered plant uptake (phytoremediation) are also evaluated for the remediation of Appendix IV constituents. The selected remedy will meet the criteria of §257.97(b) and the effectiveness of criteria specified in §257.97(c).

An evaluation of the degree to which community concerns are addressed by a potential remedy is not included in this Draft Remedy Selection Report. A discussion of this criterion will be substantially informed by a forthcoming public meeting following GA EPD preliminary review and comment on this Draft Remedy Selection Report. Following the public meeting, the Remedy Selection Report will be prepared for submission to GA EPD and will include a discussion of the "degree to which community concerns are addressed by a potential remedy."

2.2 Unit Location and Description

Plant Hammond (Site) 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 on July 29, 2019, and no longer produce electricity. Four CCR ponds, identified as ponds AP-1, AP-2, AP-3, and AP-4 were utilized over the course of power generation at the facility.

AP-1 is a 35-acre surface impoundment located in the southeast corner of the Plant and was cut into the natural topography along the northern and western perimeter to an elevation of approximately 565 ft above mean sea level (ft MSL), with dikes constructed along the remaining perimeter. AP-1 received CCR material from its commission in 1952 until the construction of AP-2 in 1969. After 1969, AP-1 was utilized as a co-treatment pond to handle return water flows from the other ponds and for recycling of process water for plant operations. As of April 17, 2019, all process plant flows to AP-1 ceased.

2.3 Unit Closure

CCR placement in AP-1 ceased in 1969. Closure activities in accordance with §257.100 have been initiated under closure permit No. 057-023D(CCR), which was issued by GA EPD on June 22, 2020. Closure construction activities for AP-1 consist of closure by removal. Closure construction activities are anticipated to last four years, as indicated in the *Closure Plan* included with the closure permit application. Following closure completion, AP-1 will enter into post-removal monitoring. Post-removal monitoring is detailed in the closure permit. Georgia Power will retain ownership of the Site following closure.

2.4 Groundwater Monitoring

The current groundwater monitoring network associated with AP-1 includes the background/upgradient and downgradient monitoring wells, as summarized in **Table 1** and shown on **Figure 2.**

CCR groundwater monitoring-related activities have been performed at AP-1 since May 2016 in accordance with the CCR Rule. The following Appendix IV SSL constituent and well pairs have previously been identified:

Appendix IV SSL Constituent[1]	Well
Arsenic (As)	HGWC-13
Molybdenum (Mo)	HGWC-8
Lithium (Li)	MW-30D, MW-25D
Fluoride (F)	MW-30D

[1] An Appendix IV SSL Constituent is determined by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available, the USEPA Regional Screening Level (RSL), if no MCL is available, or the calculated background interwell tolerance limit in cases where background concentrations are higher than the MCL or RSL values.

Additional details regarding the statistical analyses are provided in the annual and semiannual *Groundwater and Corrective Action Monitoring Reports* submitted to GA EPD and posted on Georgia Power's website.

In accordance with §257.95(g)(3), an alternate source demonstration (ASD) was prepared and submitted to GA EPD in January 2021, with GA EPD approval pending. The evaluation demonstrated that natural variation in groundwater quality is due to (i) slow recharge encountered within the deeper delineation wells installed in less fractured bedrock zones; (ii) starkly different groundwater elevations in these wells compared to other site wells; and (iii) very different geochemical (Geosyntec, 2021c). A second ASD was prepared and submitted to GA EPD in August 2022, demonstrating that the lithium SSL identified in MW-25D is not affected by AP-1 and observed geochemical conditions are similar to background and other deep wells with low recharge.

Consequently, only As at HGWC-13 and Mo at HGWC-8 are the subject of this Draft Remedy Selection Report.

3.0 GROUNDWATER CONCEPTUAL SITE MODEL

A CSM is a dynamic tool that contextualizes available geological, hydrogeological, and geochemical information at a site to convey how groundwater and constituents (Appendix III and IV constituents) travel in a given geologic setting. A CSM is not static and may evolve as data are collected and more is known about the setting. A CSM was developed for AP-1. As data were gathered during the ACM process, the CSM was refined and used to pre-screen remedial technologies, retaining technologies that were suitable for consideration in remedial alternatives for groundwater or adaptive site management based on site-specific conditions. The CSM for AP-1 is summarized below.

3.1 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 Associates, Inc. (Golder, 2018), indicates that AP-1 is underlain by the middle units of the Cambrian age Conasauga Formation, consisting of mostly shaley limestone. AP-1 is underlain primarily by five units: (i) fill; (ii) terrace alluvium; (iii) residuum; (iv) partially weathered bedrock; and; (v) competent shaley limestone bedrock. Geologic cross-sections proximal to AP-1 are included as **Figures 3** and **4**, and additional details on Site geology and hydrogeology can be found in the *Hydrogeologic Assessment Report Revision 01 – Ash Pond 1 (AP-1)* (HAR Rev 01) (Geosyntec, 2019c).

3.2 Hydrology and Groundwater Flow

The uppermost aquifer at AP-1 is a regional groundwater aquifer that occurs primarily in the terrace alluvium, residuum, and the weathered and fractured bedrock. The uppermost aquifer is considered to be unconfined; however, localized, semi-confined conditions may be encountered due to the low-permeability clayey nature of the residual soils, or as a result of perched groundwater or poorly interconnected fracture networks in the bedrock. The movement of groundwater in the uppermost aquifer can be characterized as low-to moderate permeability porous media flow. Groundwater flow in the more competent underlying bedrock is characterized as fracture flow. The regional groundwater flow direction is expected to be from north to south; however, the local flow direction proximal to AP-1 is to both the east and south under current pre-closure conditions. Under post-closure conditions, the groundwater flow direction is anticipated to resemble the regional flow regime more closely (north to south toward the Coosa River).

A potentiometric surface map from January 2022 (**Figure 5**) presents groundwater elevations measured from the existing monitoring wells and piezometers in addition to surface water elevations from existing staff gages. Groundwater in the AP-1 area flows under the influence of topography from higher elevations on the north side of the Site to a southeasterly direction toward Cabin Creek and the Coosa River, and is influenced by the relatively consistent surface water elevation maintained in AP-1. Based on water level measurements collected on January 31, 2022, the hydraulic gradient is approximately 0.02 feet per foot (ft/ft) south (between HGWC-13 and MW-7) and 0.03 ft/ft to the east (between GWC-8 and MW-20) yielding an average groundwater flow velocity of 2.0 feet per day (ft/day) in the vicinity of AP-1 (Geosyntec, 2022b).

3.3 Geochemical CSM

It appears that the SSLs of As in HGWC-13 and Mo in HGWC-8 may be influenced by the presence of AP-1, as groundwater geochemical compositions are similar to CCR pore water at these locations. Groundwater monitoring data confirm that As and Mo are not migrating, and impacts are likely limited in extent due to natural attenuation processes in the aquifer, which are supported by laboratory studies.

As detailed in the *Geochemical Conceptual Site Model Report* (**Appendix A**) (Geochemical CSM Report), the primary mechanisms governing attenuation and immobilization include adsorption of negatively charged As and Mo oxyanions to positively charged aquifer matrix minerals, and co-precipitation and entrainment with fast growing iron and manganese oxyhydroxide crystals, which precipitate under oxidizing

conditions. Characterization of aquifer solids around AP-1 confirm mineral phases present in aquifer media provide substantial attenuation capacity, and sorption and desorption studies confirm that As and Mo are strongly sorbed to aquifer solids.

3.4 Nature and Extent of Groundwater Above the GWPS

Based on statistical analysis of Appendix IV groundwater data, the As and Mo SSLs identified in the compliance wells HGWC-13 and HGWC-8, respectively, are horizontally and vertically delineated to levels below GWPS. Please refer to the February 2022 iso-concentration maps for As and Mo presented on **Figures 6** and **7**. Compliance wells with SSLs and the pertinent horizontal and vertical delineation wells are also provided below:

Detected Constituent	GWPS (1) (mg/L)	Monitoring Well ID	Concentration (2) (mg/L)	Delineation Well IDs
As	0.010	HGWC-13	0.38	Horizontal: MW-19 Vertical: MW-24D
Mo	0.10	HGWC-8	0.34	Horizontal: MW-20 Vertical: MW-27D

Notes:
mg/L = milligrams per liter
1. §257.95 Federal GWPS.
2. Reported concentration is from the February 2022 semiannual monitoring event (Geosyntec, 2022b).

4.0 ASSESSMENT OF CORRECTIVE MEASURES SUMMARY

An ACM Report was completed on June 12, 2019, in accordance with §257.96 and identified the following corrective measures as potentially applicable to remediate groundwater at the Site:

- Geochemical Approaches (In-Situ Injection)
- Hydraulic Containment ("Pump and Treat")
- Monitored Natural Attenuation (MNA)
- Permeable Reactive Barrier (PRB)
- Phytoremediation
- Subsurface Vertical Barrier Walls

Georgia Power plans to proactively utilize adaptive site management to support the remedial strategy and address potential changes in site conditions as appropriate (**Figure 8**). Under an adaptive site management strategy, a remedial approach will be selected whereby: (1) a remedy will be installed or implemented to address current conditions; (2) the performance of the remedy will be monitored, evaluated, and reported semiannually; (3) the CSM will be updated as more data are collected; and (4) adjustments and augmentations will be made to the remedy, as warranted, to meet remedial objectives

Further evaluations and refinements of the groundwater corrective measures were presented in the Semiannual Progress Reports submitted since the ACM Report in 2019. The corrective measures identified for AP-1 in the ACM Report have been further evaluated using the criteria outlined in §257.96(c) and GA EPD Rule 391-3-4.10(6)(a). The screening of the corrective measures, as presented in the Semiannual Progress Reports, is summarized in **Table 2**.

The corrective measures that were not screened out and were retained for further evaluation under the §257.97 remedy selection criteria in this document include the following:

- **Geochemical Approaches (In-Situ Injection)**: Geochemical approaches rely on a temporary or permanent injection network to introduce reagents or air into the subsurface to promote either anerobic or aerobic attenuation of inorganic constituents either as a sparingly soluble mineral or through sorption mechanisms. Geochemical injections are a proven groundwater remediation technology for CCR constituents (including As and Mo), and are especially effective in treating smaller localized areas, such as those present at AP-1.

- **Hydraulic Containment ("Pump and Treat")**: Hydraulic containment refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or to control the migration of groundwater. This approach uses extraction to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.). Hydraulic containment is applicable to a variable mix of inorganic constituents, including dissolved As and Mo at AP-1. It is commonly referred to as "pump and treat" when applied to recover constituent mass and achieve GWPS throughout a plume.
- **Monitored Natural Attenuation (MNA)**: MNA relies on natural attenuation processes to achieve site-specific GWPS within a reasonable time frame relative to more active methods by effectively reducing dissolved concentrations of inorganic constituents. Attenuation mechanisms for inorganic constituents at CCR sites, including Mo and As at AP-1, are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (sorption, mineral precipitation, or oxidation reduction reactions) (USEPA, 2007; USEPA, 2015). As detailed in the Geochemical CSM Report provided in **Appendix A**, natural attenuation of As and Mo is primarily due to adsorption and co-precipitation, and does not rely solely on physical means of attenuation.

5.0 CORRECTIVE MEASURES EVALUATION

The purpose of this section is to evaluate and rank the three corrective measures using the required criteria described in §257.97(b) and the comparative criteria described in §257.97(c).

5.1 Required Criteria (§257.97(b))

As described in §257.97(b), for a groundwater corrective measure to be selected it must meet the following criteria:

1. Be protective of human health and the environment;
2. Attain the GWPS as specified pursuant to §257.95(h);
3. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents in Appendix IV to this part into the environment;
4. Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems; and
5. Comply with standards for management of wastes as specified in §257.98(d).

Below, the corrective measure options are evaluated against the required criteria.

5.1.1 Protective of Human Health and the Environment (§257.97(b)(1))

CCR is classified as a non-hazardous Resource Conservation and Recovery Act (RCRA) solid waste, a determination confirmed in 40 CFR §257 Preamble part III.A. Nevertheless, Georgia Power conservatively and protectively conducted a risk evaluation. A groundwater *Risk Evaluation Report* (Geosyntec, 2021d) was prepared for AP-1 and included as an appendix to the Semiannual Progress Report submitted to GA EPD in January 2021. The Risk Evaluation Report has subsequently been updated to include groundwater monitoring data collected through February 2022, and is included as **Appendix C**. This evaluation is one of many lines of evidence used herein and factored into the remedy selection process. The risk evaluation for the SSL-related constituents in groundwater at AP-1 was conducted using methods generally consistent with GA EPD and USEPA guidance and included multiple conservative assumptions. Based on the evaluation, which assessed potential receptors and exposure pathways, As and Mo concentrations observed in groundwater at AP-1 are not expected to pose a risk to human health or the environment.

Accordingly, no further risk evaluation of groundwater or surface water is warranted in connection with the remedy selection process. Human health and the environment will be protected through implementation of any of the corrective measures being considered because groundwater conditions at AP-1 are not expected to pose a risk to human health or the environment.

5.1.2 Attain the Groundwater Protection Standards (§257.97(b)(2))

The proposed corrective measures would each attain the GWPS at the compliance boundary (waste boundary) and throughout the area of groundwater SSL exceedances. Constituent transport evaluations were used to predict and assess changes in constituent concentrations in groundwater over time following closure of AP-1. These transport evaluations assessed attenuation rates under varying assumed conditions in the aquifer and provide an additional line of evidence on natural attenuation mechanisms at AP-1. These evaluations demonstrate that natural attenuation is expected to achieve GWPS and provide a baseline for comparing the other corrective action options, which would attain GWPS in less time. The groundwater flow and constituent transport evaluations, and associated input parameters, are described in detail in the *Reactive Transport Model Report* included in **Appendix B.** These evaluations suggest that the GWPS can be met at the compliance boundary within 20 to 65 years in the absence of a more active remedy.

5.1.3 Control the Source of Release (§257.97(b)(3))

In connection with a remedy, the source of the contamination must be controlled to reduce or eliminate, to the maximum extent feasible, further releases by identifying and locating the cause of the release. The following section describes how the source control required criterion is met in connection with the each evaluated alternative.

Closure by removal will be completed safely, in compliance with applicable federal and state regulations, and is protective of public health and the environment. Closure by removal includes excavation and removal of the CCR material from AP-1. Physical removal of the CCR would, over time, be supportive of declining concentrations of Appendix IV constituents in groundwater downgradient of AP-1 and improve overall groundwater quality.

As noted above, Georgia Power also plans to proactively utilize adaptive site management to support the remedial strategy and address potential changes in site conditions as appropriate.

The control provided by the closure ensures that, for purpose of remedy selection, the control requirement is met for all corrective measures being evaluated. None of the remedies being evaluated will interfere with the control provided by the closure, and Appendix IV constituents at and beyond the waste boundary that are present within the groundwater plume will be controlled by the selected groundwater corrective measure(s):

- **Geochemical Approaches (In-Situ Injection)** – Geochemical processes can be altered to immobilize As and Mo in groundwater through precipitation and sorption, thereby removing them from the dissolved phase in groundwater and controlling contaminant release/movement.
- **Hydraulic Containment ("Pump and Treat")** – Inducing a hydraulic gradient to capture or control the migration of impacted groundwater would limit potential contaminant release/movement from the capture zone.
- **Monitored Natural Attenuation (MNA)** – Natural attenuation processes act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of constituents in groundwater. These in-situ processes effectively attenuate the movement of inorganic CCR constituents in groundwater, thereby controlling constituent release/movement. The primary mechanisms governing attenuation and immobilization of As and Mo at AP-1 include sorption and co-precipitation with naturally occurring minerals in the aquifer.

5.1.4 Removal of Contaminated Material from the Environment (§257.97(b)(4))

The groundwater corrective measures retained for further consideration in the ACM Progress Reports would be effective at removing Appendix IV constituents from groundwater, either through processes of physical removal, immobilization, or attenuation in groundwater. The corrective measures considered herein remove contaminated material as follows:

- **Geochemical Approaches (In-Situ Injection) –** Geochemical processes can be altered to immobilize contaminants by sorption and precipitation, thereby removing them from the dissolved phase in groundwater.
- **Hydraulic Containment ("Pump and Treat") –** Extracting groundwater would physically remove contamination from the environment by reducing the presence of contaminants in groundwater through withdrawal from the aquifer.

- **Monitored Natural Attenuation (MNA) –** Natural attenuation processes act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants groundwater. Sorption and precipitation can immobilize contaminants, thereby removing them from the dissolved phase in groundwater.

5.1.5 Comply with Waste Management Standards (§257.97(b)(5))

In accordance with §257.98(d), waste generated during the implementation of any of the remedies under consideration would be managed in a manner that complies with applicable requirements of the RCRA and the Georgia Comprehensive Solid Waste Management Act.

	Corrective Measures		
REQUIRED CRITERIA	Geochemical Approaches (In-Situ Injections)	Hydraulic Containment ("Pump and Treat")	Monitored Natural Attenuation (MNA)
Be protective of human health and the environment	✓	✓	✓
Attain the groundwater protection standard	✓	✓	✓
Control the source of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of Appendix IV constituents into the environment	✓	✓	✓
Remove from the environment as much of the contaminated material that was released from the CCR unit as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems	✓	✓	✓
Management of waste to comply with all applicable RCRA requirements	✓	✓	✓

5.2 Comparative Criteria (§257.97(c))

This section compares the corrective measure options using the comparative criteria listed in §257.97(c). Each of the comparative criteria consists of several sub-criteria listed in the CCR Rule, which are considered in this remedy selection below. The goal of this analysis is to further evaluate the corrective measures that meet the required criteria to support remedy selection. Consistent with §257.98(b), the selected and implemented remedy will be continually evaluated and, if warranted, modified consistent with adaptive management practices.

A graphic is presented at the conclusion of each subsection to provide a visual depiction of the favorability of each corrective measure, where dark green represents that the "option performs *highly favorably* under this criterion", medium green represents that the "option performs *favorably* under this criterion," and light green represents that the "option performs *less favorably* under this criterion."

5.2.1 Long- and Short-Term Effectiveness and Protectiveness

This comparative criterion takes into consideration the following sub-criteria relative to the long-term and short-term effectiveness of each corrective measure. Long-term effectiveness means that the remedy will protect human health and the environment after GWPS have been met and prior to completion of the remedy, as defined by §257.98(c). The completed remedy will be permanent, meaning that the remedy will protect human health and the environment after the remedial objectives have been met.

The short-term effectiveness of a potential remedy is related to the protectiveness of human health and the environment during construction and implementation. The time to achieve remedial action objectives are also considered.

5.2.1.1 Magnitude of reduction of existing risks

As indicated by the nature and extent evaluation, the most recent groundwater sampling results, and the Risk Evaluation Report summarized in Section 5.1.1, Appendix IV constituents in groundwater from AP-1 are not expected to pose a risk to human health or the environment. Therefore, this criterion is considered favorable for each of the corrective measures. In addition, each groundwater corrective measure retained for this comparative analysis will be effective at reducing concentrations to levels below the GWPS, as described in section 5.1.2 above.

5.2.1.2 Magnitude of residual risks in terms of likelihood of further releases due to CCR remaining following implementation of a remedy

CCR unit closure through closure by removal provides effective source control, as described in Section 5.1.3 above and prevent further releases. Consequently, each of the remedies are considered equally favorable under this criterion.

5.2.1.3 The type and degree of long-term management required, including monitoring, operations, and maintenance

In accordance with §257.97(c)(1)(iii), this sub-criterion considers the long-term management of each groundwater corrective measure.

MNA is highly favorable with respect to this criterion, as it requires the least amount of long-term management. MNA long-term management would be limited to monitoring only as the lack of any mechanical systems avoids operations and maintenance (O&M) requirements. In-Situ Injection is considered favorable as some limited longer-term management may be required in addition to monitoring. For example, redevelopment of injection wells due to screen fouling, blower maintenance if oxygen injections are required, and potential maintenance injections may be required. "Pump and Treat" is the least favorable corrective measure under this criterion due to required O&M of the pumping and treatment system along with management of extracted groundwater and treatment residuals.

5.2.1.4 Short-term risks that might be posed to the community or the environment during implementation of such a remedy

In accordance with §257.97(c)(1)(iv), this sub-criterion relates to the potential for threats to human health (including, but not limited to, worker safety and the community) and the environment associated with remedy implementation.

Community impacts include general impacts, such as potentially increased truck traffic on public roads during construction of the remedies, as well as increased vehicle emissions, resource consumption, and noise.

MNA is considered highly favorable as no additional construction activities will be required beyond the existing monitoring well network. In-Situ Injection will require minor construction activities to install injection and performance monitoring wells. In-Situ Injection may result short-term mobilization of other redox- or pH-sensitive constituents; however, this risk would be mitigated by conducting bench- and pilot-scale testing to screen out unfavorable amendments or approaches prior to full scale field implementation. There is an additional short-term risk of spills or releases of geochemical amendments during injections, which can be mitigated with appropriate engineering controls. As such, geochemical injections are considered favorable. "Pump and Treat" is considered less favorable as implementation will require substantial importation of materials and construction activities. Similar to In-situ Injection, implementation of "Pump and Treat" entails short-term risks related to management of extracted groundwater, for example due to leaks in conveyance piping, which can be mitigated with appropriate engineering controls.

5.2.1.5 Time until full protection is achieved

Receptors are already protected because Appendix IV constituents in groundwater at AP-1 are not expected to pose a risk to human health or the environment. However, in accordance with §257.98(c)(1) and (2), a remedy is considered fully complete when the GWPS is achieved at all points within the plume at and beyond the compliance boundary for three consecutive years.

The time to achieve GWPS at the compliance boundary under MNA was considered a baseline for comparison purposes and is estimated to be approximately 20 to 65 years (**Appendix B)**. Other corrective measures are qualitatively compared to this baseline timeframe. Corrective measures that require less time to achieve GWPS are considered more favorable under this criterion.

In-Situ Injection is considered highly favorable as it is likely to achieve GWPS in the shortest amount of time, as evidenced by the "proof of concept" geochemical injection evaluation included in **Appendix B**. The mass of dissolved As was predicted to decrease by 87% after 5 years of simulated injection and performance monitoring, while approximately 30 years of simulated MNA was required to achieve a similar decrease in dissolved mass (approximate 89%). The mass of dissolved Mo was predicted to decrease by 57% after 5 years of simulated injection and performance monitoring, while approximately 65 years of simulated MNA was required to achieve a similar decrease in dissolved mass (approximately 52%). Actual reductions of constituent concentrations (and dissolved mass) within a treatment area are likely to proceed very quickly, but the

total time to achieve GWPS will be dependent on many factors, including the size of the plume, the time to complete distribution of amendments throughout the subsurface, and the attenuation kinetics of the targeted constituents.

"Pump and Treat" is considered favorable. Although hydraulic control will be achieved quickly (within 1- to 2- months of sustained pumping), achieving GWPS at all points outside of the waste boundary will take substantially longer than In-situ Injection. The recovery of impacted groundwater will likely be very slow during "Pump and Treat" and require substantial flushing of unimpacted groundwater because As and Mo strongly sorb to the aquifer matrix. This same phenomenon which is presently naturally attenuating As and Mo will result in "Pump and Treat" requiring marginally shorter cleanup times than MNA.

MNA is considered less favorable under this criterion as it is likely to take the longest time to achieve GWPS at all points within the plume.

5.2.1.6 Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, re-disposal, or containment

In accordance with §257.97(c)(1)(vi), this sub-criterion considers elements such as the generation and handling of wastes or potentially impacted media encountered during construction and operation of the remedy.

MNA is considered highly favorable under this criterion as no construction waste will be generated and exposure to potentially impacted groundwater would be minimal. In-Situ Injection is considered favorable as some minor quantities of construction waste would be generated during implementation although exposure to potentially impacted media would also be minimal.

"Pump and Treat" will generate similar quantities of potentially impacted construction waste as In-situ Injection. However, "Pump and Treat" is considered less favorable as extraction of potentially impacted groundwater will require ongoing management of multiple waste streams (e.g., extracted groundwater, spent treatment system components, and treatment residuals).

5.2.1.7 Long-term reliability of the engineering and institutional controls

The following describes the overall long-term reliability for each of the proposed groundwater corrective measures for purposes of comparison. Of note, the reliability of each of the corrective measures is bolstered by the long-term reliability of the closure method and its expected positive effect on groundwater conditions.

In-Situ Injection and MNA are considered highly favorable under this criterion as minimal long-term engineering controls would be required. "Pump and Treat" is favorable under this criterion as engineering controls will be required throughout the lifetime of the remedy (for example, leak detection systems in conveyance piping).

5.2.1.8 Potential need for replacement of the remedy

Any need to replace a remedy would be based on a systematic site review during the remedy implementation process if warranted to improve remedy protectiveness, effectiveness, or facilitate progress toward meeting remedy objectives. In accordance with §257.98(b), adaptive site management practices will be used to modify or replace the remedy if the requirements of §257.97(b) are not being achieved.

In-Situ Injection is considered favorable under this criterion. While a replacement remedy is unlikely to be necessary, changes in groundwater chemistry and flow conditions may promote limited short-term mobilization or remobilization of other Appendix IV constituents in groundwater. Bench scale treatability studies would minimize this potential occurrence by screening unfavorable amendments. Field data from a pilot study would provide additional data for optimization of geochemical strategies and indication of the long-term performance of In-situ Injection.

Natural processes are predicted to decrease the As and Mo concentrations in groundwater over time following closure without further intervention, reducing the likelihood that a replacement remedy would be required. Although the longer time likely required to achieve GWPS introduces inherent uncertainty on remedy success, natural attenuation will still play a role in achieving GWPS under alternate corrective measures under consideration. MNA therefore ranks as less favorable under this criterion.

"Pump and Treat" has the greatest risk of requiring replacement and is thus considered less favorable. For example, a substantial change in the groundwater flow direction or velocity may render pump and treat less effective at lowering constituent concentrations at the edges of a plume despite remaining protective. "Pump and Treat" wells could

potentially be repurposed as injection wells in accordance with adaptive site management practices.

All corrective measures will be evaluated for effectiveness following implementation, and modified if remedial objectives are not being met, in accordance with adaptive site management practices and §257.98(b).

5.2.1.9 Long- and short-term effectiveness summary

This section provides a summary of the eight §257.97(c)(1) sub-criteria relative to long- and short-term effectiveness that are discussed in Sections 5.2.1.1 to 5.2.1.8 above, and includes a summary table.

Appendix IV constituents in groundwater from AP-1 are not expected to pose an adverse risk to human health or the environment under current conditions and each of the corrective measures will be effective in reducing As and Mo groundwater concentrations to below GWPS. Closure by removal is an effective source control measure that will address any potential for further releases of CCR constituents. As such, relative ranking between corrective measures is driven primarily by potential short-term impacts to the community during implementation, reliability and O&M, potential exposure of receptors to incidental environmental risks during implementation of the remedy, and time to achieve GWPS.

MNA is considered favorable due to its certainty of success, reliability, and the minimal potential for short-term impacts to the community or environment during implementation. It is considered less favorable by the criterion of time to achieve GWPS. The longer time likely required to achieve GWPS introduces inherent uncertainty of remedy success. Therefore, MNA is considered less favorable under the potential need for a replacement remedy criterion, despite being considered favorable overall under this category.

In-Situ Injection is considered favorable but would entail some short-term uncertainty during implementation. The primary favorability of this corrective measure stems from the shorter time to achieve GWPS downgradient of the groundwater monitoring system.

“Pump and Treat” will have less favorable short- and long-term effectiveness primarily due to the higher O&M requirements, the marginally higher likelihood of potential exposure of receptors to potentially impacted groundwater during transport and treatment, and the time to achieve GWPS.

Category 1 – Long- and Short-term Effectiveness Summary

	In-Situ Injection	"Pump and Treat"	Monitored Natural Attenuation
Sub-Criterion i Magnitude of reduction of risks			
Sub-Criterion ii Magnitude of residual risk in terms of likelihood of further release			
Sub-criterion iii Type and degree of long-term management required			
Sub-criterion iv Short term risk to community or environment during implementation			
Sub-criterion v Time until full protection is achieved			
Sub-criterion vi Potential for exposure of humans and environmental receptors to remaining wastes			
Sub-criterion vii Long-term reliability of engineering and institutional controls			
Sub-criterion viii Potential need for replacement of the remedy			
Category 1 Summary			

Color Legend:

	Option performs *highly favorably* under this criterion
	Option performs *favorably* under this criterion
	Option performs *less favorably* under this criterion

5.2.2 Source Control Effectiveness

This comparative criterion takes into consideration the ability of the remedy to control a future release and the extensiveness of treatment technologies that will be required. Closure by removal will be completed safely, in compliance with applicable federal and state regulations, and is protective of public health and the environment. Closure by removal includes excavation and removal of the CCR material from AP-1. Physical removal of the CCR would, over time, be supportive of declining concentrations of Appendix IV constituents in groundwater downgradient of AP-1 and improve overall groundwater quality. None of the corrective measures under consideration would interfere with or diminish the anticipated benefits of the closure method.

5.2.2.1 The extent to which containment practices will reduce further releases

Through closure by removal, CCR material will be removed from AP-1. Since the source material will be removed at the time of AP-1's closure, there will be no further potential for release from the CCR unit. Appendix IV constituents that are currently present in groundwater at or beyond the waste boundary will be controlled by the selected groundwater remedy. Therefore, each of the groundwater corrective measures are considered equally favorable for this sub-criterion.

5.2.2.2 The extent to which treatment technologies may be used

In accordance with §257.97(c)(2)(ii), corrective measures that include more limited treatment approaches for source control may be considered less favorable. Corrective measures that rely on more extensive treatment approaches may be considered more favorable.

No treatment technologies are under consideration since the source material will be removed at the time of AP-1's closure. Therefore, all groundwater remedy alternatives are considered equally favorable for this sub-criterion.

5.2.2.3 Source Control Effectiveness Summary

This section provides a summary of the two §257.97(c)(2) sub-criteria relative to effectiveness that are discussed in Sections 5.2.2.1 and 5.2.2.2 above. Adaptive site management strategies will be implemented to ensure remedial objectives are met.

As described above source control will be achieved at AP-1 and, over time, be supportive of declining concentrations of Appendix IV constituents in groundwater downgradient of AP-1 and improve the overall groundwater quality. The corrective measures are therefore equally favorable under source control effectiveness criteria, as summarized in the following table.

Category 2 – Source Control Effectiveness

	In-Situ Injection	"Pump and Treat"	Monitored Natural Attenuation
Sub-criterion i Extent to which containment practices will reduce further releases			
Sub-criterion ii Extent to which treatment technologies may be used			
Category 2 Summary			

Color Legend:

	Option performs *highly favorably* under this criterion
	Option performs *favorably* under this criterion
	Option performs *less favorably* under this criterion

5.2.3 Ease of Implementation

This comparative criterion takes into consideration technical and logistical challenges required to implement a remedy, including practical considerations such as equipment availability and disposal facility capacity.

5.2.3.1 Degree of difficulty associated with constructing the technology

This sub-criterion considers the relative technical difficulty between implementing each of the remedies.

MNA is considered highly favorable as a monitoring system is already in place and no additional construction would be required. In-Situ Injection is considered favorable under this criterion as some construction would be required for the pilot and full-scale injection well network. "Pump and Treat" is considered less favorable as it would require construction of dewatering wells and supporting conveyance lines, which may require more contractors and time to construct. Depending on effluent discharge limits for certain constituents found in groundwater, above-ground water treatment infrastructure would likely be required for treatment of extracted groundwater under "Pump and Treat." However, both In-situ Injection and "Pump and Treat" can be constructed using common means and methods for well installation and utilities.

5.2.3.2 Expected operational reliability of the technologies

This section compares the operational reliability of each of the proposed remedies in accordance with §257.97(c)(3)(ii). Typically, simple remedies that do not require the installation of significant infrastructure are generally more reliable and do not require significant O&M; however, more complex remedies that rely on groundwater flow or geochemical manipulation or mechanical systems would be considered less favorable.

MNA has a proven history of operational reliability and ranks highly favorable under this criterion. It requires little infrastructure and/or ongoing O&M.

In-Situ Injection is considered favorable under this criterion. In-Situ Injection is reliable assuming injected materials can be distributed throughout the aquifer. Pilot testing will provide valuable data on amendment distribution and reduce the potential for reliability issues. However, injection wells may be subject to fouling over time and require reconditioning to maintain performance.

"Pump and Treat" is considered less favorable under the operational reliability criterion. Pumping mechanical systems may fail and otherwise need to be temporarily shut down to conduct preventative maintenance, and as with In-Situ Injection, well screens may require reconditioning if they become fouled. Groundwater treatment systems will also require ongoing operational maintenance and will need to be monitored to reliably meet discharge permit criteria.

5.2.3.3 Need to coordinate with and obtain necessary approvals and permits from other agencies

Section §257.97(c)(3)(iii) requires consideration be given and compared between remedies regarding the various agencies and type of permits that would be required for implementation of the groundwater remedy. A corrective measure that could require several permits would be considered less favorable when compared to a corrective measure that would require fewer permits.

MNA ranks highly favorable under this criterion, as no permits or additional approvals from other agencies will be required. In-Situ Injection and "Pump and Treat" perform favorably as some permitting will be required. In-Situ Injection will require an Underground Injection Control (UIC) permit, while "Pump and Treat" will likely require modifications to the Site National Pollutant Discharge Elimination System (NPDES) permit to discharge treated groundwater.

5.2.3.4 Availability of necessary equipment and specialists

Generally speaking, remedies that could be implemented by local contractors and without specialty contractors or experts may be considered more favorable. Consideration should be given to specialty contractor/consultant proximity to the CCR unit, contractor or equipment availability, and the effectiveness of the proposed remedy on similar sites.

MNA ranks highly favorable under this criterion as no specialty equipment or personnel will be required to implement this remedy at the Site. In-Situ Injection would require equipment for drilling and well installation, and may require specialists to conduct injections. "Pump and Treat" would require drilling equipment, well installation equipment, and equipment to install supporting pumping and conveyance features. Although the construction techniques required for both corrective measures are common, "Pump and Treat" would require available above-ground treatment equipment throughout the lifetime of the corrective measure. As such, In-Situ Injection is considered favorable, and "Pump and Treat" is considered less favorable under this criterion.

5.2.3.5 Available capacity and location of needed treatment, storage, and disposal services

This sub-criterion (§257.97(c)(3)(v)) considers disposal options for materials generated by the groundwater remedy and land area that is available for implementation of the remedy.

MNA and In-situ Injection are considered highly favorable as no additional treatment, storage, and disposal services will be required and adequate land area is available to conduct in-situ treatment with injections. "Pump and Treat" is considered less favorable under this criterion. While the existing treatment system associated with the ongoing closure has sufficient capacity, the need to maintain this infrastructure will result in an ongoing waste stream of treatment residuals. Further, extracted groundwater will need to be managed, potentially requiring temporary storage areas for treated or untreated groundwater.

5.2.3.6 Ease of implementation summary

This section provides a summary of the five §257.97(c)(3) sub-criteria relative to the ease or difficulty of implementing this remedy that are discussed in Sections 5.2.3.1 to 5.2.3.5 above, and includes a summary table.

The MNA ease of implementation is ranked highly favorable, as the infrastructure for this remedy is already in place. In-Situ Injection is considered favorable based on the relative ease of construction, anticipated operational performance, limited permitting requirements, available means and methods to construct the remedy, and the available capacity and supporting services. "Pump and Treat" is considered less favorable based on the higher difficulty to construct, lower reliability of mechanical systems, and the limitations associated with treatment, storage, disposal services required.

Category 3 – Ease of Implementation

	In-Situ Injection	"Pump and Treat"	Monitored Natural Attenuation
Sub-criterion i Degree of difficulty associated with constructing the technology			
Sub-criterion ii Expected operational reliability of the technologies			
Sub-criterion iii Need to coordinate with and obtain necessary approvals and permits from other agencies			
Sub-criterion iv Availability of necessary equipment and specialists			
Sub-criterion v Available capacity and location of needed treatment, storage, and disposal services			
Category 3 Summary			

Color Legend:

Option performs *highly favorably* under this criterion

Option performs *favorably* under this criterion

Option performs *less favorably* under this criterion

5.2.4 Evaluation of Comparison Criteria

The various sub-criteria were evaluated, and relative comparisons were made between the corrective measures to determine which remedy would be expected to be the most and least favorable regarding the certainty of success. The results are included in the following table for all of the comparative criteria.

In-Situ Injection and MNA are both considered favorable under long- and short-term effectiveness (Category 1). While In-situ Injections entail some short-term uncertainties as compared to MNA, this corrective measure is expected to achieve GWPS in the shortest time. Conversely, MNA is considered very reliable and entails minimal short-term uncertainties but will require a substantially longer time to achieve GWPS. "Pump and Treat" is considered less favorable primarily due to short-term construction impacts, higher O&M requirements, and long time periods required to achieve GWPS.

Source control (Category 2) will be supported at AP-1 through closure by removal of CCR, which over time, will support declining concentrations of Appendix IV constituents in groundwater downgradient of AP-1 and improve overall groundwater quality. None of the corrective measures under consideration will interfere with or diminish the anticipated benefits of the closure method. Each of the corrective measures therefore rank equally with respect to source control.

The ease of implementation (Category 3) of MNA is highly favorable as the required infrastructure already in place. In-Situ Injection is considered favorable based the relative ease of construction and operational performance. "Pump and Treat" is considered less favorable due to the higher difficulty to construct and the lower reliability of mechanical systems.

	In-Situ Injection	**"Pump and Treat"**	**Monitored Natural Attenuation**
Category 1 Long- and Short-Term Effectiveness, Protectiveness, and Certainty of Success			
Category 2 Effectiveness in controlling the source to reduce further releases			
Category 3 Ease of implementation			

Color Legend:

	Option performs *highly favorably* under this criterion
	Option performs *favorably* under this criterion
	Option performs *less favorably* under this criterion

5.3 Public Meeting and Community Engagement

As noted in Section 2.1 above, this criterion will be addressed in the Remedy Selection Report submitted to GA EPD after a public meeting.

6.0 PROPOSED REMEDY SELECTION

This section provides a summary of the proposed groundwater remedy and provides a schedule for remedy implementation in accordance with §257.97(d). Georgia Power will proactively utilize adaptive site management to support the remedial strategy and address potential changes in site conditions as appropriate. Under an adaptive site management strategy, a remedial approach will be selected whereby: (1) a corrective measure will be installed or implemented to address current conditions; (2) the performance of the corrective measure will be monitored, evaluated, and reported semiannually; (3) the conceptual site model will be updated as more data are collected; and (4) adjustments and augmentations will be made to the corrective measure(s), as needed, to meet performance criteria and site remedial objectives. The remedy adaptive site management framework is included as **Figure 8**.

6.1 Summary of Proposed Remedy Selection

The closure by removal of AP-1 will provide effective source control that precludes further releases as no CCR will remain in place. Closure of the CCR unit will, over time, be supportive of declining concentrations of Appendix IV constituents in groundwater downgradient of AP-1 and improve the overall groundwater quality. The proposed corrective measures will address exceedance of the GWPS at and beyond the compliance boundary. Based on the evaluation of comparative criteria included in §257.97(c), the proposed remedy comprises the following two corrective measures:

- **Geochemical Approaches (In-Situ Injections)**: A network of either temporary or permanent injection wells will be installed and utilized to introduce reagents to the subsurface to promote attenuation of constituents. Initial geochemical modeling results (presented in **Appendix B**) support the feasibility of in-situ injections and are indicative of shorter remediation times as compared to MNA alone. Laboratory treatability studies, including batch and column testing, are currently ongoing to aid in selection of an appropriate injection composition, dosing, and protocol. This treatability study will serve as a basis of design for this component of the selected remedy. Injections will target areas with highest concentrations of As and Mo in groundwater to immobilize and sequester these constituents in situ, accelerating already ongoing attenuation processes to achieve GWPS more rapidly than other corrective measure options. This remedial approach is tailored to areas around HGWC-8 and HGWC-13. A performance monitoring program will be implemented to assess treatment performance and

groundwater quality within and downgradient of the proposed treatment areas for the duration of the remedy.

- **Monitored Natural Attenuation (MNA)**: Natural attenuation processes, coupled with monitoring, are already ongoing at the Site. As detailed in the Geochemical CSM Report provided in **Appendix A**, natural attenuation of As and Mo in groundwater is primarily due to adsorption and co-precipitation. Groundwater monitoring will continue to document natural attenuation, which is expected to be enhanced by the in-situ injections. Attenuation mechanisms and reductions in constituent concentrations and attenuation mechanisms will continue to be monitored and documented for the duration of the remedy.

A conceptual remedy layout for in-situ injection arrays is shown on **Figure 9**. The MNA component of the remedy will rely on the same monitoring infrastructure as the in-situ injections. Actual remedy injection and performance monitoring well locations will be assessed during the remedy design. Remedy performance will be monitored to document that remedial objectives are being met in accordance with adaptive site management practices.

6.2 Schedule

In accordance with §257.97(d), the following factors were considered when developing the schedule:

- Extent and nature of contamination: The horizontal and vertical extent of Appendix IV constituents present in groundwater are delineated. Additional characterization and refinement of the treatment area is required for the design and implementation of the remedy. The selected remedy will address the impacts to groundwater and adaptive site management practices will be utilized to evaluate whether to modify the remedial approach.
- Reasonable probabilities of remedial technologies in achieving compliance with the GWPS and other remedial objectives: The selected remedy is expected to achieve compliance with the GWPS within 10 years of the initiation of injections. As considered in Section 5 of this report, the selected remedy is expected to address Appendix IV constituents in groundwater. If adequate progress is not being made toward addressing groundwater and achieving the GWPS at and beyond the compliance boundary, Georgia Power will enlist adaptive management strategies to modify the remedial approach, in accordance with

§257.98(b). Site and remedy-specific performance metrics will be developed and documented in the Corrective Action Groundwater Monitoring Plan.

- Availability of treatment or disposal capacity for CCR managed during remedy implementation: Because CCR is not expected to be managed during remedy implementation, this factor should not have a material impact on the project schedule.
- Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy: As described in Section 5 of this report, the risk evaluation for As and Mo in groundwater at AP-1 was conducted using methods consistent with GA EPD and USEPA guidance, included multiple conservative assumptions, and concluded that groundwater conditions are not expected to pose a risk to human health or the environment. Thus, this factor should not have a material impact on the project schedule. Additional risks that may be present during remedy implementation were considered in Section 5 of this report, as required under §257.97(c)(1).
- Resource value of the aquifer: As summarized in Section 5 of this report and detailed in the Risk Evaluation Report, As and Mo are not expected to pose a risk to human health or the environment. As such, considerations related to alternative drinking water supply or interim remedial measures, as outlined in §257.98(a)(3), are not currently necessary or expected to become so. Further, Georgia Power will retain ownership of the Site and future development for non-industrial purposes is not currently anticipated. Because AP-1 constituents are not expected to pose a risk to human health or the environment, this factor should not have a material impact on the project schedule.

The general approach and implementation schedule will be modified based on new groundwater quality data obtained during the remedial implementation process, following adaptive site management practices and in accordance with §257.98(b).

6.2.1 Planning and Design

Approximately 24 months will be required to design the selected remedy and develop a corrective action plan. Significant planning and design activities include:

- Pre-design Investigation: A field pre-design investigation (PDI) will be conducted to characterize and refine treatment areas. This investigation will provide valuable data for the design of geochemical injections and provide additional

documentation of MNA throughout the extents of the two plumes. During the PDI, plume extents will be further refined by collecting groundwater samples, possibly using direct-push technology (DPT), which will be assessed for As and Mo. Permanent wells may be installed for further aquifer characterization, and any such permanent wells may be utilized during pilot testing as injection points or performance monitoring wells. The field component of the PDI will take approximately 2 months to complete.

- Pilot Study: To expedite remedy design and implementation, Georgia Power requests written concurrence from GA EPD to initiate pilot studies following receipt of the Draft Remedy Selection Report. Following receipt of GA EPD concurrence to proceed, a pilot study workplan will be developed, submitted to GA EPD, and implemented for each plume. These pilot studies will evaluate optimum injection point spacing and the performance of injectates in situ. It is anticipated that each pilot will target areas of highest Mo and As concentrations; however, alternate pilot locations may be selected based on the results of the PDI. Injection composition (and sequencing, as needed) and spacing for the final design may be adjusted based on pilot study performance. Prior to injection, a UIC permit application will be prepared and submitted to GA EPD for review and approval (6 months total). Pilot study injections are expected to occur over a period of approximately 1 to 4 months with an additional 8 months of performance monitoring and assessment. The pilot study will be conducted consistent with adaptive site management practices. As such, a second phase pilot study may be implemented prior to completion of the anticipated 8-months of performance monitoring and prior to finalizing the injection design.
- Finalize Design and Corrective Action Plan: A corrective action plan, including detailed remedy design will be developed and submitted to GA EPD for approval. While design activities will be concurrent with the previously listed activities, the corrective action plan will not be finalized until successful completion of the pilot study.

6.2.2 Construction and Implementation

Construction of the injection and performance monitoring well network is anticipated to take approximately 1 to 2 months, with initial geochemical injections occurring over the following 2 to 3 months. Actual construction and implementation times may vary substantially based on the results of the pre-design investigation and other design activities.

6.2.3 Operation

While the estimated timeframe will be refined during design, it is anticipated that the geochemical injection phase of the remedy may only require 6 months to a year of operation followed by a longer period of performance monitoring coupled with monitored natural attenuation for the areas downgradient and/or outside of the injection areas. In total, it is estimated that less than 10 years from the initiation of injections will be required to achieve GWPS within all points of the plumes at and beyond the compliance boundary.

The groundwater remedy will be considered complete when applicable requirements listed under §257.98(c) and 391-3-4-.10(6) are satisfied. In accordance with adaptive site management practices and §257.98(b), the groundwater remedy will be modified if it is determined that GWPS are not being met or will not be met.

6.3 Reporting

In accordance with §257.105(h), Georgia Power will place the Remedy Selection Report into the Site operating record. Thereafter, Georgia Power will develop a corrective action groundwater monitoring program and implement and report on the selected remedy in accordance with applicable regulatory requirements.

7.0 REFERENCES

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TABLES

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

Well ID	Hydraulic Location	Installation Date	Northing [1]	Easting [1]	Ground Surface Elevation (ft)	Top of Casing Elevation [1] (ft)	Top of Screen Elevation [1] (ft)	Bottom of Screen Elevation [1] (ft)	Well Depth (ft BTOC) [2]	Screen Interval Length (ft)
Compliance Monitoring Well										
HGWA-1	Upgradient	12/3/2014	1550423.32	1940770.00	592.32	595.21	573.12	563.12	32.49	10
HGWA-2	Upgradient	12/2/2015	1549796.87	1939845.15	585.29	587.92	570.29	560.29	27.95	10
HGWA-3	Upgradient	12/2/2015	1549794.41	1939833.39	585.23	587.74	553.23	543.23	44.51	10
HGWA-43D	Upgradient	8/26/2020	1550422.85	1940753.81	592.08	595.08	544.08	534.08	61.25	10
HGWA-44D	Upgradient	8/25/2020	1550409.13	1940756.19	592.01	594.79	491.76	481.76	113.50	10
HGWC-7	Downgradient	12/3/2015	1549520.67	1942319.75	576.55	579.18	561.55	551.55	27.96	10
HGWC-8	Downgradient	12/8/2015	1549114.61	1942392.56	577.14	579.82	564.64	554.64	25.51	10
HGWC-9	Downgradient	12/9/2015	1548693.30	1942215.03	577.72	580.36	543.72	533.72	46.97	10
HGWC-10	Downgradient	12/8/2015	1548469.25	1941644.43	576.76	579.37	566.76	556.76	22.94	10
HGWC-11	Downgradient	12/15/2015	1548477.91	1941146.79	578.12	580.67	565.19	555.19	25.78	10
HGWC-12	Downgradient	12/9/2015	1548476.53	1941152.34	578.14	580.73	555.64	545.64	35.42	10
HGWC-13	Downgradient	12/10/2015	1548628.03	1940900.60	592.94	595.76	560.94	550.94	45.15	10
Delineation Monitoring Well										
MW-5	Downgradient	11/4/2014	1548436.02	1942448.85	578.00	581.14	560.70	550.70	30.84	10
MW-6	Downgradient	11/4/2014	1548383.12	1941689.01	579.18	581.84	559.28	549.28	32.96	10
MW-7	Downgradient	10/30/2014	1548230.47	1941087.44	574.94	577.73	561.24	551.24	26.89	10
MW-19	Downgradient	9/26/2018	1548422.94	1940943.01	577.46	580.65	561.45	551.45	29.53	10
MW-20	Downgradient	9/27/2018	1549029.68	1942736.85	575.96	579.00	554.96	544.96	34.37	10
MW-24D	Downgradient	11/7/2018	1548638.80	1940900.37	592.91	595.68	532.91	522.91	72.77	10
MW-25D	Downgradient	11/6/2018	1548473.00	1941162.20	577.71	580.59	527.71	517.71	63.21	10
MW-26D	Downgradient	11/14/2018	1548699.91	1942222.36	577.63	580.41	512.63	502.63	78.11	10
MW-27D	Downgradient	11/8/2018	1549103.57	1942390.80	576.84	579.70	526.84	516.84	63.19	10
MW-28D	Downgradient	11/13/2018	1549510.90	1942321.14	576.20	579.08	531.20	521.20	58.21	10
MW-29	Downgradient	11/13/2018	1549437.67	1942633.60	572.14	575.06	557.14	547.14	28.25	10
Piezometer										
AP1A-1	Upgradient	12/15/2015	1550080.01	1941614.12	584.78	587.44	575.84	565.84	21.93	10
MW-1	Upgradient	12/2/2014	1549938.24	1941589.06	585.63	588.66	567.93	557.93	31.06	10
MW-8	Downgradient	10/29/2014	1548171.86	1940016.70	584.25	586.93	565.05	555.05	32.28	10
MW-30D	Downgradient	6/19/2019	1549530.00	1942318.45	576.20	578.59	481.20	471.20	107.72	10
MW-40D	Downgradient	4/29/2020	1549542.29	1942316.55	576.41	578.92	450.41	440.41	138.84	10

Notes:

ft = feet

ft BTOC = feet below top of casing

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Elevations referenced to the North American Vertical Datum of 1988 (NAVD88). Survey data certified by GEL Solutions May 19, 2020. Survey data for HGWA-43D and HGWA-44D certified by GEL Solutions September 10, 2020.

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

Table 2
Summary of Corrective Measures Screening
Plant Hammond AP-1, Floyd County, Georgia

Corrective Measure	Description	Screening Status
Geochemical Approaches (In-Situ Injection)	Geochemical approaches rely on an injection well network to introduce reagents or air into the subsurface to promote either anaerobic or aerobic attenuation of constituents as a sparingly-soluble mineral or through sorption mechanisms.	Retained
Hydraulic Containment ("Pump and Treat")	Hydraulic containment refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture to control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.).	Retained
Monitored Natural Attenuation (MNA)	MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or oxidation-reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Natural attenuation mechanisms for inorganic constituents at CCR sites are either physical (e.g., dilution, dispersion, flushing, and related processes) or chemical (sorption or oxidation reduction reactions).	Retained
Permeable Reactive Barrier	Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through.	Not retained (i) Does not address downgradient groundwater when installed along the compliance boundary; (ii) Limited construction feasibility due to variability in depth to competent bedrock; (iii) Potential for increased maintenance due to potential biofouling and mineral precipitation.
Phytoremediation	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground treatment system and infrastructure.	Not retained (i) Insufficient available area for tree plantings due to presence of high voltage lines.
Subsurface Vertical Barrier Walls	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas by providing containment.	Not retained (i) Does not address downgradient groundwater when installed along the compliance boundary; and (ii) Limited construction feasibility due to variability in depth to competent bedrock.

FIGURES

N

LEGEND

Plant Hammond Property Boundary

Note:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 400 800 1,600

SCALE IN FEET

SITE LOCATION MAP

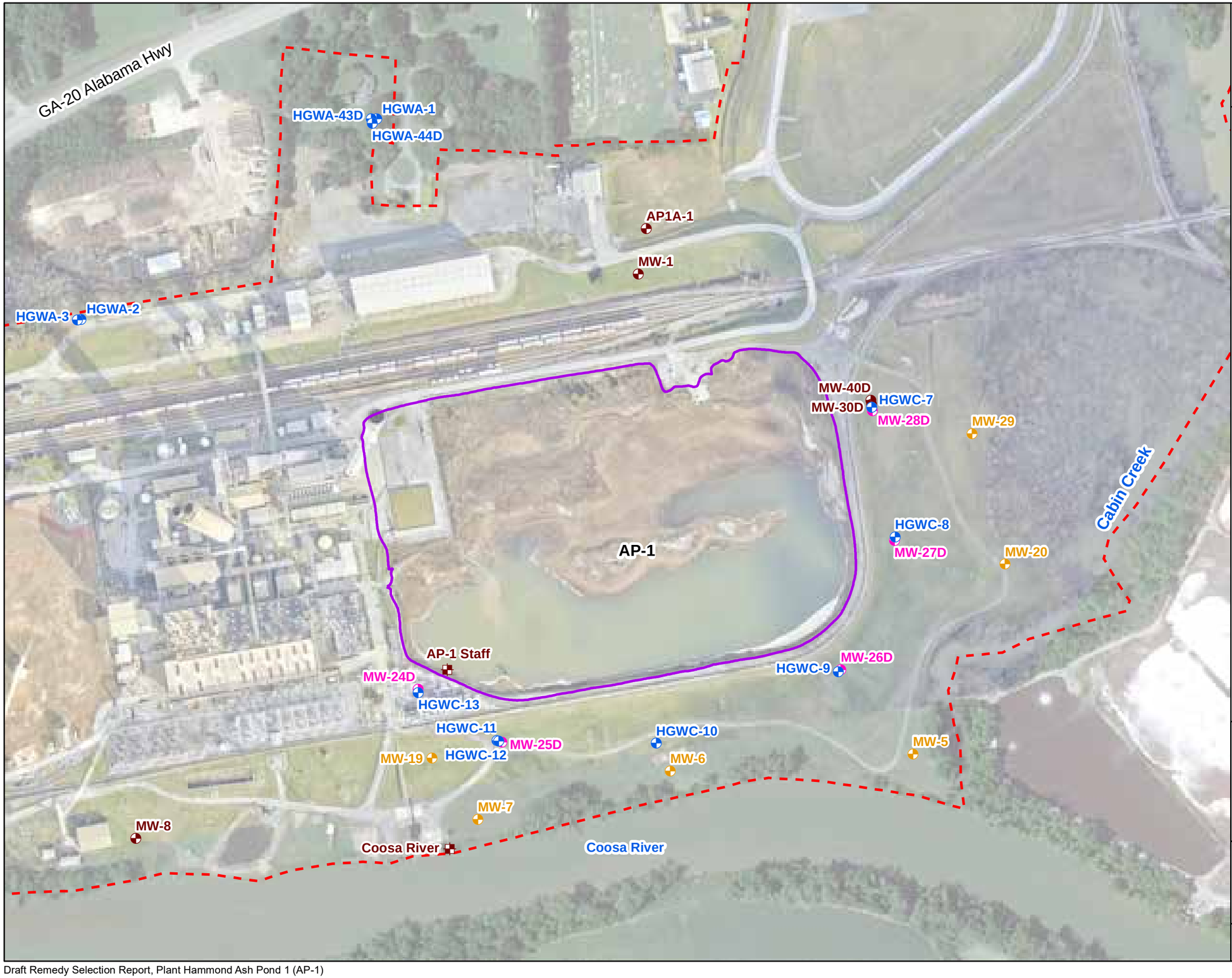
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 1



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Surface Water Level Gauge Point
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Note:
1. Aerial photograph source: Google Earth Pro, August 2019, and Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

MONITORING WELL NETWORK AND SAMPLING LOCATION MAP

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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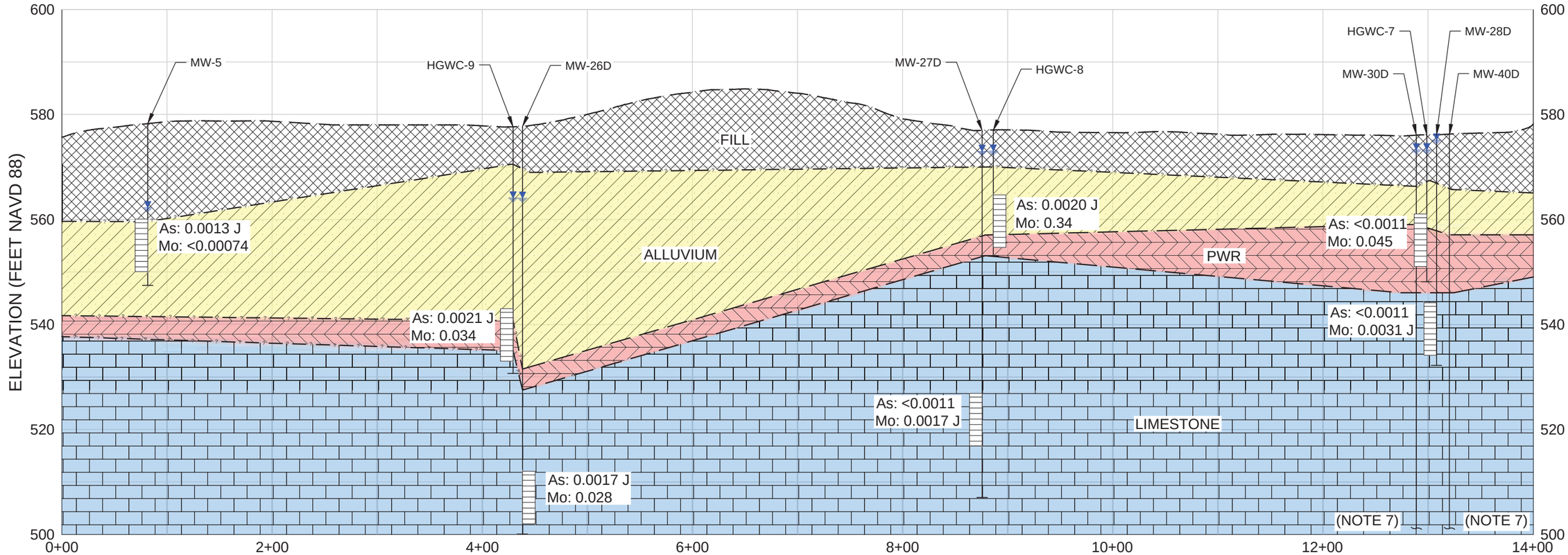
FIGURE 2

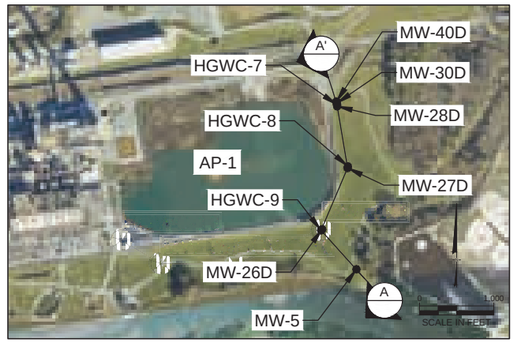
A SOUTH

A' NORTH



NOTES:

1. SUBSURFACE LITHOLOGIC ELEVATIONS BETWEEN BORINGS ARE BASED ON ENVIRONMENTAL VISUALIZATION SYSTEM (EVS) 3D MODEL KRIGING AND SHOULD BE CONSIDERED APPROXIMATE.
2. ELEVATION PROVIDED IN FEET REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
3. ELEVATIONS OF LITHOLOGIC UNITS WERE ESTIMATED BASED ON GROUND SURFACE ELEVATIONS OF SOIL BORINGS.
4. BORING LOGS AND HYDROGEOLOGIC INFORMATION FOR SOIL BORINGS AND MONITORING WELLS NOT INSTALLED BY GEOSYNTEC CONSULTANTS WERE PROVIDED BY GEORGIA POWER COMPANY.
5. GROUNDWATER LEVELS MEASURED BY GEOSYNTEC ON 31 JANUARY 2022.
6. ARSENIC (As), AND MOLYBDENUM (Mo) CONCENTRATION DATA ARE FROM FEBRUARY 2022 SEMIANNUAL GROUNDWATER MONITORING EVENT. CONCENTRATIONS ARE REPORTED IN MILLIGRAMS PER LITER. A "<" INDICATES THE CONSTITUENT WAS NOT DETECTED ABOVE THE ANALYTICAL METHOD DETECTION LIMIT (MDL). A "J" INDICATES THE CONSTITUENT WAS ESTIMATED AND DETECTED BETWEEN THE MDL AND THE REPORTING LIMIT.
7. NO SAMPLE WAS OBTAINED WITHIN UPPER 10 FEET OF BORING DUE TO HYDRO EXCAVATION AT MW-26D, MW-27D, MW-28D, MW-30D, AND MW-40D.
8. THE FULL EXTENT OF PIEZOMETERS MW-30D AND MW-40D ARE NOT SHOWN ON THE SECTION. PIEZOMETERS MW-30D AND MW-40 ARE SCREENED BETWEEN ELEVATIONS OF 450 AND 440 FT NAVD88, AND 481 AND 471 FT NAVD88 RESPECTIVELY AND WERE NOT SAMPLED IN FEBRUARY 2022.
9. THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR ARSENIC IS 0.01 MG/L. THE GWPS FOR MOLYBDENUM IS 0.10 MG/L.



SECTION A-A' KEY MAP

LEGEND

- ESTIMATED LITHOLOGIC CONTACT
- EXTRAPOLATED SURFACE
- WELL
- SCREEN INTERVAL
- GROUNDWATER LEVEL (NOTE 5)
- FILL: LEAN CLAY, SILTY CLAY, CLAYEY SILT, SILT, SANDY CLAY WITH SOME GRAVEL
- ALLUVIUM: CLAY, SANDY CLAY, GRAVELLY CLAY, GRAVELLY SAND
- PARTIALLY WEATHERED ROCK (PWR)
- LIMESTONE

0 100
HORIZONTAL SCALE IN FEET

0 10
VERTICAL SCALE IN FEET

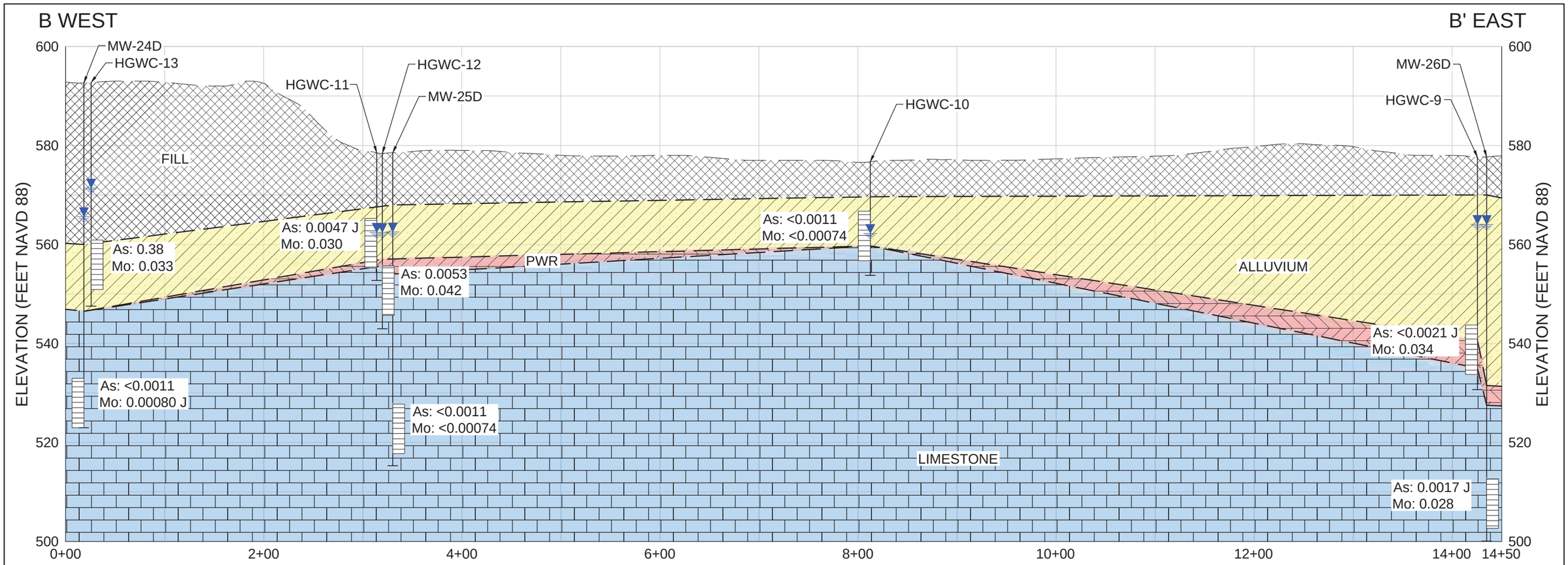
VERTICAL EXAGGERATION = 10X

GEOLOGIC SECTION A-A'
GEORGIA POWER COMPANY
PLANT HAMMOND ASH POND 1 (AP-1)
ROME, FLOYD COUNTY, GEORGIA

Geosyntec consultants
KENNESAW, GA

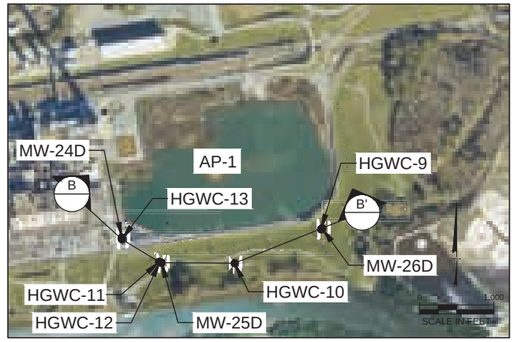
FIGURE 3

PROJECT NO: GW6581B | AUGUST 2022



NOTES:

1. SUBSURFACE LITHOLOGIC ELEVATIONS BETWEEN BORINGS ARE BASED ON ENVIRONMENTAL VISUALIZATION SYSTEM (EVS) 3D MODEL KRIGING AND SHOULD BE CONSIDERED APPROXIMATE.
2. ELEVATION PROVIDED IN FEET REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
3. ELEVATIONS OF LITHOLOGIC UNITS WERE ESTIMATED BASED ON GROUND SURFACE ELEVATIONS OF SOIL BORINGS.
4. BORING LOGS AND HYDROGEOLOGIC INFORMATION FOR SOIL BORINGS AND MONITORING WELLS NOT INSTALLED BY GEOSYNTEC CONSULTANTS WERE PROVIDED BY GEORGIA POWER COMPANY.
5. GROUNDWATER LEVELS MEASURED BY GEOSYNTEC ON 31 JANUARY 2022.
6. ARSENIC (As), AND MOLYBDENUM (Mo) CONCENTRATION DATA ARE FROM FEBRUARY 2022 SEMIANNUAL GROUNDWATER MONITORING EVENT. CONCENTRATIONS ARE REPORTED IN MILLIGRAMS PER LITER. A "<" INDICATES THE CONSTITUENT WAS NOT DETECTED ABOVE THE ANALYTICAL METHOD DETECTION LIMIT (MDL). A "J" INDICATES THE CONSTITUENT WAS ESTIMATED AND DETECTED BETWEEN THE MDL AND THE REPORTING LIMIT.
7. NO SAMPLE WAS OBTAINED WITHIN UPPER 10 FEET OF BORING DUE TO HYDRO EXCAVATION AT MW-24D, MW-25D, AND MW-26D.
8. THE GROUNDWATER PROTECTION STANDARD (GWPS) FOR ARSENIC IS 0.01 MG/L. THE GWPS FOR MOLYBDENUM IS 0.10 MG/L.



SECTION B-B' KEY MAP

LEGEND

- ESTIMATED LITHOLOGIC CONTACT
- EXTRAPOLATED SURFACE
- WELL
- SCREEN INTERVAL
- GROUNDWATER LEVEL (NOTE 5)
- FILL: LEAN CLAY, SILTY CLAY, CLAYEY SILT, SILT, SANDY CLAY WITH SOME GRAVEL
- ALLUVIUM: CLAY, SANDY CLAY, GRAVELLY CLAY, GRAVELLY SAND
- PARTIALLY WEATHERED ROCK (PWR)
- LIMESTONE

0 100
HORIZONTAL SCALE IN FEET

0 10
VERTICAL SCALE IN FEET

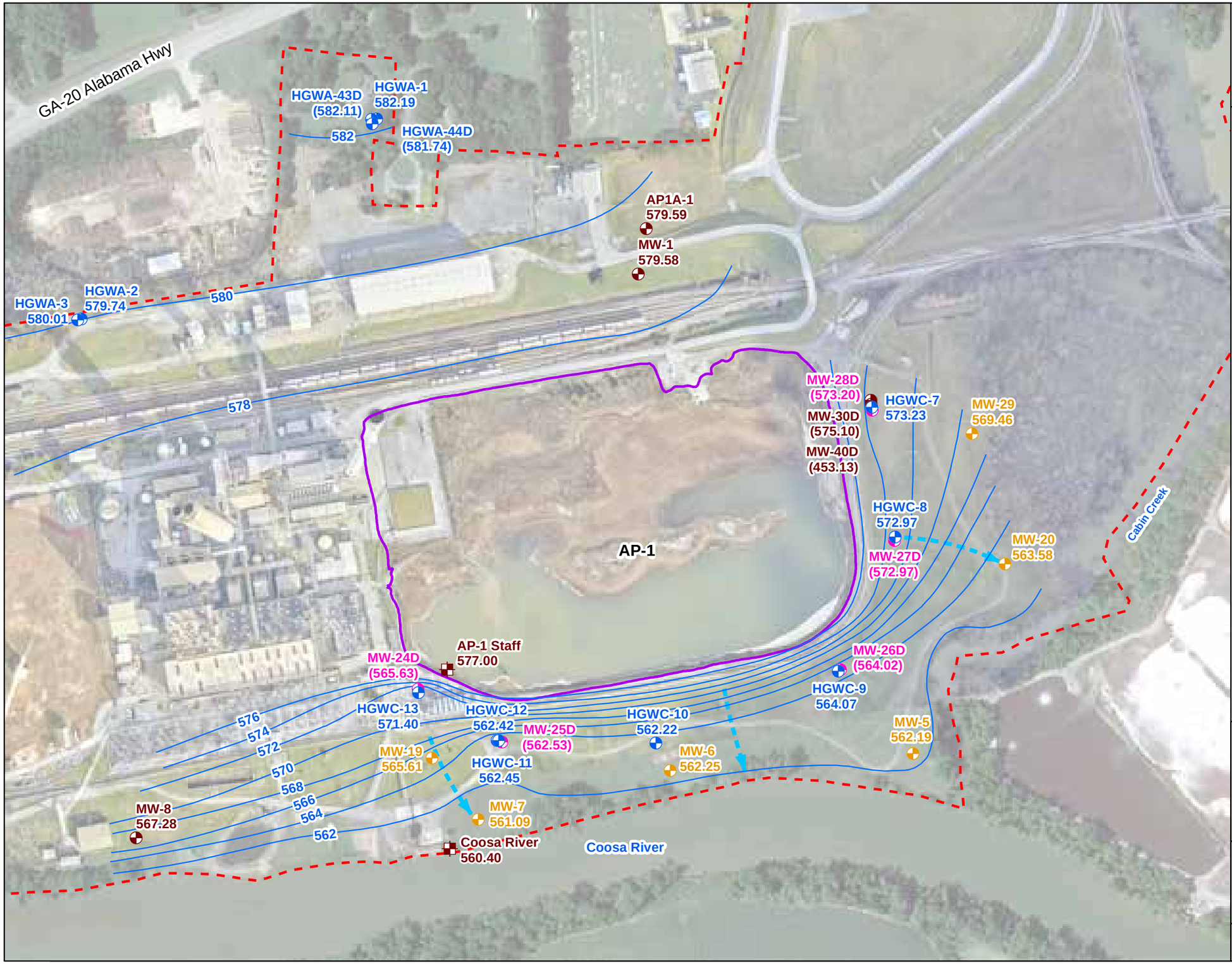
VERTICAL EXAGGERATION = 10X

GEOLOGIC SECTION B-B'
GEORGIA POWER COMPANY
PLANT HAMMOND ASH POND 1 (AP-1)
ROME, FLOYD COUNTY, GEORGIA

Geosyntec consultants
KENNESAW, GA

PROJECT NO: GW6581B | AUGUST 2022

FIGURE 4



LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Surface Water Level Gauge Point
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Notes:
1. Water level elevation recorded on January 31, 2022. 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: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

POTENTIOMETRIC SURFACE CONTOUR MAP - JANUARY 2022

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 5

N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well (Not Used for Contouring)
- Piezometer
- GWPS Arsenic Iso-Concentration Contour (mg/L) (dashed where inferred)
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Notes:

1. Concentration data from groundwater samples collected during the February 2022 semiannual monitoring event. Data reported for wells screened deeper in the aquifer were not used to generate the iso-concentration contour (HGWA-43D, HGWA-44D, MW-24D, MW-25D, MW-26D, MW-27D, MW-28D). Concentrations are reported in mg/L.
2. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
3. The Groundwater Protection Standard (GWPS) for arsenic is 0.01 mg/L.
4. Aerial photograph source: Google Earth Pro, August 2019, And Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

ISO-CONCENTRATION MAP ARSENIC - FEBRUARY 2022

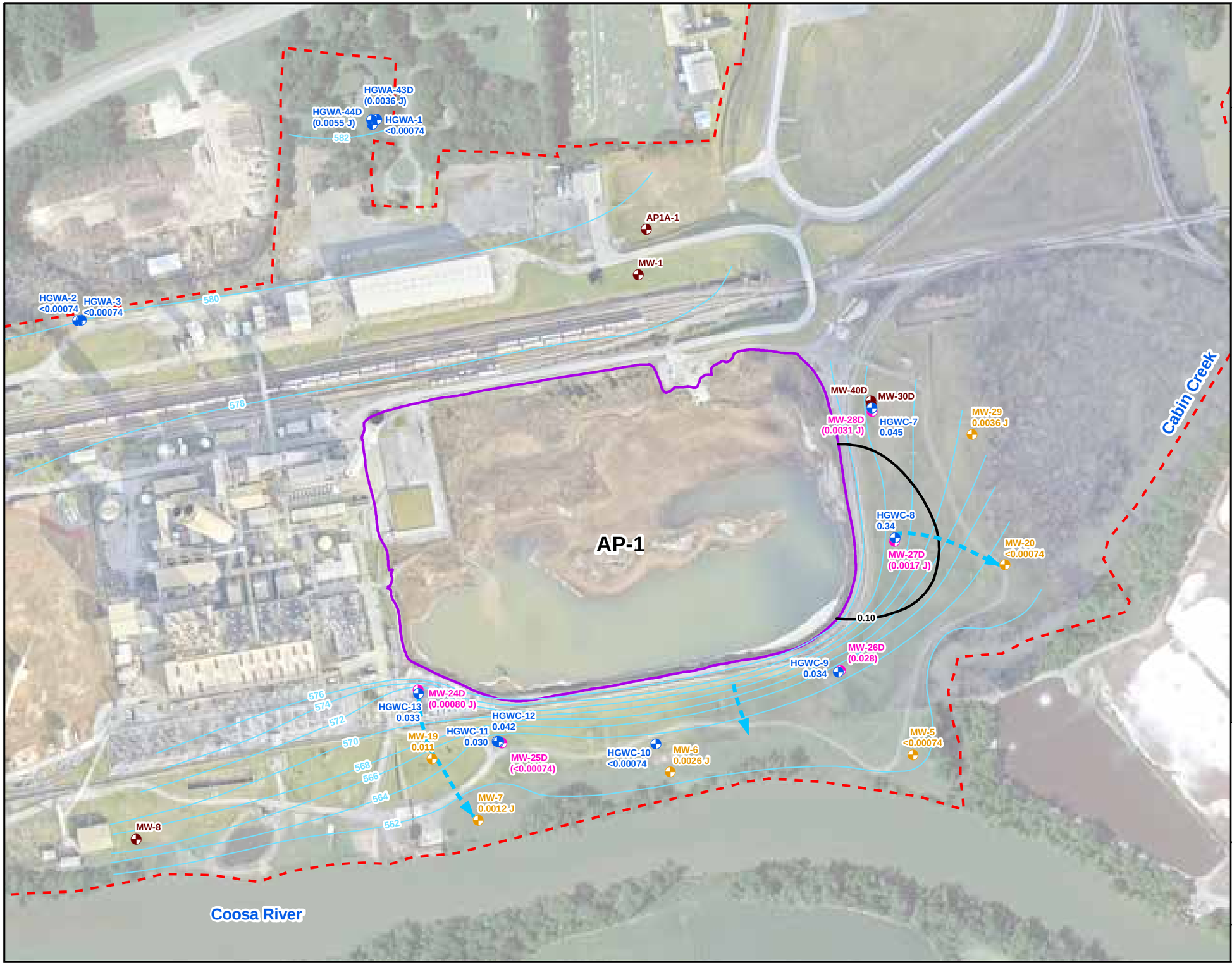
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 6



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well (Not Used for Contouring)
- Piezometer
- GWPS Molybdenum Iso-Concentration Contour (mg/L)
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Notes:

1. Concentration data from groundwater samples collected during the February 2022 semiannual monitoring event. Data reported for wells screened deeper in the aquifer were not used to generate the iso-concentration contour (HGWA-43D, HGWA-44D, MW-24D, MW-25D, MW-26D, MW-27D, MW-28D). Concentrations are reported in mg/L.
2. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
3. The Groundwater Protection Standard (GWPS) for molybdenum is 0.10 mg/L.
5. Aerial photograph source: Google Earth Pro, August 2019, And Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

ISO-CONCENTRATION MAP
MOLYBDENUM - FEBRUARY 2022

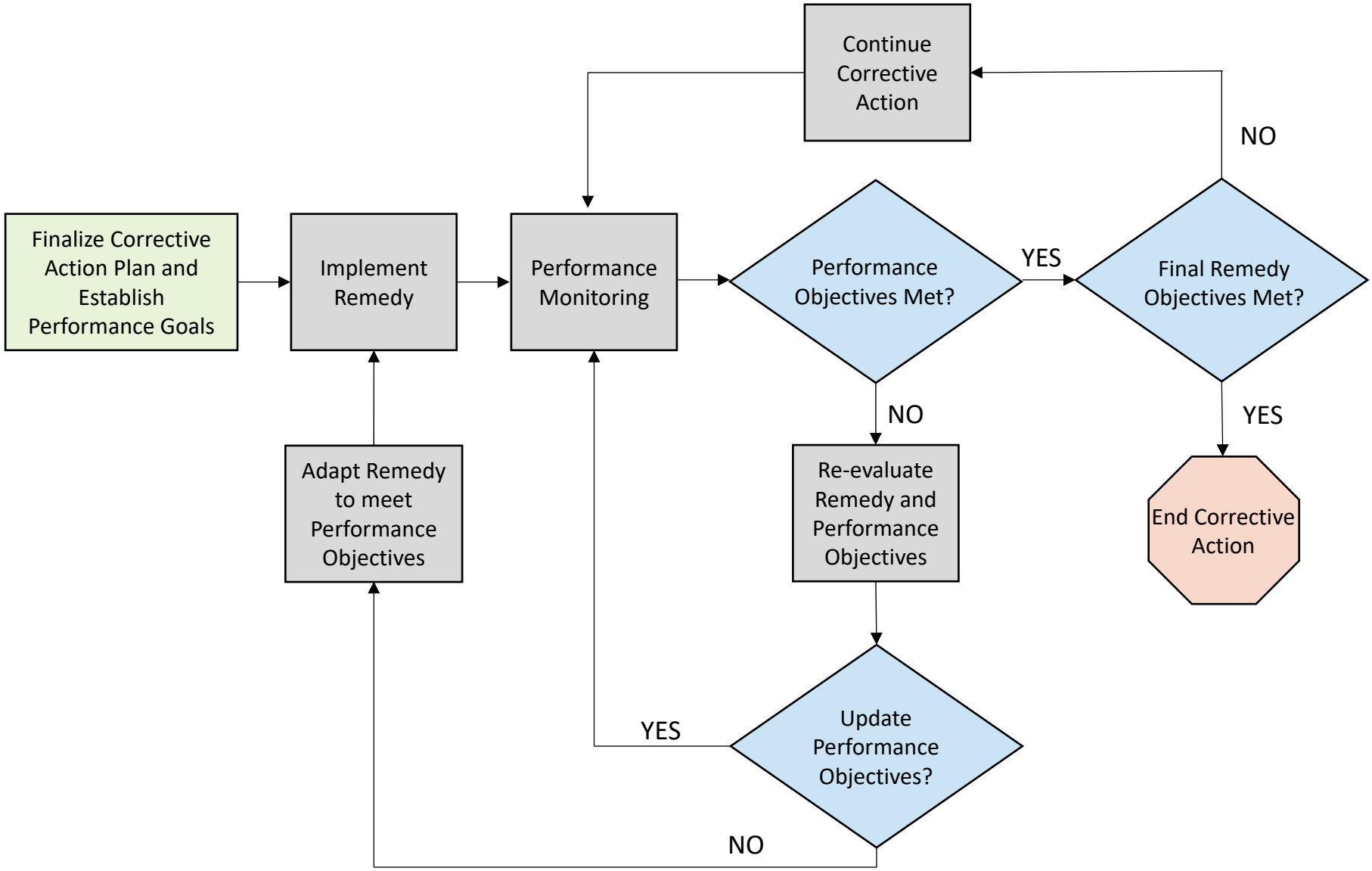
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 7

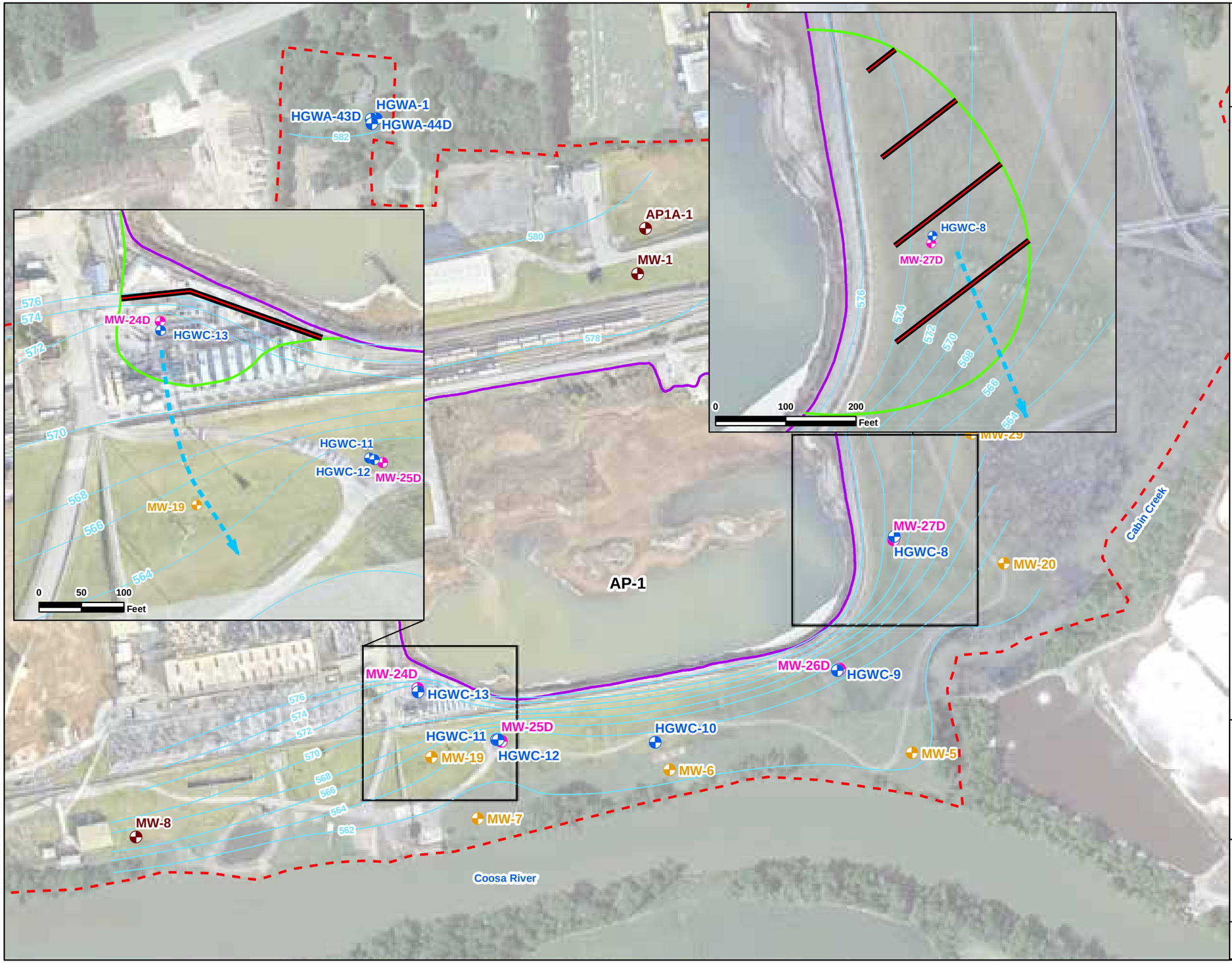


Notes:

REMEDY ADAPTIVE SITE MANAGEMENT

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For:	Prepared By:	Figure
Georgia Power	Geosyntec	8
KENNESAW, GA	AUGUST 2022	



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Proposed Injection
- Proposed Treatment
- Groundwater Elevation Iso-Contour
- Approximate Post-Closure Groundwater Flow Direction
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Notes:

1. Proposed injection array locations are conceptual and consider post-closure groundwater flow conditions. Injection and performance monitoring well locations will be refined during pre-design investigation efforts.
2. Proposed treatment area boundaries are collocated with arsenic and molybdenum federal GWPS iso-concentration lines presented in Figure 6 and 7, respectively. Treatment areas will be refined during pre-design investigation efforts.
3. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
4. Aerial photograph source: Google Earth Pro, August 2019, and Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

REMEDY CONCEPTUAL DESIGN

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 9

APPENDIX A

Geochemical Conceptual Site Model Report

Prepared for

Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia 30308

GEOCHEMICAL CONCEPTUAL SITE MODEL REPORT

PLANT HAMMOND ASH POND 1 (AP-1)

Prepared by

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
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Project Number GW7300

August 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Assessment of Corrective Measures
AEC	Anion Exchange Capacity
CCR	Coal Combustion Residual
CEC	Cation Exchange Capacity
CSM	Conceptual Site Model
DPT	Direct Push Technology
EPD	Environmental Protection Division
EDXA	Energy Dispersive X-Ray Analysis
GWPS	Ground Water Protection Standard
HAR	Hydrogeologic Assessment Report
ORP	Oxidation-reduction potential
SEM	Scanning Electron Microscopy
SEP	Sequential Extraction Procedure
SSL	Statistically Significant Levels
TDS	Total Dissolved Solids
TOC	Total Organic Carbon
WRA	Whole Rock Analysis
XRD	X-Ray Diffraction

1.0 INTRODUCTION

1.1 Purpose

This geochemical conceptual site model (GCSM) report has been prepared for Georgia Power Company (Georgia Power) Plant Hammond Ash Pond 1 (AP-1 or Site) to support the remedy selection efforts being completed at the Site. The purpose of this GCSM report is to document site geochemical conditions for specific constituents, as discussed below. This report integrates data previously submitted to GA EPD (Georgia Environmental Protection Division) as part of routine Semiannual Remedy Selection and Design Progress Reports, as well as recent data.

1.2 Site Background and Overview of AP-1 Pond Closure

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. A site location map is provided in the *Draft Remedy Selection Report – Plant Hammond Ash Pond 1 (AP-1)* (**Figure 1**, Draft Remedy Selection Report) (Geosyntec, 2022b), to which this GCSM is attached.

AP-1 is a 35-acre surface impoundment that received coal combustion residual (CCR) materials from its commission in 1952 until 1969. After 1969, AP-1 was utilized as a co-treatment pond to handle return water flows from the other ponds and for recycling of process water for plant operations. Georgia Power will close AP-1 through removal of the coal combustion residuals (CCR) materials from the CCR unit.

1.3 Site Geology and Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at the Site as described in the AP-1 *Hydrogeologic Assessment Report Revision 01 – Ash Pond 1 (AP-1)* (HAR Rev 01) submitted to GA EPD as supporting documents for the closure permit application (Geosyntec, 2019).

1.3.1 Site Geology

AP-1 is located within the Great Valley District of the Valley and Ridge Physiographic Province (Valley and Ridge) of northwest Georgia which 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 indicates that the Site is underlain by the middle units of the Cambrian age Conasauga Formation, consisting of

mostly shaley limestone. Subsurface investigations at the Site describe the bedrock as limestone or shaley limestone. AP-1 is underlain primarily by five lithologic units: (i) fill, (ii) terrace alluvium, (iii) residuum, (iv) highly weathered/fractured shaley limestone bedrock, and (v) competent shaley limestone bedrock. Additional lithologic descriptions of these units can be found in the HAR Rev 01 (Geosyntec, 2019).

1.3.2 Hydrogeology and Groundwater Flow

The uppermost aquifer at the Site is a regional groundwater aquifer that occurs in the terrace alluvium, residuum, and the highly weathered and fractured bedrock. Based on observations of residuum soil types and horizontal conductivity values, the movement of groundwater in the residuum, and to a degree the highly weathered bedrock zone, can be characterized as low-permeability, porous media flow. The shallow bedrock groundwater flow in the underlying bedrock is characterized as fracture flow. The regional groundwater flow direction is expected to be from north to south; however, the constant surface water elevation maintained in AP-1 influences the groundwater flow in the vicinity of AP-1. Groundwater elevation data and potentiometric surface contours that depict groundwater flow direction are provided in the *Draft Remedy Selection Report* (**Figure 5**, Geosyntec, 2022b), to which this GCSM is attached. Monitoring well construction details are provided in the *Draft Remedy Selection Report* (**Table 1**, Geosyntec, 2022b), to which this GCSM is attached.

1.4 Groundwater Exceedances

According to the January 2022 *Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2022a), statistical analysis of the August 2021 assessment monitoring event identified statistically significant levels (SSLs) of Appendix IV[1] constituents exceeding the site-specific groundwater protection standards (GWPSs) in certain wells, including arsenic (As) above the GWPS of 0.01 milligrams per liter (mg/L) at compliance well HGWC-13 and molybdenum (Mo) above the GWPS of 0.1 mg/L at compliance well HGWC-8. Thus, As and Mo were identified as constituents of interest for this GCSM. Time series graphs of As concentrations at well HGWC-13 and Mo concentrations at HGWC-8 are depicted on **Figure 1** and **Figure 2**, respectively.

[1] Appendix IV constituents per 40 CFR 257 Subpart D.

2.0 SUMMARY OF SITE CHARACTERIZATION

The following summarizes the field investigations and data evaluations completed at the Site which have been used to develop the current geochemical CSM. This material has previously been presented in the Assessment of Corrective Measures (ACM) Reports, and the Annual and Semiannual Groundwater Monitoring and Corrective Action Reports. These reports are available on the Hammond AP-1 public website[2]. References are provided below where additional information may be found which is pertinent to the materials discussed.

2.1 Groundwater and CCR Pore Water Geochemistry

2.1.1 Groundwater and Pore Water Analysis

During select sampling events, additional geochemical constituents were collected from groundwater and pore water sampling locations to supplement the Appendix III and Appendix IV constituents. The analytical data for these sampling events are presented in **Table 1**. Analytical laboratory reports are available as **Appendix A**.

Data from select locations, including a representative upgradient location (HGWA-1), two pore water piezometers screened within the AP-1 CCR material (PMW-01 and PMW-02), and the downgradient locations of interest (HGWC-8 and HGWC-13) were used to construct Piper and Stiff diagrams. These diagrams are among the most common tools for assessing geochemical similarities and differences between aqueous samples. The resulting Piper diagram is presented on **Figure 3**, and the Stiff diagrams for these locations are presented on **Figure 4**.

As can be seen on **Figure 3**, the groundwater samples from the background compliance monitoring well (shaded blue) reflect a calcium-bicarbonate ($Ca\text{-}HCO_3$) type water, as would be expected from wells screened within limestone and unimpacted by AP-1. The downgradient compliance wells of interest (shaded orange) reflect a calcium-sulfate ($Ca\text{-}SO_4$) type water. These downgradient wells have calcium as the dominant cation but sulfate and chloride as the dominant anions compared to the upgradient locations. The chemical composition of CCR pore water data from AP-1 shows a $Ca\text{-}SO_4$ type water, similar to the downgradient wells on **Figure 3** and **Figure 4**. These results suggest the downgradient wells of interest are likely impacted by pore water from AP-1.

[2] https://www.georgiapower.com/company/environmental-compliance/plant-list/plant-hammond.html

2.2 Aquifer Solids Characterizations

2.2.1 Site Characterization of Unconsolidated (Soil/Weathered Bedrock) Aquifer Solids

Geosyntec completed an analysis of aquifer matrix samples collected using a direct-push technology (DPT) rig in October 2018, August 2020, and January 2021 from the saturated unconsolidated zone at seven downgradient locations in the vicinity of AP-1 (DPT-01 – DPT-05, DPT-07, and DPT-04 XRF_AP-1)[3]. The DPT sample collection locations are shown on **Figure 4**. The sample depths were selected based on review of available boring logs from monitoring wells in the vicinity of the DPT boreholes to target the alluvium, residuum, and/or highly weathered rock zones. At seven downgradient locations, sample depths generally correspond with the screen interval depths of the compliance monitoring wells reporting groundwater concentrations of As and Mo above GWPS (i.e., identified as SSLs). Aquifer materials were also sampled at one upgradient location (DPT-06) with a sample depth corresponding with background compliance well screen HGWA-1 (**Figure 4**).

The aquifer matrix samples were sent to SiREM analytical laboratory (SiREM), located in Guelph, Ontario, for a baseline chemical and mineralogical characterizations by application of the following analytical testing/methods:

- *Cation and Anion Exchange Capacity (CEC/AEC)*: Ion exchange capacity (both AEC and CEC) of a soil or aquifer is an important variable to understand when evaluating attenuation processes. It is generally defined as the capacity of a soil to retain both positively and negatively charged ions, such as many metals, (micro-) nutrients, and anions such as sulfate or chloride.

- *Total Sulfur, Sulfide*: The presence of sulfur and especially sulfide may give an indication whether metals prone to precipitation as sulfides or co-precipitation with sulfidic minerals, might be present in the aquifer matrix. Understanding the presence and speciation of sulfur compounds allows an estimation of

[3] Based on the low total As concentration determined in sample DPT-07 (see Section 2.2.1.3), a stored DPT sample (i.e., DPT-04 XRF_AP1), collected in October 2018 near well HGWC-13, was submitted to Eurofins/TestAmerica laboratory in Knoxville, Tennessee, for sequential extraction procedure (SEP) of As. The sample was collected from a depth increment coinciding with the screened interval of HGWC-13 that exhibited an elevated As concentration based on field screening using an x-ray fluorescence (XRF) spectrometer. In addition to SEP analysis, the DPT sample was characterized using the analytical/testing methods described herein.

whether certain metals are likely to form sparingly soluble sulfide minerals as a possible attenuation mechanism.

- *Organic Carbon Content*: Presence of organic carbon as a substrate for adsorption and energy source for microbially mediated metal(loid)s transformations. Organic carbon, if present, can contribute to the CEC and AEC of a soil. Organic carbon in the subsurface can serve to sorb/retain metals, but it can also provide food to microorganisms that use certain metal(loid)s as electron acceptors and therefore change their oxidation-reduction (redox) state, which affects their mobilization/immobilization.

- *Total Metals Concentration*: Total concentrations of targeted constituents in the solid phase. The samples were analyzed for Mo, As, Fe, Al, and manganese (Mn). This analysis helps to understand the presence of site-specific constituents in aquifer solids as well as the elements Fe, Al, and Mn that form major mineral phases known to sorb/retain many metals

- *X-Ray Diffraction (XRD), Scanning Electron Microscopy (SEM), Energy Dispersive X-Ray Analysis (EDXA), and Whole Rock Analysis (WRA)*: Qualitative and quantitative confirmation of mineral phases present, including WRA for quantitative confirmation of XRD results. Identifying crystalline and non-crystalline mineral phases aids in the evaluation of attenuation mechanisms and capacity

A summary of the aquifer solids results is provided below, and the complete SiREM report is included in **Appendix B** of this report. All results are included in **Tables 2 – 5**.

2.2.1.1 Anion and Cation Exchange Capacity

The CEC of soils is dependent on the amount and type of clay minerals, organic matter, and amorphous metal oxides, while the sources of AEC in soils include clay minerals (primarily 1:1 clays such as kaolinite), metal oxides, and amorphous materials. In general, the CEC of a soil is higher than the AEC, but highly weathered and acidic soils can have substantial AEC (Sparks, 1995).

As presented in **Table 2**, the CEC ranges from 3.10 milliequivalents per 100 grams (meq/100 g) in DPT-04 XRF_AP-1 to 20.20 meq/100g in DPT-04. AEC ranges from 4.57 meq/100g in DPT-06 to 8.48 meq/100g in DPT-01. Given the low total organic carbon (TOC) content of all of the samples, reported as a percentage (i.e., less than 0.16%), the ion exchange capacities appear to be mostly dominated by clay minerals and metal oxides (likely both crystalline and amorphous; discussed further in Section 2.2.1.4 and 2.2.1.5).

The lower CEC in DPT-04 XRF_AP-1 in comparison with other samples is likely due to the higher percentage of quartz in this particular sample (i.e., almost 92%).

2.2.1.2 Total Sulfur, Total Sulfide, and Total Organic Carbon

As presented in **Table 2**, the total sulfur content ranges from <0.005% in DPT-05 and DPT-06 to 0.022% in DPT-07. Total sulfide was <0.04% in all eight samples. Therefore, sulfides are not expected to play a major role in the attenuation of site-specific constituents.

The TOC content of these materials ranges from non-detect (<0.025%) in DPT-05 to 0.16% in DPT-03. These low results are expected given that the samples were collected at depth within the aquifer matrix made up of terrace alluvium, residuum (i.e., higher percentage clays) and partially weathered bedrock. Therefore, organic carbon is not expected to play a major role in the attenuation of site-specific constituents.

2.2.1.3 Total Metals and Whole Rock Analyses

The total metals concentrations in the DPT soil samples are summarized in **Table 3.** The metals include the site-specific constituents of interest Mo and As. In addition, Fe, Al, and Mn were also analyzed to give an indication whether oxides/oxyhydroxides of these metals may be present, since these mineral phases can be a significant source of attenuation capacity for metal(loid)s.

Results indicate that the aquifer materials contain appreciable concentrations of site-specific constituents of interest. Molybdenum detections range from 0.40 milligram per kilogram (mg/kg), in background boring DPT-06 to 13 mg/kg in downgradient boring DPT-05. Arsenic concentrations range from 3.8 mg/kg in DPT-04 to 13 mg/kg in DPT-04 XRF_AP-1. As can be seen in **Table 3**, the aquifer materials from DPT-07 contain an As concentration consistent with the other samples, which was lower than expected based on the proximity of this boring to well HGWC-13 (**Figure 4**). In an attempt to locate a sample with a higher As concentration for subsequent characterization and use in SEP and sorption/desorption testing, an archived sample that was expected to contain a higher As concentration based on previous XRF testing (i.e., DPT-04 XRF_AP-1, located approximately 60 feet east of DPT-07) was submitted for analytical testing. The total As concentration of 13 mg/kg determined in sample DPT-04 XRF_AP1 was higher than the other samples and therefore, this sample was selected for further characterization and testing purposes as described below.

As expected for terrace alluvium, residuum, and highly weathered bedrock materials, the Fe and Al contents are substantial, with Fe concentrations ranging from 14,000 mg/kg

(1.4%) in borings DPT-04 XRF_AP-1 to 52,000 mg/kg (5.2%) in DPT-03, and Al concentrations ranging from 13,000 mg/kg (1.3%) in DPT-04 XRF_AP-1 to 75,000 mg/kg (7.5%) in DPT-05. These results suggest an abundant presence of Al- and, more importantly, Fe-oxides and hydroxides which can provide substantial attenuation capacity for site-specific constituents reporting SSLs. Aluminum can also be present within feldspars or aluminosilicates. Manganese concentrations range from 100 mg/kg in boring DPT-07 to 2,400 mg/kg in boring DPT-04.

WRA was included as a chemical assay to confirm and reconcile the quantitative mineral analysis obtained through XRD. While the name might imply "rock" samples, the analysis was conducted on the unconsolidated DPT borings and not competent bedrock. The WRA of these aquifer materials (summarized in **Table 4**) shows the relative abundance of major rock-forming elements present in each sample. With this analytical method, each element is reported as an oxide (i.e., not as its mineral form in the sample). As expected in this geologic setting, the most abundant elements detected include silicon (Si) and Al, followed by Fe and magnesium (Mg). Titanium (Ti), phosphorus (P), and Mn are also consistently detected at relatively low levels.

2.2.1.4 XRD and SEM/EDXA Analyses

XRD and SEM/EDXA analyses were completed to characterize both the crystalline and non-crystalline phases of the unconsolidated aquifer matrix. Overall, the mineralogical analysis of the aquifer matrix indicates an abundance of quartz, muscovite, kaolinite, albite, and microcline (**Table 5).** The quantitative XRD data indicate the predominance of muscovite, which was the second most abundant mineral identified at many locations after quartz (34 to 92%). Muscovite, a hydrous silicate of aluminum and potassium mica, is present in the aquifer samples ranging from 3.80% (by weight) in boring DPT-04 XRF_AP-1 to 26.1% (by weight) in boring DPT-05. Muscovite may provide substantial surface area for sorption and its significant presence is likely the main reason that the CEC of these soils is higher than would be expected from just the presence of kaolinite, which was detected between 1.80% in DPT-04 XRF_AP-1 and 7.33% in DPT-04. Kaolinite, an aluminosilicate clay mineral, is also present in significant amounts ranging from 2 to 16%. Kaolinite was not detected in boring DPT-05 and background boring DPT-06; however, these two borings have significant amounts of goethite, which is an iron oxyhydroxide that is known to provide substantial attenuation capacity for many trace elements (Liu et al, 2014).

Other minerals consistently detected at substantial weight percentages include the feldspar minerals albite and microcline, as well as the iron-rich 2:1 clay mineral

nontronite, and the titanium oxide (TiO_2) mineral anatase. The 2:1:1 clay mineral chlorite was identified in three of the six borings (**Table 5**)

The SEM/EDXA images and results are included in the SiREM report (**Appendix B**). SEM/EDXA has the advantage of also identifying amorphous (i.e., non-crystalline) phases that cannot be identified using XRD and therefore supplements the XRD results. The identified minerals and amorphous phases were generally consistent across all eight borings. The main minerals identified include quartz, various feldspar minerals, other silicates (including mica, amphibole, pyroxene, zircon, epidote), titanium-containing minerals such as rutile and ilmenite, and an abundance of crystalline and non-crystalline Fe- and Mn- oxides that are either present within the soil matrix or as coatings on quartz and feldspar grains. It should be noted that SEM/EDXA cannot detect hydrogen atoms (due to the physics of the analysis), so it is possible that these Fe oxide phases are present as hydrated Fe oxyhydroxides such as goethite, which was identified in the XRD analysis (**Table 5**). The abundance of Fe-oxides suggests that attenuation sites are potentially available within the aquifer matrix for site-specific constituents. Occasionally, other minerals such as calcite, apatite, titanite, or baryte (barite) were identified in relatively lower amounts and fewer samples than the observed Fe-oxides.

2.2.1.5 Sequential Extraction Procedure

Aquifer solids collected from DPT-02 (located downgradient of HGWC-8), DPT-06 (background location), and DPT-04 XRF_AP-1 (near HGWC-13) were submitted for a sequential extraction procedure (SEP) at the Eurofins/TestAmerica laboratory in Knoxville, Tennessee to assess the geochemical fractionation of As and Mo within aquifer solids. SEPs are chemical extractions used to remove metals from specific solid-associated phases. SEPs use progressively stronger reagents to solubilize metals from increasingly stable phases. Although these procedures do not identify the specific metal phase associations in a soil/aquifer matrix, they do provide a means to evaluate the class of solids and relative stability in relation to oxidation/reduction (redox) potential and pH fluctuations (Tessier et al., 1979; Kuo et al., 1983; Sposito et al., 1984; Hickey and Kittrick, 1984; Gruebel et al., 1988).

SEP data can be used to interpret the mechanism and potential reversibility of attenuation processes. SEP data typically supplement information collected during the baseline characterization, such as CEC and AEC, as well as the presence of certain minerals and/or metal oxyhydroxides. Eurofins/TestAmerica uses a 7-step extraction procedure, which is briefly described in **Appendix B**. The results of the SEP analysis are provided in **Table 6**.

As a first step to evaluate data quality in an SEP analysis, the sum of individual extraction steps from the SEP was compared to the total concentration of a metal. The sum of SEP is not expected to be exactly equal to the total metals analysis but should generally be consistent with the total metals analysis. As can be seen in **Table 6**, the totals analyses for As and Mo, and the sum of these individual metals from extraction steps 1 through 7 match reasonably well, indicating good metal recovery in the SEP steps and data quality. One notable exception is the As result for sample DPT-04 XRF_AP-1, where the sum of SEP steps yielded a result of 12 mg/kg, while the total As analyses indicated a concentration of 59 mg/kg. Considering As was detected at 13 mg/kg in a prior total metals analysis for an aliquot extracted from sample DPT-04XRF_AP-1 (**Table 3**), the 59 mg/kg result appears to be different from the prior analytical results.

Arsenic was not recovered (i.e., not measured above laboratory detection limits) in the first two extraction steps, which include the Exchangeable Phase (Step 1) and the Carbonate Phase (Step 2), in any of the samples. As associated with these phases may still be present in concentrations below detection limits (0.54 milligrams per kilogram (mg/kg) and 0.40 mg/kg for Steps 1 and Step 2, respectively). These fractions represent the mobile fraction of As that may be reversibly sorbed and desorbed. The bulk of the As concentration in DPT-04 XRF_AP-1 was associated with the Non-Crystalline Phase (Step 3) and the Metal Hydroxide Phase (Step 4), indicating that As is mostly associated with amorphous and crystalline metal oxides and oxyhydroxides. Constituents associated with Steps 3 and 4 would most likely only be mobilized upon mineral dissolution under low pH and/or reducing conditions or some other change in the pH/redox regime. To a lesser extent, As is also associated with the organic, sulfide, and residual (i.e., silicate) fractions. This suggests attenuation through sorption and coprecipitation mechanisms are possible, especially under oxic aquifer conditions.

Total Mo concentrations were non-detect in background sample DPT-06. Boring DPT-02, downgradient of HGWC-8, had a slightly higher total Mo concentration of 3.2 mg/kg. The SEP analysis of the DPT-02 sample resulted in non-detect and estimated values in each phase. Like As, the fraction of Mo associated with Step 1 and Step 2 was not detected above laboratory detection limits, but may be present a low concentrations. Mo was mostly associated with the Non-Crystalline Phase (Step 3) and the Metal Hydroxide Phase (Step 4) of sample DPT-02, suggesting that Mo may be sorbed to these amorphous and crystalline metal oxide and oxyhydroxide phases.

2.3 Sorption and Desorption Batch Studies

Select aquifer solids and groundwater samples were shipped to SiREM for laboratory treatability studies to assess the sorption and desorption behavior of As and Mo, as further

described below. In general, sorption studies use soils collected from background locations and groundwater with constituent concentrations above GWPSs to evaluate attenuation mechanisms and capacity. Desorption studies can be used to assess attenuation stability of the constituents of interest, and generally utilize soils collected proximal to areas with exceedances of GWPSs and groundwater with background constituent concentrations. Sorption tests are used to calculate a site-specific distribution coefficient (K_d) between the solid phase and the aqueous phase. The K_d values can be used to inform fate and transport models to estimate future groundwater concentrations and evaluate potential corrective actions at the Site.

2.3.1 Sorption Studies

Prior to selecting aquifer solids for the sorption studies, the lithology as well as the chemical and mineralogical characterization data for the samples collected from DPT-01 through DPT-07 borings were evaluated for potential differences in characteristics. Both the lithology and the characterization data were generally consistent among the eight DPT locations; therefore, the background location DPT-06 was selected for the sorption studies. Unimpacted (but spiked) groundwater from background well HGWA-1 was used together with unimpacted aquifer solids from DPT-06 to construct batch reactors to evaluate sorption of As and Mo.

Groundwater from background well HGWA-1 was spiked with As and Mo at six concentration levels. The highest spike concentration level (Level 6) of each constituent was at least twice as high as the highest As or Mo concentration observed at the Site, either within CCR pore water or groundwater, whichever was higher. Reactors were constructed in duplicate and incubated for seven days in sealed containers under laboratory atmospheric (i.e., ambient) conditions. Samples were collected from the reactors at the beginning of the study (i.e., Day 0) and at the end of the study (Day 7). The samples were analyzed for dissolved As, Mo, pH, and oxidation-reduction potential (ORP). The concentrations of As and Mo sorbed to the aquifer solids were calculated based on the concentration difference in the aqueous phase of the initial spike and Day 7 and the mass of aquifer solids in each reactor. A detailed description of the methods and materials used to complete the sorption study is included in the SiREM report provided in **Appendix B**.

Based on the results of the laboratory batch testing, the concentrations of sorbed constituents (in milligrams per kilogram (mg/kg)) and dissolved constituents remaining in aqueous solution (in milligrams per liter (mg/L)) were plotted for each spiked concentration level. These graphs represent sorption isotherms that can be used to calculate site-specific K_d values. Linear regression lines were fit to the data using the

method of least squares in Microsoft Excel, and the slopes of these regression lines represent the K_d values for each constituent (USEPA, 2008).

The results of the batch sorption tests are summarized in **Tables 7A** and **Table 7B** for As and Mo, respectively, and are included in the SiREM Report as **Appendix B**.

As can be seen in **Table 7A**, all six spiked concentration levels for As (target spiking concentrations between 0.05 mg/L and 1.7 mg/L) were completely sorbed by the aquifer materials since all dissolved As concentrations were non-detect (i.e., <0.0002 mg/L) after seven days of incubation. Moreover, sorption kinetics were very fast given that samples collected on Day 0, which were collected approximately one hour after reactor setup, already indicated As concentrations several times lower than the spiked concentrations. The results are also depicted on **Figure 5A**, with dissolved concentrations (in mg/L) plotted on the x-axis and the sorbed concentrations (in mg/kg) plotted on the y-axis. Sorbed concentrations were calculated using the difference between the final aqueous and initial aqueous spiked As concentration in each reactor as shown in **Table 7A**. Since all of the As was sorbed, no sorption isotherm can be plotted, and no K_d value can be calculated. Under these experimental conditions, sorption of As is higher than the range of test conditions. This observation is consistent with groundwater monitoring results since elevated As in HGWC-13 is limited to this location and has not been observed to migrate away from this well, suggesting strong sorption/attenuation of As downgradient of this well.

Molybdenum sorption results are summarized in **Table 7B** and depicted on **Figure 5B**. The Mo results suggest a linear sorption isotherm with a calculated K_d value of approximately 175 liters per kilogram (L/kg). This value is within the range of K_d values reported by USEPA (2005) for Mo in soil/water systems and suggests strong sorption of Mo in the subsurface downgradient of AP-1. This observation is also consistent with groundwater monitoring results reported in delineation well MW-20, downgradient of HGWC-8, which indicates Mo attenuates and does not migrate offsite.

2.3.2 Desorption Studies

Similar to the sorption studies, the lithology as well as the chemical and mineralogical characterization data of the eight DPT borings were assessed to evaluate which aquifer solids sample should be used for the desorption studies. One of the important characteristics for this evaluation was the total concentration of the constituents of interest reported in the aquifer solids collected from these borings. The highest As concentration (i.e., 13 mg/kg) was detected in aquifer solids from DPT-04 XRF_AP-1, near HGWC-13, and therefore this sample was selected to evaluate desorption behavior of As. The As

concentrations of the six other DPT borings located downgradient of AP-1 (DPT01 through DPT-05, DPT-07) were generally consistent with background conditions, represented by DPT-06 (**Table 3**). To assess the desorption behavior of Mo, a boring downgradient of HGWC-8 was selected for these studies. DPT-02 contained 6.2 mg/kg of Mo, which was substantially higher than the 0.4 mg/kg of Mo detected in background location DPT-06. Additionally, DPT-02 is located approximately 65 feet downgradient of HGWC-8 which continues to be associated with groundwater samples reporting the highest Mo concentration for AP-1.

Batch reactors were constructed in duplicate using these aquifer solids, which were combined with background groundwater from HGWA-1 to evaluate desorption behavior. The desorption reactors for Mo were tested under laboratory atmospheric (i.e., ambient) conditions only, while the desorption reactors for As were tested under laboratory atmospheric conditions as well with the amendment of hydrogen gas (H_2) to promote anaerobic (reducing) conditions by removing dissolved oxygen. Reducing conditions generally result in higher As mobility and would represent "worst-case scenario" aquifer conditions within the vicinity of HGWC-13 following the closure of AP-1. Groundwater field measurements of ORP typically fluctuate between -80 mV and +80 mV in this well, and field measurements of dissolved oxygen fall within the range of values observed in other wells around AP-1 (i.e., field measurements of dissolved oxygen at HWGC-13 fall between 0.07 mg/L at HGWC-9 and 8 mg/L at HWGC-7). As noted previously, more detailed descriptions of the methods and materials are included in the SiREM report provided in **Appendix B**.

The results of the desorption batch study are summarized in **Table 8A and 8B**. Aquifer solids from boring DPT-02, located downgradient of HGWC-8, were used to evaluate desorption behavior of Mo under laboratory atmospheric conditions, while aquifer solids from boring DPT-04 XRF_AP-1 were used to assess desorption behavior of As under laboratory atmospheric and H_2-amended conditions. The total concentrations of these elements obtained through the baseline characterization of these samples and the background concentration from groundwater from HGWA-1 are included in **Tables 8A** and **8B** to provide some context for the desorption results.

Non-detect to low concentrations of the constituents of interest were reported after a minimum of seven days of incubation with background groundwater. The H_2-amended treatment reactors were incubated for 15 days to promote reducing conditions. While samples were presumed anoxic, measurements of ORP were higher than observed in the field during sample collection. It is uncertain why the H_2-amendment did not result in a reduction in ORP under this experimental setup.

Under these experimental conditions, Mo concentrations generated from DPT-02 increased from 0.0074 mg/L to 0.0096 mg/L after seven days of incubation. Arsenic concentrations generated from DPT-04 XRF_AP-1 remained low under both laboratory atmospheric and H_2-amended conditions. Concentrations increased from 0.0007 mg/L at the beginning of the study to 0.0031 mg/L and 0.0012 mg/L, respectively, after seven and 15 days of incubation.

3.0 GEOCHEMICAL CONCEPTUAL SITE MODEL

3.1 Arsenic

3.1.1 Geochemistry and Fate and Transport Properties

Dissolved As in groundwater systems is typically stable as As(III) (arsenite, often as $HAsO_2$) or As(V) (arsenate, often as the oxyanion $H_2AsO_4^-$). In general, As(V) is less mobile and more readily attenuated compared to As(III) under acidic to circumneutral pH; however, this generalization is dependent on pH and the presence of other ionic species (Campbell and Nordstrom, 2014).

Preliminary geochemical modeling illustrates that under the conditions present in groundwater upgradient and downgradient of Hammond AP-1, As exists as As(V) in the forms of $H_2AsO_4^-$ and $HAsO_4^{2-}$ (as shown on **Figure 6**). The mobility of these phases in groundwater is strongly controlled by sorption processes, in which As either forms bonds (adsorption) or breaks bonds (desorption) with chemical species on mineral surfaces present in the aquifer. Sorption reactions are strongly dependent on the composition of the aquifer matrix (i.e., the type of minerals and/or organic material), pH, and the presence of competitively adsorbing ions. The As(V) form of As is more readily attenuated than As(III) due to the overall negative charge of the $H_2AsO_4^-$ and $HAsO_4^{2-}$ oxyanions at circumneutral pH, which can form chemical bonds or electrostatic interactions with positively charged clay or mineral surfaces (Campbell and Nordstrom, 2014; Smedley and Kinniburgh, 2002). Thus, As in the vicinity of AP-1 is not readily mobile and would be highly attenuated relative to advective groundwater flow.

3.1.2 Site-Specific Mobilization and Attenuation Processes

Arsenic is present at elevated concentrations in well HGWC-13. Total As was detected in aquifer solids collected near background location HGWA-1 (**Table 3**), suggesting As occurs naturally in the overburden soils at the Site. However, the concentration of total As in the aquifer solids was higher at locations in the vicinity of HGWC-13, indicating that AP-1 may be an additional source of As near HGWC-13. Furthermore, As concentrations measured in AP-1 pore water piezometers (PMW-01 and PMW-02) are similar to those measured in HGWC-13 (**Table 1**) and HGWC-13 has a similar geochemical composition to the CCR pore water (**Figure 3**), providing further evidence that groundwater at that location may be influenced by AP-1.

The groundwater monitoring data suggest that As is not migrating and appears to be limited to the immediate vicinity of well HGWC-13. As shown in **Table 1**, As is frequently either not detected or only measured at low-level concentrations in compliance

wells at the Site, which suggests that the aquifer materials provide substantial attenuation capacity for As. Total metals analysis found higher concentrations of As associated with the solid phase near location HGWC-13 (DPT-04 XRF) than with the background locations, suggesting that As is attenuated by these aquifer materials.

Results from the Site-specific geochemical characterization described in Section 2 indicate that the primary mechanisms governing As attenuation and mobilization/immobilization at Hammond AP-1 include the following:

- Adsorption – Negatively-charged As oxyanions in solution form bonds with positively charged species on the surfaces of aquifer matrix materials. SEP experiments demonstrate that As is most strongly associated with amorphous and crystalline metal oxides and oxyhydroxides.

- Co-precipitation – Similar to adsorption, As oxyanions initially bonded to mineral surfaces become entrained in the crystal structure as the mineral continues to grow. This process more commonly occurs with poorly crystalline, fast growing iron oxides and oxyhydroxides that precipitate under oxidizing conditions, especially near zones where strong microbially mediated iron oxidation occurs.

Anion exchange (measured as AEC) may play some role in attenuation; however, multiple lines of evidence (SEP, XRD, SEM/EDXA, sorption and desorption studies) point to interactions with iron oxides and oxyhydroxides as the primary driver of As attenuation.

The composition of the unconsolidated aquifer matrix (as determined by total metals, whole rock analysis, XRD, and SEM/EDXA) consists of relatively high proportions of iron-bearing minerals, including iron oxyhydroxides and clay minerals (muscovite and kaolinite), and to a lesser degree, manganese oxyhydroxides. Both crystalline and amorphous iron oxyhydroxides as well as clay minerals typically have high surface areas, which means that these phases are highly reactive and have relatively high sorption capacities. Furthermore, at circumneutral pH (i.e., pH conditions downgradient of AP-1), iron oxyhydroxides have positively charged surfaces and are therefore more likely to adsorb anions in groundwater (Cornell and Schwertmann, 2003). Sorption batch studies conducted with site-specific background material (DPT-06/HGWA-1) and As-spiked background groundwater containing up to 1.7 mg/L As show that As was completely attenuated by aquifer materials on a timescale on the order of days. A 7-step SEP used to evaluate the fractionation of As in aquifer materials collected upgradient and downgradient of AP-1 showed that the majority of As was associated with non-crystalline materials (such as amorphous iron oxyhydroxides) and the metal (iron) hydroxide phases.

The sorption of As to iron oxyhydroxides in the vicinity of HGWC-13 appears to be stable under current conditions at the Site. As shown on **Figure 7**, geochemical conditions as measured in AP-1 monitoring wells favor the presence of oxidized iron (III) minerals, such as ferrihydrite ($Fe(OH)_3$). This is supported by the abundance of the iron oxyhydroxides identified via XRD and SEM/EDXA. It is relatively common for mixtures of different types of iron oxide and oxyhydroxide minerals to coexist in aquifers due to variations in crystallinity, crystal size, solid solution formation, and slow crystallization kinetics for some of the more stable phases (Appelo and Postma, 2005).

Desorption testing found that some amount of As was released when background groundwater was exposed to the aquifer solids sample containing the highest As concentration (13 mg/kg from DPT-04 XRF_AP-1) after seven and 15 days of incubation.

AP-1 will be closed by removal of CCR materials from the unit, thereby providing a source control measure that reduces potential for migration of CCR-related constituents to groundwater. Under current site conditions, As exceedances are limited to the immediate vicinity of HGWC-13. Downgradient geochemical conditions are not anticipated to change as a result of pond closure. Measurements of the ORP in groundwater vary between -80 mV and +80 mV, , and pH conditions are circumneutral. Under this CSM, the removal of CCR materials and replacement with clean backfill is not expected to change the prevailing conditions of the aquifer. Iron oxyhydroxides are stable under these conditions, and as explained in **Section 3.1.1**, As is present as As(V) oxyanions and is readily attenuated. Removal of the CCR material will effectively remove the contribution of As from AP-1 to HGWC-13, and the As remaining in groundwater at HGWC-13 is predicted to sorb to downgradient aquifer materials, as demonstrated by site-specific sorption studies.

Multiple lines of site-specific evidence indicate that elevated As in well HGWC-13 is attenuated downgradient of this well under current site conditions.

3.2 Molybdenum

3.2.1 Geochemistry and Fate and Transport Properties

Similar to As, Mo in groundwater under oxidizing conditions is present as an oxyanion, i.e., molybdate (MoO_4^{2-}) (Smedley and Kinniburgh, 2017). While Mo can also form Mo(V) and Mo(IV) species, $Mo(VI)O_4^{2-}$ is predicted to be the predominant species at the Site, including at HGCW-8, based on site-specific groundwater conditions (**Figure 8**). Molybdenum tends to be more mobile under alkaline conditions with increasing sorption under neutral to acidic conditions (due to the formation of positively charged surface sites

in lower pH conditions). Molybdenum strongly binds to organic matter and readily sorbs to oxyhydroxide minerals (Goldberg et. al., 1996; ATSDR, 2020).

3.2.2 Site-Specific Mobilization and Attenuation Processes

Molybdenum exceeds the GWPS of 0.1 mg/L in well HGWC-8. Total metals analysis found higher concentrations of Mo associated with the solid phase near location HGWC-8 (DPT-02) compared to the background location, suggesting that Mo that potentially originates from AP-1 is attenuated by aquifer materials along the groundwater flow path. Groundwater collected from HGWC-8 has a similar geochemical composition to the CCR pore water (**Figure 3**), providing evidence that groundwater at that location may be influenced by AP-1.

Results from the site-specific geochemical characterization described in **Section 2** indicate that the primary mechanisms governing Mo attenuation and immobilization at Hammond AP-1 include the following:

- Adsorption – The negatively-charged molybdate oxyanion in solution form bonds with positively charged species on the surfaces of aquifer matrix materials. SEP experiments demonstrate that Mo is most strongly associated with amorphous and crystalline metal oxides and oxyhydroxides.

- Co-precipitation – Similar to adsorption, Mo oxyanions initially bonded to mineral surfaces become entrained in the crystal structure as the mineral continues to grow. This process more commonly occurs with poorly crystalline, fast growing iron oxyhydroxides that precipitate under oxidizing conditions.

Anion exchange (measured as AEC) may play some role in attenuation; however, multiple lines of evidence (SEP, XRD, SEM/EDXA, sorption and desorption studies) point to iron oxyhydroxides as the primary driver of Mo attenuation.

As explained in **Section 3.1.2**, aquifer materials contain relatively high proportions of iron oxyhydroxides and clay minerals, which readily adsorb Mo under oxidizing conditions. Sorption batch studies conducted with site-specific aquifer materials and Mo-spiked background groundwater of up to 1.2 mg/L suggested high sorption capacity of these aquifer materials with a calculated site-specific distribution coefficient (K_d) for Mo of approximately 175 L/kg. This K_d value is consistent with moderate chemical attenuation of Mo relative to advective groundwater flow (USEPA, 2005). A 7-step SEP used to evaluate the fractionation of Mo in aquifer materials collected upgradient and downgradient of AP-1 showed the majority of Mo was associated with non-crystalline materials and the metal hydroxide phase.

Desorption batch studies conducted with aquifer materials collected downgradient of HGWC-8 and incubated with background groundwater indicated limited desorption of Mo from these materials This observation, along with the prevalence of iron oxyhydroxide minerals, suggest that Mo sorption is stable under current site conditions. Furthermore, these conditions are not expected to change with the closure of AP-1 and removal of CCR material.

3.3 Summary of Geochemical CSM

The GCSM indicates that, under current conditions, As and Mo are attenuated by aquifer materials, and groundwater exceedances are contained onsite. Illustrations depicting the geochemical CSM for As and Mo are provided on **Figure 9** and **Figure 10**, respectively. Key details to support the GCSM include:

- The characterization of aquifer solids around AP-1 indicates the presence of mineral phases that provide substantial attenuation capacity (i.e., iron oxyhydroxides and clay minerals).

- The SEP conducted for select aquifer solids samples representative of conditions at AP-1 suggests that site-specific constituents appear to be associated with amorphous and crystalline metal oxides and oxyhydroxides This observation indicates strong sorption and/or incorporation of site-specific constituents into immobile mineral phases.

- The sorption and desorption studies presented above confirm that site-specific constituents are sorbed, with some desorption occurring under the experimental conditions of these batch studies. The measured partition coefficient for Mo (i.e., 175 L/kg) is within the range of values reported in the literature and indicative of aquifer attenuation capacity for this constituent. Moreover, all six concentration levels of As up to 1.7 mg/L were completely removed from the aqueous phase during the batch sorption study. This suggests that As is strongly sorbed to the aquifer matrix and that there is large sorption capacity even when subjected to higher As concentrations than have been observed at the Site.

- The laboratory studies presented to date are consistent with groundwater monitoring results that indicate attenuation of site-specific constituents is occurring downgradient of AP-1.

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TABLES

Table 1
Summary of Groundwater and Pore Water Analytical Data
Plant Hammond AP-1, Floyd County, Georgia

			Background Groundwater											Downgradient Groundwater			
	Parameter[1,2]		**HGWA-1**	**HGWA-1**	**HGWA-1**	**HGWA-2**	**HGWA-2**	**HGWA-3**	**HGWA-3**	**HGWA-3**	**HGWA-43D**	**HGWA-44D**	**MW-1**	**HGWC-7**	**HGWC-7**	**HGWC-7**	**HGWC-8**
			9/23/2019	6/16/2020	9/15/2020	9/23/2019	9/15/2020	9/23/2019	6/16/2020	9/15/2020	9/16/2020	9/16/2020	6/16/2020	9/25/2019	6/17/2020	9/16/2020	9/24/2019
Appendix III	**Boron**	mg/L	0.021 J	0.021 J	0.017 J	0.034	0.044 J	0.0081 J	0.01 J	0.0071 J	0.061 J	0.23	0.19	1.1	1	1.1	2.8
	Calcium	mg/L	118	130	103	19.5	21.1	71	85.1	73.1	56	30	157	105	112	98	113
	Chloride	mg/L	17.7	41.1	13.4	5.1	5	5.9	5.8	6	4.1	7.2	29.6	49.8	45.2	46.4	60.2
	Fluoride	mg/L	0.078 J	0.071 J	0.082 J	<0.05 ND	<0.05 ND	<0.05 ND	<0.05 ND	<0.05 ND	0.22	0.52	0.2	0.1 J	0.077 J	0.081 J	0.49
	Sulfate	mg/L	70.2	88.2	47.3	47.2	51.5	43.9	49.5	44.7	43	6.9	114	109	102	109	133
	TDS	mg/L	442	632	265	129	124	268	448	258	272	270	653	503	423	392	457
Appendix IV	**Comb. Radium 226/228**	pCi/L	-	-	0.748 U	-	0.124 U	-	-	0.161 U	0.531 U	0.422 U	-	0.884 U	-	0.135 U	1.3 U*
	Antimony	mg/L	<0.00027 ND	-	<0.00028 ND	<0.00027 ND	<0.00028 ND	<0.00027 ND	-	<0.00028 ND	0.00051 J	0.00049 J	-	<0.00027 ND	-	0.00034 J	<0.00027 ND
	Arsenic	mg/L	0.00046 J	-	<0.00078 ND	0.00067 J	<0.00078 ND	0.0011 J	-	<0.00078 ND	<0.00078 ND	<0.00078 ND	-	<0.00035 ND	-	<0.00078 ND	<0.00035 ND
	Barium	mg/L	0.042	-	0.035	0.13	0.12	0.13	-	0.12	0.26	0.24	-	0.061	-	0.068	0.053
	Beryllium	mg/L	<0.000074 ND	-	<0.000046 ND	<0.0026	0.00013 J	<0.000074 ND	-	<0.000046 ND	<0.000046 ND	<0.000046 ND	-	<0.000074 ND	-	<0.000046 ND	<0.000074 ND
	Cadmium	mg/L	<0.00011 ND	-	<0.00012 ND	<0.00011 ND	0.00012 J	<0.00011 ND	-	<0.00012 ND	<0.00012 ND	<0.00012 ND	-	<0.00011 ND	-	<0.00012 ND	0.0002 J
	Chromium (III+VI)	mg/L	<0.00039 ND	-	<0.00055 ND	0.00058 J	<0.00055 ND	<0.00039 ND	-	<0.00055 ND	<0.00055 ND	0.0012 J	-	0.071	-	0.00074 J	<0.00039 ND
	Cobalt	mg/L	<0.0003 ND	-	<0.00038 ND	0.038	0.021	<0.0003 ND	-	<0.00038 ND	<0.00038 ND	<0.00038 ND	-	0.0026 J	-	0.00065 J	0.0015 J
	Lead	mg/L	0.000078 J	-	<0.000036 ND	0.000092 J	0.00008 J	<0.000046 ND	-	0.000042 J	0.00005 J	0.00021 J	-	-	-	0.0002 J	-
	Lithium	mg/L	0.0011 J	-	0.00087 J	0.0016 J	0.0015 J	0.0029 J	-	0.0026 J	0.0018 J	0.014 J	-	0.0019 J	-	0.0026 J	0.0024 J
	Mercury	mg/L	-	-	-	-	-	-	-	-	<0.000078 ND	<0.000078 ND	-	-	-	-	<0.00014 ND
	Molybdenum	mg/L	<0.00095 ND	<0.00095 ND	<0.00069 ND	<0.00095 ND	<0.00069 ND	<0.00095 ND	<0.00095 ND	<0.00069 ND	0.0044 J	0.0019 J	<0.00095 ND	0.047	0.048	0.046	0.54
	Selenium	mg/L	<0.0013 ND	-	<0.0016 ND	<0.0013 ND	<0.0016 ND	<0.0013 ND	-	<0.0016 ND	<0.0016 ND	<0.0016 ND	-	<0.0013 ND	-	<0.0016 ND	<0.0013 ND
	Thallium	mg/L	<0.000052 ND	-	<0.00014 ND	<0.000052 ND	<0.00014 ND	<0.000052 ND	-	<0.00014 ND	<0.00014 ND	<0.00014 ND	-	<0.000052 ND	-	<0.00014 ND	0.00011 J
Inorganics	**Alkalinity (Bicarbonate as $CaCO_3$)**	mg/L	279	345	307	29	26.1	174	195	187	251	294	376	151	171	177	130
	Alkalinity (Carbonate as $CaCO_3$)	mg/L	-	<5 ND	<5 ND	-	<5 ND	-	<5 ND	<5 ND	<5 ND	<5 ND	<5 ND	-	<5 ND	<5 ND	-
	Alkalinity (total) as $CaCO_3$	mg/L	279	345	307	29	26.1	174	195	187	251	294	376	151	171	177	130
	Dissolved Organic Carbon	mg/L	1.1 U*	-	-	2.1 U*	-	<0.5 ND	-	-	-	-	-	<0.5 ND	-	-	0.58 J
	Nitrogen (Total)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2800
Metals	**Sodium**	mg/L	20.4	58.5	21.1	8.7	7.4	5.2	5.9	4.9	14	50.3	12.5	10.4	10.3	8.7	8.5 J
	Sulfide	mg/L	<0.2 ND	<0.05 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.05 ND	<0.05 ND	0.11	<0.05 ND	<0.2 ND	<0.05 ND	<0.05 ND	<0.2 ND
	Iron	mg/L	0.022 J	<0.015 ND	0.087	1.7	0.78	0.53	1.3	0.26	0.02 J	0.42	0.78	0.18	0.56	0.3	0.037 J
	Magnesium	mg/L	5.4	4.7	4.3	2.4	2.5	4.8	5.2	4.6	18.3	15.1	23.7	10.2	10.3	8.9	14
	Manganese	mg/L	0.2	0.034 J	0.18	1.1	0.61	0.21	0.24	0.22	0.01 J	0.02 J	0.36	0.31	0.22	0.15	0.18
	Phosphorus	mg/L	<0.023 ND	-	-	<0.023 ND	-	0.026 J	-	-	-	-	-	<0.014 ND	-	-	0.023 J
	Potassium	mg/L	0.33	0.32	0.34	0.88	0.89	0.42	0.44	0.46	0.97	3.2	0.39	2.8	2.7	2.3	6.9
Radionuclides	**Radium-226**	pCi/L	-	-	0.0193 U	-	0.124 U	-	-	0.161 U	0.531 U	0.129 U	-	0.341 U	-	0.0715 U	0.652 U*
	Radium-228	pCi/L	-	-	0.729 U	-	-0.233 U	-	-	-0.305 U	-0.0158 U	0.293 U	-	0.543 U	-	0.0635 U	0.648 U
Field	**DO (Field)**	mg/L	0.28	0.73	0.74	0.16	0.3	0.31	0.2	0.19	3.55	0.31	0.09	0.1	0.12	8	0.08
	Oxidation-reduction potential	mV	64.4	58.88	42.92	22.3	178	18.3	12.49	117.4	126.2	77.43	88.95	30.2	12.45	100.5	71.3
	Temp (Field)	°C	18.88	17.01	18.57	21.65	20.26	21.5	17.93	19.73	19.59	19.1	20.47	21.43	20.08	21.1	22.22
	EC (field)	µS/cm	677.7	862.2	637.8	170.7	193.4	420.1	449.8	433.8	490.5	484.7	908.9	723.5	652.7	678.5	742.8
	pH (Field)	S.U.	7.02	6.97	7.15	5.33	5.22	7.3	7.31	7.29	7.52	7.83	6.86	7.11	7.2	7.3	6.95
	Turbidity	NTU	4.59	0	2.15	4.44	3.45	3.53	3.43	1.39	2	4.93	2.91	4.9	7.39	21	2.98

Notes:
- = parameter was not analyzed
< = parameter was not detected above the specified method detection limit (MDL)
J = indicates the parameter was estimated and detected between the MDL and the reporting limit (RL)
ND = parameter was not detected above the specified MDL
TDS = total dissolved solids
U = indicates the parameter was not detected above the analytical minimum detectable concentration (MDC)
(1) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, and TDS was analyzed by SM2540C.
(2) Field parameters were collected using In-Situ Inc. SmarTROLL MP units.
(3) The pH and oxidative-reductive potential values presented were recorded at the time of sample collection in the field.

Table 1
Summary of Groundwater and Pore Water Analytical Data
Plant Hammond AP-1, Floyd County, Georgia

	Parameter[1,2]		Downgradient Groundwater														
			HGWC-8	HGWC-8	HGWC-9	HGWC-9	HGWC-10	HGWC-10	HGWC-11	HGWC-11	HGWC-12	HGWC-12	HGWC-13	HGWC-13	MW-5	MW-5	MW-6
			6/16/2020	9/16/2020	9/27/2019	9/17/2020	9/27/2019	9/16/2020	9/27/2019	9/18/2020	9/27/2019	9/18/2020	9/26/2019	9/21/2020	9/25/2019	9/17/2020	9/26/2019
Appendix III	**Boron**	mg/L	2.2	1.9	2.9	2	1	1.1	0.53	0.91	2.1	1.6	1.7	1.6	0.11	0.067 J	0.93
	Calcium	mg/L	120	119	175	164	157	139	113	122	153	163	195	173	105	103	189
	Chloride	mg/L	67.9	74.6	126	105	49.9	39.7	27.9	34.9	81	74.6	109	41.2	35.9	28.7	64.9
	Fluoride	mg/L	0.45	0.53	0.26 J	0.1	0.17 J	<0.05 ND	0.42	0.15	0.26 J	0.15	0.64	0.44	0.076 J	0.094 J	0.19 J
	Sulfate	mg/L	157	194	214	209	181	169	<0.17 ND	272	198	266	444	359	134	153	225
	TDS	mg/L	573	552	730	680	624	490	528	626	653	704	1010	732	460	486	735
Appendix IV	**Comb. Radium 226/228**	pCi/L	-	0.526 U	0.428 U	1.38 U	1.16 U	0 U	1.78 J	1.24 U	0.958 U	0.916 U	0.939 U	1.53	0.798 U	0.618 U	0.745 U
	Antimony	mg/L	-	<0.00028 ND	<0.00027 ND	<0.00028 ND	<0.00027 ND	<0.00028 ND	<0.00027 ND	0.00038 J	<0.00027 ND	<0.00028 ND	<0.00027 ND	0.00029 J	<0.00027 ND	<0.00028 ND	<0.00027 ND
	Arsenic	mg/L	-	<0.00078 ND	0.00037 J	<0.00078 ND	<0.00035 ND	<0.00078 ND	0.0018 J	0.00081 J	0.0061	0.0031 J	0.44	0.39	<0.00035 ND	<0.00078 ND	<0.00035 ND
	Barium	mg/L	-	0.06	0.11	0.11	0.078	0.068	0.033	0.043	0.096	0.086	0.11	0.052	0.046	0.043	0.089
	Beryllium	mg/L	-	0.0001 J	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	0.000086 J	<0.000046 ND	<0.000074 ND	<0.000046 ND	0.00011 J	0.00011 J	<0.000074 ND	<0.000046 ND	<0.000074 ND
	Cadmium	mg/L	-	0.00023 J	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND
	Chromium (III+VI)	mg/L	-	0.0015 J	<0.00039 ND	<0.00055 ND	<0.00039 ND	<0.00055 ND	<0.00039 ND	<0.00055 ND	<0.00039 ND	0.00091 J	<0.00039 ND	0.00056 J	0.0052 J	0.0021 J	<0.00039 ND
	Cobalt	mg/L	-	0.0019 J	0.00057 J	0.0007 J	<0.0003 ND	<0.00038 ND	0.00071 J	<0.00038 ND	0.0012 J	0.0014 J	0.0042 J	0.0032 J	<0.0003 ND	<0.00038 ND	0.00036 J
	Lead	mg/L	-	0.0002 J	-	0.00022 J	-	<0.000036 ND	-	0.00006 J	-	0.000096 J	-	0.00015 J	-	<0.000036 ND	-
	Lithium	mg/L	-	0.0033 J	0.0044 J	0.004 J	<0.00078 ND	<0.00081 ND	<0.00078 ND	<0.00081 ND	0.011 J	0.01 J	0.035	0.028 J	<0.00078 ND	<0.00081 ND	<0.00078 ND
	Mercury	mg/L	-	-	-	-	<0.00014 ND	-	-	-	-	-	-	-	-	-	-
	Molybdenum	mg/L	0.45	0.43	0.033	0.03	0.0014 J	0.0014 J	0.016	0.032	0.052	0.046	0.026	0.032	<0.00095 ND	<0.00069 ND	0.0026 J
	Selenium	mg/L	-	<0.0016 ND	<0.0013 ND	<0.0016 ND	<0.0013 ND	<0.0016 ND	0.013	0.0042 J	<0.0013 ND	<0.0016 ND	<0.0013 ND	0.0016 J	0.0021 J	0.0028 J	<0.0013 ND
	Thallium	mg/L	-	<0.00014 ND	<0.000052 ND	<0.00014 ND	<0.000052 ND	<0.00014 ND	<0.000052 ND	<0.00014 ND	0.000088 J	<0.00014 ND	0.00039 J	0.00036 J	<0.000052 ND	<0.00014 ND	<0.000052 ND
Inorganics	**Alkalinity (Bicarbonate as $CaCO_3$)**	mg/L	126	133	171	194	248	247	71	91.6	157	172	102	114	165	179	234
	Alkalinity (Carbonate as $CaCO_3$)	mg/L	<5 ND	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-
	Alkalinity (total) as $CaCO_3$	mg/L	126	133	171	194	248	247	71	91.6	157	172	102	114	165	179	234
	Dissolved Organic Carbon	mg/L	-	-	<0.5 ND	-	0.63 J	-	0.92 J	-	0.76 J	-	1.7 U*	-	0.57 J	-	0.52 J
	Nitrogen (Total)	µg/L	-	-	-	-	<400 ND	-	-	-	-	-	-	-	-	-	-
Metals	**Sodium**	mg/L	9.2	8.5	13.4	11.3	11.9	8.9	6.7	5.5	10.5	9.4	10.1	6.4	21.6	18.1	13.1
	Sulfide	mg/L	<0.05 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND
	Iron	mg/L	0.057	0.3	0.32	0.19	<0.0092 ND	<0.016 ND	<0.0092 ND	<0.016 ND	0.11	0.083	1.4	0.87	0.051	<0.016 ND	0.51
	Magnesium	mg/L	16.4	16.4	18	16.6	12.2	10.8	15.5	16.2	15.6	17.3	24.4	15.6	10.8	11.6	14.3
	Manganese	mg/L	0.23	0.22	0.43	0.42	2.1	1.3	0.017	0.017 J	1.9	2	3.7	2.1	0.0042 J	0.0019 J	0.55
	Phosphorus	mg/L	-	-	<0.014 ND	-	<0.014 ND	-	<0.014 ND	-	<0.014 ND	-	0.022 J	-	<0.014 ND	-	0.017 J
	Potassium	mg/L	7.2	7.1	3.2	3	1.7	1.3	2.5	3.7	7.5	7.2	5	4.6	0.96 J	0.85	1.2
Radionuclides	**Radium-226**	pCi/L	-	0.203 U	0.428 U	0.313 U	0.288 U	-0.0781 U	0.444 U*	-0.0506 U	0.806 U*	0.59 U	0.939 U*	0.298 U	0.642 U	0.0116 U	0.354 U
	Radium-228	pCi/L	-	0.323 U	-0.0293 U	1.07 U	0.872 U	-0.245 U	1.34 U*	1.24 U	0.152 U	0.326 U	-0.196 U	1.23	0.156 U	0.606 U	0.391 U
Field	**DO (Field)**	mg/L	0.11	0.4	0.07	0.12	0.27	0.42	2.62	0.58	0.21	0.17	0.13	0.13	0.67	0.87	0.17
	Oxidation-reduction potential	mV	139.7	68.01	-0.5	54.28	50.6	58.16	74.6	143.4	89.8	113.8	78.3	-7.3	39.4	64.57	27.8
	Temp (Field)	°C	20.71	21.25	20.61	20.16	20.7	20.12	23.75	23.86	20.8	20.78	22.71	20.04	20.28	21.78	22.27
	EC (field)	µS/cm	813.9	860.9	1145	1101	948.7	873.1	702.6	839.2	906.4	1043	1262	1021	707.8	742.1	1083
	pH (Field)	S.U.	6.97	6.92	7.01	6.99	6.64	6.66	5.75	6.41	7.07	7.15	6.94	7.34	6.37	6.48	6.76
	Turbidity	NTU	1.37	4.73	4.65	4.9	0.75	0.42	3.9	0.42	3.58	4.8	4.94	4.6	1.72	0.57	4.83

Notes:
- = parameter was not analyzed
< = parameter was not detected above the specified method detection limit (MDL)
J = indicates the parameter was estimated and detected between the MDL and the reporting limit (RL)
ND = parameter was not detected above the specified MDL
TDS = total dissolved solids
U = indicates the parameter was not detected above the analytical minimum detectable concentration (MDC)
(1) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, and TDS was analyzed by SM2540C.
(2) Field parameters were collected using In-Situ Inc. SmarTROLL MP units.
(3) The pH and oxidative-reductive potential values presented were recorded at the time of sample collection in the field.

Table 1
Summary of Groundwater and Pore Water Analytical Data
Plant Hammond AP-1, Floyd County, Georgia

	Parameter[1,2]		Downgradient Groundwater														
			MW-6	MW-7	MW-7	MW-19	MW-19	MW-20	MW-20	MW-24D	MW-24D	MW-25D	MW-25D	MW-26D	MW-26D	MW-27D	MW-27D
			9/21/2020	9/26/2019	9/21/2020	9/27/2019	9/21/2020	9/25/2019	9/17/2020	9/26/2019	9/21/2020	9/27/2019	9/18/2020	9/26/2019	9/17/2020	9/26/2019	9/18/2020
Appendix III	**Boron**	mg/L	0.82	0.26	0.2	0.58	0.89	0.091	0.11	0.49	0.45	0.36	0.36	2	2	0.14	0.12
	Calcium	mg/L	173	83.9	75.3	90	135	113	110	83.1	87.6	26.4	25.1	158	150	32.1	24.8
	Chloride	mg/L	58.1	15.6	11.1	46.2	35	25.7	29.7	39.7	45.2	36.2	33.4	118	103	31.8	30.4
	Fluoride	mg/L	<0.05 ND	0.17 J	<0.05 ND	0.53	0.17	<0.05 ND	<0.05 ND	0.18 J	<0.05 ND	1.5	1.6	0.19 J	0.069 J	0.42	0.22
	Sulfate	mg/L	221	129	114	170	305	112	110	91	114	48	27.4	189	174	15.6	7.5
	TDS	mg/L	656	383	326	442	608	461	460	360	391	409	382	643	732	265	211
Appendix IV	**Comb. Radium 226/228**	pCi/L	0.796 U	0.947 U	1.55 U	0.534 U	1.36 U	1.35 U	0.469 U	0.878 U	1.23 U	0.945 U	1.17 U	0.912 U	0.42 U	0.974 U	1.13 U
	Antimony	mg/L	0.0014 J	<0.00027 ND	0.00051 J	<0.00027 ND	<0.00028 ND	<0.00027 ND	<0.00028 ND	<0.00027 ND	<0.00028 ND	<0.00027 ND	<0.00028 ND	<0.00027 ND	<0.00028 ND	0.0003 J	0.00031 J
	Arsenic	mg/L	<0.00078 ND	<0.00035 ND	<0.00078 ND	<0.00035 ND	<0.00078 ND	<0.00035 ND	<0.00078 ND	<0.00035 ND	<0.00078 ND	0.0011 J	<0.00078 ND	<0.00035 ND	<0.00078 ND	<0.00035 ND	<0.00078 ND
	Barium	mg/L	0.083	0.066	0.065	0.068	0.056	0.085	0.096	0.12	0.053	0.39	0.44	0.12	0.099	0.95	1
	Beryllium	mg/L	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND
	Cadmium	mg/L	<0.00012 ND	<0.00011 ND	<0.00012 ND	0.00013 J	0.00018 J	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND
	Chromium (III+VI)	mg/L	<0.00055 ND	0.0013 J	0.0017 J	<0.00039 ND	0.0014 J	<0.00039 ND	<0.00055 ND	0.00042 J	<0.00055 ND	<0.00039 ND	<0.00055 ND	0.00076 J	<0.00055 ND	<0.00039 ND	0.0007 J
	Cobalt	mg/L	0.00041 J	<0.0003 ND	<0.00038 ND	0.033	0.032	<0.0003 ND	<0.00038 ND	0.0011 J	<0.00038 ND	<0.0003 ND	<0.00038 ND	0.00053 J	<0.00038 ND	<0.0003 ND	<0.00038 ND
	Lead	mg/L	0.00026 J	-	<0.000036 ND	-	0.000085 J	-	<0.000036 ND	-	0.000042 J	-	<0.000036 ND	-	<0.000036 ND	-	<0.000036 ND
	Lithium	mg/L	<0.00081 ND	<0.00078 ND	<0.00081 ND	0.013 J	0.013 J	<0.00078 ND	<0.00081 ND	0.003 J	0.0024 J	0.047	0.046	0.0041 J	0.0032 J	0.0055 J	0.0084 J
	Mercury	mg/L	-	-	-	<0.00014 ND	-	-	-	-	-	-	-	-	-	-	-
	Molybdenum	mg/L	0.0025 J	0.0033 J	0.0015 J	0.063	0.064	<0.00095 ND	<0.00069 ND	<0.00095 ND	0.00099 J	<0.00095 ND	0.00094 J	0.017	0.014	0.0042 J	0.0018 J
	Selenium	mg/L	<0.0016 ND	0.0014 J	0.0026 J	0.0013 J	0.0033 J	<0.0013 ND	<0.0016 ND	<0.0013 ND	<0.0016 ND	<0.0013 ND	<0.0016 ND	<0.0013 ND	<0.0016 ND	<0.0013 ND	<0.0016 ND
	Thallium	mg/L	<0.00014 ND	<0.000052 ND	<0.00014 ND	0.00027 J	0.0003 J	<0.000052 ND	<0.00014 ND	<0.000052 ND	<0.00014 ND	<0.000052 ND	<0.00014 ND	<0.000052 ND	<0.00014 ND	<0.000052 ND	<0.00014 ND
Inorganics	**Alkalinity (Bicarbonate as $CaCO_3$)**	mg/L	273	113	128	75	89.9	211	231	102	105	255	288	175	187	166	169
	Alkalinity (Carbonate as $CaCO_3$)	mg/L	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND	-	<5 ND
	Alkalinity (total) as $CaCO_3$	mg/L	273	113	128	75	89.9	211	231	102	105	255	288	175	187	166	169
	Dissolved Organic Carbon	mg/L	-	<0.5 ND	-	0.79 J	-	<0.5 ND	-	<0.5 ND	-	1.8 U*	-	<0.5 ND	-	<0.5 ND	-
	Nitrogen (Total)	µg/L	-	-	-	1200	-	-	-	-	-	-	-	-	-	-	-
Metals	**Sodium**	mg/L	12.6	8.2	8.4	8.4	6.7	11	10.3	11.3	12	118	103	12.2	11.9	27.8	27.3
	Sulfide	mg/L	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND	0.49	2.9	<0.2 ND	<0.05 ND	<0.2 ND	<0.05 ND
	Iron	mg/L	0.49	0.037 J	<0.016 ND	0.1	0.16	3.1	2.8	1	0.076	0.22	0.088	0.4	0.29	0.015 J	0.15
	Magnesium	mg/L	13.5	9.8	8.6	12.3	15.5	8.6	8.5	5.1	4.9	8.5	8.3	15.9	16.9	19.7	17
	Manganese	mg/L	0.5	0.07	0.0077 J	3.2	3.3	0.17	0.24	0.72	0.13	0.04	0.04 J	0.17	0.16	0.058	0.13
	Phosphorus	mg/L	-	<0.014 ND	-	<0.014 ND	-	0.083	-	0.025 J	-	0.019 J	-	<0.014 ND	-	<0.014 ND	-
	Potassium	mg/L	1.4	0.79 J	0.91	3.6	4.2	0.31 J	0.22	0.45 J	0.5	0.69 J	0.42	2	1.8	0.92 J	0.95
Radionuclides	**Radium-226**	pCi/L	0.31 U	0.485 U*	0.157 U	0.534 U*	0.29 U	0.764	0.321 U	0.531 U*	0.064 U	0.676 U*	0.303 U	0.535 U	0.153 U	0.759 U*	0.603 U
	Radium-228	pCi/L	0.486 U	0.462 U	1.39	-0.185 U	1.07	0.586 U	0.148 U	0.347 U	1.17 U	0.269 U	0.866	0.377 U	0.267 U	0.215 U	0.527 U
Field	**DO (Field)**	mg/L	0.22	0.58	1.18	0.19	0.14	0.22	0.43	0.35	0.17	0.34	0.13	0.19	0.28	-	1.25
	Oxidation-reduction potential	mV	68.92	54.4	484	39.6	48.52	-24.3	-8.06	43.3	132.5	55.4	19.18	-17.3	-14.62	-	179.3
	Temp (Field)	°C	20.75	21.41	20.75	22.26	21.92	19.85	21.37	22.99	20.39	20.4	23.21	21.83	21.74	-	20.04
	EC (field)	µS/cm	1016	564.7	464	677.9	895.8	721.3	702.4	525.7	578.2	681	628.6	1040	1005	-	403.2
	pH (Field)	S.U.	6.88	6.5	6.5	6.34	6.41	6.75	6.78	7.5	7.65	7.57	7.64	7.16	7.08	-	7.51
	Turbidity	NTU	1.79	1.33	0.48	4.63	4.95	4.71	1.68	4.73	1.67	1.93	0.56	7.04	1.64	-	2.72

Notes:
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TDS = total dissolved solids
U = indicates the parameter was not detected above the analytical minimum detectable concentration (MDC)
(1) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, and TDS was analyzed by SM2540C.
(2) Field parameters were collected using In-Situ Inc. SmarTROLL MP units.
(3) The pH and oxidative-reductive potential values presented were recorded at the time of sample collection in the field.

Table 1
Summary of Groundwater and Pore Water Analytical Data
Plant Hammond AP-1, Floyd County, Georgia

			Downgradient Groundwater										CCR Pore Water			
	Parameter[1,2]		**MW-28D**	**MW-28D**	**MW-29**	**MW-29**	**MW-30D**	**MW-30D**	**MW-30D**	**MW-30D**	**MW-40D**	**MW-40D**	**PMW-01**	**PMW-01**	**PMW-02**	**PMW-02**
			9/26/2019	9/21/2020	9/24/2019	9/16/2020	9/24/2019	4/9/2020	6/17/2020	9/24/2020	6/19/2020	9/28/2020	4/9/2020	3/16/2021	4/9/2020	3/16/2021
Appendix III	**Boron**	mg/L	0.6	0.45	1.2	1.7	0.69	-	0.77	0.62	0.19	0.57	1.7	0.82	3.2	2.2
	Calcium	mg/L	84	76.8	140	126	34.2	13.4	8.3	6.3	109	289	577	272	258	245
	Chloride	mg/L	43.5	42.9	83.8	75.3	99.2	96	92.5	45.4	145	542	69.5	28.2	72.7	53.4 M6
	Fluoride	mg/L	0.22 J	0.1	0.18 J	<0.05 ND	5.7	-	10.9	8.2	<0.05 ND	0.41	0.31	0.64	0.82	0.74
	Sulfate	mg/L	96.2	84.2	154	143	756	399	104	205	435	3480	1160	540	454	457
	TDS	mg/L	418	393	603	547	1970	-	1040	790	1420	6470	2170	952	1090	966
Appendix IV	**Comb. Radium 226/228**	pCi/L	0.997 U	1.39 U	0.675 U	0.193 U	1.16 U*	-	-	0.809 U	-	2.45	1.03 U	-	0.352 U	-
	Antimony	mg/L	<0.00027 ND	<0.00028 ND	<0.00027 ND	<0.00028 ND	0.00046 J	-	-	<0.00028 ND	-	0.0015 J	<0.00027 ND	-	0.00054 J	-
	Arsenic	mg/L	<0.00035 ND	<0.00078 ND	<0.00035 ND	<0.00078 ND	0.0026 J	-	-	0.0017 J	-	0.0063 J	0.16	0.15	0.72	0.59
	Barium	mg/L	0.15	0.18	0.081	0.076	0.054	-	-	0.11	-	0.35	0.056	-	0.16	-
	Beryllium	mg/L	<0.000074 ND	<0.000046 ND	<0.000074 ND	<0.000046 ND	<0.000074 ND	-	-	<0.000046 ND	-	0.00049 J	<0.000074 ND	-	<0.000074 ND	-
	Cadmium	mg/L	<0.00011 ND	<0.00012 ND	<0.00011 ND	<0.00012 ND	<0.00011 ND	-	-	<0.00012 ND	-	<0.00059 ND	<0.00011 ND	-	<0.00011 ND	-
	Chromium (III+VI)	mg/L	0.00081 J	0.00085 J	<0.00039 ND	<0.00055 ND	0.00041 J	-	-	0.00065 J	-	0.008 J	<0.00039 ND	-	<0.00039 ND	-
	Cobalt	mg/L	<0.0003 ND	<0.00038 ND	0.0015 J	0.0013 J	<0.0003 ND	-	-	<0.00038 ND	-	0.0037 J	0.00056 J	-	<0.0003 ND	-
	Lead	mg/L	-	0.00018 J	-	<0.000036 ND	-	-	-	0.000068 J	-	0.0075 J	<0.000046 ND	-	0.000053 J	-
	Lithium	mg/L	0.0055 J	0.0053 J	0.0022 J	0.0021 J	0.16	-	-	0.13	-	0.095 J	0.043	0.019 J	0.018 J	0.034
	Mercury	mg/L	-	-	-	-	-	-	-	-	-	-	<0.00014 ND	-	<0.00014 ND	-
	Molybdenum	mg/L	0.017	0.018	0.0021 J	0.0021 J	0.036	-	0.0062 J	0.011	0.015	0.016 J	0.0057 J	0.022	0.05	0.13
	Selenium	mg/L	<0.0013 ND	<0.0016 ND	<0.0013 ND	<0.0016 ND	<0.0013 ND	-	-	<0.0016 ND	-	<0.0078 ND	<0.0063 ND	-	<0.0013 ND	-
	Thallium	mg/L	<0.000052 ND	<0.00014 ND	0.000064 J	<0.00014 ND	<0.000052 ND	-	-	<0.00014 ND	-	<0.00072 ND	0.00023 J	-	0.00059 J	-
Inorganics	**Alkalinity (Bicarbonate as $CaCO_3$)**	mg/L	173	184	187	194	435	544	654	437	955	1010	185	142	236	221
	Alkalinity (Carbonate as $CaCO_3$)	mg/L	-	<5 ND	-	<5 ND	-	-	<5 ND	5.8	<5 ND	<5 ND	-	<5 ND	-	<5 ND
	Alkalinity (total) as $CaCO_3$	mg/L	173	184	187	194	435	544	654	442	955	1010	-	-	-	-
	Dissolved Organic Carbon	mg/L	<0.5 ND	-	<0.5 ND	-	1.4 U*	-	-	-	-	-	-	-	-	-
	Nitrogen (Total)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sodium	mg/L	9.6	9.8	13 J	10.9	704 J	512	376	296	464	1960	17.1	5.2	43.7	17.2
	Sulfide	mg/L	<0.2 ND	0.3	<0.2 ND	<0.05 ND	0.8	<0.05 ND	0.051 J	0.58	<0.5 ND	0.2	<0.05 ND	<0.05 ND	<0.05 ND	<0.05 ND
Metals	**Iron**	mg/L	0.89	0.3	0.13	0.035 J	0.3	0.1 J	<0.0097 ND	0.092	8.8	9.6	15.5	12.9	0.95	0.69
	Magnesium	mg/L	22.5	22.9	12.7	11.4	5.2	4	2.3	1.5	14.7	58.2	57.4	14	25.6	22.8
	Manganese	mg/L	0.12	0.034 J	1.4	1.2	0.044	0.0073 J	0.013 J	0.004 J	0.31	0.36	9.8	2.7	1.1	1.2
	Phosphorus	mg/L	<0.014 ND	-	<0.023 ND	-	-	-	-	-	-	-	-	-	-	-
	Potassium	mg/L	0.99 J	1	1.2	0.94	3.3	2.1	1.4	1.5	9.3	19.6	8.7	4.5	8.1	7
Radionuclides	**Radium-226**	pCi/L	0.474 U*	0.286 U	0.451 U*	0.193 U	0.416 U*	-	-	0.374 U	-	1.95	0.339 U	-	0.295 U	-
	Radium-228	pCi/L	0.523 U	1.1	0.224 U	-0.196 U	0.744 U	-	-	0.435 U	-	0.502 U	0.686 U	-	0.0571 U	-
Field	**DO (Field)**	mg/L	0.25	0.26	0.17	0.23	0.16	1.3	0.23	0.41	-	-	-	0.13	-	0.73
	Oxidation-reduction potential	mV	-61.5	-59.84	17.9	41.57	74.1	3.31	16.84	-107.4	-	-	-	-90.7	-	-54.6
	Temp (Field)	°C	23.07	20.97	22.09	20.33	23.68	21.03	20.92	19.32	-	-	-	12.49	-	14.44
	EC (field)	µS/cm	652.2	624.1	899.5	873.7	2978	2149	1479	1405	-	-	-	1287	-	1304
	pH (Field)	S.U.	7.4	7.46	6.86	6.88	7.85	8.27	8.33	8.72	7.4	7.69	6.58	7.19	7.4	7.71
	Turbidity	NTU	13.4	9.48	4.22	0	4.03	4.35	19.1	4.22	-	-	-	1.68	-	1.15

Notes:
- = parameter was not analyzed
< = parameter was not detected above the specified method detection limit (MDL)
J = indicates the parameter was estimated and detected between the MDL and the reporting limit (RL)
ND = parameter was not detected above the specified MDL
TDS = total dissolved solids
U = indicates the parameter was not detected above the analytical minimum detectable concentration (MDC)
(1) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, and TDS was analyzed by SM2540C.
(2) Field parameters were collected using In-Situ Inc. SmarTROLL MP units.
(3) The pH and oxidative-reductive potential values presented were recorded at the time of sample collection in the field.

Table 2

Baseline Characterization Results - Ionic Exchange Capacity, Total Sulfur, Total Sulfide, Total Organic Carbon

Plant Hammond AP-1, Floyd County, Georgia

Sample ID	DPT01(12-17)	DPT02(12-22)	DPT03(32-39)	DPT04(12-18)	DPT05(15-25)	DPT06(15-23)	DPT07_AP1_012821_32-42	DPT04XRF_AP1_100418_40-45
Adjacent Well ID	HGWC7	HGWC-8	HGWC-9	HGWC-11	HGWC-11	HGWA-1	HGWC-13	HGWC-13
Sample Collection Date	8/5/2020	8/4/2020	8/4/2020	8/4/2020	8/4/2020	8/5/2020	1/28/2021	10/4/2018
Anion Exchange Capacity (meq/100g)	8.48	6.58	8.09	7.85	6.74	4.57	5.13	5.52
Cation Exchange Capacity (meq/100g)	15.80	19.00	19.40	20.20	15.70	5.70	7.83	3.10
Total Sulfur (%)	0.018	0.008	0.005	0.006	< 0.005	< 0.005	0.022	0.007
Total Sulfide (%)	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Total Organic Carbon (%)	0.07	0.04	0.16	0.09	< 0.025	0.12	0.07	0.05

Notes:
% = percentage
< = Indicates the constituent was not detected above the analytical method detection limit (MDL)
meq/100g = milliequivalents per 100 grams

Table 3
Baseline Characterization Results - Total Metals
Plant Hammond AP-1, Floyd County, Georgia

Sample ID	DPT01(12-17)	DPT02(12-22)	DPT03(32-39)	DPT04(12-18)	DPT05(15-25)	DPT06(15-23)	DPT07_AP1_012821_32-42	DPT04XRF_AP1_100418_40-45
Adjacent Well ID	HGWC-7	HGWC-8	HGWC-9	HGWC-11	HGWC-11	HGWA-1	HGWC-13	HGWC-13
Sample Collection Date	8/5/2020	8/4/2020	8/4/2020	8/4/2020	8/4/2020	8/5/2020	1/28/2021	10/4/2018
Arsenic (mg/kg)(1)	4.9	4.7	12	3.8	4.6	4.8	7.8	13.0
Molybdenum (mg/kg)	1.2	6.2	0.54	1.4	13	0.40	1	1.40
Iron (mg/kg)	26,000	26,000	52,000	42,000	50,000	41,000	20,000	14,000
Aluminum (mg/kg)	50,000	33,000	55,000	69,000	75,000	68,000	42,000	13,000
Manganese (mg/kg)	710	530	1,100	2,400	830	1,200	100	120

Notes:
mg/kg = milligrams per kilogram
(1) Milligrams per kilogram (mg/kg) is equivalent to micrograms per gram (µg/g). The SiREM report provided in Appendix C presents select data in µg/g, however, the applicable data are presented within this semiannual progress report as "mg/kg" for easier comparison with the results of the sorption and desorption studies.

Table 4
Baseline Characterization Results - Whole Rock Analysis
Plant Hammond AP-1, Floyd County, Georgia

Sample ID	DPT01(12-17)	DPT02(12-22)	DPT03(32-39)	DPT04(12-18)	DPT05(15-25)	DPT06(15-23)	DPT07_AP1_012821_32-42	DPT04XRF_AP1_100418_40-45
Adjacent Well ID	HGWC7	HGWC-8	HGWC-9	HGWC-11	HGWC-11	HGWA-1	HGWC-13	HGWC-13
Sample Collection Date	8/5/2020	8/4/2020	8/4/2020	8/4/2020	8/4/2020	8/5/2020	1/28/2021	10/4/2018
Quartz (SiO_2) (%)	76.7	84.1	64.8	66.7	64.7	52.5	80.8	91.9
Aluminum Oxide (Al_2O_3) (%)	9.84	6.43	11.8	13.4	14.6	16.3	9.02	2.69
Ferric Oxide (Fe_2O_3) (%)	3.73	3.72	7.30	5.99	7.24	6.12	3.21	2.41
Magnesium Oxide (MgO) (%)	0.82	0.58	2.09	1.63	1.75	1.78	0.29	0.08
Calcium Oxide (CaO) (%)	0.59	0.34	2.36	1.03	0.47	6.37	0.12	0.08
Sodium Oxide (Na_2O) (%)	0.36	0.24	0.64	0.64	0.15	0.10	0.10	0.08
Potassium Oxide (K_2O) (%)	0.94	0.79	1.85	1.95	2.63	2.40	1.07	0.46
Titanium Dioxide (TiO_2) (%)	0.90	0.39	0.50	0.64	0.63	0.70	0.90	0.38
Phosphorous Pentoxide (P_2O_5) (%)	0.11	0.11	0.29	0.22	0.13	0.17	0.04	0.04
Manganese Oxide (MnO) (%)	0.08	0.06	0.14	0.29	0.10	0.14	0.01	0.02
Chromium (III) Oxide (Cr_2O_3) (%)	< 0.01	< 0.01	0.01	< 0.01	0.01	0.01	< 0.01	< 0.01
Vanadium Oxide (V_2O_5) (%)	0.02	< 0.01	< 0.01	0.01	< 0.01	0.01	0.02	< 0.01
Loss on Ignition (%)	5.66	3.69	8.23	7.36	7.98	13.5	4.02	1.5

Notes:
% = percentage
< = Indicates the constituent was not detected above the analytical method detection limit (MDL)

Table 5

Baseline Characterization Results - Rietveld Quantitative X-Ray Diffraction
Plant Hammond AP-1, Floyd County, Georgia

Sample ID	DPT01(12-17)	DPT02(12-22)	DPT03(32-39)	DPT04(12-18)	DPT05(15-25)	DPT06(15-23)	DPT07_AP1_012821_32-42	DPT04XRF_AP1_100418_40-45
Adjacent Well ID	HGWC7	HGWC-8	HGWC-9	HGWC-11	HGWC-11	HGWA-1	HGWC-13	HGWC-13
Sample Collection Date	8/5/2020	8/4/2020	8/4/2020	8/4/2020	8/4/2020	8/5/2020	1/28/2021	10/4/2018
Quartz (wt%)	70.3	82.0	64.7	55.8	44.9	34.4	68.9	91.7
Albite (wt%)	4.87	3.21	6.0	8.5	3.4	4.5	1.8	--
Microcline (wt%)	2.07	1.18	1.46	3.26	7.87	4.60	1.90	2.40
Muscovite (wt%)	10.25	6.96	13.08	20.46	26.07	23.98	10.90	3.80
Mullite (wt%)	--	--	--	--	--	--	--	0.30
Chlorite (wt%)	4.06	2.46	6.26	--	--	--	--	--
Kaolinite (wt%)	5.63	3.81	3.37	7.33	--	--	15.8	1.80
Anatase (wt%)	0.68	0.13	0.21	0.58	1.18	1.68	0.20	--
Rutile (wt%)	--	--	--	--	--	--	0.40	--
Nontronite (wt%)	2.15	0.23	1.82	4.09	0.41	4.86	--	--
Calcite (wt%)	--	--	3.07	--	--	15.01	--	--
Goethite (wt%)	--	--	--	--	16.19	10.9	--	--

Notes:
-- = Not identified by analyst
wt % = weight percent

Table 6
Sequential Extraction Procedure Results
Plant Hammond AP-1, Floyd County, Georgia

	Arsenic		Molybdenum	
Sample ID	**DPT06 (12-22)**	**DPT04XRF_AP1_100418_40-45**	**DPT06 (12-22)**	**DPT02 (15-23)**
Adjacent Well ID	HGWA-1	HGWC-13	HGWA-1	HGWC-8
Sample Collection Date	8/5/2020	10/4/2018	8/5/2020	8/4/2020
SEP Step 1 (Exchangeable Phase) (2)	<0.43	<0.54	<0.43	<0.41
SEP Step 2 (Carbonate Phase) (2)	<0.51	<0.40	<0.32	<0.31
SEP Step 3 (Non-Crystalline Materials Phase) (2)	0.36 J	2.2	<0.11	1.6 J
SEP Step 4 (Metal Hydroxide Phase) (2)	0.56 J	5.7	<0.11	1.2 J
SEP Step 5 (Organic Phase) (2)	<2.5	2.4 J	<1.6	<1.6
SEP Step 6 (Acid/Sulfide Fraction) (2)	2.2	1.5	<0.13	0.21 J
SEP Step 7 (Residual Fraction) (2)	0.77 J	0.46 J	<0.11	<0.10
Sum of SEP Steps 1-7	3.9	12.0	<0.082	3.0
Total Metals Concentration (3)	7	59.0	<0.54	3.2

Notes:
< = Indicates the constituent was not detected above the analytical method detection limit (MDL)
J = Indicates the constituent was estimated and detected between the MDL and the reporting limit (RL)
mg/kg = milligrams per kilogram
SEP = Sequential extraction procedure
(1) All results are reported in mg/kg
(2) SEP Steps include:
1: Exchangeable Fraction: addition of 1M MgSO4 to extract elements reversibly bound to mineral surfaces by ion exchange;
2: Carbonate Fraction: addition of mild acidic solution (1 M acetate in 25% acetic acid at pH 5) to extract elements bound to carbonate minerals;
3: Non-crystalline Fraction: addition of 25 ml of 0.2M ammonium oxalate (pH 3) to extract elements complexed by, and co-precipitated with amorphous solids (e.g. iron oxides);
4: Metal Hydroxide Fraction: addition of 1M $HONH_2$-HCL in 25% acetic acid to extract elements bound to crystalline hydroxides;
5: Organic-bound Fraction: addition of 5% Nicoll (pH 9.5) to extract elements strongly bound to organic functional groups;
6: Acid/Sulfide Fraction: addition of 3:1:2 v/v solution of HCl:HNO3:H20 solution to dissolve metal sulfide minerals;
7: Residual Fraction: total dissolution of sample in HF, HCl, HNO_3 and H_3BO_3 to remove remaining elements distributed between silicates, phosphates, and refractory oxides.
(3) Total Metals: sample digestion using HF, HNO_3 and $H3BO_3$ (i.e. SEP Step 7 only).

Table 7A
Summary of Sorption Test Results: Arsenic
Plant Hammond AP-1, Floyd County, Georgia

Groundwater Sample ID	Site Material Sample ID	Treatment [1]	Date	Day [2]	Replicate	Dissolved Arsenic (mg/L)	Mass of Aquifer Solids in Reactor (g)	Mass of Water in Reactor (g)	Sorbed Arsenic (mg/kg) [3]	pH (s.u.)	ORP (mV)
HGWA-1	DPT06(15-23)	Concentration Level 1	6/29/2021	0	***Spiked Aqueous Concentration***	***0.0631***	--	--	--	--	--
					HAP1DPT06_1a	0.0068	100.49	148.58	0.08	7.44	175
					HAP1DPT06_2a	0.0071	100.55	148.53	0.08	7.41	174
					Average Concentration (mg/L)	**0.0070**	**100.52**	**148.56**	**0.08**	**7.43**	**175**
			7/6/2021	7	HAP1DPT06_1b	< 0.0002	101.96	150.94	0.09	7.38	169
					HAP1DPT06_2b	< 0.0002	99.65	147.98	0.09	7.36	172
					Average Concentration (mg/L)	**< 0.0002**	**100.81**	**149.46**	**0.09**	**7.37**	**171**
		Concentration Level 2	6/29/2021	0	***Spiked Aqueous Concentration***	***0.112***	--	--	--	--	--
					HAP1DPT06_3a	0.0260	99.83	146.45	0.13	7.46	199
					HAP1DPT06_4a	0.0097	98.73	144.25	0.15	7.42	198
					Average Concentration (mg/L)	**0.0179**	**99.28**	**145.35**	**0.14**	**7.44**	**199**
			7/6/2021	7	HAP1DPT06_3b	< 0.0002	100.85	146.11	0.16	7.39	161
					HAP1DPT06_4b	< 0.0002	96.14	150.53	0.18	7.38	156
					Average Concentration (mg/L)	**< 0.0002**	**98.50**	**148.32**	**0.17**	**7.39**	**159**
		Concentration Level 3	7/30/2021	0	***Spiked Aqueous Concentration***	***0.280***	--	--	--	--	--
					HAP1DPT06_5a	0.0673	101.03	147.04	0.31	7.49	205
					HAP1DPT06_6a	0.0805	99.92	150.01	0.30	7.50	203
					Average Concentration (mg/L)	**0.0739**	**100.48**	**148.53**	**0.30**	**7.50**	**204**
			7/7/2021	7	HAP1DPT06_5b	< 0.0002	98.69	142.40	0.40	7.38	182
					HAP1DPT06_6b	< 0.0002	98.67	150.35	0.43	7.44	174
					Average Concentration (mg/L)	**< 0.0002**	**98.68**	**146.38**	**0.42**	**7.41**	**178**
		Concentration Level 4	7/30/2021	0	***Spiked Aqueous Concentration***	***0.560***	--	--	--	--	--
					HAP1DPT06_7a	0.245	97.69	149.78	0.48	7.52	203
					HAP1DPT06_8a	0.199	100.25	147.34	0.53	7.56	203
					Average Concentration (mg/L)	**0.222**	**98.97**	**148.56**	**0.51**	**7.54**	**203**
			7/7/2021	7	HAP1DPT06_7b	< 0.0002	101.10	146.34	0.81	7.48	167
					HAP1DPT06_8b	< 0.0002	100.34	146.30	0.82	7.47	162
					Average Concentration (mg/L)	**< 0.0002**	**100.72**	**146.32**	**0.81**	**7.48**	**165**
		Concentration Level 5	7/30/2021	0	***Spiked Aqueous Concentration***	***1.12***	--	--	--	--	--
					HAP1DPT06_9a	0.442	99.17	149.75	1.02	7.51	208
					HAP1DPT06_10a	0.456	99.92	148.47	0.99	7.55	208
					Average Concentration (mg/L)	**0.449**	**99.55**	**149.11**	**1.01**	**7.53**	**208**
			7/7/2021	7	HAP1DPT06_9b	< 0.0002	100.19	149.52	1.67	7.49	157
					HAP1DPT06_10b	< 0.0002	98.59	147.47	1.68	7.52	153
					Average Concentration (mg/L)	**< 0.0002**	**99.39**	**148.50**	**1.67**	**7.51**	**155**
		Concentration Level 6	7/30/2021	0	***Spiked Aqueous Concentration***	***1.70***	--	--	--	--	--
					HAP1DPT06_11a	0.805	101.25	149.37	1.32	7.37	207
					HAP1DPT06_12a	0.791	99.14	145.56	1.33	7.42	202
					Average Concentration (mg/L)	**0.798**	**100.20**	**147.47**	**1.33**	**7.40**	**205**
			7/7/2021	7	HAP1DPT06_11b	< 0.0002	100.32	146.46	2.48	7.48	149
					HAP1DPT06_12b	< 0.0002	99.85	147.62	2.51	7.45	150
					Average Concentration (mg/L)	**< 0.0002**	**100.09**	**147.04**	**2.50**	**7.47**	**150**

Notes:
-- = Not applicable
< = Indicates the constituent was not detected above the analytical method detection limit (MDL)
g = grams
mg/L = milligrams per liter
mg/kg = milligrams per kilogram
ORP = oxidation reduction potential
s.u. = standard units
(1) The highest spike concentration (Level 6) of arsenic was at least two times greater than the highest arsenic concentration observed in either coal combustion residue pore water or groundwater at the Site.
(2) Day 0 samples were collected approximately one hour after reactor setup.
(3) The sorbed concentration per unit mass of aquifer solids is calculated as shown in the equation below. Non-detect concentrations were assumed to be equal to ½ of the MDL for calculating sorbed mass.

$$S_{Solids} = \frac{(C_{Spike} - C_{Final}) \times M_{Water}}{M_{Solids} \times \rho_{Water}}$$

Where:
S_{Solids} = sorbed concentration per unit mass of aquifer solids (mg/kg)
$C_{Spike,Final}$ = dissolved concentration of the intial spike or final dissolved concentration at Day 0 or Day 7 (mg/L)
$M_{Solids,Water}$ = mass of water or aquifer solids in reactor (g)
ρ_{Water} = density of water (equal to 1 L/kg)

(4) Samples were transported to to the laboratory and analyzed under atmospheric conditions.

Table 7B
Summary of Sorption Test Results: Molybdenum
Plant Hammond AP-1, Floyd County, Georgia

Groundwater Sample ID	Site Material Sample ID	Treatment [1]	Date	Day [2]	Replicate	Dissolved Molybdenum (mg/L)	Mass of Aquifer Solids in Reactor (g)	Mass of Water in Reactor (g)	Sorbed Molybdenum (mg/kg) [3]	pH (s.u.)	ORP (mV)
HGWA-1	DPT06(15-23)	Concentration Level 1	6/29/2021	0	***Spiked Aqueous Concentration***	***0.014***	--	--	--	--	--
					HAP1DPT06_1a	0.00763	100.49	148.58	0.01	7.44	175
					HAP1DPT06_2a	0.00713	100.55	148.53	0.01	7.41	174
					Average Concentration (mg/L)	**0.00738**	**100.52**	**148.56**	**0.01**	**7.43**	**175**
			7/6/2021	7	HAP1DPT06_1b	0.00024	101.96	150.94	0.021	7.38	169
					HAP1DPT06_2b	0.00019	99.65	147.98	0.021	7.36	172
					Average Concentration (mg/L)	**0.00022**	**100.81**	**149.46**	**0.021**	**7.37**	**171**
		Concentration Level 2	6/29/2021	0	***Spiked Aqueous Concentration***	***0.052***	--	--	--	--	--
					HAP1DPT06_3a	0.0380	99.83	146.45	0.02	7.46	199
					HAP1DPT06_4a	0.0292	98.73	144.25	0.03	7.42	198
					Average Concentration (mg/L)	**0.0336**	**99.28**	**145.35**	**0.03**	**7.44**	**199**
			7/6/2021	7	HAP1DPT06_3b	0.00035	100.85	146.11	0.08	7.39	161
					HAP1DPT06_4b	0.00034	96.14	150.53	0.08	7.38	156
					Average Concentration (mg/L)	**0.00035**	**98.50**	**148.32**	**0.08**	**7.39**	**159**
		Concentration Level 3	7/30/2021	0	***Spiked Aqueous Concentration***	***0.105***	--	--	--	--	--
					HAP1DPT06_5a	0.0709	101.03	147.04	0.05	7.49	205
					HAP1DPT06_6a	0.0759	99.92	150.01	0.04	7.50	203
					Average Concentration (mg/L)	**0.0734**	**100.48**	**148.53**	**0.05**	**7.50**	**204**
			7/7/2021	7	HAP1DPT06_5b	0.00064	98.69	142.40	0.15	7.38	182
					HAP1DPT06_6b	0.00055	98.67	150.35	0.16	7.44	174
					Average Concentration (mg/L)	**0.00060**	**98.68**	**146.38**	**0.15**	**7.41**	**178**
		Concentration Level 4	7/30/2021	0	***Spiked Aqueous Concentration***	***0.251***	--	--	--	--	--
					HAP1DPT06_7a	0.208	97.69	149.78	0.07	7.52	203
					HAP1DPT06_8a	0.196	100.25	147.34	0.08	7.56	203
					Average Concentration (mg/L)	**0.202**	**98.97**	**148.56**	**0.07**	**7.54**	**203**
			7/7/2021	7	HAP1DPT06_7b	0.00157	101.10	146.34	0.36	7.48	167
					HAP1DPT06_8b	0.00145	100.34	146.30	0.36	7.47	162
					Average Concentration (mg/L)	**0.00151**	**100.72**	**146.32**	**0.36**	**7.48**	**165**
		Concentration Level 5	7/30/2021	0	***Spiked Aqueous Concentration***	***0.587***	--	--	--	--	--
					HAP1DPT06_9a	0.421	99.17	149.75	0.25	7.51	208
					HAP1DPT06_10a	0.435	99.92	148.47	0.23	7.55	208
					Average Concentration (mg/L)	**0.428**	**99.55**	**149.11**	**0.24**	**7.53**	**208**
			7/7/2021	7	HAP1DPT06_9b	0.00379	100.19	149.52	0.87	7.49	157
					HAP1DPT06_10b	0.00431	98.59	147.47	0.87	7.52	153
					Average Concentration (mg/L)	**0.00405**	**99.39**	**148.50**	**0.87**	**7.51**	**155**
		Concentration Level 6	7/30/2021	0	***Spiked Aqueous Concentration***	***1.20***	--	--	--	--	--
					HAP1DPT06_11a	0.879	101.25	149.37	0.47	7.37	207
					HAP1DPT06_12a	0.880	99.14	145.56	0.47	7.42	202
					Average Concentration (mg/L)	**0.880**	**100.20**	**147.47**	**0.47**	**7.40**	**205**
			7/7/2021	7	HAP1DPT06_11b	0.00845	100.32	146.46	1.74	7.48	149
					HAP1DPT06_12b	0.0125	99.85	147.62	1.76	7.45	150
					Average Concentration (mg/L)	**0.0105**	**100.09**	**147.04**	**1.75**	**7.47**	**150**

Notes:
-- = Not applicable
< = Indicates the constituent was not detected above the analytical method detection limit (MDL)
g = grams
mg/L = milligrams per liter
mg/kg = milligrams per kilogram
ORP = oxidation reduction potential
s.u. = standard units
(1) The highest spike concentration (Level 6) of molybdenum was at least two times greater than the highest molybdenum concentration observed in either coal combustion residue pore water or groundwater at the Site.
(2) Day 0 samples were collected approximately one hour after reactor setup.
(3) The sorbed concentration per unit mass of aquifer solids is calculated as shown in the equation below. Non-detect concentrations were assumed to be equal to ½ of the MDL for calculating sorbed mass.

$$S_{Solids} = \frac{(C_{Spike} - C_{Final}) \times M_{Water}}{M_{Solids} \times \rho_{Water}}$$

Where:
S_{Solids} = sorbed concentration per unit mass of aquifer solids (mg/kg)
$C_{Spike,Final}$ = dissolved concentration of the intial spike or final dissolved concentration at Day 0 or Day 7 (mg/L)
$M_{Solids,Water}$ = mass of water or aquifer solids in reactor (g)
ρ_{Water} = density of water (equal to 1 L/kg)

(4) Samples were transported to to the laboratory and analyzed under atmospheric conditions.

Table 8A

Summary of Desorption Test Results: Dissolved Arsenic

Plant Hammond AP-1, Floyd County, Georgia

Groundwater Sample ID	Site Material Sample ID	Chemical Characteristics (Baseline Characterization) [1]	Treatment	Date	Day [2]	Replicate	Dissolved Arsenic (mg/L)	pH (s.u.)	ORP (mV)
HGWA-1	DPT04XRF	**Aquifer Solids:** **Arsenic:** 13 mg/kg **Groundwater:** **Arsenic:** <0.00078 to <0.0011 mg/L **pH:** 6.88 s.u. **ORP:** 66.4 mV	Laboratory Atmospheric Conditions	8/31/2021	0	HAP1DPT04XRF_3a	0.0007	7.23	160
						HAP1DPT04XRF_4a	0.0007	7.24	159
						Average Concentration (mg/L)	**0.0007**	**7.24**	**160**
				9/15/2021	7	HAP1DPT04XRF_3b	0.0031	6.98	121
						HAP1DPT04XRF_4b	0.0030	6.97	120
						Average Concentration (mg/L)	**0.0031**	**6.98**	**121**
			Hydrogen Amended	8/31/2021	0	HAP1DPT04XRF_5a	0.0007	7.23	160
						HAP1DPT04XRF_6a	0.0007	7.24	159
						Average Concentration (mg/L)	**0.0007**	**7.24**	**160**
				9/15/2021	15	HAP1DPT04XRF_5b	0.0012	6.82	122
						HAP1DPT04XRF_6b	0.0012	6.67	124
						Average Concentration (mg/L)	**0.0012**	**6.75**	**123**

Notes:

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

mg/kg - milligrams per kilogram

mg/L = milligrams per liter

mV = millivolts

ORP = oxidation reduction potential

s.u. = standard units

(1) Reported total arsenic concentrations in HGWA-1 groundwater were measured during the 2021 semiannual sampling events. Reported pH and ORP values were measured during batch sample collection on 5/26/21 and are consistent with values observed during the 2021 semiannual sampling events.

(2) Day 0 samples were collected approximately one hour after reactor setup.

(3) Samples were transported to to the laboratory and analyzed under atmospheric conditions.

Table 8B
Summary of Desorption Test Results: Dissolved Molydenum
Plant Hammond AP-1, Floyd County, Georgia

Groundwater Sample ID	Site Material Sample ID	Chemical Characteristics (Baseline Characterization) [1]	Treatment	Date	Day [2]	Replicate	Dissolved Molybdenum (mg/L)	pH (s.u.)	ORP (mV)
HGWA-1	DPT02	**Aquifer Solids:** **Molybdenum:** 6.2 mg/kg **Groundwater:** **Molybdenum:** <0.00069 to <0.00089 mg/L **pH:** 6.88 s.u. **ORP:** 66.4 mV	Laboratory Atmospheric Conditions	8/31/2021	0	HAP1DPT02_1a	0.00725	7.16	160
						HAP1DPT02_2a	0.00752	7.26	158
						Average Concentration (mg/L)	**0.00739**	**7.21**	**159**
				9/15/2021	7	HAP1DPT02_1b	0.00956	6.87	122
						HAP1DPT02_2b	0.00967	6.90	121
						Average Concentration (mg/L)	**0.00962**	**6.89**	**122**

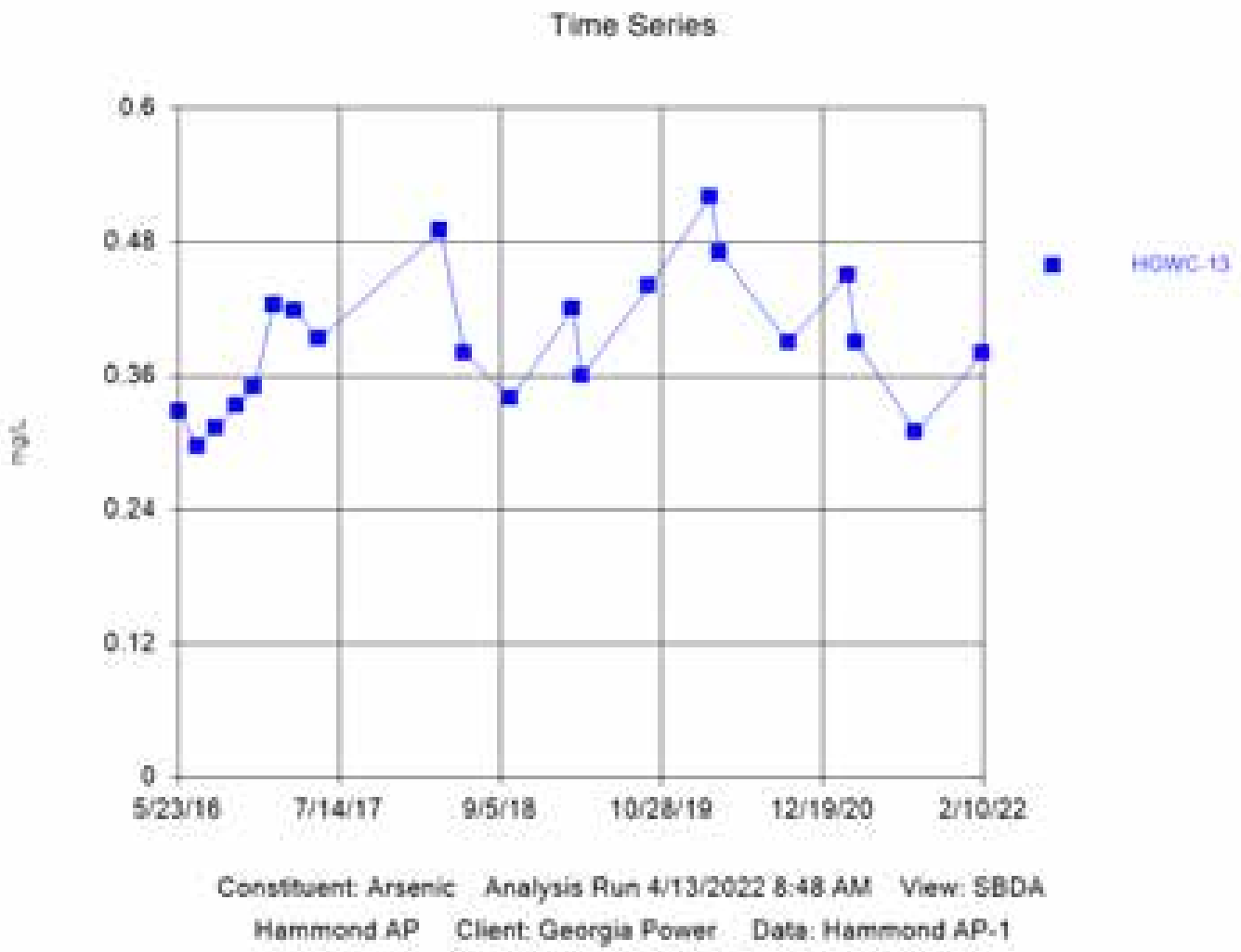
Notes:
< = Indicates the constituent was not detected above the analytical method detection limit (MDL)
mg/kg - milligrams per kilogram
mg/L = milligrams per liter
mV = millivolts
ORP = oxidation reduction potential
s.u. = standard units

(1) Reported total molybdenum concentrations in HGWA-1 groundwater were measured during the 2021 semiannual sampling events. Reported pH and ORP values were measured during batch sample collection on 5/26/21 and are consistent with values observed during the 2021 semiannual sampling events.

(2) Day 0 samples were collected approximately one hour after reactor setup.

(3) Samples were transported to to the laboratory and analyzed under atmospheric conditions.

FIGURES

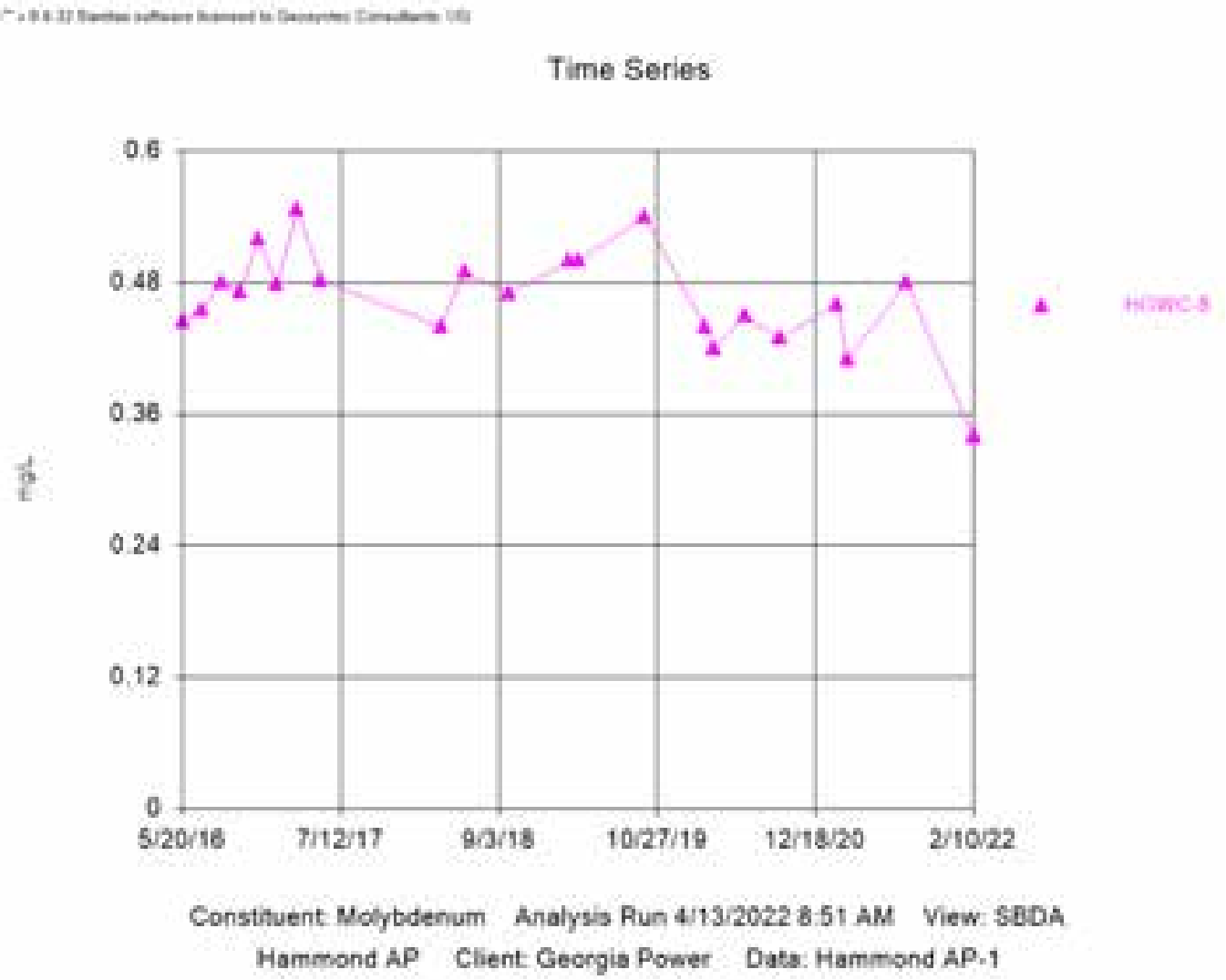


Notes:
1. mg/L = milligrams of constituent per liter
2. This figure was created using the Sanitas™ Statistical Software Version 9.6.32

TIME SERIES – HGWC-13 ARSENIC

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For:	Prepared By:	FIGURE
Georgia Power	Geosyntec consultants	1
KENNESAW, GA	AUGUST 2022	



Notes:
1. mg/L = milligrams of constituent per liter
2. This figure was created using the Sanitas™ Statistical Software Version 9.6.32

TIME SERIES – HGWC-8 MOLYBDENUM

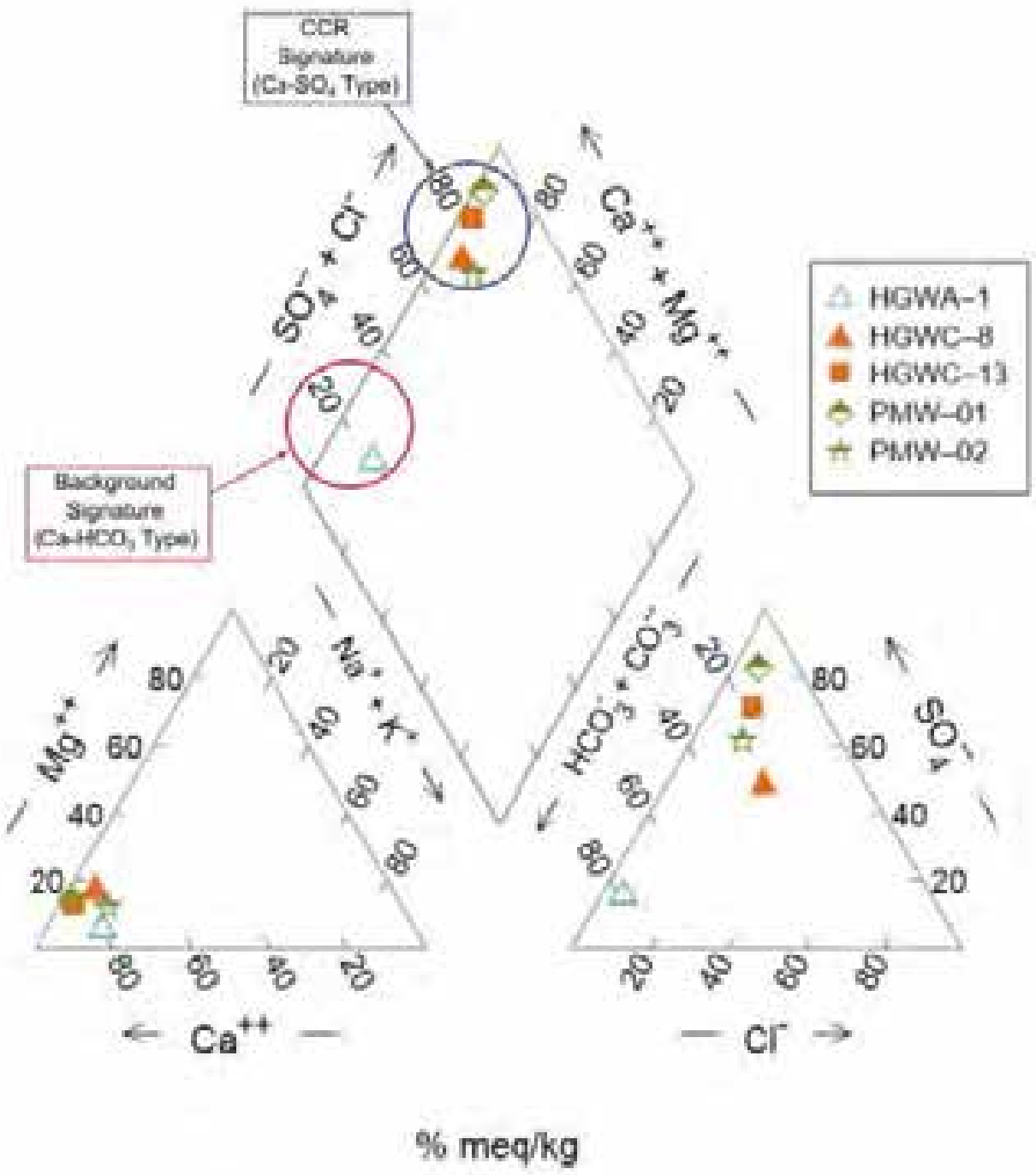
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 2

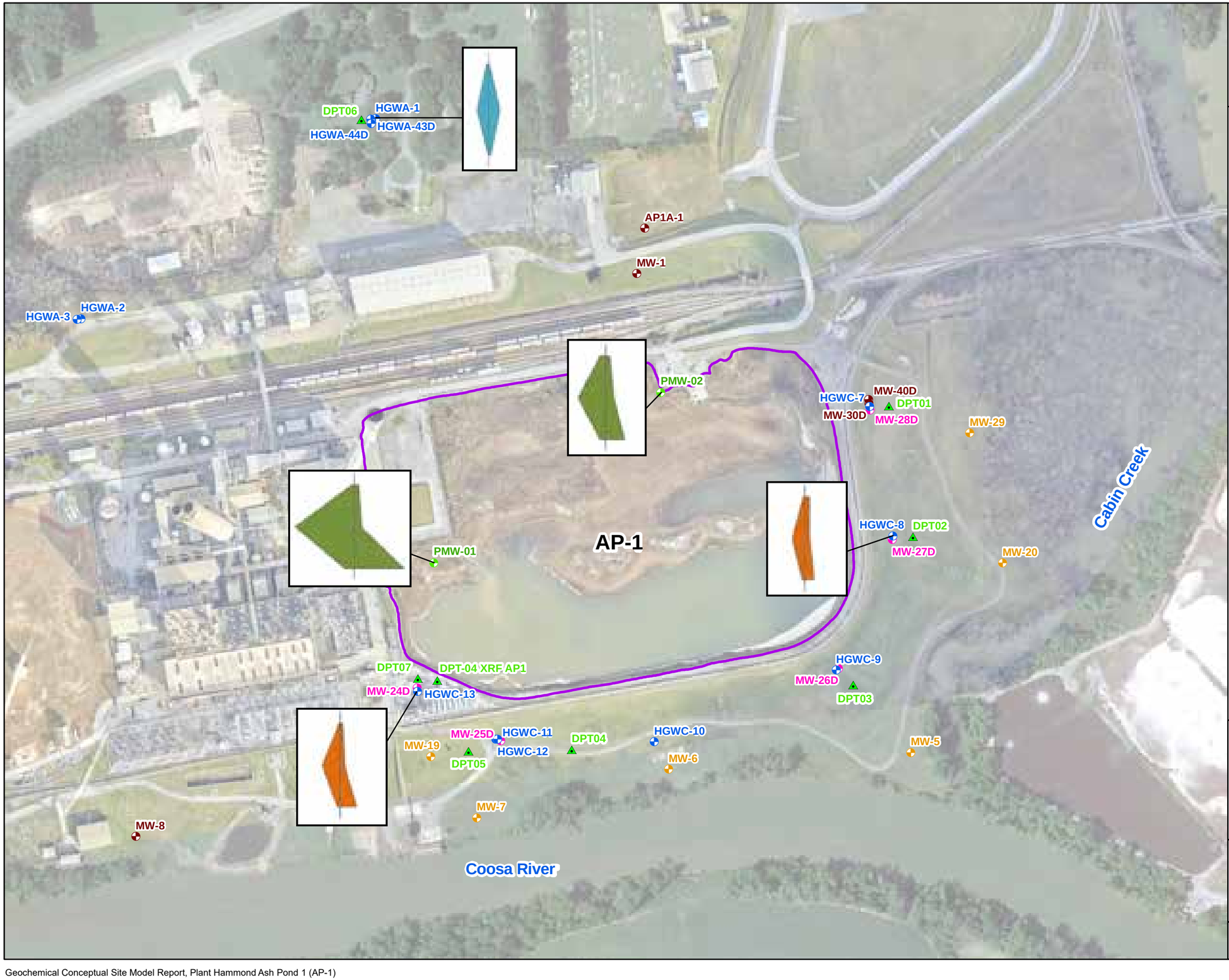


Notes:
1. Results are shown in relative percentage of milliequivalents per kilogram water (meq/kg).
2. Upgradient wells are displayed in blue.
3. Compliance wells are displayed in orange.
4. CCR pore water samples are displayed in green.

PIPER TRILINEAR PLOT

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

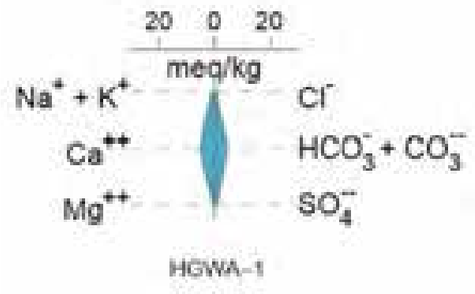
Prepared For:	Prepared By:	FIGURE
Georgia Power	Geosyntec consultants	3
KENNESAW, GA	AUGUST 2022	



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Monitoring Well
- Vertical Delineation Monitoring Well
- Piezometer
- Pore Water Piezometer
- DPT Borehole (unsurveyed location)
- Approximate AP-1 Boundary



Notes:
1. Results are shown in units of milliequivalents per kilogram water (meq/kg).
2. Upgradient wells are displayed in blue.
3. Compliance wells are displayed in orange.
4. CCR Pore water samples are displayed in green.
5. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

STIFF DIAGRAMS

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

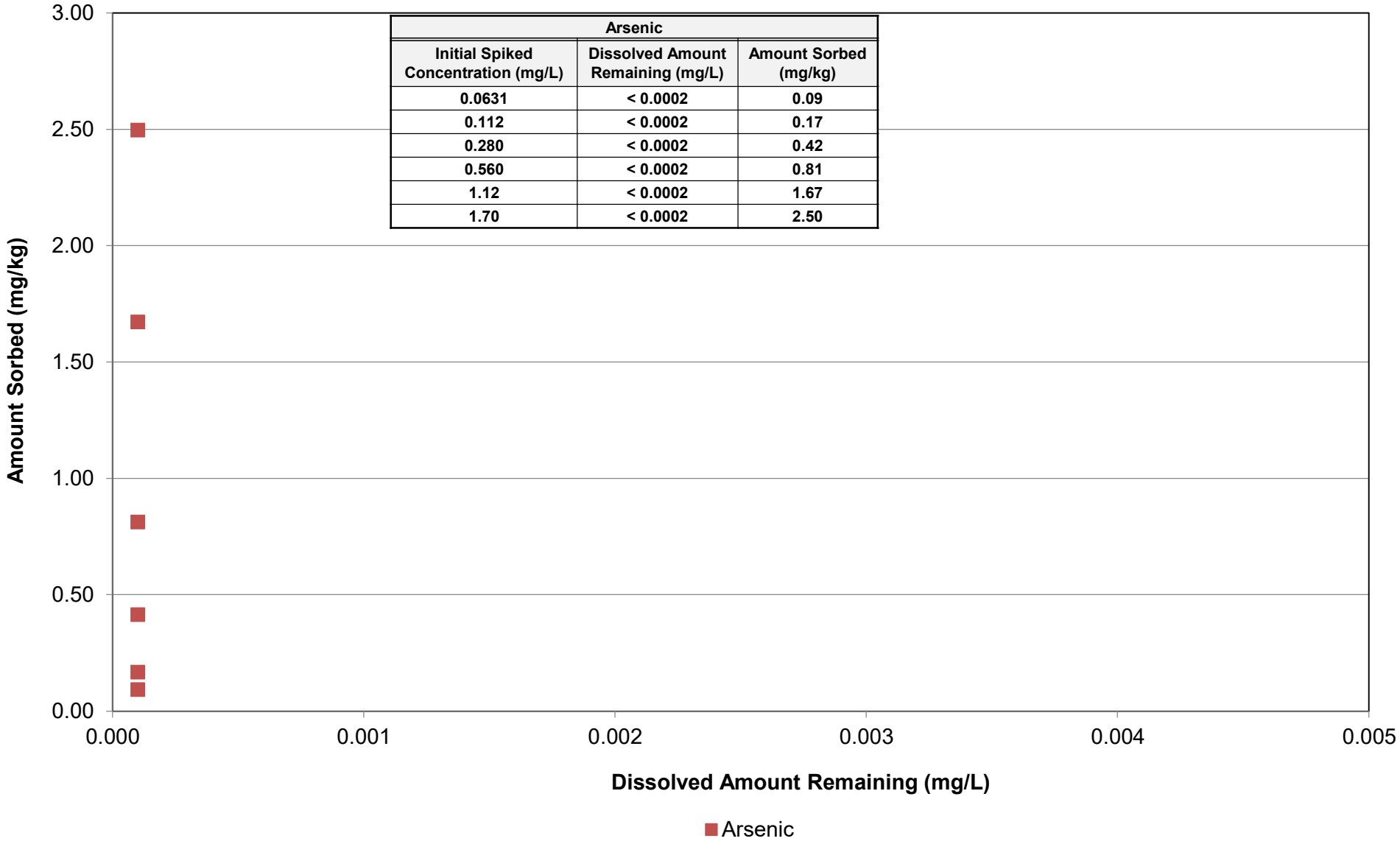
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 4

Arsenic		
Initial Spiked Concentration (mg/L)	Dissolved Amount Remaining (mg/L)	Amount Sorbed (mg/kg)
0.0631	< 0.0002	0.09
0.112	< 0.0002	0.17
0.280	< 0.0002	0.42
0.560	< 0.0002	0.81
1.12	< 0.0002	1.67
1.70	< 0.0002	2.50



Notes:
1. mg/L = milligrams of constituent per liter; mg/kg = milligrams of constituent per kilogram of solids.
2. The distribution coefficient (K_d) is the ratio of sorbed and aqueous concentrations under equilibrium conditions. The bulk K_d is equal to the slope of a line through individual measurements of sorbed and aqueous concentrations. A site-specific arsenic K_d cannot be calculated as all arsenic was completely sorbed at all concentration levels.
3. Non-detect concentrations are plotted as ½ the Method Detection Limit.

SORPTION TEST RESULTS – ARSENIC

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

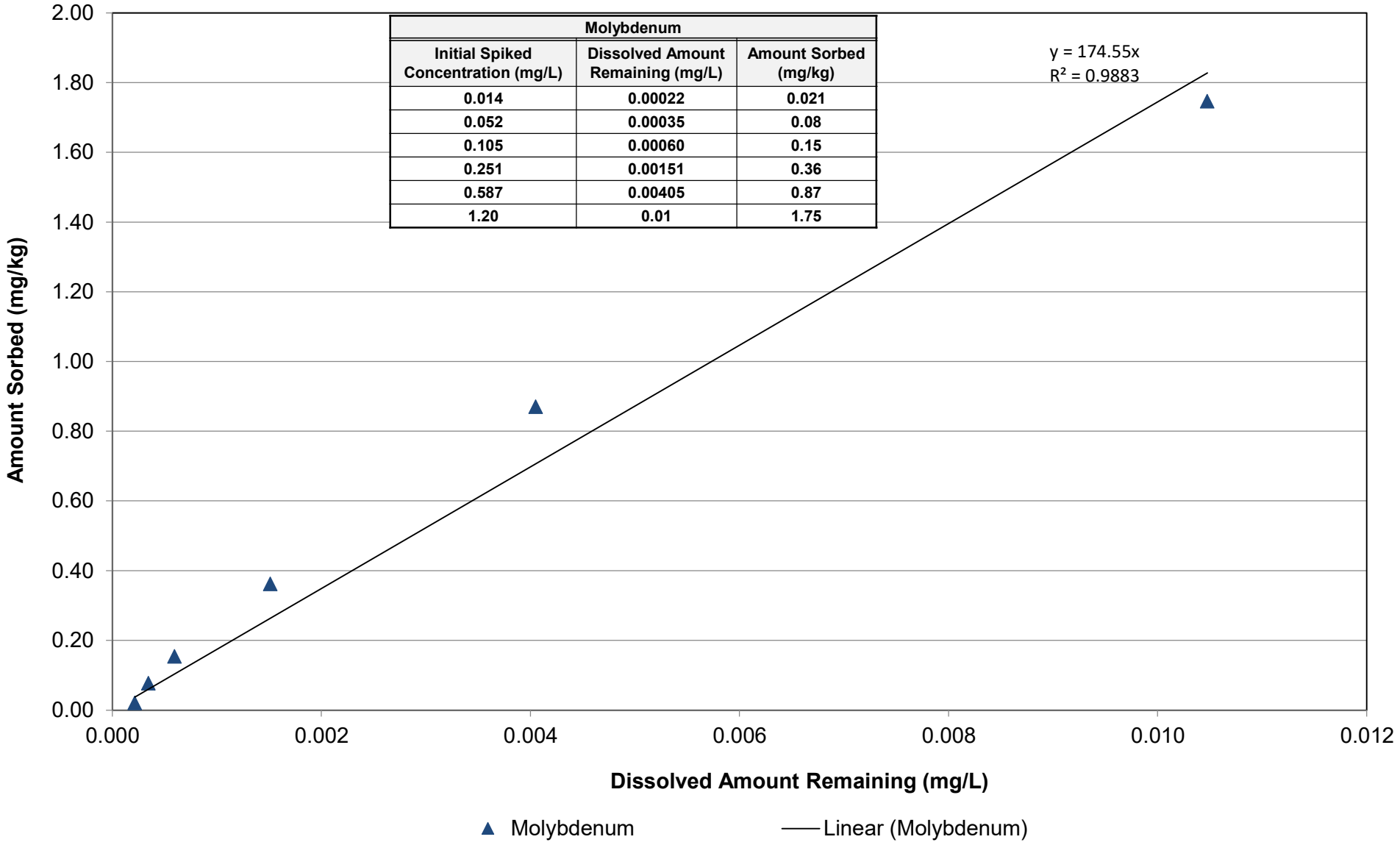
Prepared For: Georgia Power

Prepared By: Geosyntec

KENNESAW, GA | AUGUST 2022

FIGURE 5A

Molybdenum		
Initial Spiked Concentration (mg/L)	Dissolved Amount Remaining (mg/L)	Amount Sorbed (mg/kg)
0.014	0.00022	0.021
0.052	0.00035	0.08
0.105	0.00060	0.15
0.251	0.00151	0.36
0.587	0.00405	0.87
1.20	0.01	1.75



Notes:
1. mg/L = milligrams of constituent per liter; mg/kg = milligrams of constituent per kilogram of solids.
2. The distribution coefficient (K_d) is the ratio of sorbed and aqueous concentrations under equilibrium conditions. The bulk K_d is equal to the slope of a line through individual measurements of sorbed and aqueous concentrations.
3. Non-detect concentrations are plotted as ½ the Method Detection Limit.

SORPTION TEST RESULTS – MOLYBDENUM

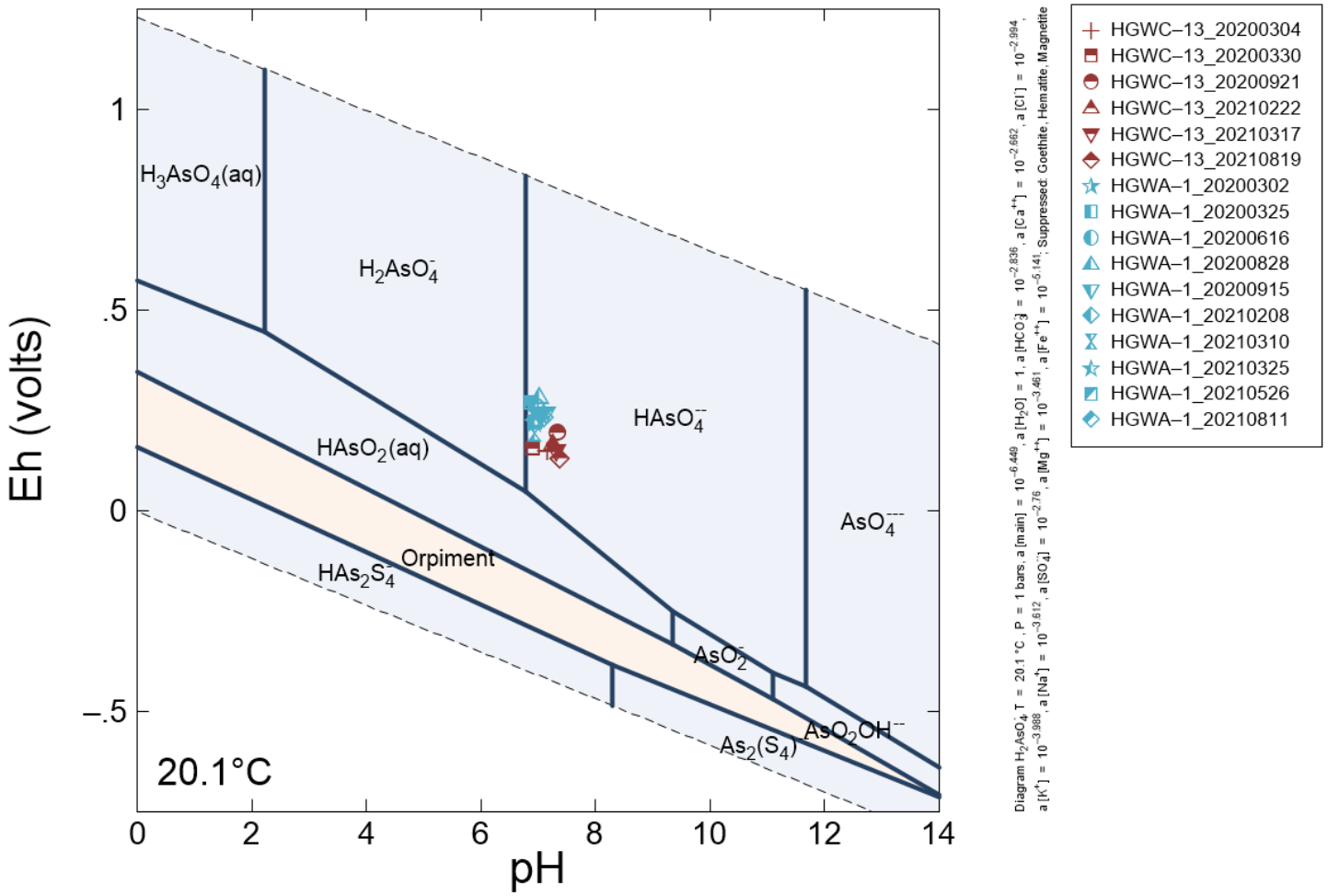
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 5B



Notes:

1. Monitoring Well HGWC-13 water quality data were used to establish baseline conditions for the diagram.
2. Eh-pH diagrams created using the Act2 module of Geochemist's Workbench software package. Eh was calculated by adding 0.2 volts to oxidative-reuductive potential (ORP) field measurements.

Eh-pH DIAGRAM - ARSENIC SPECIATION

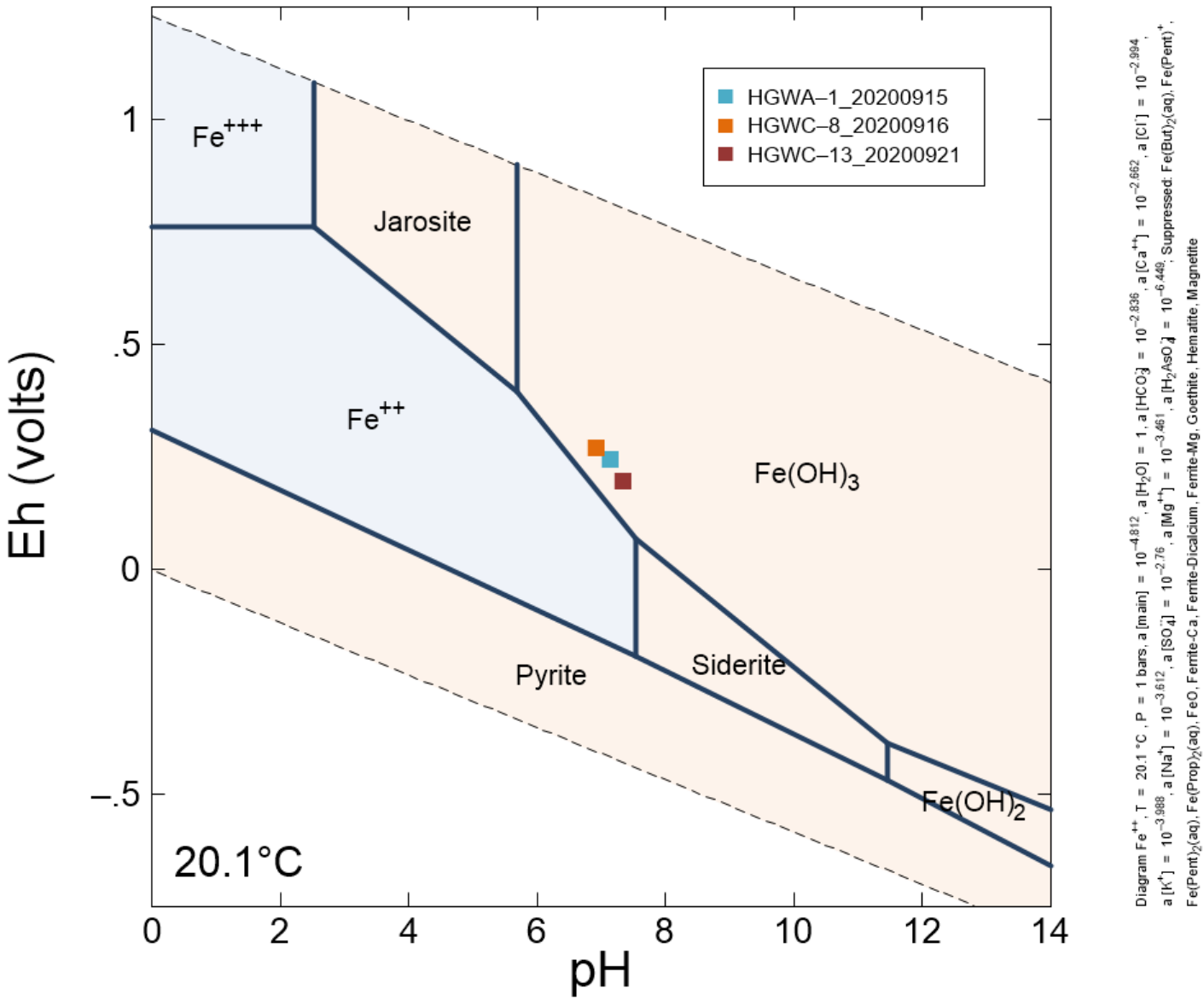
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 6



Notes:

1. Monitoring Well HGWC-13 water quality data were used to establish baseline conditions for the diagram.
2. Eh-pH diagrams created using the Act2 module of Geochemist's Workbench software package. Eh was calculatd by adding 0.2 volts to ORP field measurements.

Eh-pH DIAGRAM - IRON SPECIATION

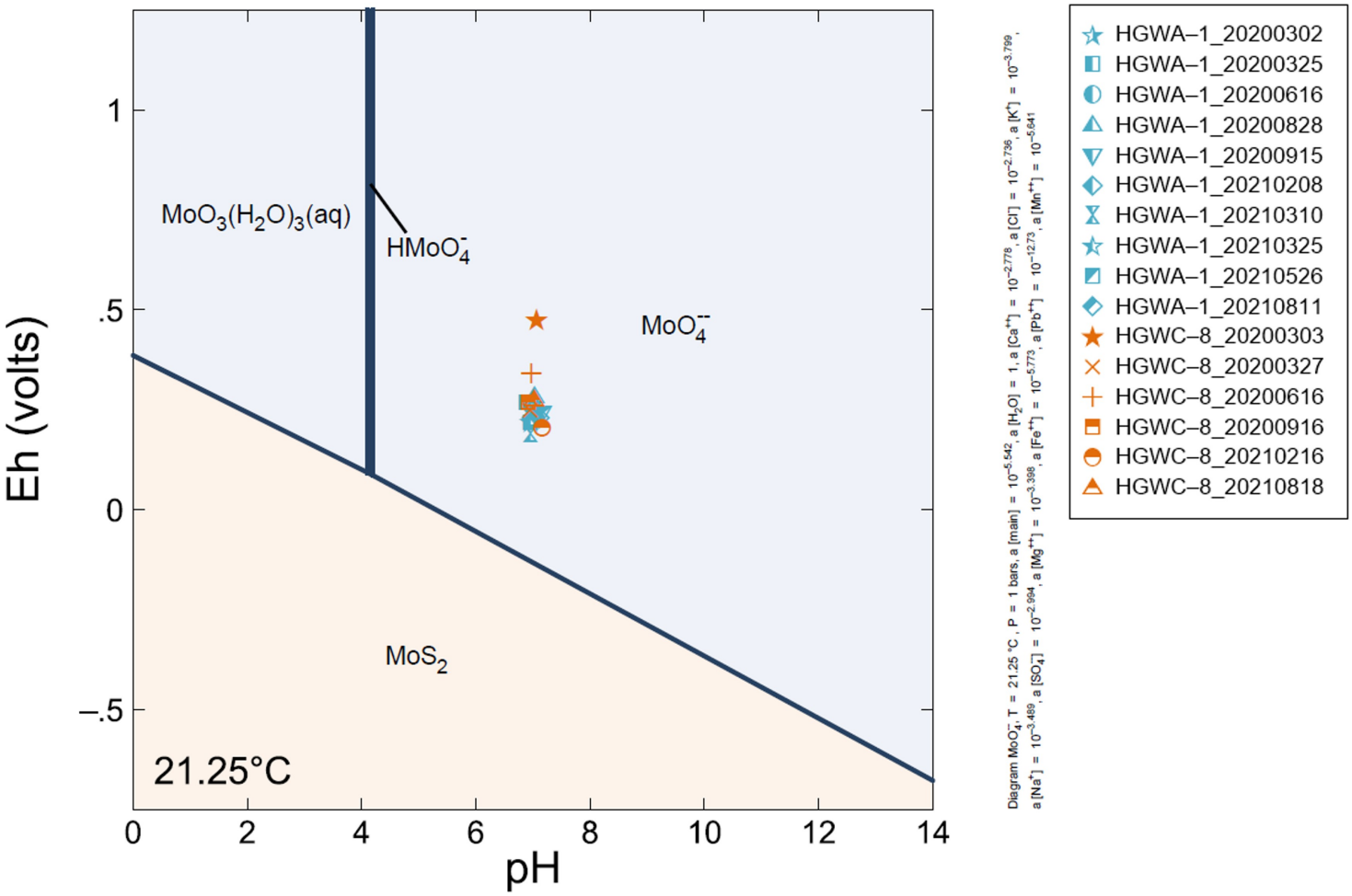
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 7



Notes:

1. Monitoring well HGWC-8 groundwater quality data were used to establish baseline conditions for the diagram.
2. Eh-pH diagrams created using the Act2 module of Geochemist's Workbench software package. Eh was calculated by adding 0.2 volts to ORP field measurements
3. Aqueous species HMoO4-- is only stable within the narrow range indicated on the diagram.

Eh-pH DIAGRAM - MOLYBDENUM SPECIATION

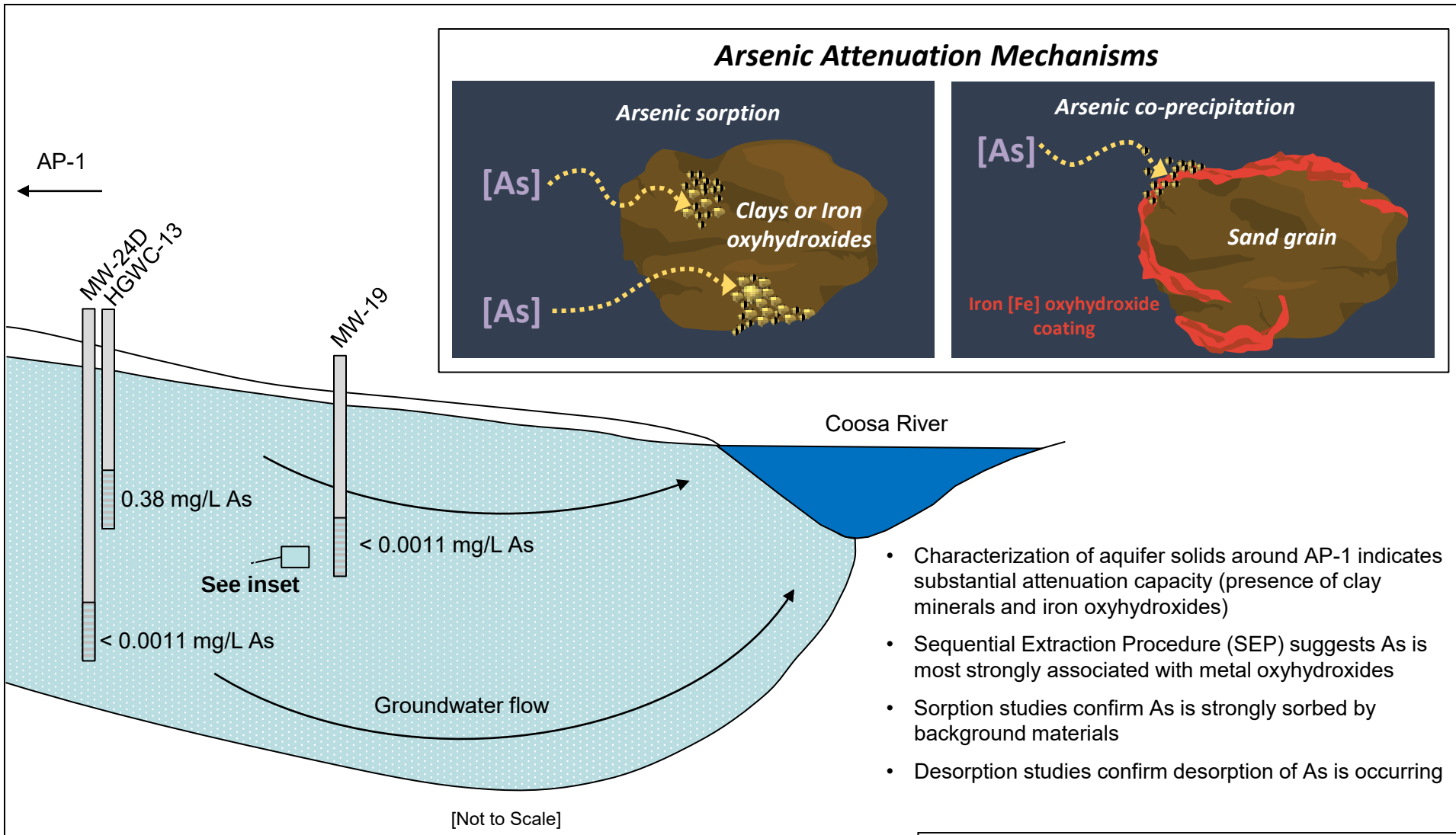
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 8



- Characterization of aquifer solids around AP-1 indicates substantial attenuation capacity (presence of clay minerals and iron oxyhydroxides)
- Sequential Extraction Procedure (SEP) suggests As is most strongly associated with metal oxyhydroxides
- Sorption studies confirm As is strongly sorbed by background materials
- Desorption studies confirm desorption of As is occurring

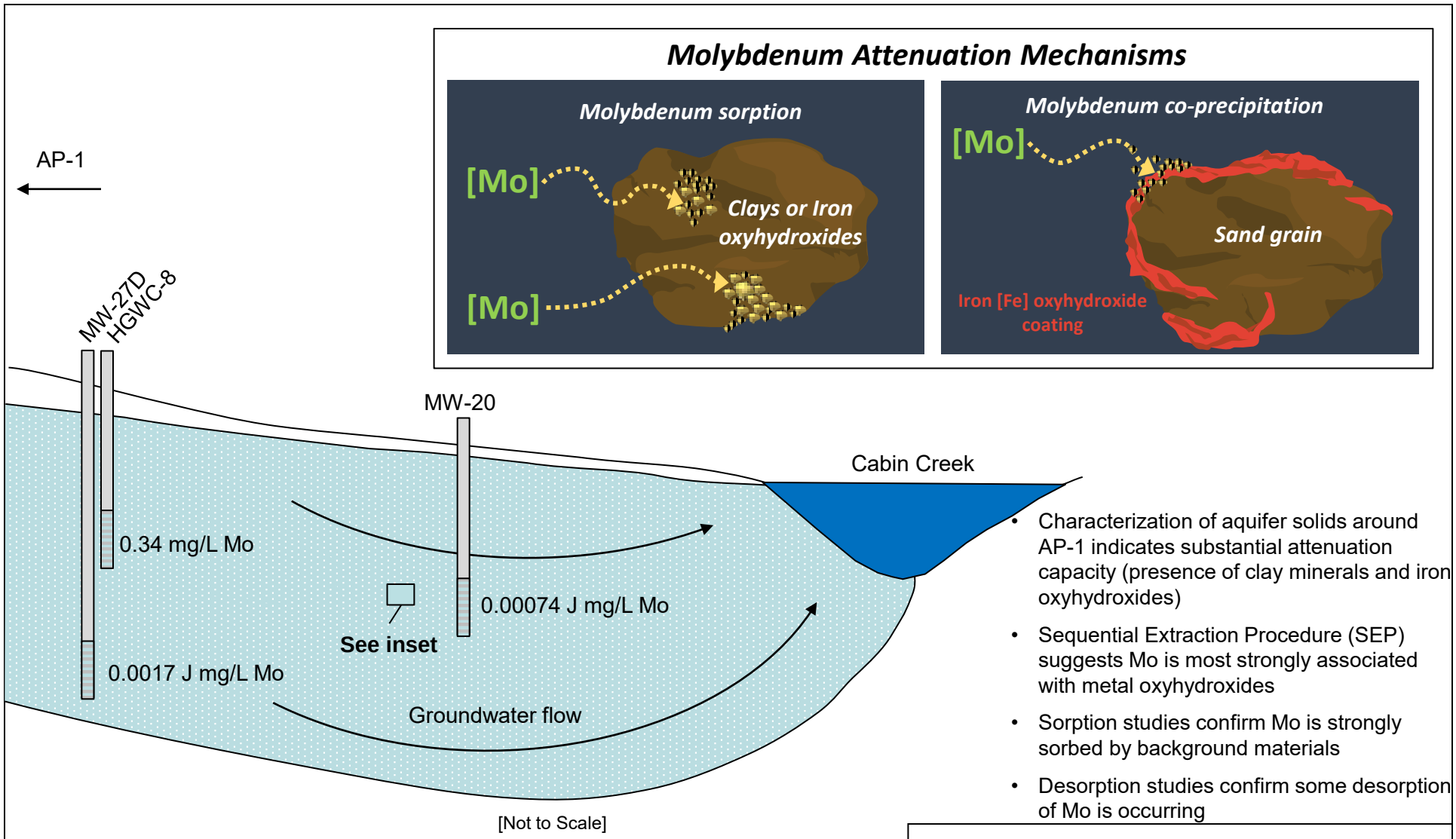
Notes:
1. Arsenic (As) concentrations in milligrams per liter (mg/L) measured in September 2020

GEOCHEMICAL CONCEPTUAL SITE MODEL ILLUSTRATION – ARSENIC
GA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Geosyntec consultants | Georgia Power

KENNESAW, GA | AUGUST 2022

FIGURE 9



- Characterization of aquifer solids around AP-1 indicates substantial attenuation capacity (presence of clay minerals and iron oxyhydroxides)
- Sequential Extraction Procedure (SEP) suggests Mo is most strongly associated with metal oxyhydroxides
- Sorption studies confirm Mo is strongly sorbed by background materials
- Desorption studies confirm some desorption of Mo is occurring

Notes:

1. Molybdenum (Mo) concentrations in milligrams per liter (mg/L) measured in September 2020
2. J = estimated (detected between the method detection limit and reporting limit)

GEOCHEMICAL CONCEPTUAL SITE MODL ILLUSTRATION – MOLYBDENUM
GA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Geosyntec consultants	Georgia Power	**FIGURE 10**
KENNESAW, GA	AUGUST 2022	

APPENDIX A

Analytical Laboratory Reports

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the report issued on 10/1/2019. The report has been revised to remove mercury data per consultant request. No other changes have been made to this report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623500001	**HGWA-1**	Water	09/23/19 16:15	09/24/19 15:23
2623500002	**HGWA-2**	Water	09/23/19 16:55	09/24/19 15:23
2623500003	**HGWA-3**	Water	09/23/19 17:10	09/24/19 15:23

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623500001	**HGWA-1**	EPA 6020B	CSW	14	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623500002	**HGWA-2**	EPA 6020B	CSW	14	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623500003	**HGWA-3**	EPA 6020B	CSW	14	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Sample: HGWA-1 **Lab ID: 2623500001** Collected: 09/23/19 16:15 Received: 09/24/19 15:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/27/19 15:26	09/30/19 19:49	7440-36-0	
Arsenic	**0.00046J**	mg/L	0.0050	0.00035	1	09/27/19 15:26	09/30/19 19:49	7440-38-2	B
Barium	**0.042**	mg/L	0.010	0.00049	1	09/27/19 15:26	09/30/19 19:49	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/27/19 15:26	09/30/19 19:49	7440-41-7	
Boron	**0.021J**	mg/L	0.040	0.0049	1	09/27/19 15:26	09/30/19 19:49	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	09/30/19 19:49	7440-43-9	
Calcium	**118**	mg/L	5.0	0.55	50	09/27/19 15:26	09/30/19 19:54	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.00039	1	09/27/19 15:26	09/30/19 19:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/27/19 15:26	09/30/19 19:49	7440-48-4	
Lead	**0.000078J**	mg/L	0.0050	0.000046	1	09/27/19 15:26	09/30/19 19:49	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00078	1	09/27/19 15:26	09/30/19 19:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/27/19 15:26	09/30/19 19:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	09/30/19 19:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/27/19 15:26	09/30/19 19:49	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**442**	mg/L	10.0	10.0	1		09/26/19 18:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**17.7**	mg/L	1.0	0.60	1		09/27/19 21:18	16887-00-6	
Fluoride	**0.078J**	mg/L	0.30	0.050	1		09/27/19 21:18	16984-48-8	
Sulfate	**70.2**	mg/L	1.0	0.50	1		09/27/19 21:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Sample: HGWA-2 **Lab ID: 2623500002** Collected: 09/23/19 16:55 Received: 09/24/19 15:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/27/19 15:26	09/30/19 20:40	7440-36-0	
Arsenic	**0.00067J**	mg/L	0.0050	0.00035	1	09/27/19 15:26	09/30/19 20:40	7440-38-2	B
Barium	**0.13**	mg/L	0.010	0.00049	1	09/27/19 15:26	09/30/19 20:40	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.0030	0.000074	1	09/27/19 15:26	09/30/19 20:40	7440-41-7	
Boron	**0.040J**	mg/L	0.040	0.0049	1	09/27/19 15:26	09/30/19 20:40	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	09/30/19 20:40	7440-43-9	
Calcium	**19.5**	mg/L	5.0	0.55	50	09/27/19 15:26	09/30/19 20:46	7440-70-2	
Chromium	**0.00058J**	mg/L	0.010	0.00039	1	09/27/19 15:26	09/30/19 20:40	7440-47-3	
Cobalt	**0.038**	mg/L	0.0050	0.00030	1	09/27/19 15:26	09/30/19 20:40	7440-48-4	
Lead	**0.000092J**	mg/L	0.0050	0.000046	1	09/27/19 15:26	09/30/19 20:40	7439-92-1	
Lithium	**0.0016J**	mg/L	0.030	0.00078	1	09/27/19 15:26	09/30/19 20:40	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/27/19 15:26	09/30/19 20:40	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	09/30/19 20:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/27/19 15:26	09/30/19 20:40	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**129**	mg/L	10.0	10.0	1		09/26/19 18:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**5.1**	mg/L	1.0	0.60	1		09/27/19 21:33	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		09/27/19 21:33	16984-48-8	
Sulfate	**47.2**	mg/L	1.0	0.50	1		09/27/19 21:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Sample: HGWA-3 **Lab ID: 2623500003** Collected: 09/23/19 17:10 Received: 09/24/19 15:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/27/19 15:26	09/30/19 20:52	7440-36-0	
Arsenic	**0.0011J**	mg/L	0.0050	0.00035	1	09/27/19 15:26	09/30/19 20:52	7440-38-2	B
Barium	**0.13**	mg/L	0.010	0.00049	1	09/27/19 15:26	09/30/19 20:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/27/19 15:26	09/30/19 20:52	7440-41-7	
Boron	**0.0081J**	mg/L	0.040	0.0049	1	09/27/19 15:26	09/30/19 20:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	09/30/19 20:52	7440-43-9	
Calcium	**71.0**	mg/L	5.0	0.55	50	09/27/19 15:26	09/30/19 20:57	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	09/27/19 15:26	09/30/19 20:52	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/27/19 15:26	09/30/19 20:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	09/27/19 15:26	09/30/19 20:52	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00078	1	09/27/19 15:26	09/30/19 20:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/27/19 15:26	09/30/19 20:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	09/30/19 20:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/27/19 15:26	09/30/19 20:52	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**268**	mg/L	10.0	10.0	1		09/26/19 18:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**5.9**	mg/L	1.0	0.60	1		09/27/19 21:47	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		09/27/19 21:47	16984-48-8	
Sulfate	**43.9**	mg/L	1.0	0.50	1		09/27/19 21:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

QC Batch: 36079 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623500001, 2623500002, 2623500003

METHOD BLANK: 162814 Matrix: Water
Associated Lab Samples: 2623500001, 2623500002, 2623500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	09/30/19 19:37	
Arsenic	mg/L	0.00043J	0.0050	0.00035	09/30/19 19:37	
Barium	mg/L	ND	0.010	0.00049	09/30/19 19:37	
Beryllium	mg/L	ND	0.0030	0.000074	09/30/19 19:37	
Boron	mg/L	ND	0.040	0.0049	09/30/19 19:37	
Cadmium	mg/L	ND	0.0025	0.00011	09/30/19 19:37	
Calcium	mg/L	ND	0.10	0.011	09/30/19 19:37	
Chromium	mg/L	ND	0.010	0.00039	09/30/19 19:37	
Cobalt	mg/L	ND	0.0050	0.00030	09/30/19 19:37	
Lead	mg/L	ND	0.0050	0.000046	09/30/19 19:37	
Lithium	mg/L	ND	0.030	0.00078	09/30/19 19:37	
Molybdenum	mg/L	ND	0.010	0.00095	09/30/19 19:37	
Selenium	mg/L	ND	0.010	0.0013	09/30/19 19:37	
Thallium	mg/L	ND	0.0010	0.000052	09/30/19 19:37	

LABORATORY CONTROL SAMPLE: 162815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	106	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.11	106	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	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	104	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162816 162817

Parameter	Units	2623500001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	108	104	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162816 162817

Parameter	Units	2623500001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.00046J	0.1	0.1	0.10	0.10	103	100	75-125	3	20	
Barium	mg/L	0.042	0.1	0.1	0.15	0.15	110	106	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.094	98	94	75-125	4	20	
Boron	mg/L	0.021J	1	1	1.0	0.99	99	97	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	3	20	
Calcium	mg/L	118	1	1	116	129	-296	1090	75-125	11	20	M6
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20	
Lead	mg/L	0.000078J	0.1	0.1	0.10	0.10	104	101	75-125	3	20	
Lithium	mg/L	0.0011J	0.1	0.1	0.10	0.098	102	97	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	108	102	75-125	6	20	
Selenium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.11	0.10	105	101	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

QC Batch: 36029 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623500001, 2623500002, 2623500003

LABORATORY CONTROL SAMPLE: 162444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	393	98	84-108	

SAMPLE DUPLICATE: 162445

Parameter	Units	2623494001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	222	248	11	10	D6

SAMPLE DUPLICATE: 162446

Parameter	Units	2623553001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	D6

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

QC Batch: 500244 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
Associated Lab Samples: 2623500001, 2623500002, 2623500003

METHOD BLANK: 2691483 Matrix: Water
Associated Lab Samples: 2623500001, 2623500002, 2623500003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/27/19 16:24	
Fluoride	mg/L	ND	0.10	0.050	09/27/19 16:24	
Sulfate	mg/L	ND	1.0	0.50	09/27/19 16:24	

LABORATORY CONTROL SAMPLE: 2691484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	52.1	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2691487 2691488

Parameter	Units	92447237002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.9	50	50	69.7	69.4	105	105	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.7	110	108	90-110	2	10	
Sulfate	mg/L	91.9	50	50	139	139	94	95	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2691489 2691490

Parameter	Units	92447233001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.9	50	50	60.5	60.9	105	106	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	3.0	3.1	120	125	90-110	4	10	M1
Sulfate	mg/L	36.6	50	50	90.2	90.3	107	107	90-110	0	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
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.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

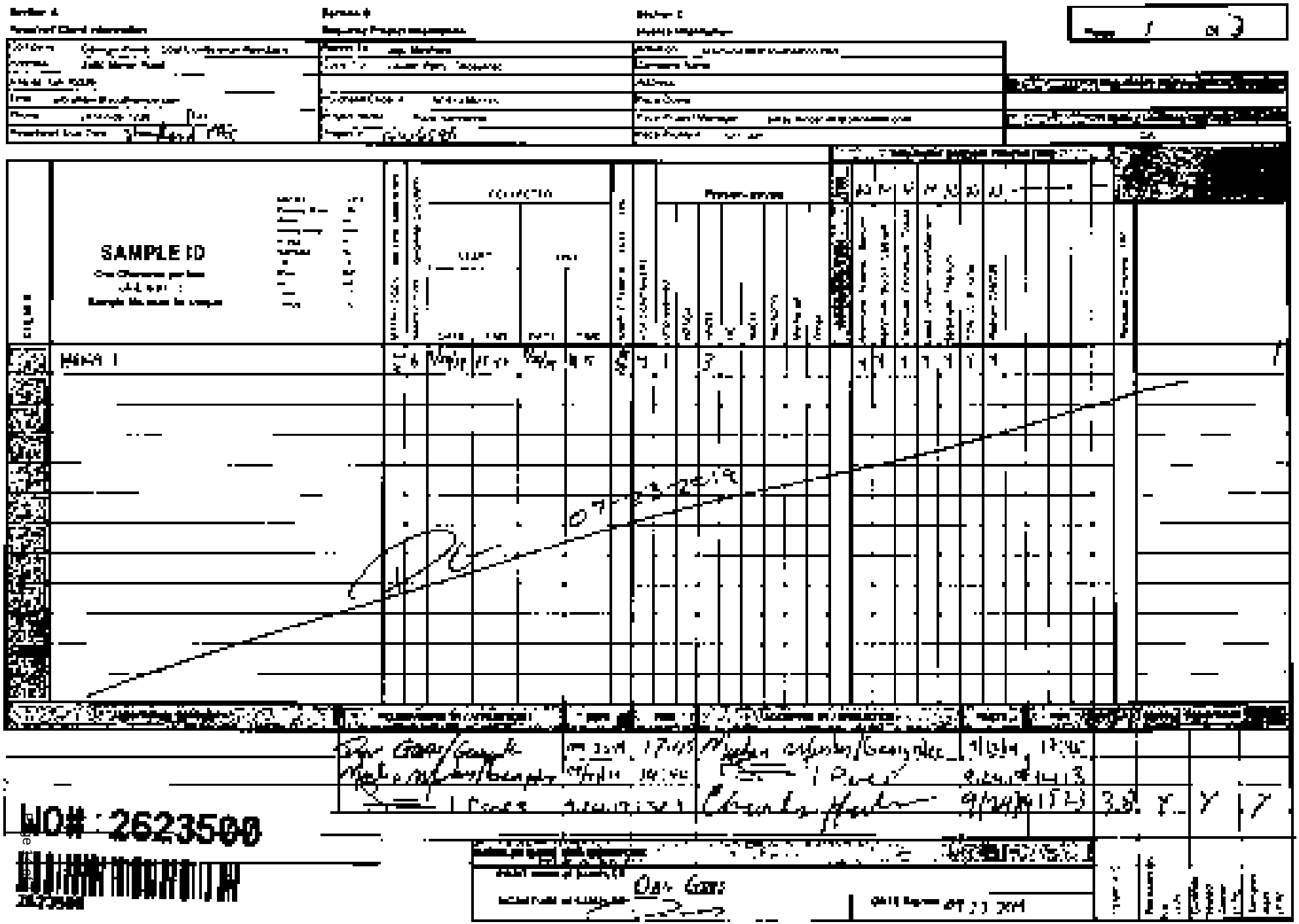
Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP GW6581
Pace Project No.: 2623500

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623500001	**HGWA-1**	EPA 3005A	36079	EPA 6020B	36104
2623500002	**HGWA-2**	EPA 3005A	36079	EPA 6020B	36104
2623500003	**HGWA-3**	EPA 3005A	36079	EPA 6020B	36104
2623500001	**HGWA-1**	SM 2540C	36029		
2623500002	**HGWA-2**	SM 2540C	36029		
2623500003	**HGWA-3**	SM 2540C	36029		
2623500001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	500244		
2623500002	**HGWA-2**	EPA 300.0 Rev 2.1 1993	500244		
2623500003	**HGWA-3**	EPA 300.0 Rev 2.1 1993	500244		

CHAIN-OF-CUSTODY / Analytical Request Document



WO#: 2623500

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

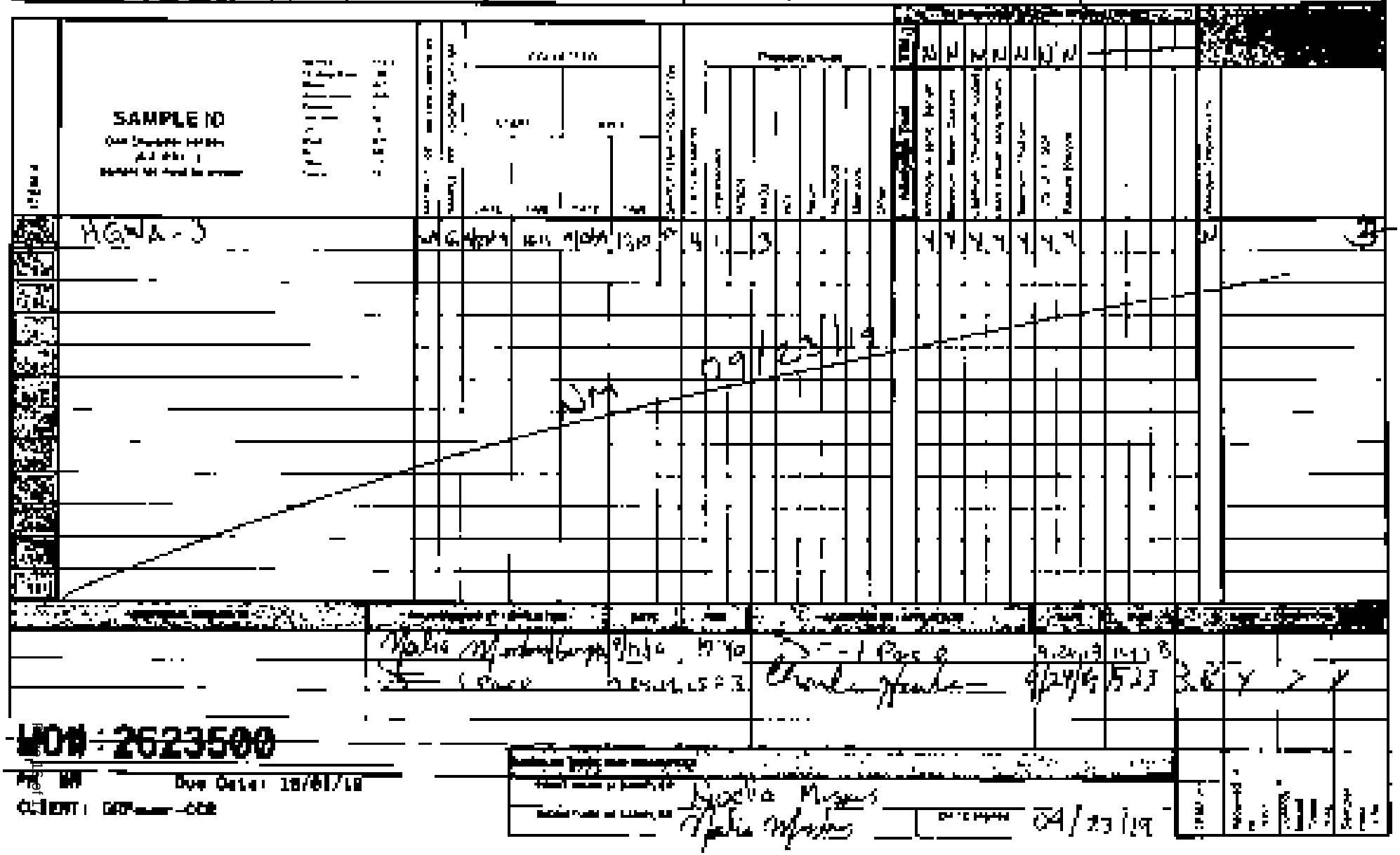
SAMPLE ID

WO# 2623500

Due Date: 10/01/19

CLIENT: GAPower-CCR

CHAIN-OF-CUSTODY / Analytical Request Document



Pace Analytical

Sample Condition Upon Receipt

WO# : 2623500

PM: [illegible] Due Date: 10/01/19
CLIENT: GAPower-CCR

Client Name: GA Power CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ________

Tracking #: ________

Proj. Due Date: [illegible]
Proj. Name: [illegible]

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

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ________

Thermometer Used: 214 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 3.8 °C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/13/19 CCH

Comments:

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

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

Person Contacted: ________ Date/Time: ________

Comments/ Resolution: ________

Project Manager Review: ________ Date: ________

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

F-ALL-C003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 25, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond GW6581
Pace Project No.: 2623499

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services, LLC
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(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623499001	**HGWA-1**	Water	09/23/19 16:15	09/24/19 15:23
2623499002	**HGWA-2**	Water	09/23/19 16:55	09/24/19 15:23
2623499003	**HGWA-3**	Water	09/23/19 17:10	09/24/19 15:23

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SAMPLE ANALYTE COUNT

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623499001	**HGWA-1**	EPA 6010D	KLH	6	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623499002	**HGWA-2**	EPA 6010D	KLH	6	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623499003	**HGWA-3**	EPA 6010D	KLH	6	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Sample: HGWA-1 **Lab ID: 2623499001** Collected: 09/23/19 16:15 Received: 09/24/19 15:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Iron	**0.022J**	mg/L	0.040	0.015	1	10/22/19 14:30	10/23/19 22:51	7439-89-6	
Magnesium	**5.4**	mg/L	0.050	0.011	1	10/22/19 14:30	10/23/19 22:51	7439-95-4	
Manganese	**0.20**	mg/L	0.040	0.0061	1	10/22/19 14:30	10/23/19 22:51	7439-96-5	
Phosphorus	ND	mg/L	0.050	0.023	1	10/22/19 14:30	10/23/19 22:51	7723-14-0	
Potassium	**0.33**	mg/L	0.20	0.026	1	10/22/19 14:30	10/23/19 22:51	7440-09-7	
Sodium	**20.4**	mg/L	1.0	0.19	1	10/22/19 14:30	10/23/19 22:51	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**279**	mg/L	20.0	20.0	1		09/25/19 16:36		
Alkalinity, Total as CaCO3	**279**	mg/L	20.0	20.0	1		09/25/19 16:36		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/25/19 12:26		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/26/19 09:20	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**1.1**	mg/L	1.0	0.50	1		10/24/19 23:28		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Sample: HGWA-2 **Lab ID: 2623499002** Collected: 09/23/19 16:55 Received: 09/24/19 15:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Iron	**1.7**	mg/L	0.040	0.015	1	10/22/19 14:30	10/23/19 22:56	7439-89-6	
Magnesium	**2.4**	mg/L	0.050	0.011	1	10/22/19 14:30	10/23/19 22:56	7439-95-4	
Manganese	**1.1**	mg/L	0.040	0.0061	1	10/22/19 14:30	10/23/19 22:56	7439-96-5	
Phosphorus	ND	mg/L	0.050	0.023	1	10/22/19 14:30	10/23/19 22:56	7723-14-0	
Potassium	**0.88**	mg/L	0.20	0.026	1	10/22/19 14:30	10/23/19 22:56	7440-09-7	
Sodium	**8.7**	mg/L	1.0	0.19	1	10/22/19 14:30	10/23/19 22:56	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**29.0**	mg/L	20.0	20.0	1		09/25/19 16:58		
Alkalinity, Total as CaCO3	**29.0**	mg/L	20.0	20.0	1		09/25/19 16:58		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/25/19 12:27		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/26/19 09:23	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**2.1**	mg/L	1.0	0.50	1		10/25/19 00:17		H3

REPORT OF LABORATORY ANALYSIS

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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Sample: HGWA-3 **Lab ID: 2623499003** Collected: 09/23/19 17:10 Received: 09/24/19 15:23 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Iron	**0.53**	mg/L	0.040	0.015	1	10/22/19 14:30	10/23/19 23:24	7439-89-6	
Magnesium	**4.8**	mg/L	0.050	0.011	1	10/22/19 14:30	10/23/19 23:24	7439-95-4	
Manganese	**0.21**	mg/L	0.040	0.0061	1	10/22/19 14:30	10/23/19 23:24	7439-96-5	
Phosphorus	**0.026J**	mg/L	0.050	0.023	1	10/22/19 14:30	10/23/19 23:24	7723-14-0	
Potassium	**0.42**	mg/L	0.20	0.026	1	10/22/19 14:30	10/23/19 23:24	7440-09-7	
Sodium	**5.2**	mg/L	1.0	0.19	1	10/22/19 14:30	10/23/19 23:24	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**174**	mg/L	20.0	20.0	1		09/25/19 17:01		
Alkalinity, Total as CaCO3	**174**	mg/L	20.0	20.0	1		09/25/19 17:01		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/25/19 12:28		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/26/19 09:25	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/25/19 00:28		H3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623499

QC Batch: 37339 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Associated Lab Samples: 2623499001, 2623499002, 2623499003

METHOD BLANK: 168935 Matrix: Water
Associated Lab Samples: 2623499001, 2623499002, 2623499003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.015	10/23/19 22:41	
Magnesium	mg/L	ND	0.050	0.011	10/23/19 22:41	
Manganese	mg/L	ND	0.040	0.0061	10/23/19 22:41	
Phosphorus	mg/L	ND	0.050	0.023	10/23/19 22:41	
Potassium	mg/L	ND	0.20	0.026	10/23/19 22:41	
Sodium	mg/L	ND	1.0	0.19	10/23/19 22:41	

LABORATORY CONTROL SAMPLE: 168936

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	1	1.1	107	80-120	
Magnesium	mg/L	1	1.1	107	80-120	
Manganese	mg/L	1	1.1	106	80-120	
Phosphorus	mg/L	1	1.1	107	80-120	
Potassium	mg/L	1	1.1	108	80-120	
Sodium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 168937 168938

Parameter	Units	2623499002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	1.7	1	1	2.7	2.8	101	106	75-125	2	20	
Magnesium	mg/L	2.4	1	1	3.4	3.4	101	106	75-125	1	20	
Manganese	mg/L	1.1	1	1	2.1	2.1	101	105	75-125	2	20	
Phosphorus	mg/L	ND	1	1	1.0	1.0	102	103	75-125	1	20	
Potassium	mg/L	0.88	1	1	1.9	1.9	97	101	75-125	2	20	
Sodium	mg/L	8.7	1	1	9.5	9.8	84	112	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623499

QC Batch: 35970 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623499001, 2623499002, 2623499003

METHOD BLANK: 161956 Matrix: Water
Associated Lab Samples: 2623499001, 2623499002, 2623499003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	09/25/19 16:26	

LABORATORY CONTROL SAMPLE: 161957

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	101	101	85-115	

SAMPLE DUPLICATE: 161958

Parameter	Units	2623499001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	279	281	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623499

QC Batch: 35930 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623499001, 2623499002, 2623499003

METHOD BLANK: 161749 Matrix: Water
Associated Lab Samples: 2623499001, 2623499002, 2623499003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/25/19 11:51	

LABORATORY CONTROL SAMPLE: 161750

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 161862 161863

Parameter	Units	2623499001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.52	0.52	103	103	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623499

QC Batch: 35996 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623499001, 2623499002, 2623499003

METHOD BLANK: 162154 Matrix: Water
Associated Lab Samples: 2623499001, 2623499002, 2623499003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	09/26/19 09:18	

LABORATORY CONTROL SAMPLE: 162155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.45	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162156 162157

Parameter	Units	2623499001 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	0.48	0.47	96	94	30-129	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623499

QC Batch: 581439 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623499001, 2623499002, 2623499003

METHOD BLANK: 3160596 Matrix: Water
Associated Lab Samples: 2623499001, 2623499002, 2623499003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/24/19 23:00	

LABORATORY CONTROL SAMPLE: 3160597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	19.3	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3160598 3160599

Parameter	Units	2624536004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	20.1	19.8	100	98	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3160600 3160601

Parameter	Units	2624536010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	20.2	20.0	101	100	80-120	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond GW6581
Pace Project No.: 2623499

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.

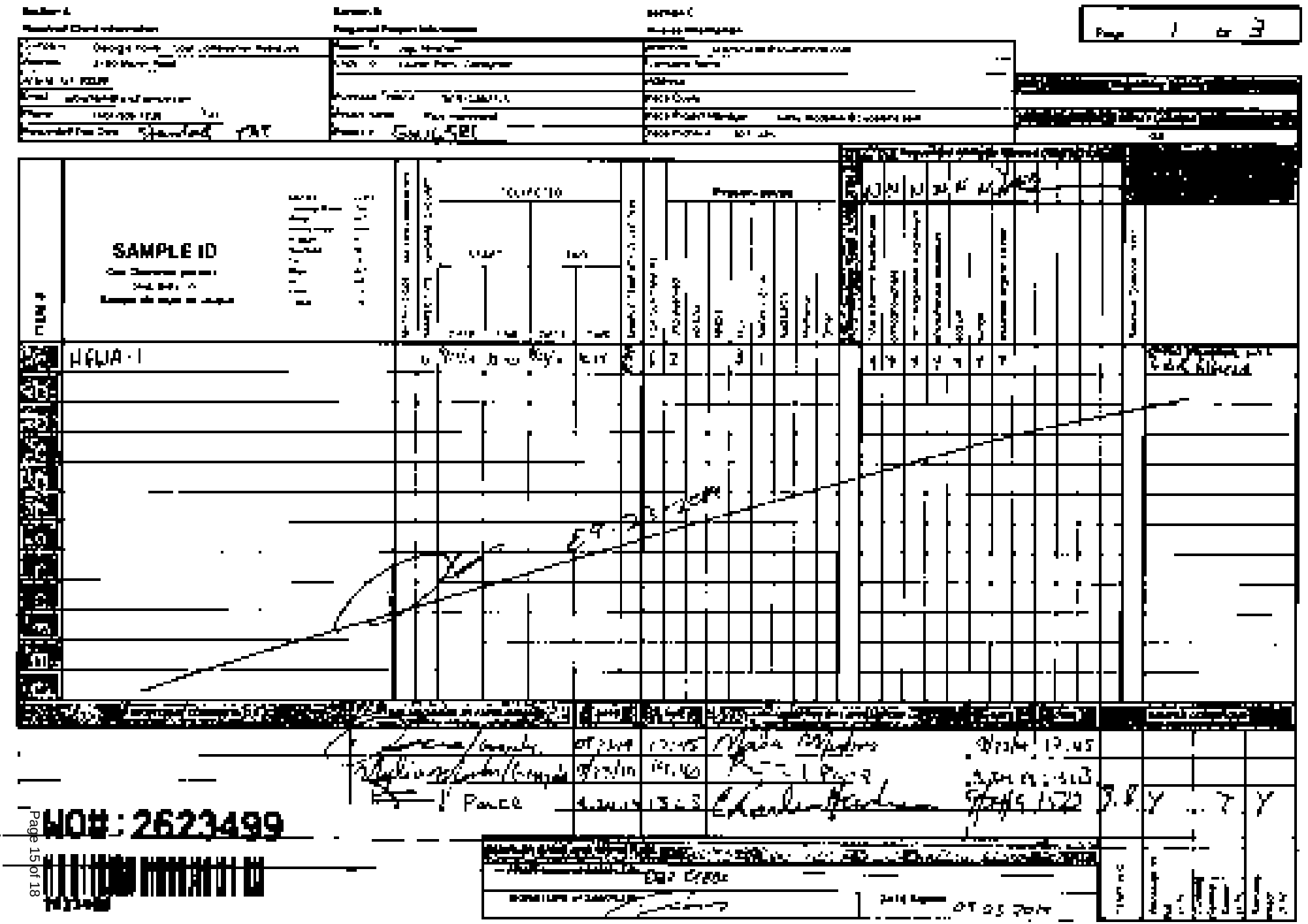
Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond GW6581
Pace Project No.: 2623499

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623499001	**HGWA-1**	EPA 3010A	37339	EPA 6010D	37380
2623499002	**HGWA-2**	EPA 3010A	37339	EPA 6010D	37380
2623499003	**HGWA-3**	EPA 3010A	37339	EPA 6010D	37380
2623499001	**HGWA-1**	SM 2320B	35970		
2623499002	**HGWA-2**	SM 2320B	35970		
2623499003	**HGWA-3**	SM 2320B	35970		
2623499001	**HGWA-1**	SM 4500-P	35930		
2623499002	**HGWA-2**	SM 4500-P	35930		
2623499003	**HGWA-3**	SM 4500-P	35930		
2623499001	**HGWA-1**	SM 4500-S2 D	35996		
2623499002	**HGWA-2**	SM 4500-S2 D	35996		
2623499003	**HGWA-3**	SM 4500-S2 D	35996		
2623499001	**HGWA-1**	SM 5310B	581439		
2623499002	**HGWA-2**	SM 5310B	581439		
2623499003	**HGWA-3**	SM 5310B	581439		

CHAIN-OF-CUSTODY / Analytical Request Document



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

ITEM #	SAMPLE ID
1	HCW A-1
2	
3	
4	
5	
6	
7	
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9	
10	
11	
12	

WO#: 2623499

Due Date: 10/01/18

CLIENT GRP

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

SAMPLE ID

ITEM #	SAMPLE ID
1	HCWA-3

WO#: 2623499

Due Date: 10/06/18

CLIENT: GRP

Sample Condition Upon Receipt

WO# : 2623499

Pace Analytical

Client Name: GA Power CCR

PM: [illegible] Due Date: 10/01/18
CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ______

Tracking #: ______

Optional: Proj. Due Date: Proj. Name:

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

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ______

Thermometer Used: 214 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 3.8°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/25/18 [illegible]

Temp should be above freezing to 6°C Comments:

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

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

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______ Date: ______

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

F-ALL-C003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623567

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623567

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623567

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623567001	**HGWC-8**	Water	09/24/19 15:50	09/25/19 14:03
2623567002	**MW-30d**	Water	09/24/19 16:40	09/25/19 14:03
2623567003	**MW-29**	Water	09/24/19 15:22	09/25/19 14:03

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623567

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623567001	**HGWC-8**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623567002	**MW-30d**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623567003	**MW-29**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623567

Sample: HGWC-8 **Lab ID: 2623567001** Collected: 09/24/19 15:50 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/28/19 14:58	10/02/19 18:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/28/19 14:58	10/02/19 18:43	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00049	1	09/28/19 14:58	10/02/19 18:43	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/28/19 14:58	10/02/19 18:43	7440-41-7	
Boron	**2.8**	mg/L	2.0	0.25	50	09/28/19 14:58	10/02/19 18:48	7440-42-8	M1
Cadmium	**0.00020J**	mg/L	0.0025	0.00011	1	09/28/19 14:58	10/02/19 18:43	7440-43-9	
Calcium	**113**	mg/L	5.0	0.55	50	09/28/19 14:58	10/02/19 18:48	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.00039	1	09/28/19 14:58	10/02/19 18:43	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00030	1	09/28/19 14:58	10/02/19 18:43	7440-48-4	
Lithium	**0.0024J**	mg/L	0.030	0.00078	1	09/28/19 14:58	10/02/19 18:43	7439-93-2	
Molybdenum	**0.54**	mg/L	0.50	0.047	50	09/28/19 14:58	10/02/19 18:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/28/19 14:58	10/02/19 18:43	7782-49-2	
Thallium	**0.00011J**	mg/L	0.0010	0.000052	1	09/28/19 14:58	10/02/19 18:43	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**457**	mg/L	10.0	10.0	1		10/01/19 16:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**60.2**	mg/L	1.0	0.60	1		10/01/19 19:31	16887-00-6	
Fluoride	**0.49**	mg/L	0.30	0.050	1		10/01/19 19:31	16984-48-8	
Sulfate	**133**	mg/L	3.0	1.5	3		10/02/19 07:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623567

Sample: MW-30d **Lab ID: 2623567002** Collected: 09/24/19 16:40 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00046J**	mg/L	0.0030	0.00027	1	09/28/19 14:58	10/02/19 19:34	7440-36-0	
Arsenic	**0.0026J**	mg/L	0.0050	0.00035	1	09/28/19 14:58	10/02/19 19:34	7440-38-2	
Barium	**0.054**	mg/L	0.010	0.00049	1	09/28/19 14:58	10/02/19 19:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/28/19 14:58	10/02/19 19:34	7440-41-7	
Boron	**0.69**	mg/L	0.040	0.0049	1	09/28/19 14:58	10/02/19 19:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/28/19 14:58	10/02/19 19:34	7440-43-9	
Calcium	**34.2**	mg/L	5.0	0.55	50	09/28/19 14:58	10/02/19 19:40	7440-70-2	
Chromium	**0.00041J**	mg/L	0.010	0.00039	1	09/28/19 14:58	10/02/19 19:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/28/19 14:58	10/02/19 19:34	7440-48-4	
Lithium	**0.16**	mg/L	0.030	0.00078	1	09/28/19 14:58	10/02/19 19:34	7439-93-2	
Molybdenum	**0.036**	mg/L	0.010	0.00095	1	09/28/19 14:58	10/02/19 19:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/28/19 14:58	10/02/19 19:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/28/19 14:58	10/02/19 19:34	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1970**	mg/L	10.0	10.0	1		10/01/19 16:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**99.2**	mg/L	17.0	10.2	17		10/02/19 08:09	16887-00-6	
Fluoride	**5.7**	mg/L	5.1	0.85	17		10/02/19 08:09	16984-48-8	
Sulfate	**756**	mg/L	17.0	8.5	17		10/02/19 08:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623567

Sample: MW-29 **Lab ID: 2623567003** Collected: 09/24/19 15:22 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/30/19 12:43	10/01/19 18:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/30/19 12:43	10/01/19 18:41	7440-38-2	
Barium	**0.081**	mg/L	0.010	0.00049	1	09/30/19 12:43	10/01/19 18:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 12:43	10/01/19 18:41	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0049	1	09/30/19 12:43	10/01/19 18:41	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 12:43	10/01/19 18:41	7440-43-9	
Calcium	**140**	mg/L	5.0	0.55	50	09/30/19 12:43	10/01/19 18:47	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	09/30/19 12:43	10/01/19 18:41	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00030	1	09/30/19 12:43	10/01/19 18:41	7440-48-4	
Lithium	**0.0022J**	mg/L	0.030	0.00078	1	09/30/19 12:43	10/01/19 18:41	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.00095	1	09/30/19 12:43	10/01/19 18:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 12:43	10/01/19 18:41	7782-49-2	
Thallium	**0.000064J**	mg/L	0.0010	0.000052	1	09/30/19 12:43	10/01/19 18:41	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**603**	mg/L	10.0	10.0	1		10/01/19 16:38		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**83.8**	mg/L	10.0	0.24	10		10/01/19 04:32	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.029	1		09/30/19 20:15	16984-48-8	
Sulfate	**154**	mg/L	10.0	0.17	10		10/01/19 04:32	14808-79-8	M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36136 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623567001, 2623567002

METHOD BLANK: 163251 Matrix: Water
Associated Lab Samples: 2623567001, 2623567002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/02/19 18:26	
Arsenic	mg/L	ND	0.0050	0.00035	10/02/19 18:26	
Barium	mg/L	ND	0.010	0.00049	10/02/19 18:26	
Beryllium	mg/L	ND	0.0030	0.000074	10/02/19 18:26	
Boron	mg/L	ND	0.040	0.0049	10/02/19 18:26	
Cadmium	mg/L	ND	0.0025	0.00011	10/02/19 18:26	
Calcium	mg/L	ND	0.10	0.011	10/02/19 18:26	
Chromium	mg/L	ND	0.010	0.00039	10/02/19 18:26	
Cobalt	mg/L	ND	0.0050	0.00030	10/02/19 18:26	
Lithium	mg/L	ND	0.030	0.00078	10/02/19 18:26	
Molybdenum	mg/L	ND	0.010	0.00095	10/02/19 18:26	
Selenium	mg/L	ND	0.010	0.0013	10/02/19 18:26	
Thallium	mg/L	ND	0.0010	0.000052	10/02/19 18:26	

LABORATORY CONTROL SAMPLE: 163252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163253 163254

Parameter	Units	2623567001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	2	20	
Barium	mg/L	0.053	0.1	0.1	0.16	0.16	107	108	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163253 163254

Parameter	Units	2623567001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20	
Boron	mg/L	2.8	1	1	3.8	4.2	101	139	75-125	10	20	
Cadmium	mg/L	0.00020J	0.1	0.1	0.10	0.098	102	98	75-125	4	20	
Calcium	mg/L	113	1	1	105	114	-820	112	75-125	9	20	M6
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20	
Cobalt	mg/L	0.0015J	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Lithium	mg/L	0.0024J	0.1	0.1	0.10	0.10	98	98	75-125	0	20	
Molybdenum	mg/L	0.54	0.1	0.1	0.63	0.64	85	93	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20	
Thallium	mg/L	0.00011J	0.1	0.1	0.099	0.098	99	98	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36170
QC Batch Method: EPA 3005A
Associated Lab Samples: 2623567003

Analysis Method: EPA 6020B
Analysis Description: 6020B MET

METHOD BLANK: 163336 Matrix: Water
Associated Lab Samples: 2623567003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/01/19 18:14	
Arsenic	mg/L	ND	0.0050	0.00035	10/01/19 18:14	
Barium	mg/L	ND	0.010	0.00049	10/01/19 18:14	
Beryllium	mg/L	ND	0.0030	0.000074	10/01/19 18:14	
Boron	mg/L	ND	0.040	0.0049	10/01/19 18:14	
Cadmium	mg/L	ND	0.0025	0.00011	10/01/19 18:14	
Calcium	mg/L	ND	0.10	0.011	10/01/19 18:14	
Chromium	mg/L	ND	0.010	0.00039	10/01/19 18:14	
Cobalt	mg/L	ND	0.0050	0.00030	10/01/19 18:14	
Lithium	mg/L	ND	0.030	0.00078	10/01/19 18:14	
Molybdenum	mg/L	ND	0.010	0.00095	10/01/19 18:14	
Selenium	mg/L	ND	0.010	0.0013	10/01/19 18:14	
Thallium	mg/L	ND	0.0010	0.000052	10/01/19 18:14	

LABORATORY CONTROL SAMPLE: 163337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	109	106	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000084J	0.1	0.1	0.10	0.093	102	93	75-125	9	20	
Boron	mg/L	0.0072J	1	1	1.0	0.95	100	94	75-125	6	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	2	20	
Calcium	mg/L	1.1	1	1	2.1	2.1	97	94	75-125	1	20	
Chromium	mg/L	0.00076J	0.1	0.1	0.10	0.10	101	101	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	
Lithium	mg/L	0.0029J	0.1	0.1	0.10	0.097	102	94	75-125	7	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	108	104	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36262 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623567001, 2623567002, 2623567003

LABORATORY CONTROL SAMPLE: 163778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	357	89	84-108	

SAMPLE DUPLICATE: 163780

Parameter	Units	2623620001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	139	5	10	

SAMPLE DUPLICATE: 163844

Parameter	Units	2623559001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	124	7	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36185
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623567003

METHOD BLANK: 163390
Matrix: Water
Associated Lab Samples: 2623567003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.033J	1.0	0.024	09/30/19 18:32	
Fluoride	mg/L	ND	0.30	0.029	09/30/19 18:32	
Sulfate	mg/L	ND	1.0	0.017	09/30/19 18:32	

LABORATORY CONTROL SAMPLE: 163391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.7	107	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163392 163393

Parameter	Units	2623317001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.0	20	20	61.9	61.6	79	78	90-110	0	15	M1
Fluoride	mg/L	0.94	20	20	21.7	22.3	104	107	90-110	3	15	

MATRIX SPIKE SAMPLE: 163394

Parameter	Units	2623567003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	83.8	100	181	97	90-110	
Fluoride	mg/L	0.18J	100	101	101	90-110	
Sulfate	mg/L	154	100	242	88	90-110	M6

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 500861
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623567001, 2623567002

METHOD BLANK: 2694298 Matrix: Water
Associated Lab Samples: 2623567001, 2623567002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/01/19 16:22	
Fluoride	mg/L	ND	0.10	0.050	10/01/19 16:22	
Sulfate	mg/L	ND	1.0	0.50	10/01/19 16:22	

LABORATORY CONTROL SAMPLE: 2694299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.2	98	90-110	
Fluoride	mg/L	2.5	2.3	92	90-110	
Sulfate	mg/L	50	50.4	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2694300 2694301

Parameter	Units	2623559001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.7	50	50	53.7	53.7	104	104	90-110	0	10	
Fluoride	mg/L	0.058J	2.5	2.5	2.5	2.5	98	99	90-110	1	10	
Sulfate	mg/L	20.7	50	50	72.4	72.6	103	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2694302 2694303

Parameter	Units	2623584001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	89.4	50	50	132	133	86	87	90-110	1	10	M1
Fluoride	mg/L	0.42	2.5	2.5	4.2	4.3	152	153	90-110	1	10	M1
Sulfate	mg/L	142	50	50	177	180	69	74	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

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623567

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623567

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623567001	**HGWC-8**	EPA 3005A	36136	EPA 6020B	36312
2623567002	**MW-30d**	EPA 3005A	36136	EPA 6020B	36312
2623567003	**MW-29**	EPA 3005A	36170	EPA 6020B	36202
2623567001	**HGWC-8**	SM 2540C	36262		
2623567002	**MW-30d**	SM 2540C	36262		
2623567003	**MW-29**	SM 2540C	36262		
2623567001	**HGWC-8**	EPA 300.0 Rev 2.1 1993	500861		
2623567002	**MW-30d**	EPA 300.0 Rev 2.1 1993	500861		
2623567003	**MW-29**	EPA 300.0	36185		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

Section A — Required Client Information

Section B — Required Project Information

Section C — Invoice Information

Requested Due Date: Standard TAT

Project #: [illegible]

SAMPLE ID

ITEM #	SAMPLE ID			Start Date	Start Time	End Date	End Time												
	HGWC-6	WG	G	9/24/19	1450	9/24/19	.590	0	4	1	3	Y	Y	Y	Y	Y	Y	Y	W

NM 09/24/19

WO# : 2623567

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Nadia Muskus / Kleinfelder	9/24/19	2010	[illegible] / Pace	9/24/19	2010
[illegible] / Pace	9/25/19	1407	M. Kalisman	9/25/19	1407

Sample Conditions: 0.3 | Y | Y | Y

Print Name of Sampler: Nadia Muskus

Signature of Sampler: [illegible] Date Signed: 09/24/19

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

SAMPLE ID	Collected Start Date	Collected Start Time	Collected End Date	Collected End Time
MW-3cd	[illegible]	14:17	[illegible]	14:18

09-20-19

WO# : 2623567

PM: [illegible] Due Date: 10/02/19

CLIENT: GAPower-CCR

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
[illegible] / Georgia	9/19/19	18:10	[illegible] / Georgia	9/19/19	18:10
[illegible] / Georgia	9/[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	9.25.19	[illegible]	[illegible]	9/25/19	[illegible]

PRINT Name of SAMPLER: Dan Gross

SIGNATURE of SAMPLER: [illegible] DATE Signed: 9-24-2019

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

SAMPLE ID

WO# : 2623567

PM: [illegible] Due Date: 10/02/19

CLIENT: [illegible]

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO# : 2623567

PM: [illegible] Due Date: 10/02/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other

Tracking #: ____________

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other ____________

Thermometer Used: 85 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 1.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/25/19 [illegible]

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

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

Person Contacted: ____________ Date/Time: ____________

Comments/ Resolution: There was no sample rec'd for MW-29. There was 1 extra sample labeled BGWC-7 present but was not listed on COC. The client was notified and the lab was instructed to log in that sample as MW-29.

Project Manager Review: ____________ Date: ____________

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

F-ALLC003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 06, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623568

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623568

Pace Analytical Services Atlanta

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623568

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623568001	**HGWC-8**	Water	09/24/19 15:50	09/25/19 14:03
2623568002	**MW-29**	Water	09/24/19 15:22	09/25/19 14:03
2623568003	**MW-30d**	Water	09/24/19 16:40	09/25/19 14:03

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623568

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623568001	**HGWC-8**	EPA 6010D	KLH	7	PASI-GA
		EPA 6020B	CSW	2	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 1664B	SJS	1	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		SM 4500-Cl G	KN	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5210B	KN	1	PASI-GA
		TKN-NH3 Calculation	LPH	1	PASI-GA
		EPA 300.0	MWB	2	PASI-GA
		EPA 350.1	ANB	1	PASI-GA
		EPA 351.2	ANB	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623568002	**MW-29**	EPA 6010D	KLH	6	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623568003	**MW-30d**	EPA 6020B	CSW	5	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623568

Sample: HGWC-8 **Lab ID: 2623568001** Collected: 09/24/19 15:50 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Iron	**0.037J**	mg/L	0.040	0.015	1	11/12/19 18:23	11/13/19 18:51	7439-89-6	
Magnesium	**14.0**	mg/L	0.050	0.011	1	11/12/19 18:23	11/13/19 18:51	7439-95-4	
Manganese	**0.18**	mg/L	0.040	0.0061	1	11/12/19 18:23	11/13/19 18:51	7439-96-5	
Phosphorus	**0.023J**	mg/L	0.050	0.023	1	11/12/19 18:23	11/13/19 18:51	7723-14-0	
Potassium	**6.9**	mg/L	0.20	0.026	1	11/12/19 18:23	11/13/19 18:51	7440-09-7	
Sodium	**8.5**	mg/L	5.0	0.93	5	11/12/19 18:23	11/14/19 17:05	7440-23-5	E
Total Hardness by 2340B	**300**	mg/L	2.7	0.40	1	11/12/19 18:23	11/13/19 18:51		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Copper	ND	mg/L	0.025	0.00019	1	09/27/19 15:26	10/01/19 12:07	7440-50-8	
Zinc	**0.0032J**	mg/L	0.010	0.0015	1	09/27/19 15:26	10/01/19 12:07	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/30/19 10:50	10/01/19 12:50	7439-97-6	
HEM, Oil and Grease	Analytical Method: EPA 1664B								
Oil and Grease	ND	mg/L	4.9	4.9	1		09/30/19 14:45		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**130**	mg/L	20.0	20.0	1		09/30/19 17:13		
Alkalinity, Total as CaCO3	**130**	mg/L	20.0	20.0	1		09/30/19 17:13		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**486**	mg/L	10.0	10.0	1		10/01/19 16:36		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	5.0	5.0	1		09/27/19 16:28		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	0.1	0.1	1		09/27/19 15:37	7782-50-5	H3,H6
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/26/19 12:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/26/19 11:06	18496-25-8	
5210B BOD, 5 day	Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	09/26/19 09:30	10/01/19 10:04		1A
Total Organic Nitrogen Calc.	Analytical Method: TKN-NH3 Calculation								
Total Organic Nitrogen	ND	mg/L	0.40	0.40	1		10/02/19 12:32		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623568

Sample: HGWC-8 **Lab ID: 2623568001** Collected: 09/24/19 15:50 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0								
Nitrate as N	**0.012J**	mg/L	0.050	0.0050	1		09/26/19 12:22	14797-55-8	
Nitrite as N	**0.028J**	mg/L	0.050	0.011	1		09/26/19 12:22	14797-65-0	B
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**2.6**	mg/L	0.10	0.10	1		09/30/19 10:35	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**2.8**	mg/L	0.40	0.40	1	09/27/19 09:15	09/27/19 12:38	7727-37-9	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.58J**	mg/L	1.0	0.50	1		10/01/19 17:37		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623568

Sample: MW-29 **Lab ID: 2623568002** Collected: 09/24/19 15:22 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A								
Iron	**0.13**	mg/L	0.040	0.015	1	11/12/19 18:23	11/13/19 19:11	7439-89-6	
Magnesium	**12.7**	mg/L	0.050	0.011	1	11/12/19 18:23	11/13/19 19:11	7439-95-4	
Manganese	**1.4**	mg/L	0.040	0.0061	1	11/12/19 18:23	11/13/19 19:11	7439-96-5	
Phosphorus	ND	mg/L	0.050	0.023	1	11/12/19 18:23	11/13/19 19:11	7723-14-0	
Potassium	**1.2**	mg/L	0.20	0.026	1	11/12/19 18:23	11/13/19 19:11	7440-09-7	
Sodium	**13.0**	mg/L	10.0	1.9	10	11/12/19 18:23	11/14/19 17:10	7440-23-5	E
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**187**	mg/L	20.0	20.0	1		09/30/19 17:18		
Alkalinity, Total as CaCO3	**187**	mg/L	20.0	20.0	1		09/30/19 17:18		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/26/19 12:58		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/26/19 11:08	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/01/19 17:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623568

Sample: MW-30d **Lab ID: 2623568003** Collected: 09/24/19 16:40 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Iron	**0.30**	mg/L	0.040	0.0097	1	09/28/19 14:58	10/02/19 19:34	7439-89-6	
Magnesium	**5.2**	mg/L	0.050	0.0030	1	09/28/19 14:58	10/02/19 19:34	7439-95-4	
Manganese	**0.044**	mg/L	0.010	0.00057	1	09/28/19 14:58	10/02/19 19:34	7439-96-5	
Potassium	**3.3**	mg/L	0.10	0.026	1	09/28/19 14:58	10/02/19 19:34	7440-09-7	
Sodium	**704**	mg/L	5.0	0.75	50	09/28/19 14:58	10/02/19 19:40	7440-23-5	E
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**435**	mg/L	20.0	20.0	1		09/30/19 17:22		
Alkalinity, Total as CaCO3	**435**	mg/L	20.0	20.0	1		09/30/19 17:22		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/26/19 12:59		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	**0.80**	mg/L	0.20	0.20	1		09/26/19 11:12	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**1.4**	mg/L	1.0	0.50	1		10/01/19 18:10		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36152
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Associated Lab Samples: 2623568001

METHOD BLANK: 163281 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/01/19 12:04	

LABORATORY CONTROL SAMPLE: 163282

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0021	83	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163283 163284

Parameter	Units	2623578001 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	0.0019	0.0021	77	83	75-125	8	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 38701 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Associated Lab Samples: 2623568001, 2623568002

METHOD BLANK: 175782 Matrix: Water
Associated Lab Samples: 2623568001, 2623568002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.015	11/13/19 18:41	
Magnesium	mg/L	ND	0.050	0.011	11/13/19 18:41	
Manganese	mg/L	ND	0.040	0.0061	11/13/19 18:41	
Phosphorus	mg/L	ND	0.050	0.023	11/13/19 18:41	
Potassium	mg/L	ND	0.20	0.026	11/13/19 18:41	
Sodium	mg/L	ND	1.0	0.19	11/13/19 18:41	
Total Hardness by 2340B	mg/L	ND	2.7	0.40	11/13/19 18:41	

LABORATORY CONTROL SAMPLE: 175783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	1	0.98	98	80-120	
Magnesium	mg/L	1	0.99	99	80-120	
Manganese	mg/L	1	0.98	98	80-120	
Phosphorus	mg/L	1	0.96	96	80-120	
Potassium	mg/L	1	0.97	97	80-120	
Sodium	mg/L	1	0.96J	96	80-120	
Total Hardness by 2340B	mg/L	6.6	6.5	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 175784 175785

Parameter	Units	2623568001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	0.037J	1	1	1.0	0.99	96	95	75-125	1	20	
Magnesium	mg/L	14.0	1	1	15.0	15.0	104	102	75-125	0	20	
Manganese	mg/L	0.18	1	1	1.2	1.1	97	94	75-125	2	20	
Phosphorus	mg/L	0.023J	1	1	0.99	0.98	97	96	75-125	1	20	
Potassium	mg/L	6.9	1	1	8.0	8.0	116	111	75-125	1	20	
Sodium	mg/L	8.5	1	1	9.4	9.3	90	85	75-125	0	20	
Total Hardness by 2340B	mg/L	300	6.6	6.6	311	310	166	143	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36079
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Associated Lab Samples: 2623568001

METHOD BLANK: 162814 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	mg/L	ND	0.025	0.00019	09/30/19 19:37	
Zinc	mg/L	ND	0.010	0.0015	09/30/19 19:37	

LABORATORY CONTROL SAMPLE: 162815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	mg/L	0.1	0.098	98	80-120	
Zinc	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162816 162817

Parameter	Units	2623500001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	mg/L	ND	0.1	0.1	0.099	0.094	99	94	75-125	6	20	
Zinc	mg/L	0.0019J	0.1	0.1	0.10	0.097	99	95	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36136
QC Batch Method: EPA 3005A
Associated Lab Samples: 2623568003

Analysis Method: EPA 6020B
Analysis Description: 6020B MET

METHOD BLANK: 163251 Matrix: Water
Associated Lab Samples: 2623568003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Manganese	mg/L	ND	0.010	0.00057	10/02/19 18:26	

LABORATORY CONTROL SAMPLE: 163252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163253 163254

Parameter	Units	2623567001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Manganese	mg/L	0.20	0.1	0.1	0.30	0.30	103	107	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36140 Analysis Method: EPA 1664B
QC Batch Method: EPA 1664B Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 2623568001

METHOD BLANK: 163255 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	5.0	09/30/19 14:45	

LABORATORY CONTROL SAMPLE: 163256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	39.5	99	78-114	

MATRIX SPIKE SAMPLE: 163257

Parameter	Units	2623463001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	44.4	10.2	16	78-114	M3

SAMPLE DUPLICATE: 163258

Parameter	Units	2623464002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	ND	ND		75	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36180 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623568001, 2623568002, 2623568003

METHOD BLANK: 163383 Matrix: Water
Associated Lab Samples: 2623568001, 2623568002, 2623568003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	09/30/19 14:21	

LABORATORY CONTROL SAMPLE: 163384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	100	100	85-115	

SAMPLE DUPLICATE: 163385

Parameter	Units	2623563001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	177	174	2	10	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36262
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623568001

LABORATORY CONTROL SAMPLE: 163778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	357	89	84-108	

SAMPLE DUPLICATE: 163780

Parameter	Units	2623620001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	139	5	10	

SAMPLE DUPLICATE: 163844

Parameter	Units	2623559001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	124	7	10	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36092 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2623568001

METHOD BLANK: 162876 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	09/27/19 16:27	

LABORATORY CONTROL SAMPLE: 162877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	100	100	90-110	

SAMPLE DUPLICATE: 162878

Parameter	Units	2623124002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	307	318	4	10	H1

SAMPLE DUPLICATE: 162879

Parameter	Units	2623546003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	34.0	34.0	0	10	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36088
QC Batch Method: SM 4500-Cl G
Analysis Method: SM 4500-Cl G
Analysis Description: 4500CL G Chlorine, Total Residual
Associated Lab Samples: 2623568001

METHOD BLANK: 162851 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.1	0.1	09/27/19 15:35	H6

LABORATORY CONTROL SAMPLE: 162852

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	1	1	100	86-116	H6

SAMPLE DUPLICATE: 162870

Parameter	Units	2623664001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorine, Total Residual	mg/L	0.1	0.1	0	10	H3,H6

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36006 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623568001, 2623568002, 2623568003

METHOD BLANK: 162241 Matrix: Water
Associated Lab Samples: 2623568001, 2623568002, 2623568003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/26/19 12:53	

LABORATORY CONTROL SAMPLE: 162242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162244 162243

Parameter	Units	2623556001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.52	0.51	104	101	80-120	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 35996 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623568001, 2623568002, 2623568003

METHOD BLANK: 162154 Matrix: Water
Associated Lab Samples: 2623568001, 2623568002, 2623568003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	09/26/19 09:18	

LABORATORY CONTROL SAMPLE: 162155

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.45	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162156 162157

Parameter	Units	2623499001 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	0.48	0.47	96	94	30-129	2	10	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 35994 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 2623568001

METHOD BLANK: 162151 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	2.0	10/01/19 09:55	1A

LABORATORY CONTROL SAMPLE: 162153

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	198	100	85-115	1A

SAMPLE DUPLICATE: 162313

Parameter	Units	2623577001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	193	192	1	20	1A

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 35990 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623568001

METHOD BLANK: 162133 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	0.0050	09/26/19 08:55	
Nitrite as N	mg/L	0.013J	0.050	0.011	09/26/19 08:55	

LABORATORY CONTROL SAMPLE: 162134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	10	10.4	104	90-110	
Nitrite as N	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162135 162136

Parameter	Units	2623556001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.016J	10	10	10.2	10.1	102	101	90-110	1	15	
Nitrite as N	mg/L	0.021J	10	10	10.3	10.5	103	105	90-110	2	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36095
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Associated Lab Samples: 2623568001

METHOD BLANK: 162900
Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.10	09/30/19 10:18	

LABORATORY CONTROL SAMPLE: 162901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.3	103	90-110	

MATRIX SPIKE SAMPLE: 162902

Parameter	Units	2623600001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	10	10.2	102	90-110	

MATRIX SPIKE SAMPLE: 162903

Parameter	Units	2623679001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.33	10	12.1	118	90-110	M1

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 36036 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 2623568001

METHOD BLANK: 162482 Matrix: Water
Associated Lab Samples: 2623568001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.40	0.40	09/27/19 12:17	

LABORATORY CONTROL SAMPLE: 162483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	10	9.6	96	90-110	

MATRIX SPIKE SAMPLE: 162484

Parameter	Units	2623546001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.0	10	8.4	74	90-110	M1

MATRIX SPIKE SAMPLE: 162485

Parameter	Units	2623546003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.6	10	10.0	84	90-110	M1

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623568

QC Batch: 574634 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623568001, 2623568002, 2623568003

METHOD BLANK: 3122436 Matrix: Water
Associated Lab Samples: 2623568001, 2623568002, 2623568003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/01/19 14:32	

LABORATORY CONTROL SAMPLE: 3122437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.6	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3122438 3122439

Parameter	Units	2623556001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.5	96	95	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3122440 3122441

Parameter	Units	2623635001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.5	96	95	80-120	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623568

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-O	Pace Analytical Services - Ormond Beach

BATCH QUALIFIERS

Batch: 36230

[1]	The calculated SCF was below the desired range of 0.6 to 1.0 mg/L. All other QC indicators, including the LCS, were within acceptance criteria

ANALYTE QUALIFIERS

1A	The calculated SCF was below the desired range of 0.6 to 1.0 mg/L. All other QC indicators, including the LCS, were within acceptance criteria
B	Analyte was detected in the associated method blank.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623568

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623568001	**HGWC-8**	EPA 3010A	38701	EPA 6010D	38723
2623568002	**MW-29**	EPA 3010A	38701	EPA 6010D	38723
2623568001	**HGWC-8**	EPA 3005A	36079	EPA 6020B	36104
2623568003	**MW-30d**	EPA 3005A	36136	EPA 6020B	36312
2623568001	**HGWC-8**	EPA 7470A	36152	EPA 7470A	36190
2623568001	**HGWC-8**	EPA 1664B	36140		
2623568001	**HGWC-8**	SM 2320B	36180		
2623568002	**MW-29**	SM 2320B	36180		
2623568003	**MW-30d**	SM 2320B	36180		
2623568001	**HGWC-8**	SM 2540C	36262		
2623568001	**HGWC-8**	SM 2540D	36092		
2623568001	**HGWC-8**	SM 4500-Cl G	36088		
2623568001	**HGWC-8**	SM 4500-P	36006		
2623568002	**MW-29**	SM 4500-P	36006		
2623568003	**MW-30d**	SM 4500-P	36006		
2623568001	**HGWC-8**	SM 4500-S2 D	35996		
2623568002	**MW-29**	SM 4500-S2 D	35996		
2623568003	**MW-30d**	SM 4500-S2 D	35996		
2623568001	**HGWC-8**	SM 5210B	35994	SM 5210B	36230
2623568001	**HGWC-8**	TKN-NH3 Calculation	36340		
2623568001	**HGWC-8**	EPA 300.0	35990		
2623568001	**HGWC-8**	EPA 350.1	36095		
2623568001	**HGWC-8**	EPA 351.2	36036	EPA 351.2	36058
2623568001	**HGWC-8**	SM 5310B	574634		
2623568002	**MW-29**	SM 5310B	574634		
2623568003	**MW-30d**	SM 5310B	574634		

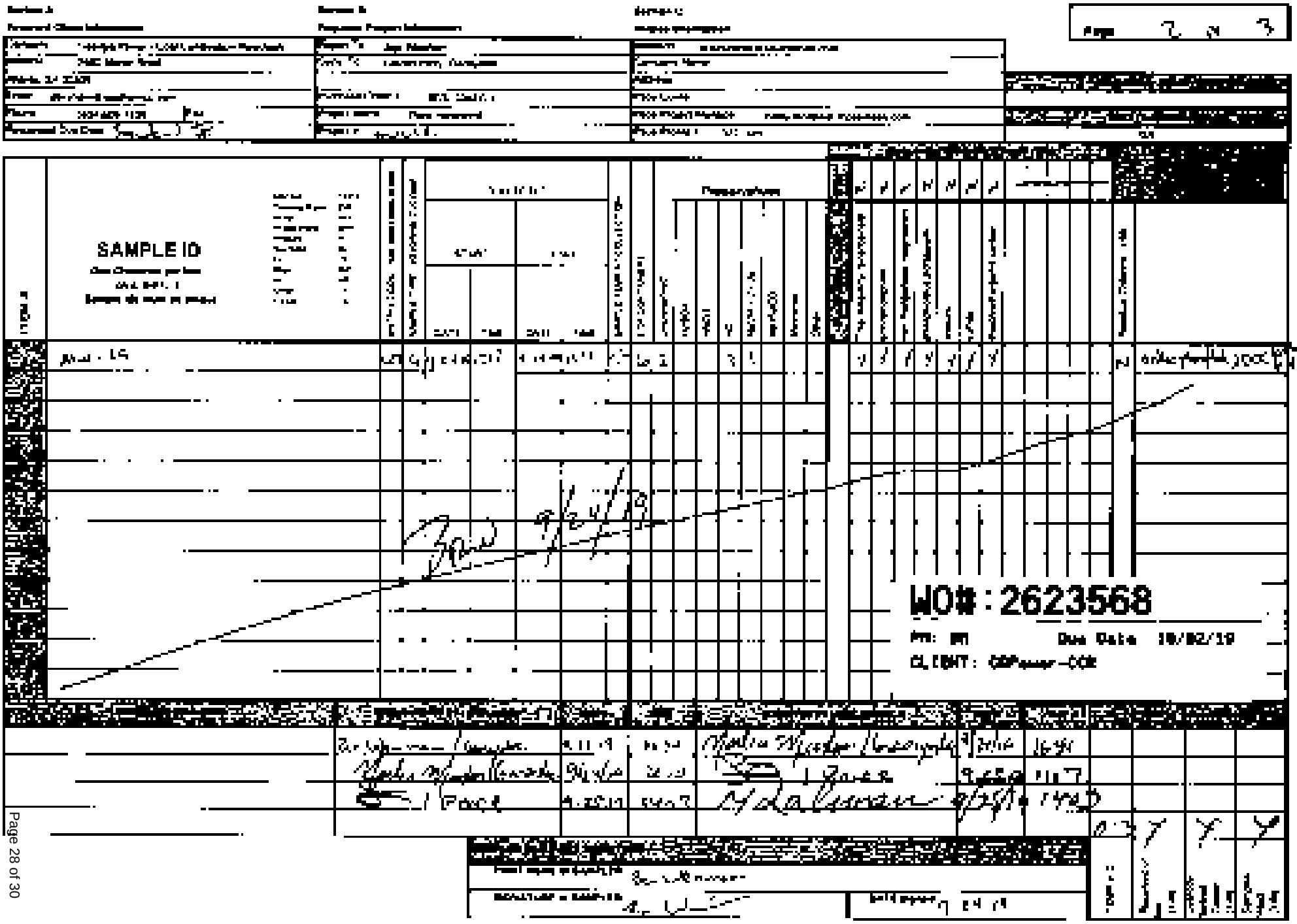
CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 2

SAMPLE ID

WO#: 2623568


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
WO# : 2623568

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 3

#	SAMPLE ID							
1	MW-38d							

WO#: 2623568

PM: [illegible] Due Date: 10/02/19

CLIENT: GRPower-CCR

Relinquished by	Date	Time	Accepted by	Date	Time
[illegible signature]	9/26/19	1310	[illegible signature]	9/26/19	1310
[illegible signature]	9/26/19	[illegible]	[illegible] / Pace	9/27/19	[illegible]
[illegible] / Pace	9.25.19	1403	[illegible signature]	9/26/19	1403

Print Name of Sampler: [illegible signature]

Signature of Sampler: [illegible signature] Date Signed: 9-25-19

Sample Condition Upon Receipt

Pace Analytical

Client Name: [illegible] Project #

WO#: 2623568

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

Tracking #:

PM: BR Due Date: 10/02/19

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes

CLIENT: GW-user-COC

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: B3 Type of Ice: ☐ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.8 Biological Tissue is Frozen: ☐ Yes ☐ No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 9/26/19 MK

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 23, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623571

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623571

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623571

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623571001	**HGWC-8**	Water	09/24/19 15:50	09/25/19 14:03
2623571002	**MW-30d**	Water	09/24/19 16:40	09/25/19 14:03
2623571003	**MW-29**	Water	09/24/19 15:22	09/25/19 14:03

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623571

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623571001	**HGWC-8**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623571002	**MW-30d**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623571003	**MW-29**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

Sample: HGWC-8 **Lab ID: 2623571001** Collected: 09/24/19 15:50 Received: 09/25/19 14:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.652 ± 0.250 (0.366) C:92% T:NA**	pCi/L	10/15/19 17:42	13982-63-3	
Radium-228	EPA 9320	**0.648 ± 0.416 (0.784) C:78% T:81%**	pCi/L	10/18/19 14:13	15262-20-1	
Total Radium	Total Radium Calculation	**1.30 ± 0.666 (1.15)**	pCi/L	10/21/19 11:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

Sample: MW-30d **Lab ID: 2623571002** Collected: 09/24/19 16:40 Received: 09/25/19 14:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.416 ± 0.182 (0.260) C:95% T:NA**	pCi/L	10/15/19 17:39	13982-63-3	
Radium-228	EPA 9320	**0.744 ± 0.470 (0.901) C:80% T:83%**	pCi/L	10/18/19 14:13	15262-20-1	
Total Radium	Total Radium Calculation	**1.16 ± 0.652 (1.16)**	pCi/L	10/21/19 11:42	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

Sample: MW-29 **Lab ID: 2623571003** Collected: 09/24/19 15:22 Received: 09/25/19 14:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.451 ± 0.194 (0.274) C:86% T:NA**	pCi/L	10/14/19 18:00	13982-63-3	
Radium-228	EPA 9320	**0.224 ± 0.336 (0.724) C:79% T:82%**	pCi/L	10/16/19 13:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.675 ± 0.530 (0.998)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

QC Batch: 365381 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623571001, 2623571002

METHOD BLANK: 1772186 Matrix: Water
Associated Lab Samples: 2623571001, 2623571002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0377 ± 0.401 (0.924) C:77% T:72%	pCi/L	10/18/19 14:14	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

QC Batch: 365001 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623571003

METHOD BLANK: 1770530 Matrix: Water
Associated Lab Samples: 2623571003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.564 ± 0.187 (0.181) C:94% T:NA	pCi/L	10/14/19 19:10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

QC Batch: 365377 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623571001, 2623571002

METHOD BLANK: 1772182 Matrix: Water
Associated Lab Samples: 2623571001, 2623571002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.373 ± 0.153 (0.180) C:94% T:NA	pCi/L	10/15/19 19:08	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623571

QC Batch: 365002 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623571003

METHOD BLANK: 1770531 Matrix: Water
Associated Lab Samples: 2623571003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.538 ± 0.357 (0.676) C:80% T:85%	pCi/L	10/16/19 11:11	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623571

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

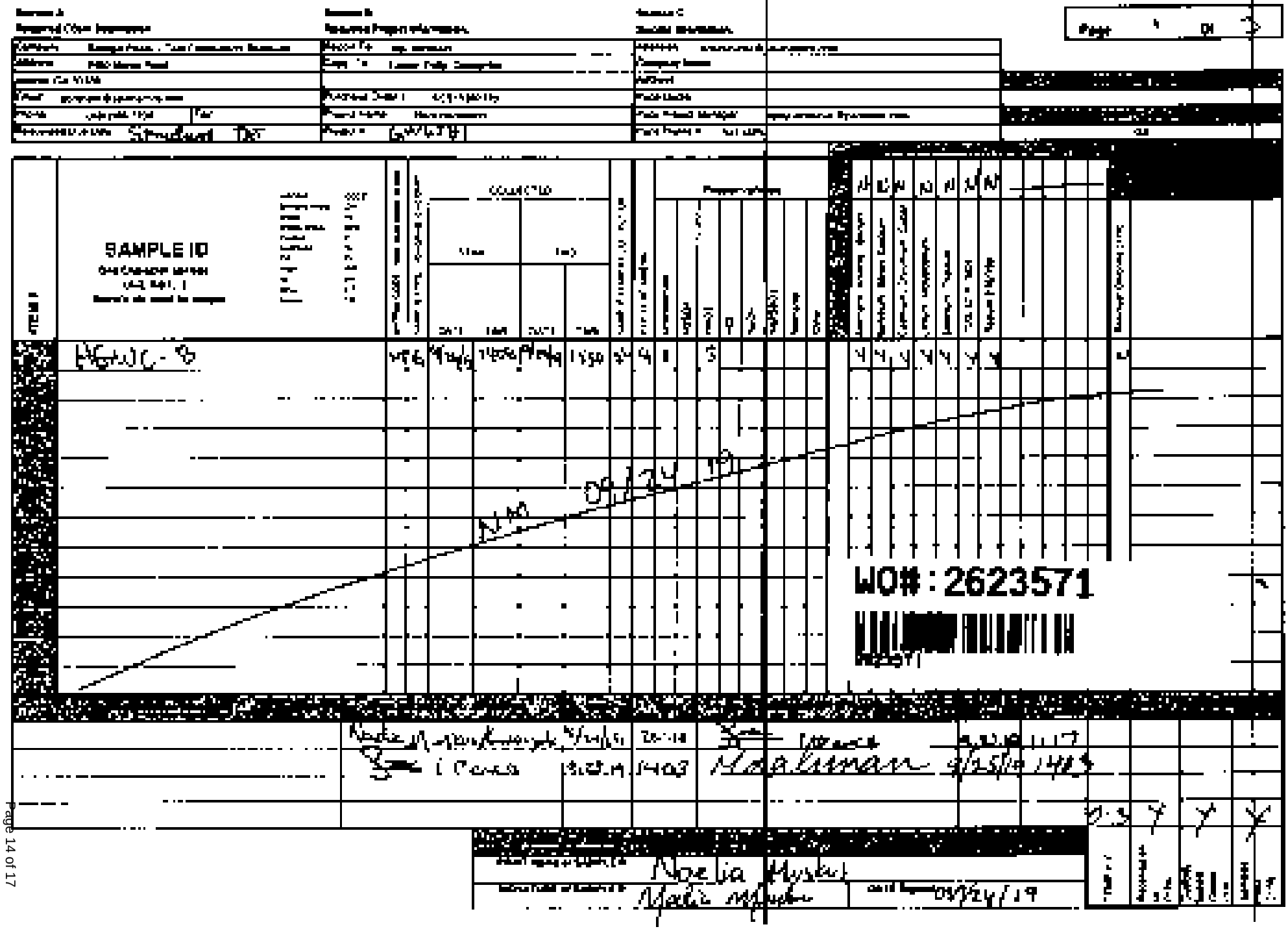
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623571

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623571001	**HGWC-8**	EPA 9315	365377		
2623571002	**MW-30d**	EPA 9315	365377		
2623571003	**MW-29**	EPA 9315	365001		
2623571001	**HGWC-8**	EPA 9320	365381		
2623571002	**MW-30d**	EPA 9320	365381		
2623571003	**MW-29**	EPA 9320	365002		
2623571001	**HGWC-8**	Total Radium Calculation	367110		
2623571002	**MW-30d**	Total Radium Calculation	367110		
2623571003	**MW-29**	Total Radium Calculation	367489		

CHAIN-OF-CUSTODY / Analytical Request Document

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



CHAIN-OF-CUSTODY / Analytical Request Document

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

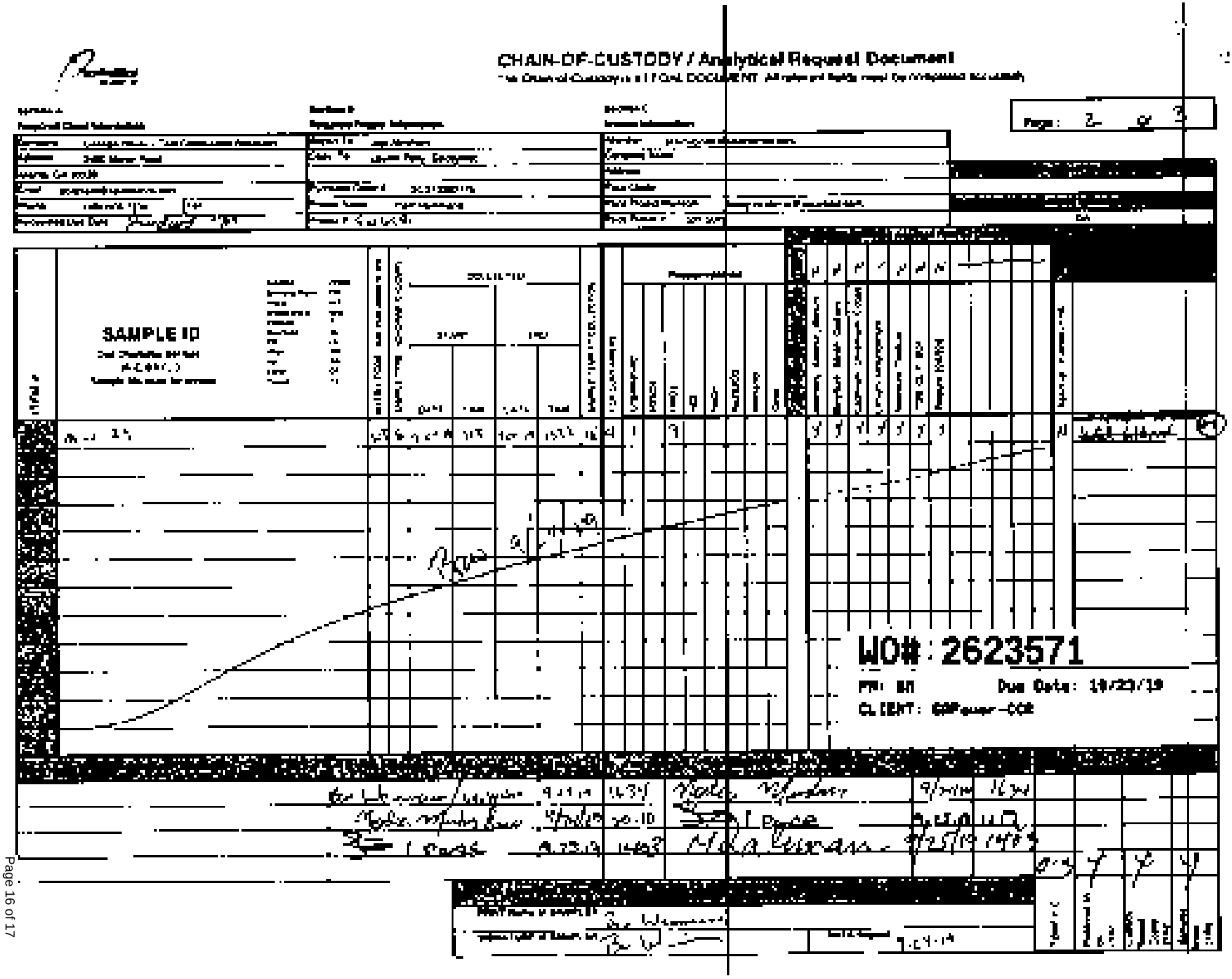
Page 1 of 1

SAMPLE ID										
MW-3 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Y	Y	Y	N

WO#: 2623571

Due Date: 10/23/19

CLIENT: [illegible]


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
WO#: 2623571

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO# : 2623571

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other

Tracking #: ______

PM: BM Due Date: 10/23/19

CLIENT: GAPower-CCR

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other ______

Thermometer Used: 85 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/25/19 [illegible]

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

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

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: There was no sample received for MW-29. There was 1 extra sample labeled HGWC-7 present but was not listed on COC. The client was notified and the lab was instructed to log-in that sample as MW-29.

Project Manager Review: ______ Date: ______

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 13, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623639001	**HGWC-7**	Water	09/25/19 11:22	09/26/19 15:22
2623639002	**MW-20**	Water	09/25/19 11:10	09/26/19 15:22
2623639003	**MW-5**	Water	09/25/19 16:35	09/26/19 15:22

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623639001	**HGWC-7**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623639002	**MW-20**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623639003	**MW-5**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

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ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Sample: HGWC-7 **Lab ID: 2623639001** Collected: 09/25/19 11:22 Received: 09/26/19 15:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/30/19 12:43	10/01/19 22:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/30/19 12:43	10/01/19 22:30	7440-38-2	
Barium	**0.061**	mg/L	0.010	0.00049	1	09/30/19 12:43	10/01/19 22:30	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 12:43	10/01/19 22:30	7440-41-7	
Boron	**1.1**	mg/L	0.040	0.0049	1	09/30/19 12:43	10/01/19 22:30	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 12:43	10/01/19 22:30	7440-43-9	
Calcium	**105**	mg/L	5.0	0.55	50	09/30/19 12:43	10/01/19 22:36	7440-70-2	
Chromium	**0.071**	mg/L	0.010	0.00039	1	09/30/19 12:43	10/01/19 22:30	7440-47-3	
Cobalt	**0.0026J**	mg/L	0.0050	0.00030	1	09/30/19 12:43	10/01/19 22:30	7440-48-4	
Lithium	**0.0019J**	mg/L	0.030	0.00078	1	09/30/19 12:43	10/01/19 22:30	7439-93-2	
Molybdenum	**0.047**	mg/L	0.010	0.00095	1	09/30/19 12:43	10/01/19 22:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 12:43	10/01/19 22:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/30/19 12:43	10/01/19 22:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**503**	mg/L	10.0	10.0	1		10/02/19 16:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**49.8**	mg/L	1.0	0.60	1		10/01/19 19:01	16887-00-6	
Fluoride	**0.10J**	mg/L	0.30	0.050	1		10/01/19 19:01	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		10/02/19 00:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Sample: MW-20 **Lab ID: 2623639002** Collected: 09/25/19 11:10 Received: 09/26/19 15:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/30/19 12:43	10/01/19 21:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/30/19 12:43	10/01/19 21:21	7440-38-2	
Barium	**0.085**	mg/L	0.010	0.00049	1	09/30/19 12:43	10/01/19 21:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 12:43	10/01/19 21:21	7440-41-7	
Boron	**0.091**	mg/L	0.040	0.0049	1	09/30/19 12:43	10/01/19 21:21	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 12:43	10/01/19 21:21	7440-43-9	
Calcium	**113**	mg/L	5.0	0.55	50	09/30/19 12:43	10/01/19 21:27	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	09/30/19 12:43	10/01/19 21:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/30/19 12:43	10/01/19 21:21	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	09/30/19 12:43	10/01/19 21:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/30/19 12:43	10/01/19 21:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 12:43	10/01/19 21:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/30/19 12:43	10/01/19 21:21	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**461**	mg/L	10.0	10.0	1		10/02/19 16:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**25.7**	mg/L	1.0	0.60	1		10/01/19 19:16	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		10/01/19 19:16	16984-48-8	
Sulfate	**112**	mg/L	2.0	1.0	2		10/02/19 00:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Sample: MW-5 **Lab ID: 2623639003** Collected: 09/25/19 16:35 Received: 09/26/19 15:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/30/19 12:43	10/01/19 22:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/30/19 12:43	10/01/19 22:42	7440-38-2	
Barium	**0.046**	mg/L	0.010	0.00049	1	09/30/19 12:43	10/01/19 22:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 12:43	10/01/19 22:42	7440-41-7	
Boron	**0.11**	mg/L	0.040	0.0049	1	09/30/19 12:43	10/01/19 22:42	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 12:43	10/01/19 22:42	7440-43-9	
Calcium	**105**	mg/L	5.0	0.55	50	09/30/19 12:43	10/01/19 22:47	7440-70-2	
Chromium	**0.0052J**	mg/L	0.010	0.00039	1	09/30/19 12:43	10/01/19 22:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/30/19 12:43	10/01/19 22:42	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	09/30/19 12:43	10/01/19 22:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/30/19 12:43	10/01/19 22:42	7439-98-7	
Selenium	**0.0021J**	mg/L	0.010	0.0013	1	09/30/19 12:43	10/01/19 22:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/30/19 12:43	10/01/19 22:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**460**	mg/L	10.0	10.0	1		10/02/19 16:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**35.9**	mg/L	1.0	0.60	1		10/01/19 19:30	16887-00-6	
Fluoride	**0.076J**	mg/L	0.30	0.050	1		10/01/19 19:30	16984-48-8	
Sulfate	**134**	mg/L	3.0	1.5	3		10/02/19 00:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

QC Batch: 36170 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623639001, 2623639002, 2623639003

METHOD BLANK: 163336 Matrix: Water
Associated Lab Samples: 2623639001, 2623639002, 2623639003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/01/19 18:14	
Arsenic	mg/L	ND	0.0050	0.00035	10/01/19 18:14	
Barium	mg/L	ND	0.010	0.00049	10/01/19 18:14	
Beryllium	mg/L	ND	0.0030	0.000074	10/01/19 18:14	
Boron	mg/L	ND	0.040	0.0049	10/01/19 18:14	
Cadmium	mg/L	ND	0.0025	0.00011	10/01/19 18:14	
Calcium	mg/L	ND	0.10	0.011	10/01/19 18:14	
Chromium	mg/L	ND	0.010	0.00039	10/01/19 18:14	
Cobalt	mg/L	ND	0.0050	0.00030	10/01/19 18:14	
Lithium	mg/L	ND	0.030	0.00078	10/01/19 18:14	
Molybdenum	mg/L	ND	0.010	0.00095	10/01/19 18:14	
Selenium	mg/L	ND	0.010	0.0013	10/01/19 18:14	
Thallium	mg/L	ND	0.0010	0.000052	10/01/19 18:14	

LABORATORY CONTROL SAMPLE: 163337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	109	106	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000084J	0.1	0.1	0.10	0.093	102	93	75-125	9	20	
Boron	mg/L	0.0072J	1	1	1.0	0.95	100	94	75-125	6	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	2	20	
Calcium	mg/L	1.1	1	1	2.1	2.1	97	94	75-125	1	20	
Chromium	mg/L	0.00076J	0.1	0.1	0.10	0.10	101	101	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	
Lithium	mg/L	0.0029J	0.1	0.1	0.10	0.097	102	94	75-125	7	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	108	104	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

QC Batch: 36344 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623639001, 2623639002, 2623639003

LABORATORY CONTROL SAMPLE: 164074

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	419	105	84-108	

SAMPLE DUPLICATE: 164075

Parameter	Units	2623639001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	503	491	2	10	

SAMPLE DUPLICATE: 164076

Parameter	Units	2623623008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	126	119	6	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

QC Batch: 500864 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
Associated Lab Samples: 2623639001, 2623639002, 2623639003

METHOD BLANK: 2694310 Matrix: Water
Associated Lab Samples: 2623639001, 2623639002, 2623639003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/01/19 17:49	
Fluoride	mg/L	ND	0.10	0.050	10/01/19 17:49	
Sulfate	mg/L	ND	1.0	0.50	10/01/19 17:49	

LABORATORY CONTROL SAMPLE: 2694311

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.0	98	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	50.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2694312 2694313

Parameter	Units	2623620013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	17.1	50	50	74.9	69.9	115	105	90-110	7	10	M1
Fluoride	mg/L	0.064J	2.5	2.5	2.9	2.7	115	104	90-110	10	10	M1
Sulfate	mg/L	80.1	50	50	123	123	85	86	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2694314 2694315

Parameter	Units	92447530001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	22.7	50	50	76.0	75.5	107	106	90-110	1	10	
Fluoride	mg/L	0.073J	2.5	2.5	2.7	2.7	107	106	90-110	1	10	
Sulfate	mg/L	10.1	50	50	64.0	63.6	108	107	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

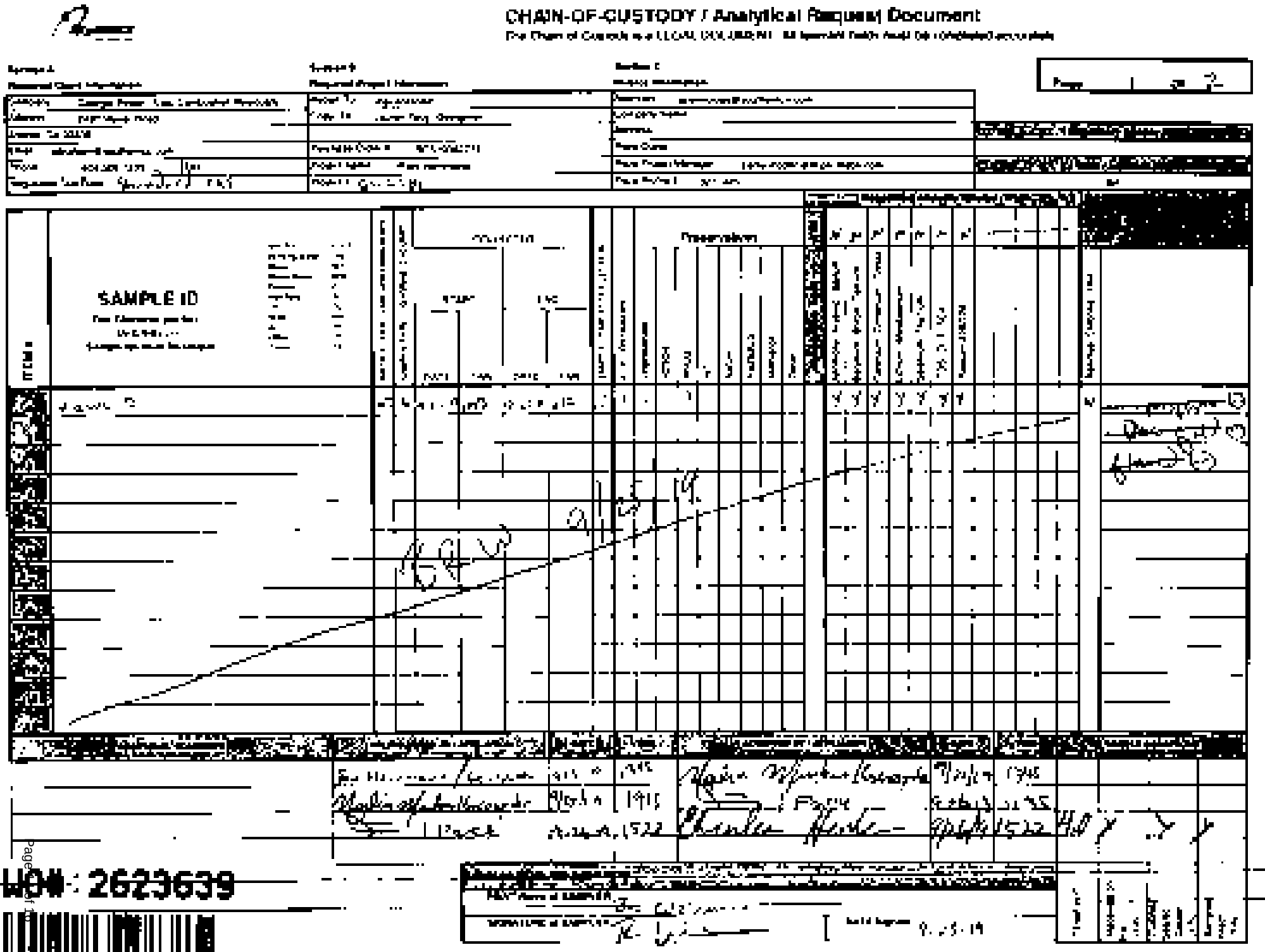
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP GW6581
Pace Project No.: 2623639

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623639001	**HGWC-7**	EPA 3005A	36170	EPA 6020B	36202
2623639002	**MW-20**	EPA 3005A	36170	EPA 6020B	36202
2623639003	**MW-5**	EPA 3005A	36170	EPA 6020B	36202
2623639001	**HGWC-7**	SM 2540C	36344		
2623639002	**MW-20**	SM 2540C	36344		
2623639003	**MW-5**	SM 2540C	36344		
2623639001	**HGWC-7**	EPA 300.0 Rev 2.1 1993	500864		
2623639002	**MW-20**	EPA 300.0 Rev 2.1 1993	500864		
2623639003	**MW-5**	EPA 300.0 Rev 2.1 1993	500864		


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
WO#: 2623639

CHAIN-OF-CUSTODY / Analytical Request Document

Page 1 of 2

SAMPLE ID								
MW-20								2
MW-5								3

NM 09/25/19

WO# : 2623639

Due Date: 10/09/19

Date Signed: 09/25/19

Pace Analytical

Sample Condition Upon Receipt

WO# : 2623639

PM: [illegible] Due Date: 10/[illegible]/[illegible]

CLIENT: [illegible]

Client Name: GA Power

Courier: [ ] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [x] Pace Other

Tracking #

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

Proj. Name:

Packing Material: [x] Bubble Wrap [x] Bubble Bags [ ] None [ ] Other

Thermometer Used: 210 Type of Ice: (Wet) Blue None [ ] Samples on ice, cooling process has begun

Cooler Temperature: 4.7/0.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/26/[illegible]

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

F-ALLC003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 29, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP
Pace Project No.: 2623640

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP
Pace Project No.: 2623640

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP
Pace Project No.: 2623640

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623640001	**HGWC-7**	Water	09/25/19 11:22	09/26/19 15:22
2623640002	**MW-20**	Water	09/25/19 11:10	09/26/19 15:22
2623640003	**MW-5**	Water	09/25/19 16:35	09/26/19 15:22

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP
Pace Project No.: 2623640

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623640001	**HGWC-7**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623640002	**MW-20**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623640003	**MW-5**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 2623640

Sample: HGWC-7 **Lab ID: 2623640001** Collected: 09/25/19 11:22 Received: 09/26/19 15:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.341 ± 0.258 (0.445) C:96% T:NA**	pCi/L	10/16/19 08:23	13982-63-3	
Radium-228	EPA 9320	**0.543 ± 0.399 (0.764) C:66% T:78%**	pCi/L	10/22/19 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.884 ± 0.657 (1.21)**	pCi/L	10/24/19 12:46	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 2623640

Sample: MW-20 **Lab ID: 2623640002** Collected: 09/25/19 11:10 Received: 09/26/19 15:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.764 ± 0.365 (0.476) C:86% T:NA**	pCi/L	10/16/19 08:23	13982-63-3	
Radium-228	EPA 9320	**0.586 ± 0.471 (0.933) C:58% T:83%**	pCi/L	10/22/19 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**1.35 ± 0.836 (1.41)**	pCi/L	10/24/19 12:46	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 2623640

Sample: MW-5 **Lab ID: 2623640003** Collected: 09/25/19 16:35 Received: 09/26/19 15:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.642 ± 0.439 (0.772) C:64% T:NA**	pCi/L	10/16/19 08:24	13982-63-3	
Radium-228	EPA 9320	**0.156 ± 0.282 (0.617) C:76% T:94%**	pCi/L	10/22/19 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.798 ± 0.721 (1.39)**	pCi/L	10/24/19 12:46	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 2623640

QC Batch: 365382 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623640001, 2623640002, 2623640003

METHOD BLANK: 1772187 Matrix: Water
Associated Lab Samples: 2623640001, 2623640002, 2623640003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.573 ± 0.379 (0.723) C:78% T:84%	pCi/L	10/22/19 15:57	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 2623640

QC Batch: 365379 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623640001, 2623640002, 2623640003

METHOD BLANK: 1772184 Matrix: Water
Associated Lab Samples: 2623640001, 2623640002, 2623640003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.298 ± 0.261 (0.477) C:93% T:NA	pCi/L	10/16/19 08:22	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP
Pace Project No.: 2623640

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

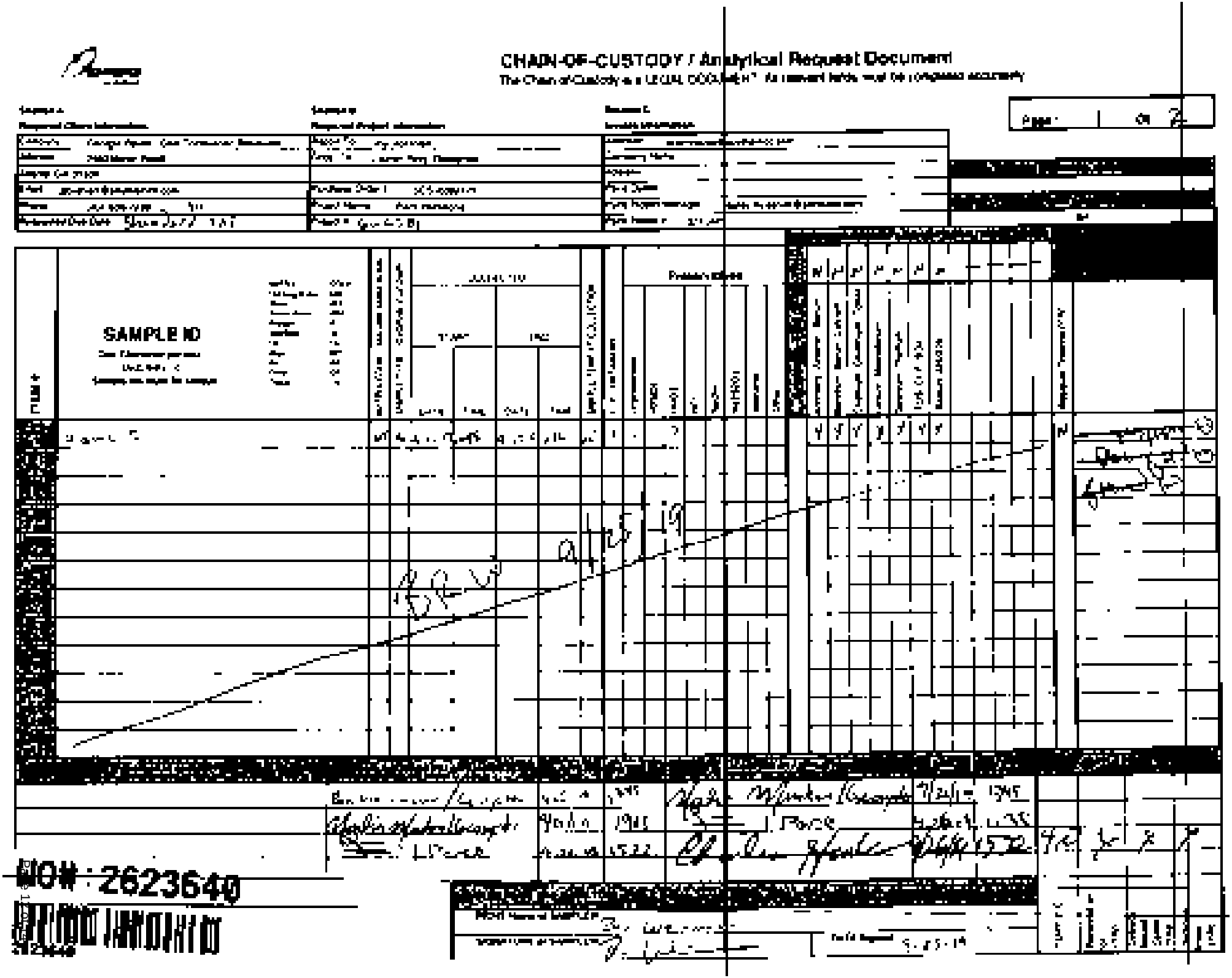
REPORT OF LABORATORY ANALYSIS

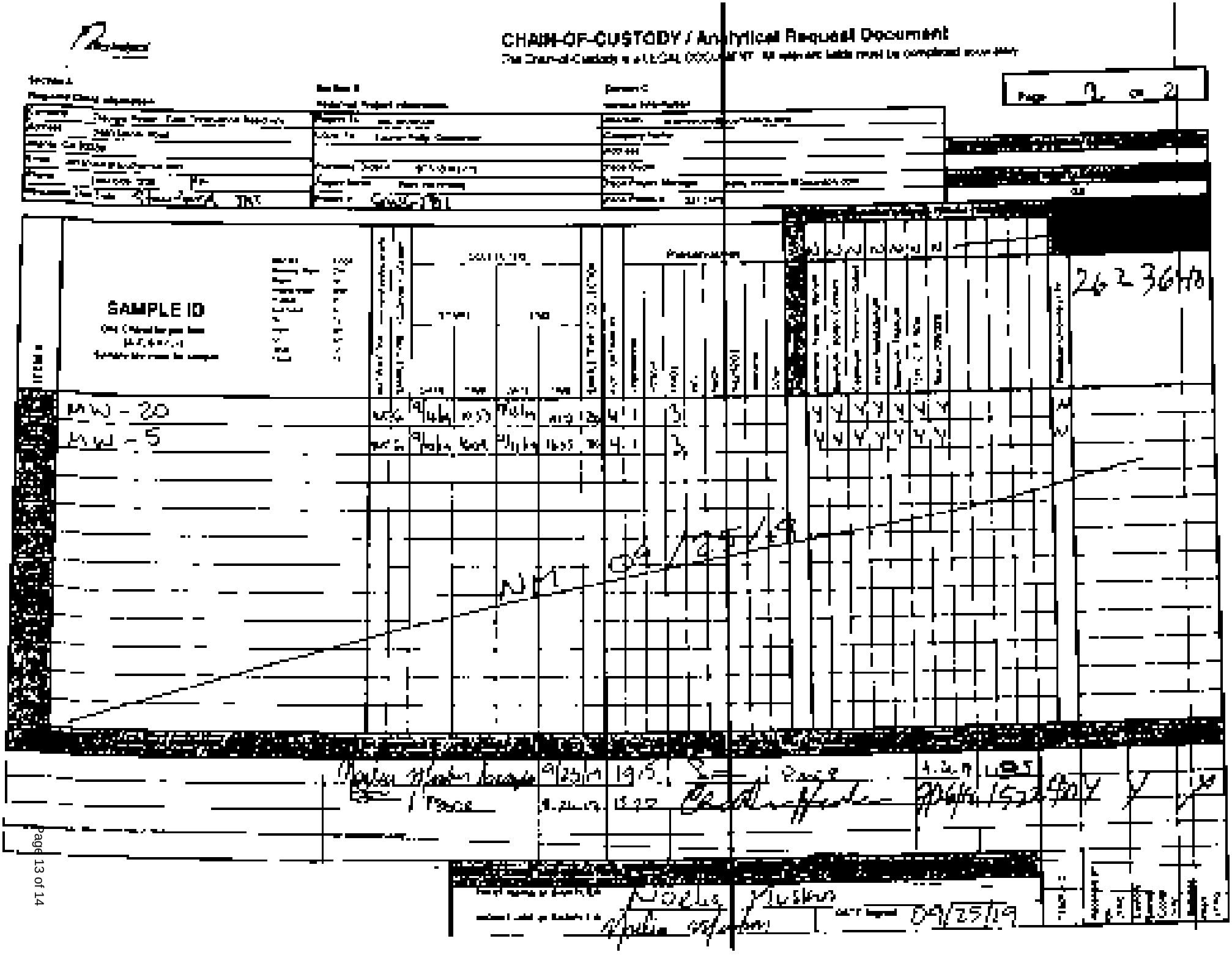
Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP
Pace Project No.: 2623640

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623640001	**HGWC-7**	EPA 9315	365379		
2623640002	**MW-20**	EPA 9315	365379		
2623640003	**MW-5**	EPA 9315	365379		
2623640001	**HGWC-7**	EPA 9320	365382		
2623640002	**MW-20**	EPA 9320	365382		
2623640003	**MW-5**	EPA 9320	365382		
2623640001	**HGWC-7**	Total Radium Calculation	367752		
2623640002	**MW-20**	Total Radium Calculation	367752		
2623640003	**MW-5**	Total Radium Calculation	367752		


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
WO#: 2623640


CHAIN-OF-CUSTODY / Analytical Request Document
Page 2 of 2
SAMPLE ID
MW-20
MW-5
09/25/19
09/25/19

Pace Analytical

Sample Condition Upon Receipt

Client Name: GA Power

WO# : 2623640

PM: BR   Due Date: 10/24/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other ______

Tracking #: ______

Proj. Due Date:
Proj. Name:

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

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other ______

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

Cooler Temperature: 4.0   Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/26/19 CH

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

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

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______   Date: ______

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

F-ALL-C-003 rev. 3

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623635001	**HGWC-7**	Water	09/25/19 11:22	09/26/19 15:22
2623635002	**MW-5**	Water	09/25/19 16:35	09/26/19 15:22
2623635003	**MW-20**	Water	09/25/19 11:10	09/26/19 15:22

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623635001	**HGWC-7**	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623635002	**MW-5**	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623635003	**MW-20**	EPA 6010	ATC	7	PASI-O
		EPA 6020B	CSW	2	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		EPA 300.0	MWB	2	PASI-GA
		EPA 350.1	ANB	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

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ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Sample: HGWC-7 **Lab ID: 2623635001** Collected: 09/25/19 11:22 Received: 09/26/19 15:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.18**	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:10	7439-89-6	
Magnesium	**10.2**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:10	7439-95-4	
Manganese	**0.31**	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:10	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:10	7723-14-0	N2
Potassium	**2.8**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:10	7440-09-7	
Sodium	**10.4**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:10	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**151**	mg/L	20.0	20.0	1		09/30/19 17:50		
Alkalinity, Total as CaCO3	**151**	mg/L	20.0	20.0	1		09/30/19 17:50		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 10:45		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 15:08	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/01/19 18:26		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Sample: MW-5 **Lab ID: 2623635002** Collected: 09/25/19 16:35 Received: 09/26/19 15:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.051**	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:15	7439-89-6	
Magnesium	**10.8**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:15	7439-95-4	
Manganese	**0.0042J**	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:15	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:15	7723-14-0	N2
Potassium	**0.96J**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:15	7440-09-7	
Sodium	**21.6**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:15	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**165**	mg/L	20.0	20.0	1		10/01/19 17:43		
Alkalinity, Total as CaCO3	**165**	mg/L	20.0	20.0	1		10/01/19 17:43		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 11:14		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 15:47	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.57J**	mg/L	1.0	0.50	1		10/01/19 19:11		

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ANALYTICAL RESULTS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Sample: MW-20 **Lab ID: 2623635003** Collected: 09/25/19 11:10 Received: 09/26/19 15:22 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**3.1**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 12:49	7439-89-6	
Magnesium	**8.6**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 12:49	7439-95-4	
Manganese	**0.17**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 12:49	7439-96-5	
Phosphorus	**0.083**	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 12:49	7723-14-0	N2
Potassium	**0.31J**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 12:49	7440-09-7	
Sodium	**11.0**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 12:49	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B	**337000**	ug/L	3210	506	1	10/08/19 16:13	10/09/19 12:49		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Copper	ND	mg/L	0.025	0.00019	1	09/30/19 12:43	10/01/19 21:21	7440-50-8	
Zinc	ND	mg/L	0.010	0.0015	1	09/30/19 12:43	10/01/19 21:21	7440-66-6	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**211**	mg/L	20.0	20.0	1		10/01/19 17:47		
Alkalinity, Total as CaCO3	**211**	mg/L	20.0	20.0	1		10/01/19 17:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**455**	mg/L	10.0	10.0	1		10/02/19 12:05		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 11:15		1A,H1
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 15:48	18496-25-8	
300.0 IC Anions	Analytical Method: EPA 300.0								
Nitrate as N	**0.70**	mg/L	0.050	0.0050	1		09/27/19 04:52	14797-55-8	
Nitrite as N	ND	mg/L	0.050	0.011	1		09/27/19 04:52	14797-65-0	
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**0.12**	mg/L	0.10	0.10	1		09/30/19 10:36	7664-41-7	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/01/19 19:29		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 576632 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623635001, 2623635002

METHOD BLANK: 3133743 Matrix: Water
Associated Lab Samples: 2623635001, 2623635002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/10/19 13:56	
Magnesium	mg/L	ND	0.50	0.084	10/10/19 13:56	
Manganese	mg/L	ND	0.0050	0.00042	10/10/19 13:56	
Phosphorus	mg/L	ND	0.045	0.014	10/10/19 13:56	N2
Potassium	mg/L	ND	1.0	0.15	10/10/19 13:56	
Sodium	mg/L	ND	2.0	0.27	10/10/19 13:56	

LABORATORY CONTROL SAMPLE: 3133744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.6	105	80-120	
Magnesium	mg/L	12.5	13.0	104	80-120	
Manganese	mg/L	0.25	0.26	106	80-120	
Phosphorus	mg/L	0.25	0.25	99	80-120	N2
Potassium	mg/L	12.5	12.8	103	80-120	
Sodium	mg/L	12.5	13.2	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3133745 3133746

Parameter	Units	2623752004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	0.22	2.5	2.5	2.8	2.8	105	103	75-125	1	20	
Magnesium	mg/L	8.5	12.5	12.5	21.6	21.3	105	103	75-125	2	20	
Manganese	mg/L	0.040	0.25	0.25	0.31	0.30	107	103	75-125	3	20	
Phosphorus	mg/L	0.019J	0.25	0.25	0.28	0.28	103	104	75-125	1	20	N2
Potassium	mg/L	0.69J	12.5	12.5	13.6	13.5	103	103	75-125	1	20	
Sodium	mg/L	118	12.5	12.5	135	131	130	102	75-125	3	20	M1

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 576681
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 2623635003

METHOD BLANK: 3134011 Matrix: Water
Associated Lab Samples: 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/09/19 12:43	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 12:43	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 12:43	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 12:43	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 12:43	
Sodium	mg/L	ND	2.0	0.27	10/09/19 12:43	
Tot Hardness asCaCO3 (SM 2340B	ug/L	ND	3210	506	10/09/19 12:43	

LABORATORY CONTROL SAMPLE: 3134012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.5	98	80-120	
Magnesium	mg/L	12.5	12.2	98	80-120	
Manganese	mg/L	0.25	0.25	98	80-120	
Phosphorus	mg/L	0.25	0.23	92	80-120	N2
Potassium	mg/L	12.5	12.1	97	80-120	
Sodium	mg/L	12.5	12.3	98	80-120	
Tot Hardness asCaCO3 (SM 2340B	ug/L	82700	81100	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3134013 3134014

Parameter	Units	2623635003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	3.1	2.5	2.5	5.6	5.6	98	100	75-125	1	20	
Magnesium	mg/L	8.6	12.5	12.5	21.1	21.2	99	101	75-125	1	20	
Manganese	mg/L	0.17	0.25	0.25	0.42	0.42	98	99	75-125	1	20	
Phosphorus	mg/L	0.083	0.25	0.25	0.33	0.33	98	99	75-125	1	20	N2
Potassium	mg/L	0.31J	12.5	12.5	13.1	13.1	102	103	75-125	0	20	
Sodium	mg/L	11.0	12.5	12.5	23.7	23.8	101	103	75-125	1	20	
Tot Hardness asCaCO3 (SM 2340B	ug/L	337000	82700	82700	418000	421000	99	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36170
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Associated Lab Samples: 2623635003

METHOD BLANK: 163336
Matrix: Water
Associated Lab Samples: 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	mg/L	ND	0.025	0.00019	10/01/19 18:14	
Zinc	mg/L	ND	0.010	0.0015	10/01/19 18:14	

LABORATORY CONTROL SAMPLE: 163337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	mg/L	0.1	0.10	100	80-120	
Zinc	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	2	20	
Zinc	mg/L	0.0017J	0.1	0.1	0.10	0.10	103	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36180 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623635001

METHOD BLANK: 163383 Matrix: Water
Associated Lab Samples: 2623635001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	09/30/19 14:21	

LABORATORY CONTROL SAMPLE: 163384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	100	100	85-115	

SAMPLE DUPLICATE: 163385

Parameter	Units	2623563001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	177	174	2	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36284 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623635002, 2623635003

METHOD BLANK: 163853 Matrix: Water
Associated Lab Samples: 2623635002, 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	10/01/19 17:35	

LABORATORY CONTROL SAMPLE: 163854

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	98.0	98	85-115	

SAMPLE DUPLICATE: 163855

Parameter	Units	2623635002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	165	164	1	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36325
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623635003

LABORATORY CONTROL SAMPLE: 164004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	421	105	84-108	

SAMPLE DUPLICATE: 164005

Parameter	Units	2623620005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	159	152	5	10	

SAMPLE DUPLICATE: 164006

Parameter	Units	2623623005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	83.0	2	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36055 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623635001, 2623635002, 2623635003

METHOD BLANK: 162666 Matrix: Water
Associated Lab Samples: 2623635001, 2623635002, 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/27/19 10:41	

LABORATORY CONTROL SAMPLE: 162667

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162668 162669

Parameter	Units	2623638001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	0.021	0.5	0.5	0.53	0.53	101	102	80-120	1	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36186 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623635001, 2623635002, 2623635003

METHOD BLANK: 163399 Matrix: Water
Associated Lab Samples: 2623635001, 2623635002, 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	09/30/19 14:59	

LABORATORY CONTROL SAMPLE: 163400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163401 163402

Parameter	Units	2623644003 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	0.49	0.50	98	100	30-129	2	10	

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36045
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623635003

METHOD BLANK: 162623 Matrix: Water
Associated Lab Samples: 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	0.013J	0.050	0.0050	09/27/19 01:45	
Nitrite as N	mg/L	0.020J	0.050	0.011	09/27/19 01:45	

LABORATORY CONTROL SAMPLE: 162624

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	10	10.6	106	90-110	
Nitrite as N	mg/L	10	10.9	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162625 162626

Parameter	Units	2623614003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.66	10	10	11.2	11.2	105	105	90-110	0	15	
Nitrite as N	mg/L	0.020J	10	10	10.9	10.9	109	108	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 36095
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia
Associated Lab Samples: 2623635003

METHOD BLANK: 162900
Matrix: Water
Associated Lab Samples: 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.10	09/30/19 10:18	

LABORATORY CONTROL SAMPLE: 162901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.3	103	90-110	

MATRIX SPIKE SAMPLE: 162902

Parameter	Units	2623600001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	10	10.2	102	90-110	

MATRIX SPIKE SAMPLE: 162903

Parameter	Units	2623679001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.33	10	12.1	118	90-110	M1

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QUALITY CONTROL DATA

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

QC Batch: 574634 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623635001, 2623635002, 2623635003

METHOD BLANK: 3122436 Matrix: Water
Associated Lab Samples: 2623635001, 2623635002, 2623635003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/01/19 14:32	

LABORATORY CONTROL SAMPLE: 3122437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.6	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3122438 3122439

Parameter	Units	2623556001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.5	96	95	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3122440 3122441

Parameter	Units	2623635001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.5	96	95	80-120	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

1A	Sample was received outside of the EPA recommended holding time or was received with insufficient time to run sample within the EPA recommended holding time.
H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP GW6581
Pace Project No.: 2623635

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623635001	**HGWC-7**	EPA 3010	576632	EPA 6010	576717
2623635002	**MW-5**	EPA 3010	576632	EPA 6010	576717
2623635003	**MW-20**	EPA 3010	576681	EPA 6010	576722
2623635003	**MW-20**	EPA 3005A	36170	EPA 6020B	36202
2623635001	**HGWC-7**	SM 2320B	36180		
2623635002	**MW-5**	SM 2320B	36284		
2623635003	**MW-20**	SM 2320B	36284		
2623635003	**MW-20**	SM 2540C	36325		
2623635001	**HGWC-7**	SM 4500-P	36055		
2623635002	**MW-5**	SM 4500-P	36055		
2623635003	**MW-20**	SM 4500-P	36055		
2623635001	**HGWC-7**	SM 4500-S2 D	36186		
2623635002	**MW-5**	SM 4500-S2 D	36186		
2623635003	**MW-20**	SM 4500-S2 D	36186		
2623635003	**MW-20**	EPA 300.0	36045		
2623635003	**MW-20**	EPA 350.1	36095		
2623635001	**HGWC-7**	SM 5310B	574634		
2623635002	**MW-5**	SM 5310B	574634		
2623635003	**MW-20**	SM 5310B	574634		

CHAIN-OF-CUSTODY / Analytical Request Document

SAMPLE ID

WO# : 2623635

CHAIN-OF-CUSTODY / Analytical Request Document

SAMPLE ID

MW-5

01/25/19

WO#: 2623635

Due Date: 10/03/19

CLIENT:

CHAIN-OF-CUSTODY / Analytical Request Document

Page 3 of 3

SAMPLE ID

MW-20

WO#: 2623635

Due Date: 10/03/19

CLIENT:

Pace Analytical

Sample Condition Upon Receipt

WO#: 2623635

PM: [illegible] Due Date: 10/[illegible]/1[illegible]

CLIENT: GAPower-CCR

Client Name: GA Power

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other ________

Tracking #: ________

Proj. Due Date:
Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ________

Thermometer Used: 2[illegible] Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: [illegible] Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: [illegible]

Comments:

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

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

Person Contacted: ________ Date/Time: ________

Comments/ Resolution: ________

Project Manager Review: ________ Date: ________

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

F-ALL-C-003-rev.5, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 13, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623693

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623693

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623693

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623693001	**FD-01**	Water	09/24/19 00:00	09/27/19 13:30

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623693

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623693001	**FD-01**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623693

Sample: FD-01 **Lab ID: 2623693001** Collected: 09/24/19 00:00 Received: 09/27/19 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/30/19 12:43	10/01/19 22:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/30/19 12:43	10/01/19 22:53	7440-38-2	
Barium	**0.052**	mg/L	0.010	0.00049	1	09/30/19 12:43	10/01/19 22:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 12:43	10/01/19 22:53	7440-41-7	
Boron	**2.7**	mg/L	2.0	0.25	50	09/30/19 12:43	10/01/19 22:59	7440-42-8	
Cadmium	**0.00019J**	mg/L	0.0025	0.00011	1	09/30/19 12:43	10/01/19 22:53	7440-43-9	
Calcium	**104**	mg/L	5.0	0.55	50	09/30/19 12:43	10/01/19 22:59	7440-70-2	
Chromium	**0.0027J**	mg/L	0.010	0.00039	1	09/30/19 12:43	10/01/19 22:53	7440-47-3	
Cobalt	**0.0016J**	mg/L	0.0050	0.00030	1	09/30/19 12:43	10/01/19 22:53	7440-48-4	
Lithium	**0.0023J**	mg/L	0.030	0.00078	1	09/30/19 12:43	10/01/19 22:53	7439-93-2	
Molybdenum	**0.53**	mg/L	0.010	0.00095	1	09/30/19 12:43	10/01/19 22:53	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 12:43	10/01/19 22:53	7782-49-2	
Thallium	**0.000074J**	mg/L	0.0010	0.000052	1	09/30/19 12:43	10/01/19 22:53	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**391**	mg/L	10.0	10.0	1		10/01/19 16:38		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**61.3**	mg/L	20.0	0.48	20		10/01/19 04:53	16887-00-6	
Fluoride	**0.63**	mg/L	0.30	0.029	1		09/30/19 20:57	16984-48-8	
Sulfate	**159**	mg/L	20.0	0.34	20		10/01/19 04:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623693

QC Batch: 36170
QC Batch Method: EPA 3005A
Associated Lab Samples: 2623693001

Analysis Method: EPA 6020B
Analysis Description: 6020B MET

METHOD BLANK: 163336 Matrix: Water
Associated Lab Samples: 2623693001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/01/19 18:14	
Arsenic	mg/L	ND	0.0050	0.00035	10/01/19 18:14	
Barium	mg/L	ND	0.010	0.00049	10/01/19 18:14	
Beryllium	mg/L	ND	0.0030	0.000074	10/01/19 18:14	
Boron	mg/L	ND	0.040	0.0049	10/01/19 18:14	
Cadmium	mg/L	ND	0.0025	0.00011	10/01/19 18:14	
Calcium	mg/L	ND	0.10	0.011	10/01/19 18:14	
Chromium	mg/L	ND	0.010	0.00039	10/01/19 18:14	
Cobalt	mg/L	ND	0.0050	0.00030	10/01/19 18:14	
Lithium	mg/L	ND	0.030	0.00078	10/01/19 18:14	
Molybdenum	mg/L	ND	0.010	0.00095	10/01/19 18:14	
Selenium	mg/L	ND	0.010	0.0013	10/01/19 18:14	
Thallium	mg/L	ND	0.0010	0.000052	10/01/19 18:14	

LABORATORY CONTROL SAMPLE: 163337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	109	106	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623693

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000084J	0.1	0.1	0.10	0.093	102	93	75-125	9	20	
Boron	mg/L	0.0072J	1	1	1.0	0.95	100	94	75-125	6	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	2	20	
Calcium	mg/L	1.1	1	1	2.1	2.1	97	94	75-125	1	20	
Chromium	mg/L	0.00076J	0.1	0.1	0.10	0.10	101	101	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	
Lithium	mg/L	0.0029J	0.1	0.1	0.10	0.097	102	94	75-125	7	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	108	104	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623693

QC Batch: 36262
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623693001

LABORATORY CONTROL SAMPLE: 163778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	357	89	84-108	

SAMPLE DUPLICATE: 163780

Parameter	Units	2623620001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	139	5	10	

SAMPLE DUPLICATE: 163844

Parameter	Units	2623559001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	124	7	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623693

QC Batch: 36185
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623693001

METHOD BLANK: 163390 Matrix: Water
Associated Lab Samples: 2623693001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.033J	1.0	0.024	09/30/19 18:32	
Fluoride	mg/L	ND	0.30	0.029	09/30/19 18:32	
Sulfate	mg/L	ND	1.0	0.017	09/30/19 18:32	

LABORATORY CONTROL SAMPLE: 163391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.7	107	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163392 163393

Parameter	Units	2623317001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.0	20	20	61.9	61.6	79	78	90-110	0	15	M1
Fluoride	mg/L	0.94	20	20	21.7	22.3	104	107	90-110	3	15	

MATRIX SPIKE SAMPLE: 163394

Parameter	Units	2623567003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	83.8	100	181	97	90-110	
Fluoride	mg/L	0.18J	100	101	101	90-110	
Sulfate	mg/L	154	100	242	88	90-110	M6

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623693

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

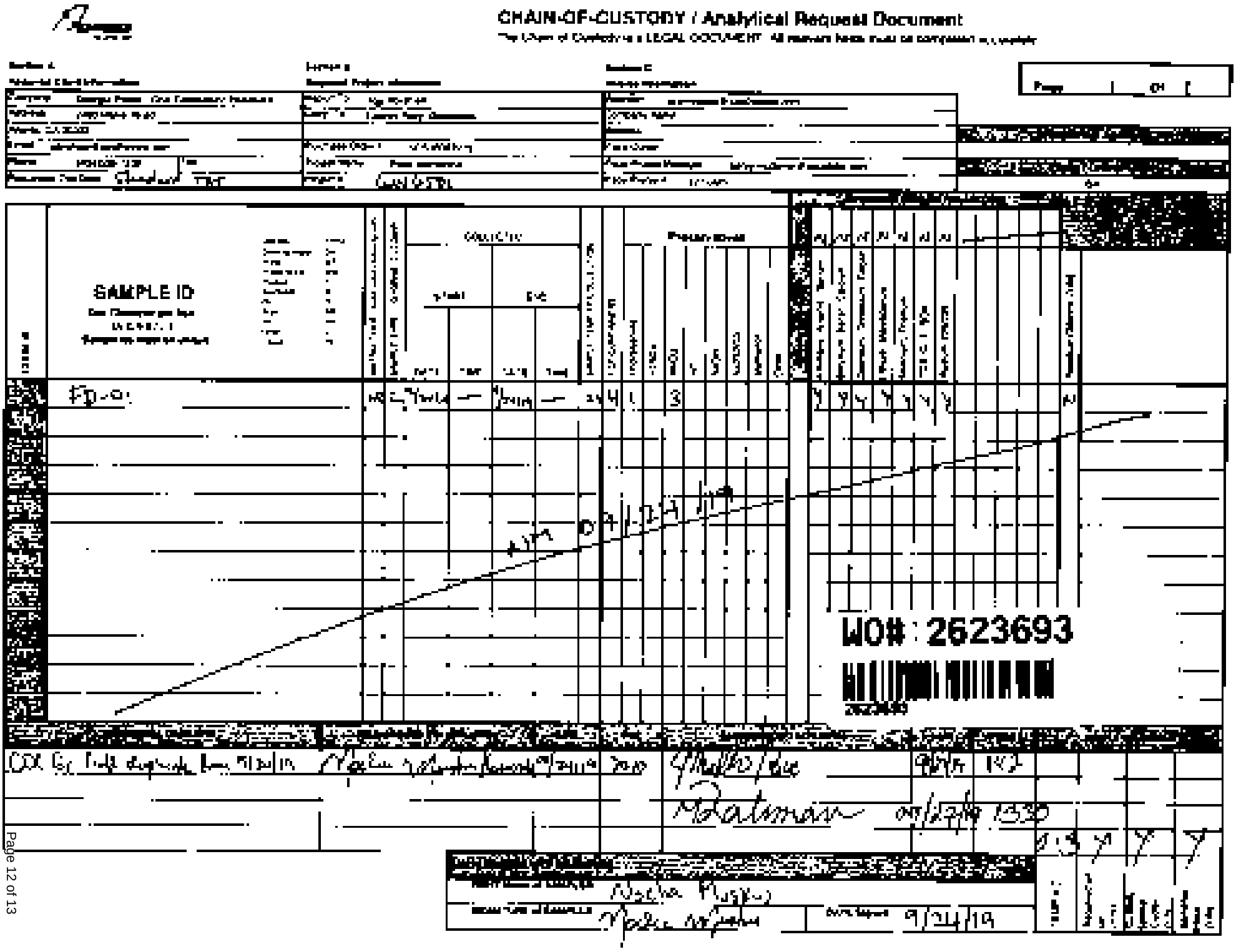
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623693

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623693001	**FD-01**	EPA 3005A	36170	EPA 6020B	36202
2623693001	**FD-01**	SM 2540C	36262		
2623693001	**FD-01**	EPA 300.0	36185		



CHAIN-OF-CUSTODY / Analytical Request Document

SAMPLE ID

FD-01

WO#: 2623693

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

WO#: 2623693

Tracking #

PM: BR Due Date: 10/04/18

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no CLIENT: GAPower-CCR

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: 83 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.3 Biological Tissue is Frozen: ☐ Yes ☐ No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/28/18 BR

Comments:

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 29, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623694

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623694

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623694

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623694001	**FD-01**	Water	09/24/19 00:00	09/27/19 13:30

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623694

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623694001	**FD-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623694

Sample: FD-01 **Lab ID: 2623694001** Collected: 09/24/19 00:00 Received: 09/27/19 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.670 ± 0.371 (0.441) C:64% T:NA**	pCi/L	10/16/19 07:52	13982-63-3	
Radium-228	EPA 9320	**0.152 ± 0.397 (0.887) C:67% T:82%**	pCi/L	10/22/19 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.822 ± 0.768 (1.33)**	pCi/L	10/24/19 12:46	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623694

QC Batch: 365382 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623694001

METHOD BLANK: 1772187 Matrix: Water
Associated Lab Samples: 2623694001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.573 ± 0.379 (0.723) C:78% T:84%	pCi/L	10/22/19 15:57	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623694

QC Batch: 365379
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623694001

METHOD BLANK: 1772184
Matrix: Water
Associated Lab Samples: 2623694001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.298 ± 0.261 (0.477) C:93% T:NA	pCi/L	10/16/19 08:22	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623694

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

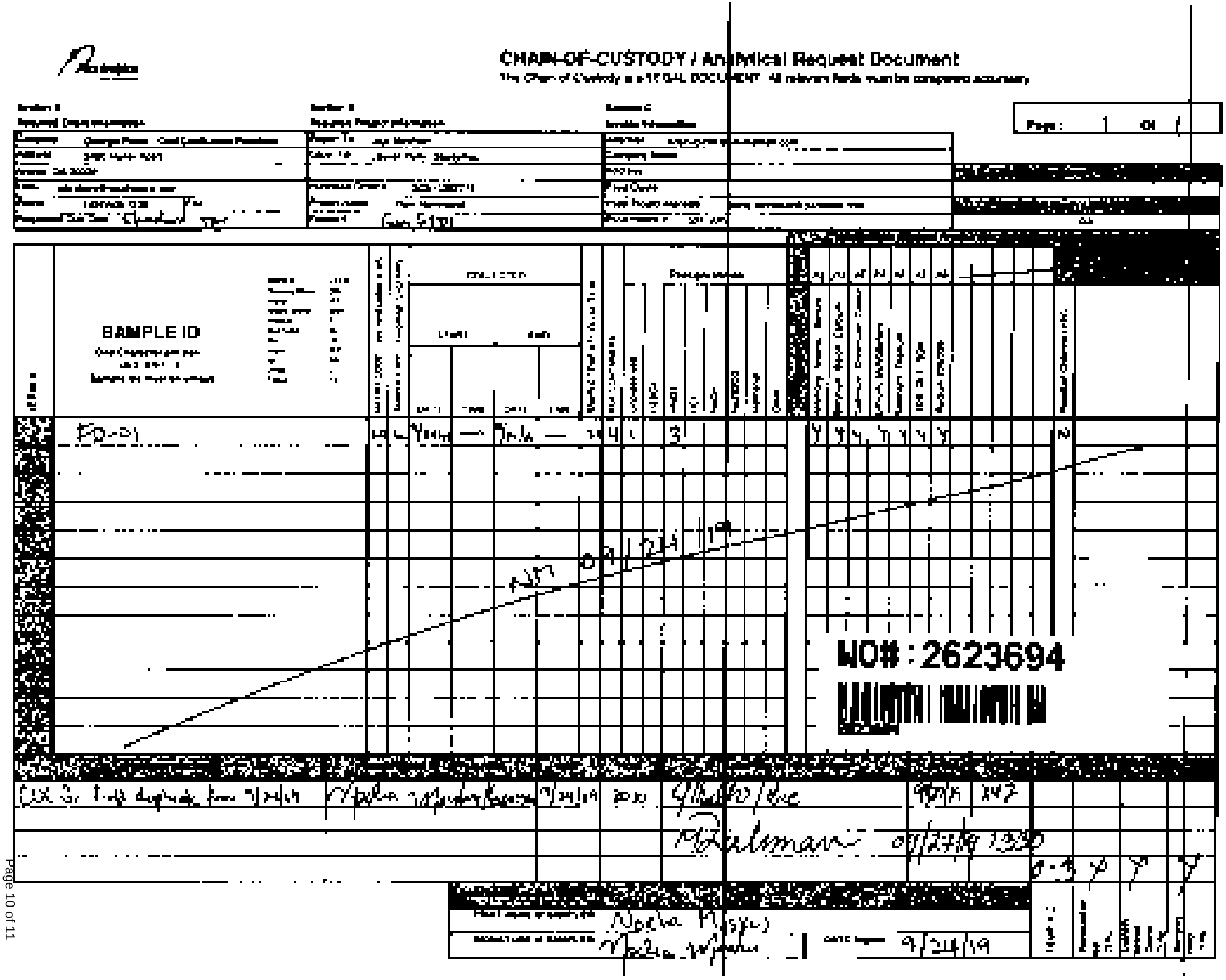
REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623694

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623694001	**FD-01**	EPA 9315	365379		
2623694001	**FD-01**	EPA 9320	365382		
2623694001	**FD-01**	Total Radium Calculation	367752		



CHAIN-OF-CUSTODY / Analytical Request Document

WO#: 2623694

Sample Condition Upon Receipt

Client Name: GA Power Project #

WO# : 2623694

PM: BA Due Date: 10/2?/19
CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other
Tracking #:
Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes
Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other
Thermometer Used: 23 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun
Cooler Temperature: 0.3 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/27/19

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 13, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond GW6581
Pace Project No.: 2623712

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623712001	**HGWC-13**	Water	09/26/19 13:50	09/27/19 13:15
2623712002	**MW-24D**	Water	09/26/19 16:50	09/27/19 13:15
2623712003	**MW-27D**	Water	09/26/19 10:11	09/27/19 13:15
2623712004	**MW-6**	Water	09/26/19 12:29	09/27/19 13:15
2623712005	**MW-7**	Water	09/26/19 15:22	09/27/19 13:15
2623712006	**MW-28D**	Water	09/26/19 14:50	09/27/19 13:15
2623712007	**MW-28D (Filtered)**	Water	09/26/19 14:50	09/27/19 13:15
2623712008	**MW-26D**	Water	09/26/19 19:19	09/27/19 13:15

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623712001	**HGWC-13**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712002	**MW-24D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712003	**MW-27D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712004	**MW-6**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712005	**MW-7**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712006	**MW-28D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712007	**MW-28D (Filtered)**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712008	**MW-26D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: HGWC-13 **Lab ID: 2623712001** Collected: 09/26/19 13:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 20:56	7440-36-0	
Arsenic	**0.44**	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 20:56	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 20:56	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 20:56	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 20:56	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 20:56	7440-43-9	
Calcium	**195**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:02	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 20:56	7440-47-3	
Cobalt	**0.0042J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 20:56	7440-48-4	
Lithium	**0.035**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 20:56	7439-93-2	
Molybdenum	**0.026**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 20:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 20:56	7782-49-2	
Thallium	**0.00039J**	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 20:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1010**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**109**	mg/L	10.0	0.24	10		10/02/19 22:10	16887-00-6	
Fluoride	**0.64**	mg/L	0.30	0.029	1		10/02/19 13:25	16984-48-8	
Sulfate	**444**	mg/L	10.0	0.17	10		10/02/19 22:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-24D **Lab ID: 2623712002** Collected: 09/26/19 16:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:19	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:19	7440-41-7	
Boron	**0.49**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:19	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:19	7440-43-9	
Calcium	**83.1**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:24	7440-70-2	
Chromium	**0.00042J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:19	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:19	7440-48-4	
Lithium	**0.0030J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:19	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**360**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.7**	mg/L	1.0	0.024	1		10/02/19 13:47	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.029	1		10/02/19 13:47	16984-48-8	
Sulfate	**91.0**	mg/L	10.0	0.17	10		10/02/19 22:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-27D **Lab ID: 2623712003** Collected: 09/26/19 10:11 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00030J**	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:30	7440-38-2	
Barium	**0.95**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:30	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:30	7440-41-7	
Boron	**0.14**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:30	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:30	7440-43-9	
Calcium	**32.1**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:36	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:30	7440-48-4	
Lithium	**0.0055J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:30	7439-93-2	
Molybdenum	**0.0042J**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**265**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**31.8**	mg/L	1.0	0.024	1		10/02/19 14:31	16887-00-6	
Fluoride	**0.42**	mg/L	0.30	0.029	1		10/02/19 14:31	16984-48-8	
Sulfate	**15.6**	mg/L	1.0	0.017	1		10/02/19 14:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-6 **Lab ID: 2623712004** Collected: 09/26/19 12:29 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:42	7440-38-2	
Barium	**0.089**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:42	7440-41-7	
Boron	**0.93**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:42	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:42	7440-43-9	
Calcium	**189**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:47	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:42	7440-47-3	
Cobalt	**0.00036J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:42	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:42	7439-93-2	
Molybdenum	**0.0026J**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**735**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**64.9**	mg/L	10.0	0.24	10		10/02/19 23:17	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.029	1		10/02/19 14:52	16984-48-8	
Sulfate	**225**	mg/L	10.0	0.17	10		10/02/19 23:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-7 **Lab ID: 2623712005** Collected: 09/26/19 15:22 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:53	7440-38-2	
Barium	**0.066**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:53	7440-41-7	
Boron	**0.26**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:53	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:53	7440-43-9	
Calcium	**83.9**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:59	7440-70-2	
Chromium	**0.0013J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:53	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:53	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:53	7439-93-2	
Molybdenum	**0.0033J**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:53	7439-98-7	
Selenium	**0.0014J**	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:53	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**383**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**15.6**	mg/L	1.0	0.024	1		10/02/19 15:14	16887-00-6	
Fluoride	**0.17J**	mg/L	0.30	0.029	1		10/02/19 15:14	16984-48-8	
Sulfate	**129**	mg/L	10.0	0.17	10		10/02/19 23:40	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-28D **Lab ID: 2623712006** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 22:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 22:05	7440-38-2	
Barium	**0.15**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 22:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 22:05	7440-41-7	
Boron	**0.60**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 22:05	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 22:05	7440-43-9	
Calcium	**84.0**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 22:10	7440-70-2	
Chromium	**0.00081J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 22:05	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 22:05	7440-48-4	
Lithium	**0.0055J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 22:05	7439-93-2	
Molybdenum	**0.017**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 22:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 22:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 22:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**418**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.5**	mg/L	1.0	0.024	1		10/02/19 15:36	16887-00-6	
Fluoride	**0.22J**	mg/L	0.30	0.029	1		10/02/19 15:36	16984-48-8	
Sulfate	**96.2**	mg/L	10.0	0.17	10		10/03/19 01:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-28D (Filtered) **Lab ID: 2623712007** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS, Dissolved	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony, Dissolved	ND	mg/L	0.0030	0.00027	1	10/03/19 17:15	10/04/19 16:20	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.0050	0.00035	1	10/03/19 17:15	10/04/19 16:20	7440-38-2	
Barium, Dissolved	**0.15**	mg/L	0.010	0.00049	1	10/03/19 17:15	10/04/19 16:20	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.0030	0.000074	1	10/03/19 17:15	10/04/19 16:20	7440-41-7	
Boron, Dissolved	**0.56**	mg/L	0.040	0.0049	1	10/03/19 17:15	10/04/19 16:20	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0025	0.00011	1	10/03/19 17:15	10/04/19 16:20	7440-43-9	
Calcium, Dissolved	**80.6**	mg/L	5.0	0.55	50	10/03/19 17:15	10/04/19 16:25	7440-70-2	M6
Chromium, Dissolved	**0.00048J**	mg/L	0.010	0.00039	1	10/03/19 17:15	10/04/19 16:20	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.0050	0.00030	1	10/03/19 17:15	10/04/19 16:20	7440-48-4	
Lithium, Dissolved	**0.0047J**	mg/L	0.030	0.00078	1	10/03/19 17:15	10/04/19 16:20	7439-93-2	
Molybdenum, Dissolved	**0.016**	mg/L	0.010	0.00095	1	10/03/19 17:15	10/04/19 16:20	7439-98-7	
Selenium, Dissolved	ND	mg/L	0.010	0.0013	1	10/03/19 17:15	10/04/19 16:20	7782-49-2	
Thallium, Dissolved	ND	mg/L	0.0010	0.000052	1	10/03/19 17:15	10/04/19 16:20	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**414**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.2**	mg/L	1.0	0.024	1		10/02/19 15:58	16887-00-6	
Fluoride	**0.23J**	mg/L	0.30	0.029	1		10/02/19 15:58	16984-48-8	
Sulfate	**97.3**	mg/L	10.0	0.17	10		10/03/19 01:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-26D **Lab ID: 2623712008** Collected: 09/26/19 19:19 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 22:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 22:27	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 22:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 22:27	7440-41-7	
Boron	**2.0**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 22:27	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 22:27	7440-43-9	
Calcium	**158**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 22:33	7440-70-2	
Chromium	**0.00076J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 22:27	7440-47-3	
Cobalt	**0.00053J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 22:27	7440-48-4	
Lithium	**0.0041J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 22:27	7439-93-2	
Molybdenum	**0.017**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 22:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 22:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 22:27	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**643**	mg/L	10.0	10.0	1		10/03/19 16:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**118**	mg/L	10.0	0.24	10		10/03/19 02:17	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.029	1		10/02/19 16:20	16984-48-8	
Sulfate	**189**	mg/L	10.0	0.17	10		10/03/19 02:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36236 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712008

METHOD BLANK: 163651 Matrix: Water
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/03/19 19:06	
Arsenic	mg/L	ND	0.0050	0.00035	10/03/19 19:06	
Barium	mg/L	ND	0.010	0.00049	10/03/19 19:06	
Beryllium	mg/L	ND	0.0030	0.000074	10/03/19 19:06	
Boron	mg/L	ND	0.040	0.0049	10/03/19 19:06	
Cadmium	mg/L	ND	0.0025	0.00011	10/03/19 19:06	
Calcium	mg/L	ND	0.10	0.011	10/03/19 19:06	
Chromium	mg/L	ND	0.010	0.00039	10/03/19 19:06	
Cobalt	mg/L	ND	0.0050	0.00030	10/03/19 19:06	
Lithium	mg/L	ND	0.030	0.00078	10/03/19 19:06	
Molybdenum	mg/L	ND	0.010	0.00095	10/03/19 19:06	
Selenium	mg/L	ND	0.010	0.0013	10/03/19 19:06	
Thallium	mg/L	ND	0.0010	0.000052	10/03/19 19:06	

LABORATORY CONTROL SAMPLE: 163652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.11	107	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.11	105	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163653 163654

Parameter	Units	2623702001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00029J	0.1	0.1	0.11	0.11	105	106	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	105	75-125	2	20	
Barium	mg/L	0.018	0.1	0.1	0.13	0.13	107	108	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163653 163654

Parameter	Units	2623702001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000077J	0.1	0.1	0.11	0.10	108	102	75-125	6	20	
Boron	mg/L	0.58	1	1	1.6	1.6	106	100	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	104	107	75-125	3	20	
Calcium	mg/L	3.7	1	1	4.9	5.0	118	130	75-125	2	20	M1
Chromium	mg/L	0.00073J	0.1	0.1	0.10	0.11	103	107	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	104	107	75-125	3	20	
Lithium	mg/L	0.0017J	0.1	0.1	0.11	0.10	108	103	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	107	109	75-125	2	20	
Selenium	mg/L	0.018	0.1	0.1	0.12	0.12	100	103	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	104	104	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36449
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET Dissolved
Associated Lab Samples: 2623712007

METHOD BLANK: 164644
Matrix: Water
Associated Lab Samples: 2623712007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.0030	0.00027	10/04/19 16:08	
Arsenic, Dissolved	mg/L	ND	0.0050	0.00035	10/04/19 16:08	
Barium, Dissolved	mg/L	ND	0.010	0.00049	10/04/19 16:08	
Beryllium, Dissolved	mg/L	ND	0.0030	0.000074	10/04/19 16:08	
Boron, Dissolved	mg/L	ND	0.040	0.0049	10/04/19 16:08	
Cadmium, Dissolved	mg/L	ND	0.0025	0.00011	10/04/19 16:08	
Calcium, Dissolved	mg/L	ND	0.10	0.011	10/04/19 16:08	
Chromium, Dissolved	mg/L	ND	0.010	0.00039	10/04/19 16:08	
Cobalt, Dissolved	mg/L	ND	0.0050	0.00030	10/04/19 16:08	
Lithium, Dissolved	mg/L	ND	0.030	0.00078	10/04/19 16:08	
Molybdenum, Dissolved	mg/L	ND	0.010	0.00095	10/04/19 16:08	
Selenium, Dissolved	mg/L	ND	0.010	0.0013	10/04/19 16:08	
Thallium, Dissolved	mg/L	ND	0.0010	0.000052	10/04/19 16:08	

LABORATORY CONTROL SAMPLE: 164645

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.1	0.10	102	80-120	
Arsenic, Dissolved	mg/L	0.1	0.099	99	80-120	
Barium, Dissolved	mg/L	0.1	0.10	101	80-120	
Beryllium, Dissolved	mg/L	0.1	0.099	99	80-120	
Boron, Dissolved	mg/L	1	0.98	98	80-120	
Cadmium, Dissolved	mg/L	0.1	0.10	100	80-120	
Calcium, Dissolved	mg/L	1	0.97	97	80-120	
Chromium, Dissolved	mg/L	0.1	0.098	98	80-120	
Cobalt, Dissolved	mg/L	0.1	0.097	97	80-120	
Lithium, Dissolved	mg/L	0.1	0.098	98	80-120	
Molybdenum, Dissolved	mg/L	0.1	0.10	101	80-120	
Selenium, Dissolved	mg/L	0.1	0.10	100	80-120	
Thallium, Dissolved	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164646 164647

Parameter	Units	2623712007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	2	20	
Arsenic, Dissolved	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Barium, Dissolved	mg/L	0.15	0.1	0.1	0.25	0.25	100	100	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164646 164647

Parameter	Units	2623712007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium, Dissolved	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	2	20	
Boron, Dissolved	mg/L	0.56	1	1	1.6	1.5	100	97	75-125	2	20	
Cadmium, Dissolved	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	
Calcium, Dissolved	mg/L	80.6	1	1	83.6	81.4	293	74	75-125	3	20	M6
Chromium, Dissolved	mg/L	0.00048J	0.1	0.1	0.099	0.096	98	96	75-125	2	20	
Cobalt, Dissolved	mg/L	ND	0.1	0.1	0.096	0.094	96	94	75-125	3	20	
Lithium, Dissolved	mg/L	0.0047J	0.1	0.1	0.099	0.098	94	94	75-125	1	20	
Molybdenum, Dissolved	mg/L	0.016	0.1	0.1	0.11	0.12	98	100	75-125	1	20	
Selenium, Dissolved	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Thallium, Dissolved	mg/L	ND	0.1	0.1	0.095	0.092	95	92	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36437 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712007, 2623712008

LABORATORY CONTROL SAMPLE: 164569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 164570

Parameter	Units	2623700006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	225	219	3	10	

SAMPLE DUPLICATE: 164571

Parameter	Units	2623710002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1450	1330	9	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36286 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712007, 2623712008

METHOD BLANK: 163856 Matrix: Water
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712007, 2623712008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.031J	1.0	0.024	10/02/19 07:36	
Fluoride	mg/L	ND	0.30	0.029	10/02/19 07:36	
Sulfate	mg/L	0.053J	1.0	0.017	10/02/19 07:36	

LABORATORY CONTROL SAMPLE: 163857

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.7	107	90-110	
Fluoride	mg/L	10	10.9	109	90-110	
Sulfate	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163858 163859

Parameter	Units	2623702001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.7	10	10	11.0	11.7	93	100	90-110	6	15	
Fluoride	mg/L	0.12J	10	10	9.5	10.3	94	102	90-110	8	15	
Sulfate	mg/L	30.3	10	10	36.7	37.2	64	69	90-110	1	15	M1

MATRIX SPIKE SAMPLE: 163860

Parameter	Units	2623702002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.5	10	16.5	100	90-110	
Fluoride	mg/L	0.098J	10	10.7	106	90-110	
Sulfate	mg/L	0.23J	10	10.7	104	90-110	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

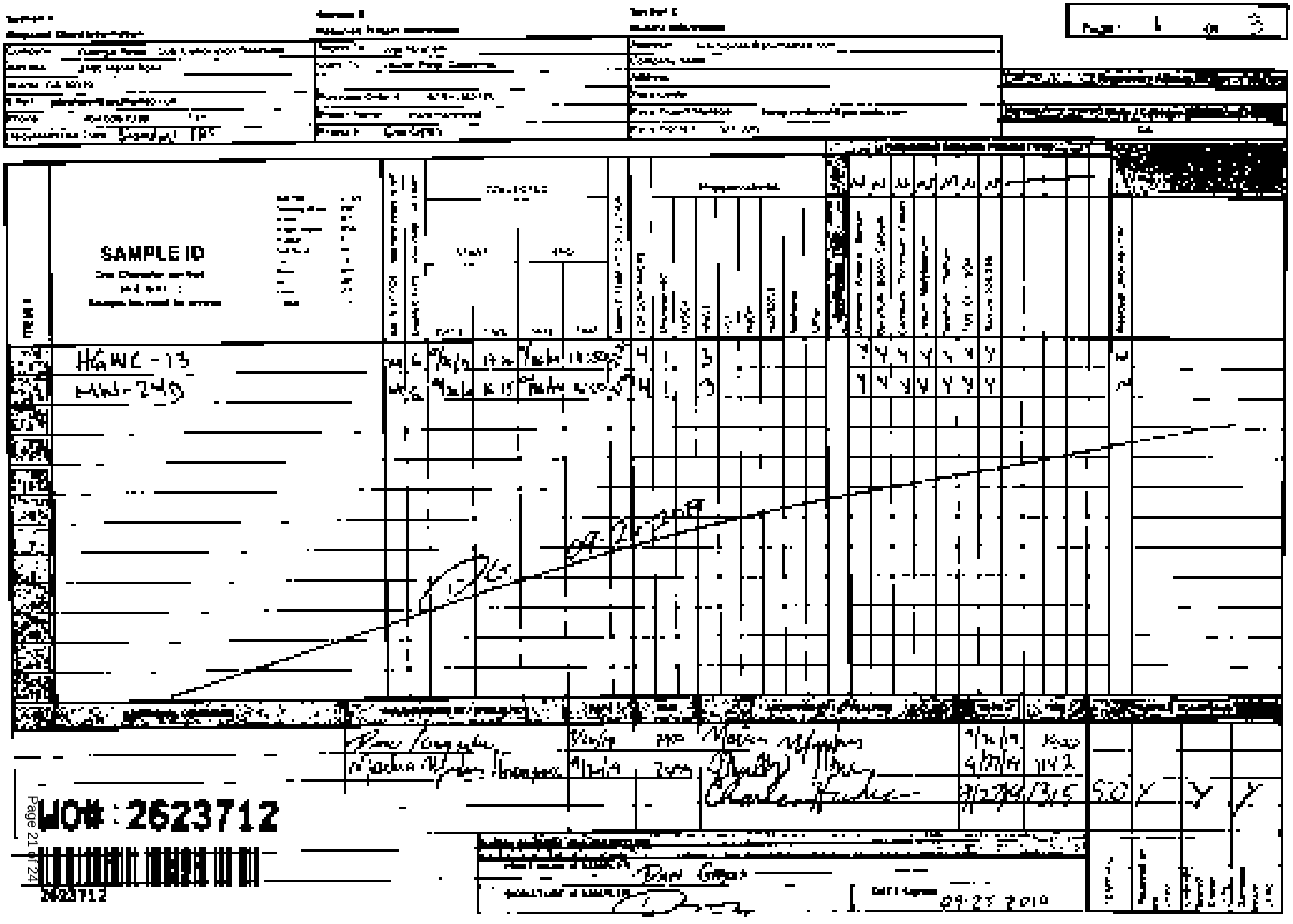
Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623712001	**HGWC-13**	EPA 3005A	36236	EPA 6020B	36255
2623712002	**MW-24D**	EPA 3005A	36236	EPA 6020B	36255
2623712003	**MW-27D**	EPA 3005A	36236	EPA 6020B	36255
2623712004	**MW-6**	EPA 3005A	36236	EPA 6020B	36255
2623712005	**MW-7**	EPA 3005A	36236	EPA 6020B	36255
2623712006	**MW-28D**	EPA 3005A	36236	EPA 6020B	36255
2623712008	**MW-26D**	EPA 3005A	36236	EPA 6020B	36255
2623712007	**MW-28D (Filtered)**	EPA 3005A	36449	EPA 6020B	36458
2623712001	**HGWC-13**	SM 2540C	36437		
2623712002	**MW-24D**	SM 2540C	36437		
2623712003	**MW-27D**	SM 2540C	36437		
2623712004	**MW-6**	SM 2540C	36437		
2623712005	**MW-7**	SM 2540C	36437		
2623712006	**MW-28D**	SM 2540C	36437		
2623712007	**MW-28D (Filtered)**	SM 2540C	36437		
2623712008	**MW-26D**	SM 2540C	36437		
2623712001	**HGWC-13**	EPA 300.0	36286		
2623712002	**MW-24D**	EPA 300.0	36286		
2623712003	**MW-27D**	EPA 300.0	36286		
2623712004	**MW-6**	EPA 300.0	36286		
2623712005	**MW-7**	EPA 300.0	36286		
2623712006	**MW-28D**	EPA 300.0	36286		
2623712007	**MW-28D (Filtered)**	EPA 300.0	36286		
2623712008	**MW-26D**	EPA 300.0	36286		

CHAIN-OF-CUSTODY / Analytical Request Document



WO#: 2623712

2623712

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

#	SAMPLE ID	Collected				Analyses						
1	MW-270	[illegible]	0930	[illegible]	[illegible]	Y	Y	Y	Y	Y	Y	Y
2	MW-6	[illegible]	1255	[illegible]	[illegible]	Y	Y	Y	Y	Y	Y	Y
3	MW-7	[illegible]	[illegible]	[illegible]	[illegible]	Y	Y	Y	Y	Y	Y	Y

AJM 09/26/19

Relinquished by: Noelia Muskus / Georgia Power 9/26/19 2050

Accepted by: [illegible] 9/27/19 1112

Sampler name: Noelia Muskus

Signature of sampler: Noelia Muskus

Date signed: 9/26/19

WO#: 2623712

Due Date: 10/[illegible]/19

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 3 of 3

SAMPLE ID	Date	Time	Date	Time	Preservatives	Y/N
MW-26S	9/16/19	1350	9/16/19	1350	3	Y Y Y Y Y Y Y
MW-26S (FILTERED)	9/16/19	1530	9/16/19	1530	3	Y Y Y Y Y Y Y
MW-26D	9/16/19	1520	9/16/19	1520	3	Y Y Y Y Y Y Y

WO#: 2623712

PM: BM Due Date: 10/04/19

CLIENT: GAPower-CCR

Sample Condition Upon Receipt

Pace Analytical

Client Name: L.A. Power

WO#: 2623712

Due Date: 10/04/10

PM: BA

CLIENT

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

Tracking #

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: 214

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

Cooler Temperature: 5.0 C

Biological Tissue is Present: ☐ Yes ☐ No

Date and Initials of person examining contents: 9/27/10 BA

Temp should be above freezing to 6°C

Comments

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

Client Notification/Resolution: ____ Field Data Required? Y / N

Person Contacted: ____ Date/Time: ____

Comments/Resolution: ____

Project Manager Review: ____ Date: ____

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 25, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond GW6581
Pace Project No.: 2623713

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond GW6581
Pace Project No.: 2623706

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623706001	**HGWC-13**	Water	09/26/19 13:50	09/27/19 13:15
2623706002	**MW-24d**	Water	09/26/19 16:50	09/27/19 13:15
2623706003	**MW-27D**	Water	09/26/19 10:11	09/27/19 13:15
2623706004	**MW-6**	Water	09/26/19 12:29	09/27/19 13:15
2623706005	**MW-7**	Water	09/26/19 15:22	09/27/19 13:15
2623706006	**MW-28D**	Water	09/26/19 14:50	09/27/19 13:15
2623706007	**MW-26D**	Water	09/26/19 19:19	09/27/19 13:15

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623706001	**HGWC-13**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623706002	**MW-24d**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623706003	**MW-27D**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623706004	**MW-6**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623706005	**MW-7**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623706006	**MW-28D**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623706007	**MW-26D**	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: HGWC-13 **Lab ID: 2623706001** Collected: 09/26/19 13:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**1.4**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:31	7439-89-6	
Magnesium	**24.4**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:31	7439-95-4	
Manganese	**3.7**	mg/L	0.10	0.0084	20	10/08/19 16:13	10/10/19 15:08	7439-96-5	
Phosphorus	**0.022J**	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:31	7723-14-0	N2
Potassium	**5.0**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:31	7440-09-7	
Sodium	**10.1**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:31	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**102**	mg/L	20.0	20.0	1		10/01/19 19:04		
Alkalinity, Total as CaCO3	**102**	mg/L	20.0	20.0	1		10/01/19 19:04		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:31		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 17:45	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**1.7**	mg/L	1.0	0.50	1		10/02/19 17:16		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: MW-24d **Lab ID: 2623706002** Collected: 09/26/19 16:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**1.0**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:48	7439-89-6	
Magnesium	**5.1**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:48	7439-95-4	
Manganese	**0.72**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:48	7439-96-5	
Phosphorus	**0.025J**	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:48	7723-14-0	N2
Potassium	**0.45J**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:48	7440-09-7	
Sodium	**11.3**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:48	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**102**	mg/L	20.0	20.0	1		10/01/19 19:08		
Alkalinity, Total as CaCO3	**102**	mg/L	20.0	20.0	1		10/01/19 19:08		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:01		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 17:59	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 18:37		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: MW-27D **Lab ID: 2623706003** Collected: 09/26/19 10:11 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.015J**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:24	7439-89-6	
Magnesium	**19.7**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:24	7439-95-4	
Manganese	**0.058**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:24	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:24	7723-14-0	N2
Potassium	**0.92J**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:24	7440-09-7	
Sodium	**27.8**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:24	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**166**	mg/L	20.0	20.0	1		10/01/19 19:12		
Alkalinity, Total as CaCO3	**166**	mg/L	20.0	20.0	1		10/01/19 19:12		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 20:40		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:00	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 16:42		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: MW-6 **Lab ID: 2623706004** Collected: 09/26/19 12:29 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.51**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:27	7439-89-6	
Magnesium	**14.3**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:27	7439-95-4	
Manganese	**0.55**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:27	7439-96-5	
Phosphorus	**0.017J**	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:27	7723-14-0	N2
Potassium	**1.2**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:27	7440-09-7	
Sodium	**13.1**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:27	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**234**	mg/L	20.0	20.0	1		10/01/19 19:16		
Alkalinity, Total as CaCO3	**234**	mg/L	20.0	20.0	1		10/01/19 19:16		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 20:41		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:00	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.52J**	mg/L	1.0	0.50	1		10/02/19 17:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: MW-7 **Lab ID: 2623706005** Collected: 09/26/19 15:22 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.037J**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:44	7439-89-6	
Magnesium	**9.8**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:44	7439-95-4	
Manganese	**0.070**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:44	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:44	7723-14-0	N2
Potassium	**0.79J**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:44	7440-09-7	
Sodium	**8.2**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:44	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**113**	mg/L	20.0	20.0	1		10/01/19 19:22		
Alkalinity, Total as CaCO3	**113**	mg/L	20.0	20.0	1		10/01/19 19:22		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:01	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 18:22		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: MW-28D **Lab ID: 2623706006** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.89**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:34	7439-89-6	
Magnesium	**22.5**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:34	7439-95-4	
Manganese	**0.12**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:34	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:34	7723-14-0	N2
Potassium	**0.99J**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:34	7440-09-7	
Sodium	**9.6**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:34	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**173**	mg/L	20.0	20.0	1		10/03/19 12:00		
Alkalinity, Total as CaCO3	**173**	mg/L	20.0	20.0	1		10/03/19 12:00		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:03		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:02	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 18:08		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Sample: MW-26D **Lab ID: 2623706007** Collected: 09/26/19 19:19 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.40**	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:51	7439-89-6	
Magnesium	**15.9**	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:51	7439-95-4	
Manganese	**0.17**	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:51	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:51	7723-14-0	N2
Potassium	**2.0**	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:51	7440-09-7	
Sodium	**12.2**	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:51	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**175**	mg/L	20.0	20.0	1		10/03/19 12:13		
Alkalinity, Total as CaCO3	**175**	mg/L	20.0	20.0	1		10/03/19 12:13		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:03		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:03	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 18:55		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 576681 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005, 2623706006, 2623706007

METHOD BLANK: 3134011 Matrix: Water
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005, 2623706006, 2623706007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/09/19 12:43	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 12:43	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 12:43	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 12:43	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 12:43	
Sodium	mg/L	ND	2.0	0.27	10/09/19 12:43	

LABORATORY CONTROL SAMPLE: 3134012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.5	98	80-120	
Magnesium	mg/L	12.5	12.2	98	80-120	
Manganese	mg/L	0.25	0.25	98	80-120	
Phosphorus	mg/L	0.25	0.23	92	80-120	N2
Potassium	mg/L	12.5	12.1	97	80-120	
Sodium	mg/L	12.5	12.3	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3134013 3134014

Parameter	Units	2623635003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	3.1	2.5	2.5	5.6	5.6	98	100	75-125	1	20	
Magnesium	mg/L	8.6	12.5	12.5	21.1	21.2	99	101	75-125	1	20	
Manganese	mg/L	0.17	0.25	0.25	0.42	0.42	98	99	75-125	1	20	
Phosphorus	mg/L	0.083	0.25	0.25	0.33	0.33	98	99	75-125	1	20	N2
Potassium	mg/L	0.31J	12.5	12.5	13.1	13.1	102	103	75-125	0	20	
Sodium	mg/L	11.0	12.5	12.5	23.7	23.8	101	103	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 36284 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005

METHOD BLANK: 163853 Matrix: Water
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	10/01/19 17:35	

LABORATORY CONTROL SAMPLE: 163854

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	98.0	98	85-115	

SAMPLE DUPLICATE: 163855

Parameter	Units	2623635002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	165	164	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 36366 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623706006, 2623706007

METHOD BLANK: 164227 Matrix: Water
Associated Lab Samples: 2623706006, 2623706007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	10/03/19 11:56	

LABORATORY CONTROL SAMPLE: 164228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	96.0	96	85-115	

SAMPLE DUPLICATE: 164468

Parameter	Units	2623706006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	173	172	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 36119 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623706003, 2623706004

METHOD BLANK: 163046 Matrix: Water
Associated Lab Samples: 2623706003, 2623706004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/27/19 20:37	

LABORATORY CONTROL SAMPLE: 163047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.52	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163048 163049

Parameter	Units	2623707001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.51	100	102	80-120	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 36125 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623706001, 2623706002, 2623706005, 2623706006, 2623706007

METHOD BLANK: 163138 Matrix: Water
Associated Lab Samples: 2623706001, 2623706002, 2623706005, 2623706006, 2623706007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/28/19 13:30	

LABORATORY CONTROL SAMPLE: 163139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163140 163141

Parameter	Units	2623698004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.50	100	101	80-120	1	10	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 36187 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005, 2623706006, 2623706007

METHOD BLANK: 163403 Matrix: Water
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005, 2623706006, 2623706007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	09/30/19 17:04	

LABORATORY CONTROL SAMPLE: 163404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.45	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163405 163406

Parameter	Units	2623614004 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	0.40	0.40	81	80	30-129	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623706

QC Batch: 575017 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005, 2623706006, 2623706007

METHOD BLANK: 3124986 Matrix: Water
Associated Lab Samples: 2623706001, 2623706002, 2623706003, 2623706004, 2623706005, 2623706006, 2623706007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/02/19 15:06	

LABORATORY CONTROL SAMPLE: 3124987

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	19.0	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124988 3124989

Parameter	Units	2623704001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	0.65J	20	20	19.6	19.8	95	96	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124990 3124991

Parameter	Units	2623708004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.4	96	96	80-120	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond GW6581
Pace Project No.: 2623706

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond GW6581
Pace Project No.: 2623706

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623706001	**HGWC-13**	EPA 3010	576681	EPA 6010	576722
2623706002	**MW-24d**	EPA 3010	576681	EPA 6010	576722
2623706003	**MW-27D**	EPA 3010	576681	EPA 6010	576722
2623706004	**MW-6**	EPA 3010	576681	EPA 6010	576722
2623706005	**MW-7**	EPA 3010	576681	EPA 6010	576722
2623706006	**MW-28D**	EPA 3010	576681	EPA 6010	576722
2623706007	**MW-26D**	EPA 3010	576681	EPA 6010	576722
2623706001	**HGWC-13**	SM 2320B	36284		
2623706002	**MW-24d**	SM 2320B	36284		
2623706003	**MW-27D**	SM 2320B	36284		
2623706004	**MW-6**	SM 2320B	36284		
2623706005	**MW-7**	SM 2320B	36284		
2623706006	**MW-28D**	SM 2320B	36366		
2623706007	**MW-26D**	SM 2320B	36366		
2623706001	**HGWC-13**	SM 4500-P	36125		
2623706002	**MW-24d**	SM 4500-P	36125		
2623706003	**MW-27D**	SM 4500-P	36119		
2623706004	**MW-6**	SM 4500-P	36119		
2623706005	**MW-7**	SM 4500-P	36125		
2623706006	**MW-28D**	SM 4500-P	36125		
2623706007	**MW-26D**	SM 4500-P	36125		
2623706001	**HGWC-13**	SM 4500-S2 D	36187		
2623706002	**MW-24d**	SM 4500-S2 D	36187		
2623706003	**MW-27D**	SM 4500-S2 D	36187		
2623706004	**MW-6**	SM 4500-S2 D	36187		
2623706005	**MW-7**	SM 4500-S2 D	36187		
2623706006	**MW-28D**	SM 4500-S2 D	36187		
2623706007	**MW-26D**	SM 4500-S2 D	36187		
2623706001	**HGWC-13**	SM 5310B	575017		
2623706002	**MW-24d**	SM 5310B	575017		
2623706003	**MW-27D**	SM 5310B	575017		
2623706004	**MW-6**	SM 5310B	575017		
2623706005	**MW-7**	SM 5310B	575017		
2623706006	**MW-28D**	SM 5310B	575017		
2623706007	**MW-26D**	SM 5310B	575017		

CHAIN-OF-CUSTODY / Analytical Request Document

Page 1 of 3

SAMPLE ID

MW-13

MW-24

WO#: 2623706

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

SAMPLE ID													
MW-7D	WT	G	9/26/14	9/26/14		6	2	3	Y	Y	Y	Y	Y Y Y
MW-6	WT	G	9/26/14	9/26/14		6	2	3	Y	Y	Y	Y	Y Y Y
MW-7	WT	G	9/26/14	9/26/14		6	2	3	Y	Y	Y	Y	Y Y Y

NM 09/26/14

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time	Sample Conditions			
[signature]	9/26/14	2035	[signature]	9/26/14	1142				
			[signature]	9/27/14	2315	5.2	Y	Y	Y

WO#: 2623706

Due Date: 10/04/14

Print Name of SAMPLER: Nicole Mustard[?]

Signature of SAMPLER: [signature]

Date Signed: 9/26/14

CHAIN-OF-CUSTODY / Analytical Request Document

Page 3 of 3

SAMPLE ID																		
MW-28D		9/14	1530	9/14		6	2	3	Y	Y	Y	Y	Y	Y	Y		
MW-36D		9/14	1555	9/14		6	2	3	Y	Y	Y	Y	Y	Y	Y		

9/14/16

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time	Sample conditions			
	9/14	1175		9/14/16	1725				
	9/14			9/14/16	1315	5.0	Y	Y	Y

Date Signed: 9/14/16

WO#: 2623706

Page 23 of 24

Sample Condition Upon Receipt

Pace Analytical

Client Name: CA Env/CCR   Project # ______

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ______

Tracking # ______

Optional
Proj. Due Date:
Proj. Name:

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

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ______

Thermometer Used: 214   Type of Ice: Wet Blue None   ☐ Samples on ice, cooling process has begun

Cooler Temperature: 5.1°C   Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/22/14

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

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

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______   Date: ______

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

F-ALL-C-003-rev.3 (September 2009)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623713001	**HGWC-13**	Water	09/26/19 13:50	09/27/19 13:15
2623713002	**MW-24D**	Water	09/26/19 16:50	09/27/19 13:15
2623713003	**MW-27D**	Water	09/26/19 10:11	09/27/19 13:15
2623713004	**MW-6**	Water	09/26/19 12:29	09/27/19 13:15
2623713005	**MW-7**	Water	09/26/19 15:22	09/27/19 13:15
2623713006	**MW-28D**	Water	09/26/19 14:50	09/27/19 13:15
2623713007	**MW-28D (Filtered)**	Water	09/26/19 14:50	09/27/19 13:15
2623713008	**MW-26D**	Water	09/26/19 19:19	09/27/19 13:15

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110 Technology Parkway
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623713001	**HGWC-13**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713002	**MW-24D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713003	**MW-27D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713004	**MW-6**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713005	**MW-7**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713006	**MW-28D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713007	**MW-28D (Filtered)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623713008	**MW-26D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: HGWC-13 **Lab ID: 2623713001** Collected: 09/26/19 13:50 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.939 ± 0.260 (0.229) C:100% T:NA**	pCi/L	10/14/19 18:02	13982-63-3	
Radium-228	EPA 9320	**-0.196 ± 0.384 (0.912) C:77% T:98%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.939 ± 0.644 (1.14)**	pCi/L	10/18/19 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-24D **Lab ID: 2623713002** Collected: 09/26/19 16:50 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.531 ± 0.279 (0.384) C:104% T:NA**	pCi/L	10/15/19 08:25	13982-63-3	
Radium-228	EPA 9320	**0.347 ± 0.472 (1.01) C:73% T:82%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.878 ± 0.751 (1.39)**	pCi/L	10/18/19 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-27D **Lab ID: 2623713003** Collected: 09/26/19 10:11 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.759 ± 0.235 (0.260) C:97% T:NA**	pCi/L	10/14/19 18:03	13982-63-3	
Radium-228	EPA 9320	**0.215 ± 0.413 (0.907) C:76% T:78%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.974 ± 0.648 (1.17)**	pCi/L	10/18/19 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-6 **Lab ID: 2623713004** Collected: 09/26/19 12:29 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.354 ± 0.207 (0.356) C:90% T:NA**	pCi/L	10/14/19 18:01	13982-63-3	
Radium-228	EPA 9320	**0.391 ± 0.418 (0.872) C:64% T:94%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.745 ± 0.625 (1.23)**	pCi/L	10/18/19 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-7 **Lab ID: 2623713005** Collected: 09/26/19 15:22 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.485 ± 0.286 (0.422) C:92% T:NA**	pCi/L	10/15/19 08:25	13982-63-3	
Radium-228	EPA 9320	**0.462 ± 0.415 (0.846) C:73% T:85%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.947 ± 0.701 (1.27)**	pCi/L	10/18/19 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-28D **Lab ID: 2623713006** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.474 ± 0.185 (0.224) C:96% T:NA**	pCi/L	10/14/19 18:02	13982-63-3	
Radium-228	EPA 9320	**0.523 ± 0.429 (0.860) C:77% T:80%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.997 ± 0.614 (1.08)**	pCi/L	10/18/19 11:04	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-28D (Filtered) **Lab ID: 2623713007** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.374 ± 0.193 (0.316) C:91% T:NA**	pCi/L	10/14/19 18:15	13982-63-3	
Radium-228	EPA 9320	**0.353 ± 0.402 (0.845) C:75% T:86%**	pCi/L	10/16/19 13:58	15262-20-1	
Total Radium	Total Radium Calculation	**0.727 ± 0.595 (1.16)**	pCi/L	10/18/19 11:04	7440-14-4	

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Sample: MW-26D **Lab ID: 2623713008** Collected: 09/26/19 19:19 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.535 ± 0.335 (0.555) C:96% T:NA**	pCi/L	10/15/19 08:26	13982-63-3	
Radium-228	EPA 9320	**0.377 ± 0.502 (1.07) C:78% T:73%**	pCi/L	10/16/19 13:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.912 ± 0.837 (1.63)**	pCi/L	10/18/19 11:04	7440-14-4	

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

QC Batch: 365001 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623713001, 2623713002, 2623713003, 2623713004, 2623713005, 2623713006, 2623713007, 2623713008

METHOD BLANK: 1770530 Matrix: Water
Associated Lab Samples: 2623713001, 2623713002, 2623713003, 2623713004, 2623713005, 2623713006, 2623713007, 2623713008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.564 ± 0.187 (0.181) C:94% T:NA	pCi/L	10/14/19 19:10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond GW6581
Pace Project No.: 2623713

QC Batch: 365002 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623713001, 2623713002, 2623713003, 2623713004, 2623713005, 2623713006, 2623713007, 2623713008

METHOD BLANK: 1770531 Matrix: Water
Associated Lab Samples: 2623713001, 2623713002, 2623713003, 2623713004, 2623713005, 2623713006, 2623713007, 2623713008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.538 ± 0.357 (0.676) C:80% T:85%	pCi/L	10/16/19 11:11	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond GW6581
Pace Project No.: 2623713

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond GW6581
Pace Project No.: 2623713

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623713001	**HGWC-13**	EPA 9315	365001		
2623713002	**MW-24D**	EPA 9315	365001		
2623713003	**MW-27D**	EPA 9315	365001		
2623713004	**MW-6**	EPA 9315	365001		
2623713005	**MW-7**	EPA 9315	365001		
2623713006	**MW-28D**	EPA 9315	365001		
2623713007	**MW-28D (Filtered)**	EPA 9315	365001		
2623713008	**MW-26D**	EPA 9315	365001		
2623713001	**HGWC-13**	EPA 9320	365002		
2623713002	**MW-24D**	EPA 9320	365002		
2623713003	**MW-27D**	EPA 9320	365002		
2623713004	**MW-6**	EPA 9320	365002		
2623713005	**MW-7**	EPA 9320	365002		
2623713006	**MW-28D**	EPA 9320	365002		
2623713007	**MW-28D (Filtered)**	EPA 9320	365002		
2623713008	**MW-26D**	EPA 9320	365002		
2623713001	**HGWC-13**	Total Radium Calculation	366904		
2623713002	**MW-24D**	Total Radium Calculation	366904		
2623713003	**MW-27D**	Total Radium Calculation	366903		
2623713004	**MW-6**	Total Radium Calculation	366904		
2623713005	**MW-7**	Total Radium Calculation	366904		
2623713006	**MW-28D**	Total Radium Calculation	366904		
2623713007	**MW-28D (Filtered)**	Total Radium Calculation	366904		
2623713008	**MW-26D**	Total Radium Calculation	366904		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 1 of 3

SAMPLE ID

HGWC-13

MW-245

WO#: 2623713

CHAIN-OF-CUSTODY / Analytical Request Document

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

SAMPLE ID
MW-22D
MW-6
MW-7

NM 9/24/19

9/24/19 1112

9/24/19 1135

WO#: 2623713

Due Date: 10/25/19

SAMPLER NAME: Natalie Mulder

DATE Signed: 9/24/19

CHAIN-OF-CUSTODY / Analytical Request Document

Page 3 of 3

SAMPLE ID	Date	Time	Date	Time
MW-28D	9/16	1330	9/16	1420
MW-28D (Filtered)	9/16	1330	9/16	1420
MW-26D	9/16	[illegible]	9/16	1155

WO#: 2623713

WO#:2623713

PM: BV Due Date: 10/28/10

CLIENT: GGPower-CON

Pace Analytical

Sample Condition Upon Receipt

Client Name: C-A Power

Courier: [ ] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [x] Pace Other

Tracking #:

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

Optional
Proj. Due Date:
Proj. Name:

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other

Thermometer Used: 219

Type of Ice: Wet Blue None

[ ] Samples on ice, cooling process has begun

Cooler Temperature: 5.0°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/27/10

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 13, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623748

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
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CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623748

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623748

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623748001	**HGWC-9**	Water	09/27/19 13:20	09/30/19 12:39
2623748002	**HGWC-10**	Water	09/27/19 10:39	09/30/19 12:39
2623748003	**MW-19**	Water	09/27/19 13:30	09/30/19 12:39
2623748004	**MW-25d**	Water	09/27/19 10:00	09/30/19 12:39
2623748005	**HGWC-12**	Water	09/27/19 11:20	09/30/19 12:39
2623748006	**HGWC-11**	Water	09/27/19 12:48	09/30/19 12:39

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623748

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623748001	**HGWC-9**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623748002	**HGWC-10**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623748003	**MW-19**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623748004	**MW-25d**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623748005	**HGWC-12**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623748006	**HGWC-11**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623748

Sample: HGWC-9 **Lab ID: 2623748001** Collected: 09/27/19 13:20 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/03/19 17:28	10/05/19 15:31	7440-36-0	
Arsenic	**0.00037J**	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 15:31	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 15:31	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 15:31	7440-41-7	
Boron	**2.9**	mg/L	2.0	0.25	50	10/03/19 17:28	10/05/19 15:37	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 15:31	7440-43-9	
Calcium	**175**	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 15:37	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 15:31	7440-47-3	
Cobalt	**0.00057J**	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 15:31	7440-48-4	
Lithium	**0.0044J**	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 15:31	7439-93-2	
Molybdenum	**0.033**	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 15:31	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 15:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 15:31	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**730**	mg/L	10.0	10.0	1		10/03/19 20:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**126**	mg/L	10.0	0.24	10		10/07/19 20:19	16887-00-6	
Fluoride	**0.26J**	mg/L	0.30	0.029	1		10/07/19 15:43	16984-48-8	
Sulfate	**214**	mg/L	10.0	0.17	10		10/07/19 20:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623748

Sample: HGWC-10 **Lab ID: 2623748002** Collected: 09/27/19 10:39 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/03/19 17:28	10/05/19 15:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 15:42	7440-38-2	
Barium	**0.078**	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 15:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 15:42	7440-41-7	
Boron	**1.0**	mg/L	0.040	0.0049	1	10/03/19 17:28	10/05/19 15:42	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 15:42	7440-43-9	
Calcium	**157**	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 15:48	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 15:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 15:42	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 15:42	7439-93-2	
Molybdenum	**0.0014J**	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 15:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 15:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 15:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**624**	mg/L	10.0	10.0	1		10/03/19 20:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**49.9**	mg/L	1.0	0.024	1		10/07/19 16:03	16887-00-6	
Fluoride	**0.17J**	mg/L	0.30	0.029	1		10/07/19 16:03	16984-48-8	
Sulfate	**181**	mg/L	10.0	0.17	10		10/07/19 20:39	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623748

Sample: MW-19 **Lab ID: 2623748003** Collected: 09/27/19 13:30 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/03/19 17:28	10/05/19 16:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 16:05	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 16:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 16:05	7440-41-7	
Boron	**0.58**	mg/L	0.20	0.025	5	10/03/19 17:28	10/07/19 14:36	7440-42-8	
Cadmium	**0.00013J**	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 16:05	7440-43-9	
Calcium	**90.0**	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 16:11	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 16:05	7440-47-3	
Cobalt	**0.033**	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 16:05	7440-48-4	
Lithium	**0.013J**	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 16:05	7439-93-2	
Molybdenum	**0.063**	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 16:05	7439-98-7	
Selenium	**0.0013J**	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 16:05	7782-49-2	
Thallium	**0.00027J**	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 16:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**442**	mg/L	10.0	10.0	1		10/04/19 20:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.2**	mg/L	1.0	0.024	1		10/07/19 16:24	16887-00-6	
Fluoride	**0.53**	mg/L	0.30	0.029	1		10/07/19 16:24	16984-48-8	
Sulfate	**170**	mg/L	10.0	0.17	10		10/07/19 21:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623748

Sample: MW-25d **Lab ID: 2623748004** Collected: 09/27/19 10:00 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/03/19 17:28	10/05/19 16:17	7440-36-0	
Arsenic	**0.0011J**	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 16:17	7440-38-2	
Barium	**0.39**	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 16:17	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 16:17	7440-41-7	
Boron	**0.36**	mg/L	0.20	0.025	5	10/03/19 17:28	10/07/19 14:42	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 16:17	7440-43-9	
Calcium	**26.4**	mg/L	0.50	0.055	5	10/03/19 17:28	10/07/19 14:42	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 16:17	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 16:17	7440-48-4	
Lithium	**0.047**	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 16:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 16:17	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 16:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 16:17	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**409**	mg/L	10.0	10.0	1		10/04/19 20:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.2**	mg/L	1.0	0.024	1		10/07/19 16:45	16887-00-6	
Fluoride	**1.5**	mg/L	0.30	0.029	1		10/07/19 16:45	16984-48-8	
Sulfate	**48.0**	mg/L	1.0	0.017	1		10/07/19 16:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623748

Sample: HGWC-12 **Lab ID: 2623748005** Collected: 09/27/19 11:20 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/03/19 17:28	10/05/19 16:28	7440-36-0	
Arsenic	**0.0061**	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 16:28	7440-38-2	
Barium	**0.096**	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 16:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 16:28	7440-41-7	
Boron	**2.1**	mg/L	0.20	0.025	5	10/03/19 17:28	10/07/19 14:48	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 16:28	7440-43-9	
Calcium	**153**	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 16:34	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 16:28	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 16:28	7440-48-4	
Lithium	**0.011J**	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 16:28	7439-93-2	
Molybdenum	**0.052**	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 16:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 16:28	7782-49-2	
Thallium	**0.000088J**	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 16:28	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**653**	mg/L	10.0	10.0	1		10/04/19 20:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**81.0**	mg/L	10.0	0.24	10		10/07/19 21:41	16887-00-6	
Fluoride	**0.26J**	mg/L	0.30	0.029	1		10/07/19 18:55	16984-48-8	
Sulfate	**198**	mg/L	10.0	0.17	10		10/07/19 21:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623748

Sample: HGWC-11 **Lab ID: 2623748006** Collected: 09/27/19 12:48 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/03/19 17:28	10/05/19 16:40	7440-36-0	
Arsenic	**0.0018J**	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 16:40	7440-38-2	
Barium	**0.033**	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 16:40	7440-39-3	
Beryllium	**0.000086J**	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 16:40	7440-41-7	
Boron	**0.53**	mg/L	0.20	0.025	5	10/03/19 17:28	10/07/19 14:53	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 16:40	7440-43-9	
Calcium	**113**	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 16:45	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 16:40	7440-47-3	
Cobalt	**0.00071J**	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 16:40	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 16:40	7439-93-2	
Molybdenum	**0.016**	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 16:40	7439-98-7	
Selenium	**0.013**	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 16:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 16:40	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**528**	mg/L	10.0	10.0	1		10/04/19 20:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**27.9**	mg/L	1.0	0.024	1		10/07/19 19:16	16887-00-6	
Fluoride	**0.42**	mg/L	0.30	0.029	1		10/07/19 19:16	16984-48-8	
Sulfate	ND	mg/L	10.0	0.17	10		10/07/19 22:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623748

QC Batch: 36434 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623748001, 2623748002, 2623748003, 2623748004, 2623748005, 2623748006

METHOD BLANK: 164547 Matrix: Water
Associated Lab Samples: 2623748001, 2623748002, 2623748003, 2623748004, 2623748005, 2623748006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/05/19 14:53	
Arsenic	mg/L	ND	0.0050	0.00035	10/05/19 14:53	
Barium	mg/L	ND	0.010	0.00049	10/05/19 14:53	
Beryllium	mg/L	ND	0.0030	0.000074	10/05/19 14:53	
Boron	mg/L	ND	0.040	0.0049	10/05/19 14:53	
Cadmium	mg/L	ND	0.0025	0.00011	10/05/19 14:53	
Calcium	mg/L	ND	0.10	0.011	10/05/19 14:53	
Chromium	mg/L	ND	0.010	0.00039	10/05/19 14:53	
Cobalt	mg/L	ND	0.0050	0.00030	10/05/19 14:53	
Lithium	mg/L	ND	0.030	0.00078	10/05/19 14:53	
Molybdenum	mg/L	ND	0.010	0.00095	10/05/19 14:53	
Selenium	mg/L	ND	0.010	0.0013	10/05/19 14:53	
Thallium	mg/L	ND	0.0010	0.000052	10/05/19 14:53	

LABORATORY CONTROL SAMPLE: 164548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164549 164550

Parameter	Units	2623793002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20	
Barium	mg/L	0.042	0.1	0.1	0.14	0.14	103	99	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623748

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164549 164550

Parameter	Units	2623793002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.10	0.099	103	99	75-125	4	20	
Boron	mg/L	0.025J	1	1	1.1	1.0	103	100	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20	
Calcium	mg/L	17.6	1	1	19.5	20.2	188	260	75-125	4	20	M6
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	106	101	75-125	5	20	
Cobalt	mg/L	0.00042J	0.1	0.1	0.10	0.097	102	96	75-125	6	20	
Lithium	mg/L	0.011	0.1	0.1	0.12	0.11	108	102	75-125	5	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623748

QC Batch: 36464 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623748001, 2623748002

LABORATORY CONTROL SAMPLE: 164734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 164735

Parameter	Units	2623714002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	13.0	ND		10	

SAMPLE DUPLICATE: 164763

Parameter	Units	2623696005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	275	262	5	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623748

QC Batch: 36519 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623748003, 2623748004, 2623748005, 2623748006

LABORATORY CONTROL SAMPLE: 165036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 165037

Parameter	Units	2623748003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	442	458	4	10	

SAMPLE DUPLICATE: 165038

Parameter	Units	2623793003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	497	5	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623748

QC Batch: 36548 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623748001, 2623748002, 2623748003, 2623748004, 2623748005, 2623748006

METHOD BLANK: 165133 Matrix: Water
Associated Lab Samples: 2623748001, 2623748002, 2623748003, 2623748004, 2623748005, 2623748006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.033J	1.0	0.024	10/07/19 12:57	
Fluoride	mg/L	ND	0.30	0.029	10/07/19 12:57	
Sulfate	mg/L	ND	1.0	0.017	10/07/19 12:57	

LABORATORY CONTROL SAMPLE: 165134

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.6	106	90-110	
Fluoride	mg/L	10	10.5	105	90-110	
Sulfate	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165135 165136

Parameter	Units	2623738001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	138	200	200	338	335	100	98	90-110	1	15	
Fluoride	mg/L	2.0	200	200	207	205	102	101	90-110	1	15	
Sulfate	mg/L	ND	200	200	250	248	102	101	90-110	1	15	

MATRIX SPIKE SAMPLE: 165137

Parameter	Units	2623745001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	110	200	316	103	90-110	
Fluoride	mg/L	2.0J	200	211	104	90-110	
Sulfate	mg/L	557	200	717	80	90-110	M6

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623748

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623748

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623748001	**HGWC-9**	EPA 3005A	36434	EPA 6020B	36455
2623748002	**HGWC-10**	EPA 3005A	36434	EPA 6020B	36455
2623748003	**MW-19**	EPA 3005A	36434	EPA 6020B	36455
2623748004	**MW-25d**	EPA 3005A	36434	EPA 6020B	36455
2623748005	**HGWC-12**	EPA 3005A	36434	EPA 6020B	36455
2623748006	**HGWC-11**	EPA 3005A	36434	EPA 6020B	36455
2623748001	**HGWC-9**	SM 2540C	36464		
2623748002	**HGWC-10**	SM 2540C	36464		
2623748003	**MW-19**	SM 2540C	36519		
2623748004	**MW-25d**	SM 2540C	36519		
2623748005	**HGWC-12**	SM 2540C	36519		
2623748006	**HGWC-11**	SM 2540C	36519		
2623748001	**HGWC-9**	EPA 300.0	36548		
2623748002	**HGWC-10**	EPA 300.0	36548		
2623748003	**MW-19**	EPA 300.0	36548		
2623748004	**MW-25d**	EPA 300.0	36548		
2623748005	**HGWC-12**	EPA 300.0	36548		
2623748006	**HGWC-11**	EPA 300.0	36548		

CHAIN-OF-CUSTODY / Analytical Request Document

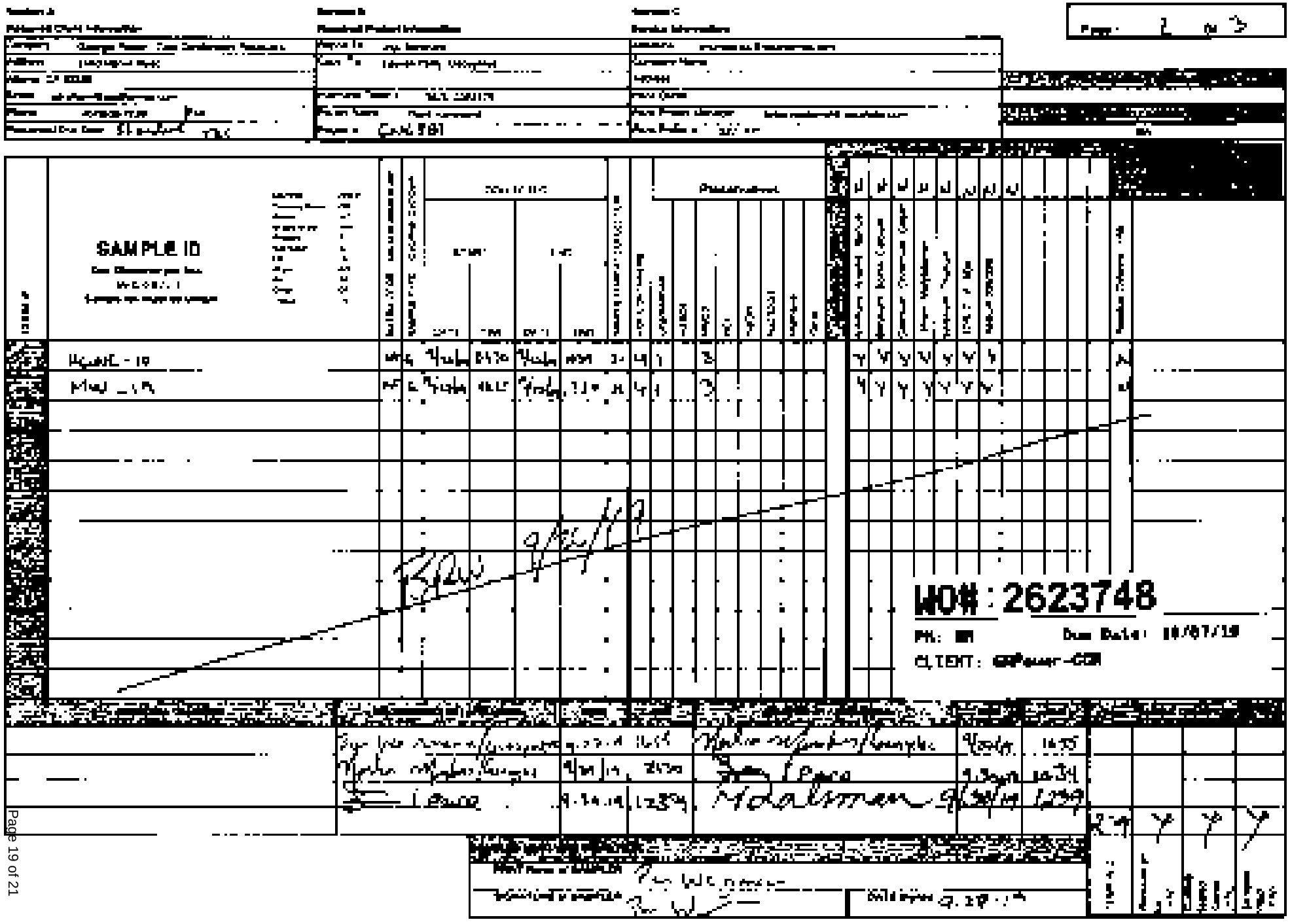
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

SAMPLE ID

WO# : 2623748

CHAIN-OF-CUSTODY / Analytical Request Document

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



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 3 of 3

Required Client Information — Company: Georgia Power – Coal Combustion Residuals

Required Project Information — Purchase Order #: GA CSA

Requested Due Date: Standard TAT

SAMPLE ID	Matrix	Sample Type	Collected Start	Collected End	# of Containers										Residual Chlorine
MW-25a	W	G	9/26/19 11:16		4	1	3	Y	Y	Y	Y	Y	Y	Y	N
HGWC-12	W	G	9/26/19	11:00	4	1	3	Y	Y	Y	Y	Y	Y	Y	N
HGWC-11	W	G	9/26/19 11:44	9/26 11:48	3	1	3	Y	Y	Y	Y	Y	Y	Y	N

09-27-2019

WO#: 2623748

PM: BM Due Date: 10/07/19

CLIENT: GAPower-CCR

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Ross Green / Geosyntec	9/27/19	1615	Melissa ... / Geosyntec	9/27/19	1615
Melissa ... / Geosyntec	9/30/19	0730	Pace	9/30/19	1454
Pace	9/30/19	1239	M. Aldman	10/1/19	1239

2.9 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dan Combs

SIGNATURE of SAMPLER: [signature] DATE Signed: 9-27-2019

Sample Condition Upon Receipt

Pace Analytical

Client Name: Ga A Power Project #

WO#: 2623748

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

Tracking #:

PM: MR Due Date: 10/07/10

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

CLIENT: GAPower-CCR

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: 8.9 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.9 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 9/30/10 MK

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Page 21 of 21

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623752

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623752

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623752

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623752001	**HGWC-9**	Water	09/27/19 13:20	09/30/19 12:39
2623752002	**HGWC-10**	Water	09/27/19 10:39	09/30/19 12:39
2623752003	**MW-19**	Water	09/27/19 13:30	09/30/19 12:39
2623752004	**MW-25d**	Water	09/27/19 10:00	09/30/19 12:39
2623752005	**HGWC-12**	Water	09/27/19 11:20	09/30/19 12:39
2623752006	**HGWC-11**	Water	09/27/19 12:48	09/30/19 12:39

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SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623752

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623752001	**HGWC-9**	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623752002	**HGWC-10**	EPA 6010	LEC	7	PASI-O
		EPA 6020B	CSW	2	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 1664B	SJS	1	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		SM 4500-Cl G	KN	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5210B	KN	1	PASI-GA
		TKN-NH3 Calculation	LPH	1	PASI-GA
		EPA 300.0	MWB	2	PASI-GA
		EPA 350.1	ANB	1	PASI-GA
		EPA 351.2	ANB	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623752003	**MW-19**	EPA 6010	CS2, LEC	7	PASI-O
		EPA 6020B	CSW	2	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 1664B	SJS	1	PASI-GA
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		SM 4500-Cl G	KN	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5210B	KN	1	PASI-GA
		TKN-NH3 Calculation	LPH	1	PASI-GA
		EPA 300.0	MWB	2	PASI-GA
		EPA 350.1	ANB	1	PASI-GA
		EPA 351.2	ANB	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

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SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623752

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623752004	**MW-25d**	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623752005	**HGWC-12**	EPA 6010	CS2, LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623752006	**HGWC-11**	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: HGWC-9 **Lab ID: 2623752001** Collected: 09/27/19 13:20 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.32**	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 21:23	7439-89-6	
Magnesium	**18.0**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 21:23	7439-95-4	
Manganese	**0.43**	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 21:23	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 21:23	7723-14-0	N2
Potassium	**3.2**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 21:23	7440-09-7	
Sodium	**13.4**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 21:23	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**171**	mg/L	20.0	20.0	1		10/04/19 12:36		
Alkalinity, Total as CaCO3	**171**	mg/L	20.0	20.0	1		10/04/19 12:36		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 15:39		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 14:04	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/04/19 09:11		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: HGWC-10 **Lab ID: 2623752002** Collected: 09/27/19 10:39 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 21:09	7439-89-6	
Magnesium	**12.2**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 21:09	7439-95-4	
Manganese	**2.1**	mg/L	0.050	0.0042	10	10/08/19 14:47	10/10/19 13:36	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 21:09	7723-14-0	N2
Potassium	**1.7**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 21:09	7440-09-7	
Sodium	**11.9**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 21:09	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B	**501000**	ug/L	32100	5060	10	10/08/19 14:47	10/10/19 13:36		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Copper	ND	mg/L	1.2	0.0093	50	10/03/19 17:28	10/05/19 15:48	7440-50-8	
Zinc	ND	mg/L	0.50	0.077	50	10/03/19 17:28	10/05/19 15:48	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 13:28	7439-97-6	
HEM, Oil and Grease	Analytical Method: EPA 1664B								
Oil and Grease	ND	mg/L	4.9	4.9	1		10/03/19 17:00		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**248**	mg/L	20.0	20.0	1		10/04/19 12:40		
Alkalinity, Total as CaCO3	**248**	mg/L	20.0	20.0	1		10/04/19 12:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**626**	mg/L	10.0	10.0	1		10/04/19 20:01		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	5.0	5.0	1		10/02/19 18:44		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	0.1	0.1	1		10/01/19 12:31	7782-50-5	H3,H6
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 15:40		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 14:05	18496-25-8	
5210B BOD, 5 day	Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	10/02/19 08:33	10/07/19 11:00		H3
Total Organic Nitrogen Calc.	Analytical Method: TKN-NH3 Calculation								
Total Organic Nitrogen	ND	mg/L	0.40	0.40	1		10/03/19 22:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: HGWC-10 **Lab ID: 2623752002** Collected: 09/27/19 10:39 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0								
Nitrate as N	**0.029J**	mg/L	0.050	0.0050	1		10/01/19 11:55	14797-55-8	H3
Nitrite as N	ND	mg/L	0.050	0.011	1		10/01/19 11:55	14797-65-0	H3
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	ND	mg/L	0.10	0.10	1		10/02/19 09:24	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	ND	mg/L	0.40	0.40	1	10/02/19 08:00	10/02/19 11:36	7727-37-9	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.63J**	mg/L	1.0	0.50	1		10/04/19 07:45		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: MW-19 **Lab ID: 2623752003** Collected: 09/27/19 13:30 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.10**	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 21:27	7439-89-6	
Magnesium	**12.3**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 21:27	7439-95-4	
Manganese	**3.2**	mg/L	0.050	0.0042	10	10/08/19 14:47	10/10/19 13:46	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 21:27	7723-14-0	N2
Potassium	**3.6**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 21:27	7440-09-7	
Sodium	**8.4**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 21:27	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B	**299000**	ug/L	3210	506	1	10/08/19 14:47	10/09/19 21:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Copper	ND	mg/L	0.025	0.00019	1	10/03/19 17:28	10/05/19 16:05	7440-50-8	
Zinc	**0.0055J**	mg/L	0.010	0.0015	1	10/03/19 17:28	10/05/19 16:05	7440-66-6	B
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 13:37	7439-97-6	
HEM, Oil and Grease	Analytical Method: EPA 1664B								
Oil and Grease	ND	mg/L	5.0	5.0	1		10/03/19 17:00		
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**75.0**	mg/L	20.0	20.0	1		10/04/19 12:47		
Alkalinity, Total as CaCO3	**75.0**	mg/L	20.0	20.0	1		10/04/19 12:47		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**420**	mg/L	10.0	10.0	1		10/04/19 20:01		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	5.0	5.0	1		10/02/19 18:44		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	0.1	0.1	1		10/01/19 12:32	7782-50-5	H3,H6
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 15:40		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 14:05	18496-25-8	
5210B BOD, 5 day	Analytical Method: SM 5210B Preparation Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	10/02/19 08:33	10/07/19 11:01		H3
Total Organic Nitrogen Calc.	Analytical Method: TKN-NH3 Calculation								
Total Organic Nitrogen	ND	mg/L	0.40	0.40	1		10/03/19 22:50		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: MW-19 **Lab ID: 2623752003** Collected: 09/27/19 13:30 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0								
Nitrate as N	**0.039J**	mg/L	0.050	0.0050	1		10/01/19 12:59	14797-55-8	H3
Nitrite as N	**0.032J**	mg/L	0.050	0.011	1		10/01/19 12:59	14797-65-0	H3
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**1.0**	mg/L	0.10	0.10	1		10/02/19 09:25	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2 Preparation Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**1.2**	mg/L	0.40	0.40	1	10/02/19 08:00	10/02/19 11:38	7727-37-9	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.79J**	mg/L	1.0	0.50	1		10/04/19 09:27		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: MW-25d **Lab ID: 2623752004** Collected: 09/27/19 10:00 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.22**	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 20:50	7439-89-6	
Magnesium	**8.5**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 20:50	7439-95-4	
Manganese	**0.040**	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 20:50	7439-96-5	
Phosphorus	**0.019J**	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 20:50	7723-14-0	N2
Potassium	**0.69J**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 20:50	7440-09-7	
Sodium	**118**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 20:50	7440-23-5	M1
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**255**	mg/L	20.0	20.0	1		10/04/19 12:55		
Alkalinity, Total as CaCO3	**255**	mg/L	20.0	20.0	1		10/04/19 12:55		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 15:41		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	**0.49**	mg/L	0.20	0.20	1		10/03/19 14:06	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**1.8**	mg/L	1.0	0.50	1		10/04/19 07:02		

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: HGWC-12 **Lab ID: 2623752005** Collected: 09/27/19 11:20 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	**0.11**	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 21:13	7439-89-6	
Magnesium	**15.6**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 21:13	7439-95-4	
Manganese	**1.9**	mg/L	0.050	0.0042	10	10/08/19 14:47	10/10/19 13:49	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 21:13	7723-14-0	N2
Potassium	**7.5**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 21:13	7440-09-7	
Sodium	**10.5**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 21:13	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**157**	mg/L	20.0	20.0	1		10/04/19 13:03		
Alkalinity, Total as CaCO3	**157**	mg/L	20.0	20.0	1		10/04/19 13:03		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 15:42		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 14:07	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.76J**	mg/L	1.0	0.50	1		10/04/19 08:41		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623752

Sample: HGWC-11 **Lab ID: 2623752006** Collected: 09/27/19 12:48 Received: 09/30/19 12:39 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 21:18	7439-89-6	
Magnesium	**15.5**	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 21:18	7439-95-4	
Manganese	**0.017**	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 21:18	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 21:18	7723-14-0	N2
Potassium	**2.5**	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 21:18	7440-09-7	
Sodium	**6.7**	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 21:18	7440-23-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	**71.0**	mg/L	20.0	20.0	1		10/04/19 13:12		
Alkalinity, Total as CaCO3	**71.0**	mg/L	20.0	20.0	1		10/04/19 13:12		
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 15:43		H3
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 14:08	18496-25-8	
5310B Dissolved Organic Carbon	Analytical Method: SM 5310B								
Dissolved Organic Carbon	**0.92J**	mg/L	1.0	0.50	1		10/04/19 08:55		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36474 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 164769 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 13:23	

LABORATORY CONTROL SAMPLE: 164770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164771 164772

Parameter	Units	2623752002 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	0.0024	95	96	75-125	1	20	

SAMPLE DUPLICATE: 164773

Parameter	Units	2623528009 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	mg/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 576632 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

METHOD BLANK: 3133743 Matrix: Water
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/10/19 13:56	
Magnesium	mg/L	ND	0.50	0.084	10/10/19 13:56	
Manganese	mg/L	ND	0.0050	0.00042	10/10/19 13:56	
Phosphorus	mg/L	ND	0.045	0.014	10/10/19 13:56	N2
Potassium	mg/L	ND	1.0	0.15	10/10/19 13:56	
Sodium	mg/L	ND	2.0	0.27	10/10/19 13:56	
Tot Hardness asCaCO3 (SM 2340B	ug/L	ND	3210	506	10/10/19 13:56	

LABORATORY CONTROL SAMPLE: 3133744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.6	105	80-120	
Magnesium	mg/L	12.5	13.0	104	80-120	
Manganese	mg/L	0.25	0.26	106	80-120	
Phosphorus	mg/L	0.25	0.25	99	80-120	N2
Potassium	mg/L	12.5	12.8	103	80-120	
Sodium	mg/L	12.5	13.2	106	80-120	
Tot Hardness asCaCO3 (SM 2340B	ug/L	82700	86400	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3133745 3133746

Parameter	Units	2623752004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	0.22	2.5	2.5	2.8	2.8	105	103	75-125	1	20	
Magnesium	mg/L	8.5	12.5	12.5	21.6	21.3	105	103	75-125	2	20	
Manganese	mg/L	0.040	0.25	0.25	0.31	0.30	107	103	75-125	3	20	
Phosphorus	mg/L	0.019J	0.25	0.25	0.28	0.28	103	104	75-125	1	20	N2
Potassium	mg/L	0.69J	12.5	12.5	13.6	13.5	103	103	75-125	1	20	
Sodium	mg/L	118	12.5	12.5	135	131	130	102	75-125	3	20	M1
Tot Hardness asCaCO3 (SM 2340B	ug/L	107000	82700	82700	196000	191000	107	102	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36434 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 164547 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	mg/L	ND	0.025	0.00019	10/05/19 14:53	
Zinc	mg/L	0.013	0.010	0.0015	10/05/19 14:53	

LABORATORY CONTROL SAMPLE: 164548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	mg/L	0.1	0.099	99	80-120	
Zinc	mg/L	0.1	0.11	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164549 164550

Parameter	Units	2623793002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Copper	mg/L	ND	0.1	0.1	0.10	0.099	104	99	75-125	5	20	
Zinc	mg/L	0.0032J	0.1	0.1	0.11	0.10	103	98	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36370 Analysis Method: EPA 1664B
QC Batch Method: EPA 1664B Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 164248 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	5.0	10/03/19 08:00	

LABORATORY CONTROL SAMPLE: 164249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	35.3	88	78-114	

MATRIX SPIKE SAMPLE: 164250

Parameter	Units	2623564001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	64.7	44.4	101	82	78-114	

SAMPLE DUPLICATE: 164251

Parameter	Units	2623579001 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	ND	ND		75	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36486 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

METHOD BLANK: 164845 Matrix: Water
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	10/04/19 12:28	

LABORATORY CONTROL SAMPLE: 164846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	102	102	85-115	

SAMPLE DUPLICATE: 164847

Parameter	Units	2623698004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	153	152	1	10	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36519 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623752002, 2623752003

LABORATORY CONTROL SAMPLE: 165036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 165037

Parameter	Units	2623748003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	442	458	4	10	

SAMPLE DUPLICATE: 165038

Parameter	Units	2623793003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	497	5	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36383 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 164324 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	10/02/19 18:43	

LABORATORY CONTROL SAMPLE: 164325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	99.0	99	90-110	

SAMPLE DUPLICATE: 164326

Parameter	Units	2623856001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 164327

Parameter	Units	2623677002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36248 Analysis Method: SM 4500-Cl G
QC Batch Method: SM 4500-Cl G Analysis Description: 4500CL G Chlorine, Total Residual
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 163705 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.1	0.1	10/01/19 12:26	H6

LABORATORY CONTROL SAMPLE: 163706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	1	1	100	86-116	H6

SAMPLE DUPLICATE: 163724

Parameter	Units	2623782001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorine, Total Residual	mg/L	0.3	0.3	0	10	H3,H6

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36245 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

METHOD BLANK: 163688 Matrix: Water
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	10/01/19 15:34	

LABORATORY CONTROL SAMPLE: 163689

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163690 163691

Parameter	Units	2623750001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.51	100	101	80-120	2	10	H3

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36416 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

METHOD BLANK: 164448 Matrix: Water
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	10/03/19 13:40	

LABORATORY CONTROL SAMPLE: 164449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.43	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164450 164451

Parameter	Units	2623698001 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	ND	ND	17	15	30-129		10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36267 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 163798 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	2.0	10/07/19 10:57	

LABORATORY CONTROL SAMPLE: 163800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	190	96	85-115	

SAMPLE DUPLICATE: 163883

Parameter	Units	2623766004 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	401	416	4	20	

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36211 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 163581 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	0.0050	10/01/19 11:13	
Nitrite as N	mg/L	ND	0.050	0.011	10/01/19 11:13	

LABORATORY CONTROL SAMPLE: 163582

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	10	10.6	106	90-110	
Nitrite as N	mg/L	10	10.9	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163583 163584

Parameter	Units	2623752002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.029J	10	10	10.2	10.4	102	103	90-110	1	15	H3
Nitrite as N	mg/L	ND	10	10	10.3	10.3	103	103	90-110	1	15	H3

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36308 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 163917 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.10	10/02/19 09:16	

LABORATORY CONTROL SAMPLE: 163918

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.2	102	90-110	

MATRIX SPIKE SAMPLE: 163919

Parameter	Units	2623752002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	10	10.5	104	90-110	

MATRIX SPIKE SAMPLE: 163920

Parameter	Units	2623805001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.3	10	11.6	103	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 36290 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 2623752002, 2623752003

METHOD BLANK: 163897 Matrix: Water
Associated Lab Samples: 2623752002, 2623752003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.40	0.40	10/02/19 11:29	

LABORATORY CONTROL SAMPLE: 163898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	10	9.4	94	90-110	

MATRIX SPIKE SAMPLE: 163899

Parameter	Units	2623752002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	10	10.2	101	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623752

QC Batch: 575346 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

METHOD BLANK: 3126906 Matrix: Water
Associated Lab Samples: 2623752001, 2623752002, 2623752003, 2623752004, 2623752005, 2623752006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/04/19 06:33	

LABORATORY CONTROL SAMPLE: 3126907

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.9	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3126908 3126909

Parameter	Units	2623752004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	1.8	20	20	21.1	20.9	97	96	80-120	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623752

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623752

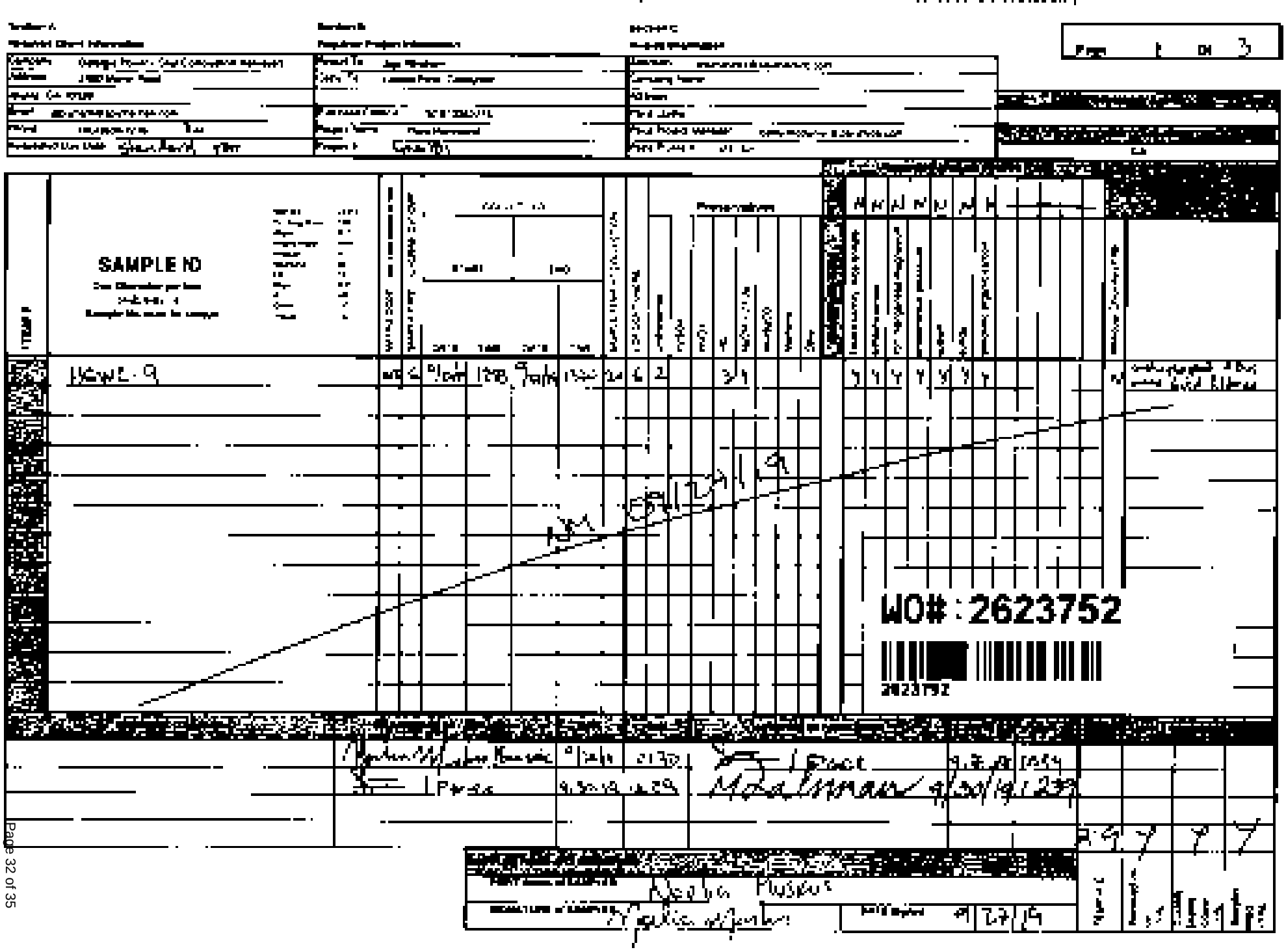
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623752001	**HGWC-9**	EPA 3010	576632	EPA 6010	576717
2623752002	**HGWC-10**	EPA 3010	576632	EPA 6010	576717
2623752003	**MW-19**	EPA 3010	576632	EPA 6010	576717
2623752004	**MW-25d**	EPA 3010	576632	EPA 6010	576717
2623752005	**HGWC-12**	EPA 3010	576632	EPA 6010	576717
2623752006	**HGWC-11**	EPA 3010	576632	EPA 6010	576717
2623752002	**HGWC-10**	EPA 3005A	36434	EPA 6020B	36455
2623752003	**MW-19**	EPA 3005A	36434	EPA 6020B	36455
2623752002	**HGWC-10**	EPA 7470A	36474	EPA 7470A	36493
2623752003	**MW-19**	EPA 7470A	36474	EPA 7470A	36493
2623752002	**HGWC-10**	EPA 1664B	36370		
2623752003	**MW-19**	EPA 1664B	36370		
2623752001	**HGWC-9**	SM 2320B	36486		
2623752002	**HGWC-10**	SM 2320B	36486		
2623752003	**MW-19**	SM 2320B	36486		
2623752004	**MW-25d**	SM 2320B	36486		
2623752005	**HGWC-12**	SM 2320B	36486		
2623752006	**HGWC-11**	SM 2320B	36486		
2623752002	**HGWC-10**	SM 2540C	36519		
2623752003	**MW-19**	SM 2540C	36519		
2623752002	**HGWC-10**	SM 2540D	36383		
2623752003	**MW-19**	SM 2540D	36383		
2623752002	**HGWC-10**	SM 4500-Cl G	36248		
2623752003	**MW-19**	SM 4500-Cl G	36248		
2623752001	**HGWC-9**	SM 4500-P	36245		
2623752002	**HGWC-10**	SM 4500-P	36245		
2623752003	**MW-19**	SM 4500-P	36245		
2623752004	**MW-25d**	SM 4500-P	36245		
2623752005	**HGWC-12**	SM 4500-P	36245		
2623752006	**HGWC-11**	SM 4500-P	36245		
2623752001	**HGWC-9**	SM 4500-S2 D	36416		
2623752002	**HGWC-10**	SM 4500-S2 D	36416		
2623752003	**MW-19**	SM 4500-S2 D	36416		
2623752004	**MW-25d**	SM 4500-S2 D	36416		
2623752005	**HGWC-12**	SM 4500-S2 D	36416		
2623752006	**HGWC-11**	SM 4500-S2 D	36416		
2623752002	**HGWC-10**	SM 5210B	36267	SM 5210B	36539
2623752003	**MW-19**	SM 5210B	36267	SM 5210B	36539
2623752002	**HGWC-10**	TKN-NH3 Calculation	36472		
2623752003	**MW-19**	TKN-NH3 Calculation	36472		
2623752002	**HGWC-10**	EPA 300.0	36211		
2623752003	**MW-19**	EPA 300.0	36211		

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623752

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623752002	**HGWC-10**	EPA 350.1	36308		
2623752003	**MW-19**	EPA 350.1	36308		
2623752002	**HGWC-10**	EPA 351.2	36290	EPA 351.2	36306
2623752003	**MW-19**	EPA 351.2	36290	EPA 351.2	36306
2623752001	**HGWC-9**	SM 5310B	575346		
2623752002	**HGWC-10**	SM 5310B	575346		
2623752003	**MW-19**	SM 5310B	575346		
2623752004	**MW-25d**	SM 5310B	575346		
2623752005	**HGWC-12**	SM 5310B	575346		
2623752006	**HGWC-11**	SM 5310B	575346		


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
WO# : 2623752

CHAIN-OF-CUSTODY / Analytical Request Document

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

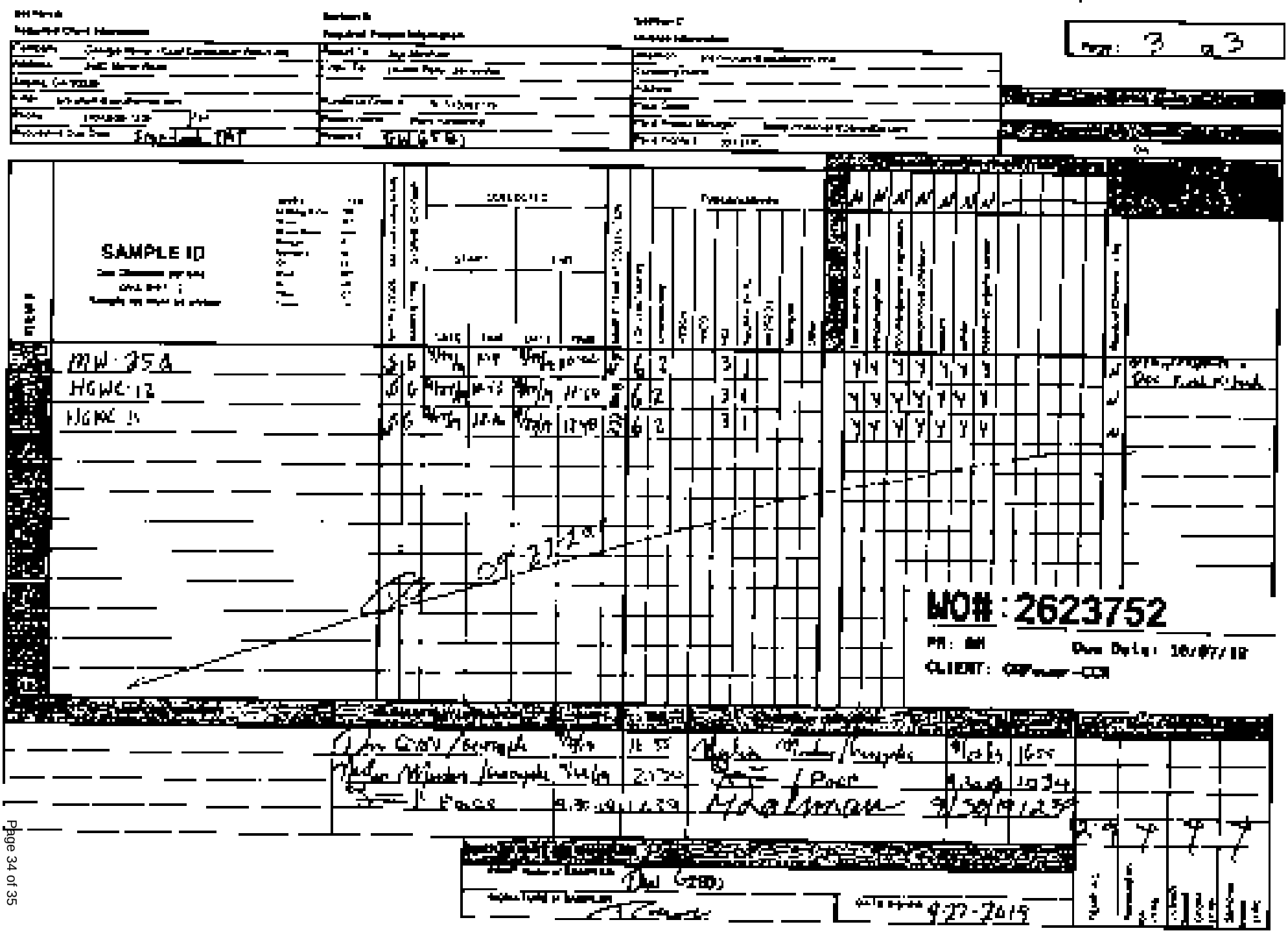
Page: 2 of 3

#	SAMPLE ID
1	MGW-10
2	MW-19

WO# : 2623752

PM: [illegible] Due Date: 10/07/19

CLIENT: [illegible]


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
MW-35A
HGWC-12
HGWC-13
WO#: 2623752
9-22-2015

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power   Project # ______

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #: ______

WO# : 2623752

PM: [illegible]   Due Date: 10/07/19

CLIENT: [illegible]

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ______

Thermometer Used: 83   Type of Ice: Wet Blue None   ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.9   Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/30/19 [illegible]

		Comments:
Chain of Custody Present	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time	☐Yes ☑No ☐N/A	5. BOD, o-P, Res.Cl, NO3 out of hold.
Short Hold Time Analysis (<72hr)	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested	☐Yes ☑No ☐N/A	7.
Sufficient Volume	☑Yes ☐No ☐N/A	8.
Correct Containers Used	☑Yes ☐No ☐N/A	9.
-Pace Containers Used	☑Yes ☐No ☐N/A	
Containers Intact	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☑Yes ☐No ☐N/A	11.
Sample Labels match COC	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm)	☐Yes ☐No ☑N/A	15.
Trip Blank Present	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): ______		

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

Person Contacted: ______   Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______   Date: ______

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 29, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623749

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 30, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
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(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623749

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623749

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623749001	**HGWC-9**	Water	09/27/19 13:20	09/30/19 12:39
2623749002	**HGWC-10**	Water	09/27/19 10:39	09/30/19 12:39
2623749003	**MW-19**	Water	09/27/19 13:30	09/30/19 12:39
2623749004	**MW-25d**	Water	09/27/19 10:00	09/30/19 12:39
2623749005	**HGWC-12**	Water	09/27/19 11:20	09/30/19 12:39
2623749006	**HGWC-11**	Water	09/27/19 12:48	09/30/19 12:39

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623749

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623749001	**HGWC-9**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623749002	**HGWC-10**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623749003	**MW-19**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623749004	**MW-25d**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623749005	**HGWC-12**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623749006	**HGWC-11**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

Sample: HGWC-9 **Lab ID: 2623749001** Collected: 09/27/19 13:20 Received: 09/30/19 12:39 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.428 ± 0.283 (0.449) C:88% T:NA**	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	**-0.0293 ± 0.588 (1.35) C:53% T:93%**	pCi/L	10/22/19 12:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.428 ± 0.871 (1.80)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

Sample: HGWC-10 **Lab ID: 2623749002** Collected: 09/27/19 10:39 Received: 09/30/19 12:39 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.288 ± 0.238 (0.411) C:87% T:NA**	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	**0.872 ± 0.573 (1.12) C:67% T:87%**	pCi/L	10/22/19 12:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.16 ± 0.811 (1.53)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

Sample: MW-19 **Lab ID: 2623749003** Collected: 09/27/19 13:30 Received: 09/30/19 12:39 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.534 ± 0.324 (0.518) C:86% T:NA**	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	**-0.185 ± 0.593 (1.42) C:60% T:83%**	pCi/L	10/22/19 15:19	15262-20-1	
Total Radium	Total Radium Calculation	**0.534 ± 0.917 (1.94)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

Sample: MW-25d **Lab ID: 2623749004** Collected: 09/27/19 10:00 Received: 09/30/19 12:39 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.676 ± 0.331 (0.394) C:85% T:NA**	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	**0.269 ± 0.342 (0.722) C:60% T:87%**	pCi/L	10/22/19 12:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.945 ± 0.673 (1.12)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

Sample: HGWC-12 **Lab ID: 2623749005** Collected: 09/27/19 11:20 Received: 09/30/19 12:39 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.806 ± 0.369 (0.452) C:89% T:NA**	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	**0.152 ± 0.527 (1.18) C:60% T:82%**	pCi/L	10/22/19 12:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.958 ± 0.896 (1.63)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

Sample: HGWC-11 **Lab ID: 2623749006** Collected: 09/27/19 12:48 Received: 09/30/19 12:39 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.444 ± 0.261 (0.345) C:91% T:NA**	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	**1.34 ± 0.688 (1.25) C:63% T:78%**	pCi/L	10/22/19 12:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.78 ± 0.949 (1.60)**	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

QC Batch: 365770 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623749001, 2623749002, 2623749003, 2623749004, 2623749005, 2623749006

METHOD BLANK: 1774264 Matrix: Water
Associated Lab Samples: 2623749001, 2623749002, 2623749003, 2623749004, 2623749005, 2623749006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.444 ± 0.254 (0.311) C:92% T:NA	pCi/L	10/18/19 08:27	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 2623749

QC Batch: 365771 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623749001, 2623749002, 2623749003, 2623749004, 2623749005, 2623749006

METHOD BLANK: 1774265 Matrix: Water
Associated Lab Samples: 2623749001, 2623749002, 2623749003, 2623749004, 2623749005, 2623749006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.497 ± 0.426 (0.854) C:61% T:84%	pCi/L	10/22/19 12:20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623749

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

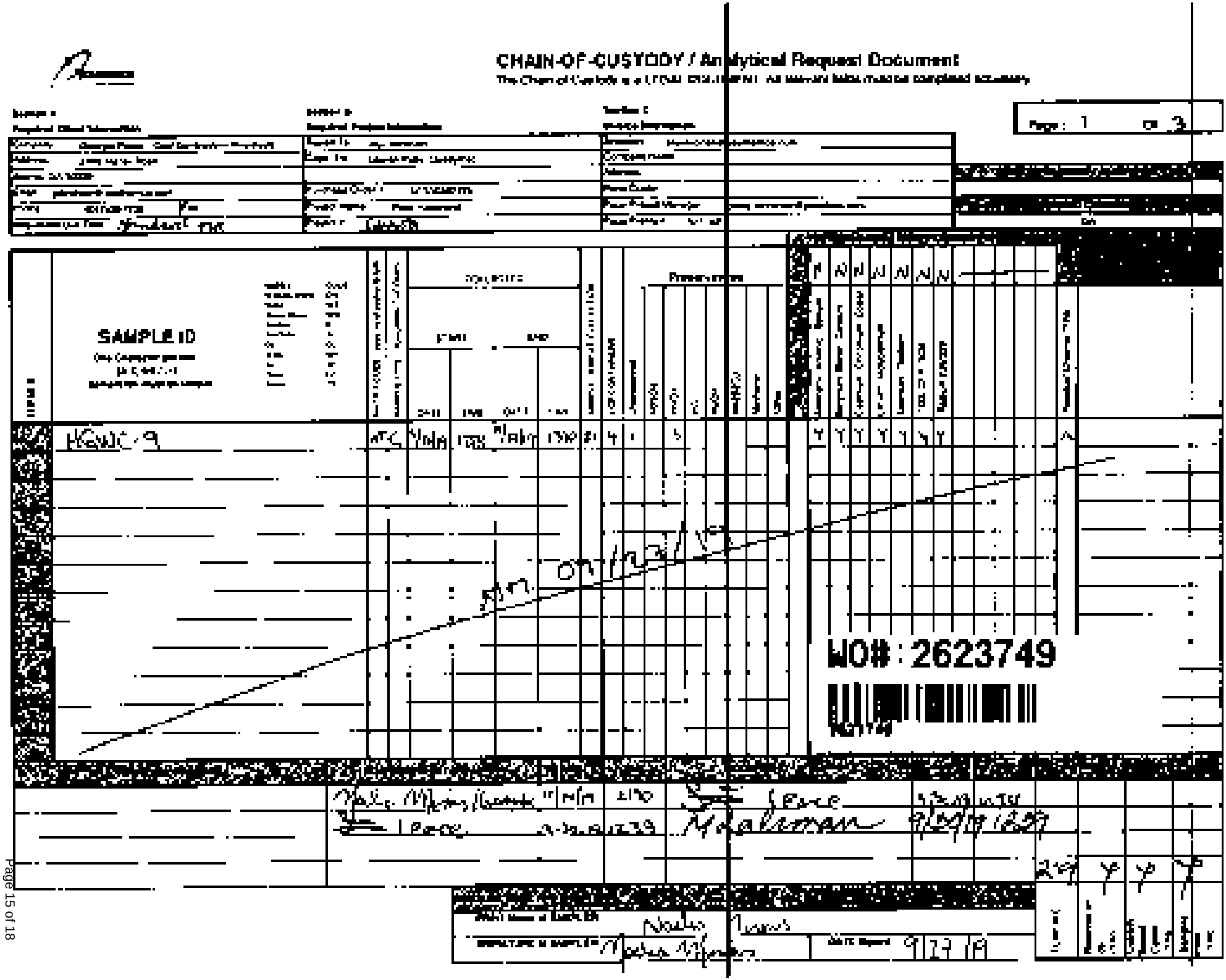
REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623749

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623749001	**HGWC-9**	EPA 9315	365770		
2623749002	**HGWC-10**	EPA 9315	365770		
2623749003	**MW-19**	EPA 9315	365770		
2623749004	**MW-25d**	EPA 9315	365770		
2623749005	**HGWC-12**	EPA 9315	365770		
2623749006	**HGWC-11**	EPA 9315	365770		
2623749001	**HGWC-9**	EPA 9320	365771		
2623749002	**HGWC-10**	EPA 9320	365771		
2623749003	**MW-19**	EPA 9320	365771		
2623749004	**MW-25d**	EPA 9320	365771		
2623749005	**HGWC-12**	EPA 9320	365771		
2623749006	**HGWC-11**	EPA 9320	365771		
2623749001	**HGWC-9**	Total Radium Calculation	367489		
2623749002	**HGWC-10**	Total Radium Calculation	367488		
2623749003	**MW-19**	Total Radium Calculation	367489		
2623749004	**MW-25d**	Total Radium Calculation	367488		
2623749005	**HGWC-12**	Total Radium Calculation	367488		
2623749006	**HGWC-11**	Total Radium Calculation	367489		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SAMPLE ID
WO# : 2623749

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

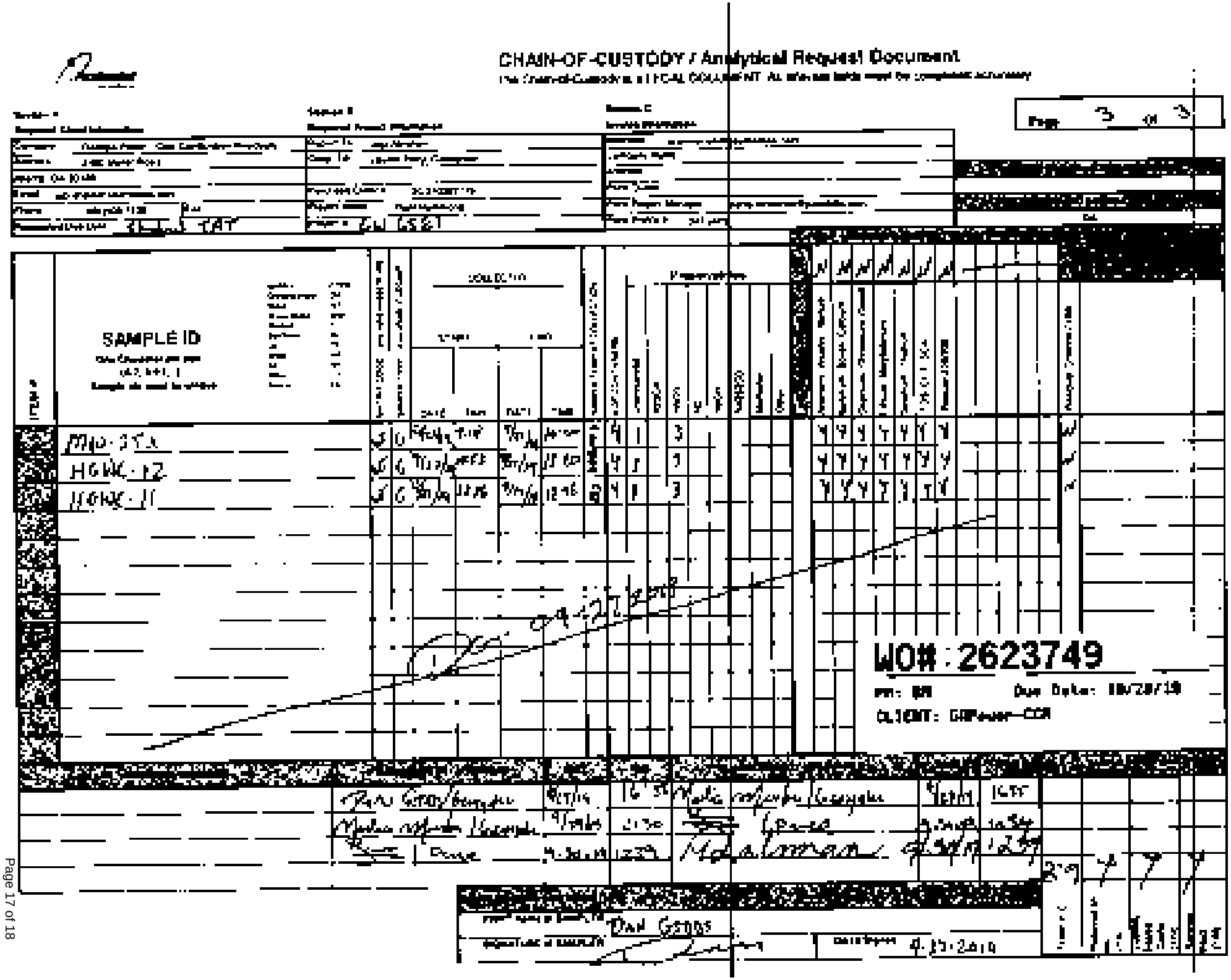
SAMPLE ID

SAMPLE ID
MW-10
MW-11

WO# : 2623749

PM: BM Due Date: 10/20/18

CLIENT: GAPower-CCR


CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID
WO#: 2623749

Sample Condition Upon Receipt

Pace Analytical

Client Name: Lee A Power Project #:

WO#: 2623749

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

PM: BR Due Date: 10/26/18

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

CLIENT: GW-water-CCR

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: 80 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.9 Biological Tissue is Frozen: ☐ Yes ☐ No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 9/30/18 MK

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

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 21, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Atlanta, GA

This report was revised 4/21/20 to correct the site name to Hammond.

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

Sincerely,

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

Enclosures

cc: Kristen Jurinko
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630908001	**PMW-01**	Water	04/09/20 18:22	04/10/20 11:35
2630908002	**PMW-02**	Water	04/09/20 10:08	04/10/20 11:35

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630908001	**PMW-01**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	VHB	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		SM 2540C	KN	1	PASI-GA
		SM 4500-S2D-2011	MJP	1	PASI-A
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630908002	**PMW-02**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	VHB	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		SM 2540C	KN	1	PASI-GA
		SM 4500-S2D-2011	MJP	1	PASI-A
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, GA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630908001	**PMW-01**					
	Field pH	6.58	Std. Units		04/10/20 17:17	
EPA 6010D	Calcium	577	mg/L	10.0	04/17/20 14:52	
EPA 6010D	Magnesium	57.4	mg/L	0.050	04/16/20 17:33	
EPA 6010D	Manganese	9.8	mg/L	0.040	04/16/20 17:33	
EPA 6010D	Potassium	8.7	mg/L	0.20	04/16/20 17:33	
EPA 6010D	Sodium	17.1	mg/L	1.0	04/16/20 17:33	
EPA 6020B	Arsenic	0.16	mg/L	0.025	04/14/20 16:13	
EPA 6020B	Barium	0.056	mg/L	0.010	04/13/20 17:22	
EPA 6020B	Boron	1.7	mg/L	0.10	04/13/20 17:22	
EPA 6020B	Cobalt	0.00056J	mg/L	0.0050	04/13/20 17:22	
EPA 6020B	Iron	15.5	mg/L	0.20	04/14/20 16:13	
EPA 6020B	Lithium	0.043	mg/L	0.030	04/13/20 17:22	
EPA 6020B	Molybdenum	0.0057J	mg/L	0.010	04/13/20 17:22	
EPA 6020B	Thallium	0.00023J	mg/L	0.0010	04/13/20 17:22	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	185	mg/L	5.0	04/16/20 15:42	
SM 2320B-2011	Alkalinity, Total as CaCO3	185	mg/L	5.0	04/16/20 15:42	
SM 2540C	Total Dissolved Solids	2170	mg/L	10.0	04/14/20 17:57	
EPA 300.0 Rev 2.1 1993	Chloride	69.5	mg/L	1.0	04/16/20 03:21	M6
EPA 300.0 Rev 2.1 1993	Fluoride	0.31	mg/L	0.30	04/16/20 03:21	
EPA 300.0 Rev 2.1 1993	Sulfate	1160	mg/L	22.0	04/16/20 18:50	M6
2630908002	**PMW-02**					
	Field pH	7.4	Std. Units		04/10/20 17:17	
EPA 6010D	Calcium	258	mg/L	1.0	04/16/20 17:36	M1
EPA 6010D	Magnesium	25.6	mg/L	0.050	04/16/20 17:36	M1
EPA 6010D	Manganese	1.1	mg/L	0.040	04/16/20 17:36	
EPA 6010D	Potassium	8.1	mg/L	0.20	04/16/20 17:36	
EPA 6010D	Sodium	43.7	mg/L	1.0	04/16/20 17:36	M1
EPA 6020B	Antimony	0.00054J	mg/L	0.0030	04/13/20 17:28	
EPA 6020B	Arsenic	0.72	mg/L	0.0050	04/13/20 17:28	
EPA 6020B	Barium	0.16	mg/L	0.010	04/13/20 17:28	
EPA 6020B	Boron	3.2	mg/L	0.10	04/13/20 17:28	
EPA 6020B	Iron	0.95	mg/L	0.040	04/13/20 17:28	
EPA 6020B	Lead	0.000053J	mg/L	0.0050	04/13/20 17:28	
EPA 6020B	Lithium	0.018J	mg/L	0.030	04/13/20 17:28	
EPA 6020B	Molybdenum	0.050	mg/L	0.010	04/13/20 17:28	
EPA 6020B	Thallium	0.00059J	mg/L	0.0010	04/13/20 17:28	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	236	mg/L	5.0	04/16/20 21:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	236	mg/L	5.0	04/16/20 21:43	
SM 2540C	Total Dissolved Solids	1090	mg/L	10.0	04/14/20 17:57	
EPA 300.0 Rev 2.1 1993	Chloride	72.7	mg/L	1.0	04/16/20 04:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.82	mg/L	0.30	04/16/20 04:05	
EPA 300.0 Rev 2.1 1993	Sulfate	454	mg/L	9.0	04/16/20 19:33	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Sample: PMW-01 **Lab ID: 2630908001** Collected: 04/09/20 18:22 Received: 04/10/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.58**	Std. Units			1		04/10/20 17:17		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**577**	mg/L	10.0	1.4	10	04/16/20 13:14	04/17/20 14:52	7440-70-2	
Magnesium	**57.4**	mg/L	0.050	0.011	1	04/16/20 13:14	04/16/20 17:33	7439-95-4	
Manganese	**9.8**	mg/L	0.040	0.0061	1	04/16/20 13:14	04/16/20 17:33	7439-96-5	
Potassium	**8.7**	mg/L	0.20	0.026	1	04/16/20 13:14	04/16/20 17:33	7440-09-7	
Sodium	**17.1**	mg/L	1.0	0.19	1	04/16/20 13:14	04/16/20 17:33	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/13/20 13:00	04/13/20 17:22	7440-36-0	
Arsenic	**0.16**	mg/L	0.025	0.0018	5	04/13/20 13:00	04/14/20 16:13	7440-38-2	
Barium	**0.056**	mg/L	0.010	0.00049	1	04/13/20 13:00	04/13/20 17:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/13/20 13:00	04/13/20 17:22	7440-41-7	
Boron	**1.7**	mg/L	0.10	0.0049	1	04/13/20 13:00	04/13/20 17:22	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/13/20 13:00	04/13/20 17:22	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/13/20 13:00	04/13/20 17:22	7440-47-3	
Cobalt	**0.00056J**	mg/L	0.0050	0.00030	1	04/13/20 13:00	04/13/20 17:22	7440-48-4	
Iron	**15.5**	mg/L	0.20	0.049	5	04/13/20 13:00	04/14/20 16:13	7439-89-6	
Lead	ND	mg/L	0.0050	0.000046	1	04/13/20 13:00	04/13/20 17:22	7439-92-1	
Lithium	**0.043**	mg/L	0.030	0.00078	1	04/13/20 13:00	04/13/20 17:22	7439-93-2	
Molybdenum	**0.0057J**	mg/L	0.010	0.00095	1	04/13/20 13:00	04/13/20 17:22	7439-98-7	
Selenium	ND	mg/L	0.050	0.0063	5	04/13/20 13:00	04/14/20 16:13	7782-49-2	
Thallium	**0.00023J**	mg/L	0.0010	0.000052	1	04/13/20 13:00	04/13/20 17:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA								
Mercury	ND	ug/L	0.50	0.14	1	04/13/20 08:50	04/13/20 12:49	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**185**	mg/L	5.0	5.0	1		04/16/20 15:42		
Alkalinity, Total as CaCO3	**185**	mg/L	5.0	5.0	1		04/16/20 15:42		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**2170**	mg/L	10.0	10.0	1		04/14/20 17:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		04/15/20 12:09	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Sample: PMW-01 **Lab ID: 2630908001** Collected: 04/09/20 18:22 Received: 04/10/20 11:35 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								
Chloride	**69.5**	mg/L	1.0	0.60	1		04/16/20 03:21	16887-00-6	M6
Fluoride	**0.31**	mg/L	0.30	0.050	1		04/16/20 03:21	16984-48-8	
Sulfate	**1160**	mg/L	22.0	11.0	22		04/16/20 18:50	14808-79-8	M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Sample: PMW-02 **Lab ID: 2630908002** Collected: 04/09/20 10:08 Received: 04/10/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.4**	Std. Units			1		04/10/20 17:17		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**258**	mg/L	1.0	0.14	1	04/16/20 13:14	04/16/20 17:36	7440-70-2	M1
Magnesium	**25.6**	mg/L	0.050	0.011	1	04/16/20 13:14	04/16/20 17:36	7439-95-4	M1
Manganese	**1.1**	mg/L	0.040	0.0061	1	04/16/20 13:14	04/16/20 17:36	7439-96-5	
Potassium	**8.1**	mg/L	0.20	0.026	1	04/16/20 13:14	04/16/20 17:36	7440-09-7	
Sodium	**43.7**	mg/L	1.0	0.19	1	04/16/20 13:14	04/16/20 17:36	7440-23-5	M1
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	**0.00054J**	mg/L	0.0030	0.00027	1	04/13/20 13:00	04/13/20 17:28	7440-36-0	
Arsenic	**0.72**	mg/L	0.0050	0.00035	1	04/13/20 13:00	04/13/20 17:28	7440-38-2	
Barium	**0.16**	mg/L	0.010	0.00049	1	04/13/20 13:00	04/13/20 17:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/13/20 13:00	04/13/20 17:28	7440-41-7	
Boron	**3.2**	mg/L	0.10	0.0049	1	04/13/20 13:00	04/13/20 17:28	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/13/20 13:00	04/13/20 17:28	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/13/20 13:00	04/13/20 17:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/13/20 13:00	04/13/20 17:28	7440-48-4	
Iron	**0.95**	mg/L	0.040	0.0097	1	04/13/20 13:00	04/13/20 17:28	7439-89-6	
Lead	**0.000053J**	mg/L	0.0050	0.000046	1	04/13/20 13:00	04/13/20 17:28	7439-92-1	
Lithium	**0.018J**	mg/L	0.030	0.00078	1	04/13/20 13:00	04/13/20 17:28	7439-93-2	
Molybdenum	**0.050**	mg/L	0.010	0.00095	1	04/13/20 13:00	04/13/20 17:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/13/20 13:00	04/13/20 17:28	7782-49-2	
Thallium	**0.00059J**	mg/L	0.0010	0.000052	1	04/13/20 13:00	04/13/20 17:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Atlanta, GA								
Mercury	ND	ug/L	0.50	0.14	1	04/13/20 08:50	04/13/20 12:59	7439-97-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**236**	mg/L	5.0	5.0	1		04/16/20 21:43		
Alkalinity, Total as CaCO3	**236**	mg/L	5.0	5.0	1		04/16/20 21:43		
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**1090**	mg/L	10.0	10.0	1		04/14/20 17:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		04/15/20 12:10	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Sample: PMW-02 **Lab ID: 2630908002** Collected: 04/09/20 10:08 Received: 04/10/20 11:35 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								
Chloride	**72.7**	mg/L	1.0	0.60	1		04/16/20 04:05	16887-00-6	
Fluoride	**0.82**	mg/L	0.30	0.050	1		04/16/20 04:05	16984-48-8	
Sulfate	**454**	mg/L	9.0	4.5	9		04/16/20 19:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 45454
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 209843 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.50	0.14	04/13/20 12:45	

LABORATORY CONTROL SAMPLE: 209844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.4	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 209845 209846

Parameter	Units	2630908001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.5	2.4	98	94	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 45592
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 210512 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/16/20 17:18	
Magnesium	mg/L	ND	0.050	0.011	04/16/20 17:18	
Manganese	mg/L	ND	0.040	0.0061	04/16/20 17:18	
Potassium	mg/L	ND	0.20	0.026	04/16/20 17:18	
Sodium	mg/L	ND	1.0	0.19	04/16/20 17:18	

LABORATORY CONTROL SAMPLE: 210513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Manganese	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	0.97	97	80-120	
Sodium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 210528 210529

Parameter	Units	2630908002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	258	1	1	262	265	333	619	75-125	1	20	M1
Magnesium	mg/L	25.6	1	1	27.0	27.4	138	171	75-125	1	20	M1
Manganese	mg/L	1.1	1	1	2.0	2.1	96	99	75-125	2	20	
Potassium	mg/L	8.1	1	1	9.1	9.2	107	118	75-125	1	20	
Sodium	mg/L	43.7	1	1	45.1	45.6	134	185	75-125	1	20	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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 45464
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 209861 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/13/20 16:42	
Arsenic	mg/L	ND	0.0050	0.00035	04/13/20 16:42	
Barium	mg/L	ND	0.010	0.00049	04/13/20 16:42	
Beryllium	mg/L	ND	0.0030	0.000074	04/13/20 16:42	
Boron	mg/L	ND	0.10	0.0049	04/13/20 16:42	
Cadmium	mg/L	ND	0.0025	0.00011	04/13/20 16:42	
Chromium	mg/L	ND	0.010	0.00039	04/13/20 16:42	
Cobalt	mg/L	ND	0.0050	0.00030	04/13/20 16:42	
Iron	mg/L	ND	0.040	0.0097	04/13/20 16:42	
Lead	mg/L	ND	0.0050	0.000046	04/13/20 16:42	
Lithium	mg/L	ND	0.030	0.00078	04/13/20 16:42	
Molybdenum	mg/L	ND	0.010	0.00095	04/13/20 16:42	
Selenium	mg/L	ND	0.010	0.0013	04/13/20 16:42	
Thallium	mg/L	ND	0.0010	0.000052	04/13/20 16:42	

LABORATORY CONTROL SAMPLE: 209862

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	0.11	106	80-120	
Barium	mg/L	0.1	0.10	105	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cadmium	mg/L	0.1	0.11	107	80-120	
Chromium	mg/L	0.1	0.11	107	80-120	
Cobalt	mg/L	0.1	0.11	105	80-120	
Iron	mg/L	1	1.0	105	80-120	
Lead	mg/L	0.1	0.11	105	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	
Selenium	mg/L	0.1	0.10	105	80-120	
Thallium	mg/L	0.1	0.11	107	80-120	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 209904 209905

Parameter	Units	2630907001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	113	109	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	105	101	75-125	3	20	
Barium	mg/L	0.18	0.1	0.1	0.28	0.28	99	98	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20	
Boron	mg/L	0.74	1	1	1.8	1.9	109	111	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	105	101	75-125	4	20	
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	105	101	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	3	20	
Iron	mg/L	0.10J	1	1	1.1	1.1	103	99	75-125	4	20	
Lead	mg/L	0.00026J	0.1	0.1	0.10	0.097	100	97	75-125	4	20	
Lithium	mg/L	0.20	0.1	0.1	0.30	0.31	102	108	75-125	2	20	
Molybdenum	mg/L	0.014	0.1	0.1	0.13	0.12	113	107	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.098	96	98	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 536610
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 2862347 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	04/16/20 15:18	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	04/16/20 15:18	

LABORATORY CONTROL SAMPLE: 2862348

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: 2862349 2862350

Parameter	Units	92472992089 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	12.5	50	50	65.0	65.2	105	105	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2862351 2862352

Parameter	Units	92472992093 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	84.2	50	50	137	139	105	109	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 45512
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630908001, 2630908002

LABORATORY CONTROL SAMPLE: 209985

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	379	95	84-108	

SAMPLE DUPLICATE: 209986

Parameter	Units	2630821024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	223	244	9	10	

SAMPLE DUPLICATE: 209987

Parameter	Units	92473254002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	17.0	18.0	6	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 536291
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 2860729 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	04/15/20 11:58	

LABORATORY CONTROL SAMPLE: 2860730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.47	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2860731 2860732

Parameter	Units	92473428001 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	0.59	0.59	116	116	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2860733 2860734

Parameter	Units	2630862001 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	0.66	0.66	129	129	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

QC Batch: 536461
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 2861738 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/16/20 02:52	
Fluoride	mg/L	ND	0.10	0.050	04/16/20 02:52	
Sulfate	mg/L	ND	1.0	0.50	04/16/20 02:52	

LABORATORY CONTROL SAMPLE: 2861739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	51.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2861740 2861741

Parameter	Units	2630908001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	69.5	50	50	102	101	64	64	90-110	0	10	M6
Fluoride	mg/L	0.31	2.5	2.5	3.1	3.0	110	108	90-110	1	10	
Sulfate	mg/L	1160	50	50	1200	1200	71	73	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2861742 2861743

Parameter	Units	92473637001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.4	50	50	104	106	74	78	90-110	2	10	M1
Fluoride	mg/L	0.31	2.5	2.5	2.4	2.3	84	81	90-110	2	10	M1
Sulfate	mg/L	51.7	50	50	91.7	98.3	80	93	90-110	7	10	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 PMW NON ROUTINE
Pace Project No.: 2630908

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630908001	**PMW-01**				
2630908002	**PMW-02**				
2630908001	**PMW-01**	EPA 3010A	45592	EPA 6010D	45599
2630908002	**PMW-02**	EPA 3010A	45592	EPA 6010D	45599
2630908001	**PMW-01**	EPA 3005A	45464	EPA 6020B	45489
2630908002	**PMW-02**	EPA 3005A	45464	EPA 6020B	45489
2630908001	**PMW-01**	EPA 7470A	45454	EPA 7470A	45456
2630908002	**PMW-02**	EPA 7470A	45454	EPA 7470A	45456
2630908001	**PMW-01**	SM 2320B-2011	536610		
2630908002	**PMW-02**	SM 2320B-2011	536610		
2630908001	**PMW-01**	SM 2540C	45512		
2630908002	**PMW-02**	SM 2540C	45512		
2630908001	**PMW-01**	SM 4500-S2D-2011	536291		
2630908002	**PMW-02**	SM 4500-S2D-2011	536291		
2630908001	**PMW-01**	EPA 300.0 Rev 2.1 1993	536461		
2630908002	**PMW-02**	EPA 300.0 Rev 2.1 1993	536461		

CHAIN-OF-CUSTODY / Analytical Request Document

WO# : 2630908

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Requested Due Date/TAT:	5 day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Project Name:	[illegible] Non-routine Sampling
Project Number:	GAPOWER

Section C — Invoice Information

Attention:	Southern Co
Pace Project Manager:	[illegible]
Pace Profile #:	3725-5

REGULATORY AGENCY

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

SAMPLE ID

ITEM #	SAMPLE ID	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Pace Project No./Lab I.D.
1	[illegible]	9/4	1812		6.5E
2	[illegible]	9/4	1818	5	2.9 Cal Sample
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Chad Russo / SCS	9/4/20	[illegible]	[illegible] / Geosyntec	[illegible]	[illegible]
[illegible] / Geosyntec	9/4/20	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible] / PACE	[illegible]	[illegible]

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: [signature]

DATE Signed: 9/4/2020

[illegible] invoices not paid within 30 days.

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2630908

PM: KN Due Date: 04/17/20

CLIENT: 26-GA Power

Courier: [ ] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [x] Pace Other

Tracking #: ____________

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

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other ____________

Thermometer Used: [illegible] Type of Ice: Wet Blue None [ ] Samples on ice, cooling process has begun

Cooler Temperature: 1.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: [illegible] 4/10/20

Comments:

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

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

Person Contacted: ____________ Date/Time: ____________

Comments/ Resolution: ____________

Project Manager Review: ____________ Date: ____________

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

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

May 06, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 14, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630908001	**PMW-01**	Water	04/09/20 18:22	04/14/20 09:30
2630908002	**PMW-02**	Water	04/09/20 10:08	04/14/20 09:30

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630908001	**PMW-01**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630908002	**PMW-02**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

Sample: PMW-01 **Lab ID: 2630908001** Collected: 04/09/20 18:22 Received: 04/14/20 09:30 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	**0.339 ± 0.327 (0.645) C:92% T:NA**	pCi/L	04/24/20 07:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.686 ± 0.493 (0.957) C:67% T:78%**	pCi/L	05/05/20 17:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.03 ± 0.820 (1.60)**	pCi/L	05/06/20 13:45	7440-14-4	

Sample: PMW-02 **Lab ID: 2630908002** Collected: 04/09/20 10:08 Received: 04/14/20 09:30 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	**0.295 ± 0.256 (0.445) C:89% T:NA**	pCi/L	04/24/20 07:15	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0571 ± 0.444 (1.02) C:74% T:70%**	pCi/L	05/05/20 17:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.352 ± 0.700 (1.47)**	pCi/L	05/06/20 13:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

QC Batch: 393298
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 1905191
Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.255 ± 0.396 (0.856) C:72% T:86%	pCi/L	05/05/20 17:12	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

QC Batch: 393241
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 2630908001, 2630908002

METHOD BLANK: 1904981 Matrix: Water
Associated Lab Samples: 2630908001, 2630908002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0237 ± 0.143 (0.432) C:96% T:NA	pCi/L	04/24/20 07:29	

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REPORT OF LABORATORY ANALYSIS

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(724)850-5600

QUALIFIERS

Project: 2630908 HAMMOND AP-1 PMW
Pace Project No.: 30359738

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.

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

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. Is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(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.

Chain of Custody

Pace Analytical

[ ] Samples were sent directly to the Subcontracting Laboratory

State Of Origin: GA
Cert. Needed: [ ] Yes [ ] No
Owner Received Date: 4/10/2020
Results Requested By: [illegible]

Workorder: 2052908 Workorder Name: BOWEN [illegible] NON ROUTINE

Pace Analytical Charlotte
9800 Kincey Ave
Suite 100
Huntersville, NC 28078
Phone (704) 875-9092

Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2, 3, & 4
Greensburg, PA 15601
Phone (724)850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix							LAB USE ONLY
1	[illegible]	PS	[illegible]	[illegible]	Water				X	X		[illegible]
2	[illegible]	PS	[illegible]	[illegible]	Water				X	X		[illegible]
3												
4												
5												

Transfers	Released By	Date/Time	Received By	Date/Time
1			[illegible]	[illegible]
2				
3				

Cooler Temperature on Receipt: [illegible] °C Custody Seal: Y or N Received on Ice: Y or N Samples Intact: Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

WO#: 30359738

30359738

Pittsburgh Lab Sample Condition Upon Receipt

30359738

Client Name: Pace NC GA Project #

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

Tracking #: 1657 9507 4468

Label: [illegible]

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

Thermometer Used   Type of Ice: Wet / Blue / None

Cooler Temperature   Observed Temp   °C   Correction Factor   °C   Final Temp: °C

pH paper Lot#: 1004291

Date and Initials of person examining contents: [illegible] 4/3/20

Comments: Yes / No / N/A

Chain of Custody Present: ✓

Chain of Custody Filled Out: ✓

Chain of Custody Relinquished: ✓

Sampler Name & Signature on COC: ✓

Samples Arrived within Hold Time: ✓

Sample Labels match COC: ✓

Correct Containers Used: ✓

Containers Intact: ✓

Initial when completed: [illegible]

Lot # of added preservative: [illegible]

Comments/ Resolution: [illegible] on sample ID [illegible]

Rad Samples Screened < 0.5 mrem/hr: Initial when completed: [illegible] Date: 4-[illegible]-2020

Client Notification/ Resolution:

Person Contacted: Date/Time:

Comments/ Resolution: [illegible]

[illegible] sample [illegible]

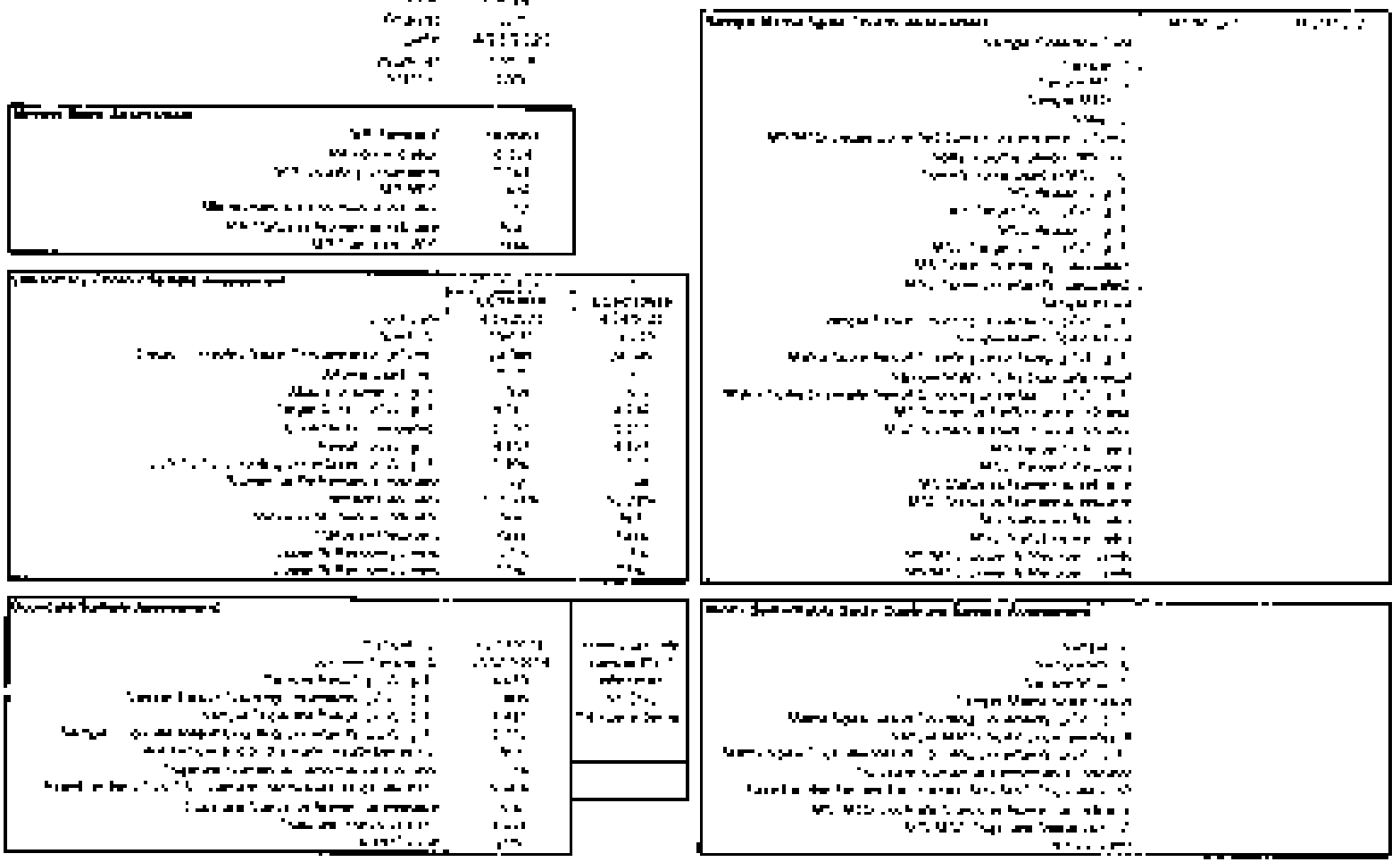
[illegible] - 001   [illegible] - 002

[illegible] 2020   [illegible] 2020

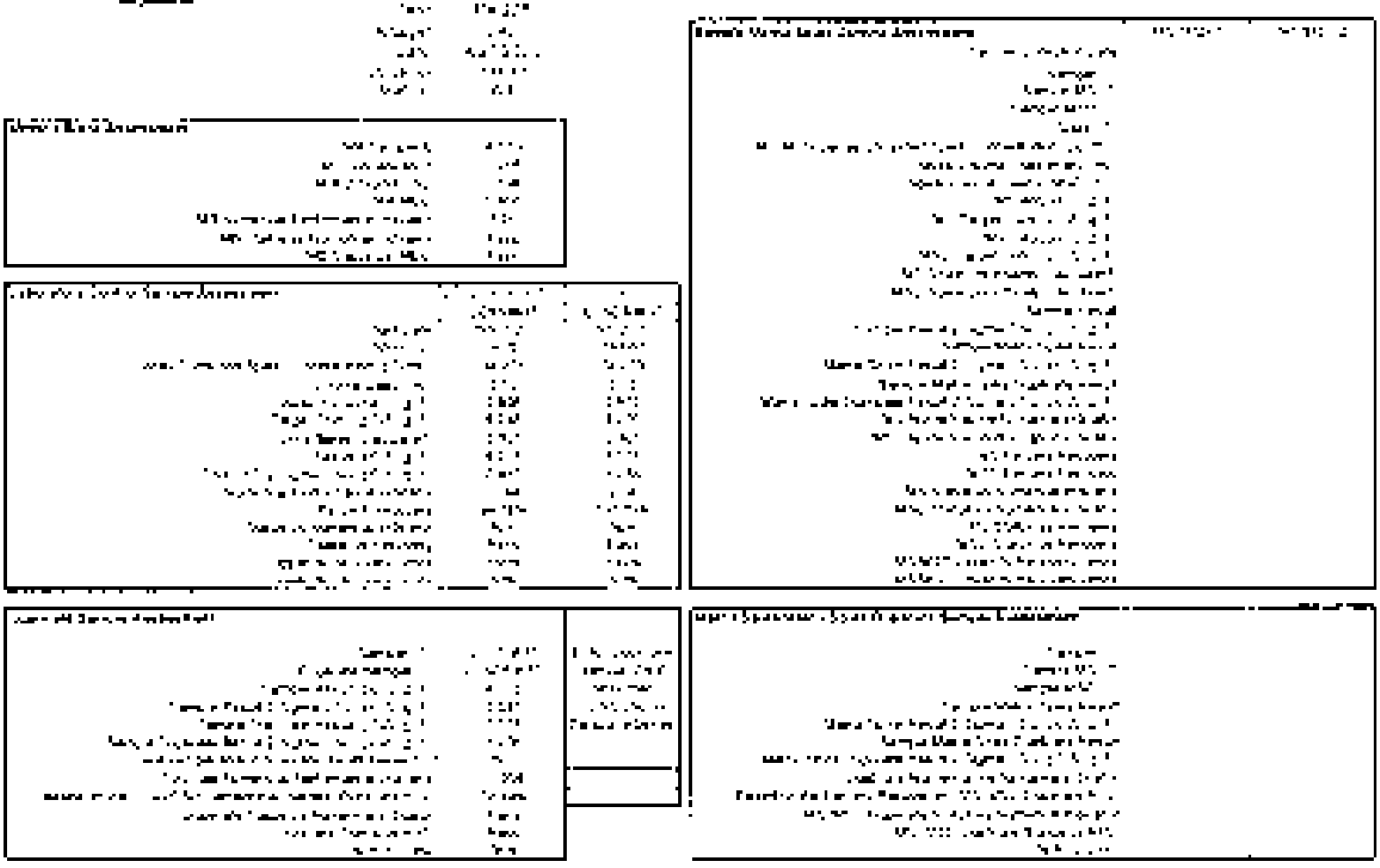
[illegible]

A check in this box indicates that additional information has been stored in ereports.

Quality Control Sample Performance Assessment



Quality Control Sample Performance Assessment



Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

May 11, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Atlanta, GA

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

Sincerely,

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

Enclosures

cc: Kristen Jurinko
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SAMPLE SUMMARY

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630907001	**MW-30D**	Water	04/09/20 11:35	04/10/20 11:35

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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630907001	**MW-30D**	EPA 6010D	DRB	5	PASI-GA
		EPA 6020B	CSW	1	PASI-GA
		SM 2320B-2011	ECH	2	PASI-A
		SM 4500-S2D-2011	MDW	1	PASI-A
		EPA 300.0 Rev 2.1 1993	BRJ	2	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, GA

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630907001	**MW-30D**					
	Field pH	8.27	Std. Units		04/10/20 17:02	
EPA 6010D	Calcium	13.4	mg/L	1.0	04/16/20 17:29	
EPA 6010D	Magnesium	4.0	mg/L	0.050	04/16/20 17:29	
EPA 6010D	Manganese	0.0073J	mg/L	0.040	04/16/20 17:29	
EPA 6010D	Potassium	2.1	mg/L	0.20	04/16/20 17:29	
EPA 6010D	Sodium	512	mg/L	100	04/17/20 14:48	
EPA 6020B	Iron	0.10J	mg/L	0.20	04/14/20 15:56	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	544	mg/L	5.0	04/16/20 21:51	
SM 2320B-2011	Alkalinity, Total as CaCO3	544	mg/L	5.0	04/16/20 21:51	
EPA 300.0 Rev 2.1 1993	Chloride	96.0	mg/L	1.0	04/16/20 04:19	
EPA 300.0 Rev 2.1 1993	Sulfate	399	mg/L	8.0	04/16/20 19:47	

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Sample: MW-30D **Lab ID: 2630907001** Collected: 04/09/20 11:35 Received: 04/10/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**8.27**	Std. Units			1		04/10/20 17:02		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**13.4**	mg/L	1.0	0.14	1	04/16/20 13:14	04/16/20 17:29	7440-70-2	
Magnesium	**4.0**	mg/L	0.050	0.011	1	04/16/20 13:14	04/16/20 17:29	7439-95-4	
Manganese	**0.0073J**	mg/L	0.040	0.0061	1	04/16/20 13:14	04/16/20 17:29	7439-96-5	
Potassium	**2.1**	mg/L	0.20	0.026	1	04/16/20 13:14	04/16/20 17:29	7440-09-7	
Sodium	**512**	mg/L	100	18.5	100	04/16/20 13:14	04/17/20 14:48	7440-23-5	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Iron	**0.10J**	mg/L	0.20	0.049	5	04/13/20 13:00	04/14/20 15:56	7439-89-6	
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**544**	mg/L	5.0	5.0	1		04/16/20 21:51		
Alkalinity, Total as CaCO3	**544**	mg/L	5.0	5.0	1		04/16/20 21:51		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		04/15/20 19:40	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**96.0**	mg/L	1.0	0.60	1		04/16/20 04:19	16887-00-6	
Sulfate	**399**	mg/L	8.0	4.0	8		04/16/20 19:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

QC Batch: 45592
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630907001

METHOD BLANK: 210512 Matrix: Water
Associated Lab Samples: 2630907001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/16/20 17:18	
Magnesium	mg/L	ND	0.050	0.011	04/16/20 17:18	
Manganese	mg/L	ND	0.040	0.0061	04/16/20 17:18	
Potassium	mg/L	ND	0.20	0.026	04/16/20 17:18	
Sodium	mg/L	ND	1.0	0.19	04/16/20 17:18	

LABORATORY CONTROL SAMPLE: 210513

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Manganese	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	0.97	97	80-120	
Sodium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 210528 210529

Parameter	Units	2630908002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	258	1	1	262	265	333	619	75-125	1	20	M1
Magnesium	mg/L	25.6	1	1	27.0	27.4	138	171	75-125	1	20	M1
Manganese	mg/L	1.1	1	1	2.0	2.1	96	99	75-125	2	20	
Potassium	mg/L	8.1	1	1	9.1	9.2	107	118	75-125	1	20	
Sodium	mg/L	43.7	1	1	45.1	45.6	134	185	75-125	1	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

QC Batch: 45464
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630907001

METHOD BLANK: 209861 Matrix: Water
Associated Lab Samples: 2630907001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0097	04/13/20 16:42	

LABORATORY CONTROL SAMPLE: 209862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 209904 209905

Parameter	Units	2630907001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron	mg/L	0.10J	1	1	1.1	1.1	103	99	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

QC Batch: 536610
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630907001

METHOD BLANK: 2862347 Matrix: Water
Associated Lab Samples: 2630907001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	04/16/20 15:18	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	04/16/20 15:18	

LABORATORY CONTROL SAMPLE: 2862348

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: 2862349 2862350

Parameter	Units	92472992089 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	12.5	50	50	65.0	65.2	105	105	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2862351 2862352

Parameter	Units	92472992093 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	84.2	50	50	137	139	105	109	80-120	1	25	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

QC Batch: 536450
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630907001

METHOD BLANK: 2861626 Matrix: Water
Associated Lab Samples: 2630907001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	04/15/20 19:34	

LABORATORY CONTROL SAMPLE: 2861627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2861628 2861629

Parameter	Units	92473867001 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	0.53	0.53	106	106	80-120	0	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

QC Batch: 536461
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630907001

METHOD BLANK: 2861738 Matrix: Water
Associated Lab Samples: 2630907001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/16/20 02:52	
Sulfate	mg/L	ND	1.0	0.50	04/16/20 02:52	

LABORATORY CONTROL SAMPLE: 2861739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Sulfate	mg/L	50	51.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2861740 2861741

Parameter	Units	2630908001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	69.5	50	50	102	101	64	64	90-110	0	10	M6
Sulfate	mg/L	1160	50	50	1200	1200	71	73	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2861742 2861743

Parameter	Units	92473637001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	66.4	50	50	104	106	74	78	90-110	2	10	M1
Sulfate	mg/L	51.7	50	50	91.7	98.3	80	93	90-110	7	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-1 NON ROUTINE
Pace Project No.: 2630907

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 2630907

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630907001	**MW-30D**				
2630907001	**MW-30D**	EPA 3010A	45592	EPA 6010D	45599
2630907001	**MW-30D**	EPA 3005A	45464	EPA 6020B	45489
2630907001	**MW-30D**	SM 2320B-2011	536610		
2630907001	**MW-30D**	SM 4500-S2D-2011	536450		
2630907001	**MW-30D**	EPA 300.0 Rev 2.1 1993	536461		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

WO# : 2630907

2630907

Section A
Required Client Information

Section B
Required Project Information

Section C
Invoice Information

SAMPLE ID

ITEM #	SAMPLE ID	COLLECTED DATE	COLLECTED TIME		Pace Project No./ Lab I.D.
1	MW-3CD	[illegible]	1115		017
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

invoices no paid after 30 days

Sample Condition Upon Receipt

Pace Analytical

Client Name: Gulf Power

WO# : 2630907

PM: [illegible] Due Date: 04/17/20
CLIENT: 26-Gulf Power

Courier: [ ] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [x] Pace Other
Tracking #: ____________

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

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [ ] None [ ] Other

Thermometer Used: [illegible] Type of Ice: Wet Blue None

Cooler Temperature: 1.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

[ ] Samples on ice, cooling process has begun

Date and Initials of person examining contents: [illegible] 4/10/20

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

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

Person Contacted: ____________ Date/Time: ____________

Comments/ Resolution: ____________

Project Manager Review: ____________ Date: ____________

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

F-ALLC003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

August 10, 2020

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between June 17, 2020 and June 22, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

This report was revised 8/5/20 to remove extra metals reported on sample MW-30D due to a lab error.

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Co. Services
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92482346001	**HGWC-8**	Water	06/16/20 15:15	06/17/20 10:57
92482346002	**MW-1**	Water	06/16/20 14:10	06/17/20 10:57
92482346003	**HGWA-1**	Water	06/16/20 09:48	06/17/20 10:57
92482346004	**HGWA-3**	Water	06/16/20 11:16	06/17/20 10:57
92482346005	**HGWC-7**	Water	06/17/20 13:00	06/18/20 10:37
92482346006	**FB-01**	Water	06/17/20 17:05	06/18/20 10:37
92482346007	**MW-30D**	Water	06/17/20 13:44	06/18/20 10:37
92482346008	**MW-30D FILTERED**	Water	06/17/20 13:49	06/18/20 10:37
92482346009	**MW-40D**	Water	06/19/20 10:25	06/22/20 10:45

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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92482346001	**HGWC-8**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346002	**MW-1**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346003	**HGWA-1**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346004	**HGWA-3**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346005	**HGWC-7**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346006	**FB-01**	EPA 6010D	DRB	5
		EPA 6020B	CW1	3
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346007	**MW-30D**	EPA 6010D	DRB	5

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	3
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346008	**MW-30D FILTERED**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346009	**MW-40D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92482346001	**HGWC-8**					
	pH	6.97	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	120	mg/L	1.0	06/19/20 16:47	
EPA 6010D	Iron	0.057	mg/L	0.040	06/19/20 16:47	
EPA 6010D	Magnesium	16.4	mg/L	0.050	06/19/20 16:47	
EPA 6010D	Manganese	0.23	mg/L	0.040	06/19/20 16:47	
EPA 6010D	Potassium	7.2	mg/L	0.20	06/19/20 16:47	
EPA 6010D	Sodium	9.2	mg/L	1.0	06/19/20 16:47	
EPA 6020B	Boron	2.2	mg/L	0.10	06/19/20 15:21	
EPA 6020B	Molybdenum	0.45	mg/L	0.010	06/19/20 15:21	
SM 2450C-2011	Total Dissolved Solids	573	mg/L	10.0	06/18/20 11:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	126	mg/L	5.0	06/29/20 16:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	126	mg/L	5.0	06/29/20 16:48	
EPA 300.0 Rev 2.1 1993	Chloride	67.9	mg/L	1.0	06/24/20 22:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.45	mg/L	0.10	06/24/20 22:13	
EPA 300.0 Rev 2.1 1993	Sulfate	157	mg/L	3.0	06/25/20 07:57	
92482346002	**MW-1**					
	pH	6.86	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	157	mg/L	1.0	06/19/20 16:51	
EPA 6010D	Iron	0.78	mg/L	0.040	06/19/20 16:51	
EPA 6010D	Magnesium	23.7	mg/L	0.050	06/19/20 16:51	
EPA 6010D	Manganese	0.36	mg/L	0.040	06/19/20 16:51	
EPA 6010D	Potassium	0.39	mg/L	0.20	06/19/20 16:51	
EPA 6010D	Sodium	12.5	mg/L	1.0	06/19/20 16:51	
EPA 6020B	Boron	0.19	mg/L	0.10	06/19/20 15:27	
SM 2450C-2011	Total Dissolved Solids	653	mg/L	10.0	06/18/20 11:24	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	376	mg/L	5.0	06/29/20 19:20	
SM 2320B-2011	Alkalinity, Total as CaCO3	376	mg/L	5.0	06/29/20 19:20	
EPA 300.0 Rev 2.1 1993	Chloride	29.6	mg/L	1.0	06/24/20 22:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	06/24/20 22:28	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	06/25/20 08:13	
92482346003	**HGWA-1**					
	pH	6.97	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	130	mg/L	1.0	06/19/20 17:07	
EPA 6010D	Magnesium	4.7	mg/L	0.050	06/19/20 17:07	
EPA 6010D	Manganese	0.034J	mg/L	0.040	06/19/20 17:07	
EPA 6010D	Potassium	0.32	mg/L	0.20	06/19/20 17:07	
EPA 6010D	Sodium	58.5	mg/L	1.0	06/19/20 17:07	
EPA 6020B	Boron	0.021J	mg/L	0.10	06/19/20 15:33	
SM 2450C-2011	Total Dissolved Solids	632	mg/L	10.0	06/18/20 11:25	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	345	mg/L	5.0	06/30/20 12:34	
SM 2320B-2011	Alkalinity, Total as CaCO3	345	mg/L	5.0	06/30/20 12:34	
EPA 300.0 Rev 2.1 1993	Chloride	41.1	mg/L	1.0	06/24/20 22:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.10	06/24/20 22:42	
EPA 300.0 Rev 2.1 1993	Sulfate	88.2	mg/L	1.0	06/24/20 22:42	
92482346004	**HGWA-3**					
	pH	7.31	Std. Units		06/30/20 17:10	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92482346004	**HGWA-3**					
EPA 6010D	Calcium	85.1	mg/L	1.0	06/19/20 17:11	
EPA 6010D	Iron	1.3	mg/L	0.040	06/19/20 17:11	
EPA 6010D	Magnesium	5.2	mg/L	0.050	06/19/20 17:11	
EPA 6010D	Manganese	0.24	mg/L	0.040	06/19/20 17:11	
EPA 6010D	Potassium	0.44	mg/L	0.20	06/19/20 17:11	
EPA 6010D	Sodium	5.9	mg/L	1.0	06/19/20 17:11	
EPA 6020B	Boron	0.010J	mg/L	0.10	06/19/20 15:38	
SM 2450C-2011	Total Dissolved Solids	448	mg/L	10.0	06/18/20 11:25	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	195	mg/L	5.0	06/29/20 17:23	
SM 2320B-2011	Alkalinity, Total as CaCO3	195	mg/L	5.0	06/29/20 17:23	
EPA 300.0 Rev 2.1 1993	Chloride	5.8	mg/L	1.0	06/24/20 22:56	
EPA 300.0 Rev 2.1 1993	Sulfate	49.5	mg/L	1.0	06/24/20 22:56	
92482346005	**HGWC-7**					
	pH	7.2	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	112	mg/L	1.0	06/22/20 15:01	M1
EPA 6010D	Iron	0.56	mg/L	0.040	06/22/20 15:01	
EPA 6010D	Magnesium	10.3	mg/L	0.050	06/22/20 15:01	M1
EPA 6010D	Manganese	0.22	mg/L	0.040	06/22/20 15:01	
EPA 6010D	Potassium	2.7	mg/L	0.20	06/22/20 15:01	
EPA 6010D	Sodium	10.3	mg/L	1.0	06/22/20 15:01	M1
EPA 6020B	Boron	1.0	mg/L	0.10	06/19/20 19:33	
EPA 6020B	Molybdenum	0.048	mg/L	0.010	06/19/20 19:33	
SM 2450C-2011	Total Dissolved Solids	423	mg/L	10.0	06/19/20 18:06	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	171	mg/L	5.0	06/29/20 18:03	
SM 2320B-2011	Alkalinity, Total as CaCO3	171	mg/L	5.0	06/29/20 18:03	
EPA 300.0 Rev 2.1 1993	Chloride	45.2	mg/L	1.0	06/25/20 04:43	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.10	06/25/20 04:43	
EPA 300.0 Rev 2.1 1993	Sulfate	102	mg/L	2.0	06/25/20 09:31	
92482346007	**MW-30D**					
	pH	8.33	Std. Units		08/10/20 09:13	
EPA 6010D	Calcium	8.3	mg/L	1.0	06/22/20 15:53	
EPA 6010D	Magnesium	2.3	mg/L	0.050	06/22/20 15:53	
EPA 6010D	Manganese	0.013J	mg/L	0.040	06/22/20 15:53	
EPA 6010D	Potassium	1.4	mg/L	0.20	06/22/20 15:53	
EPA 6010D	Sodium	376	mg/L	10.0	06/23/20 12:29	
EPA 6020B	Boron	0.77	mg/L	0.10	06/19/20 20:07	
EPA 6020B	Molybdenum	0.0062J	mg/L	0.010	06/19/20 20:07	
SM 2450C-2011	Total Dissolved Solids	1040	mg/L	10.0	06/19/20 18:07	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	654	mg/L	5.0	06/30/20 12:45	
SM 2320B-2011	Alkalinity, Total as CaCO3	654	mg/L	5.0	06/30/20 12:45	
SM 4500-S2D-2011	Sulfide	0.051J	mg/L	0.10	06/24/20 18:52	
EPA 300.0 Rev 2.1 1993	Chloride	92.5	mg/L	3.0	06/25/20 09:47	
EPA 300.0 Rev 2.1 1993	Fluoride	10.9	mg/L	0.30	06/25/20 09:47	
EPA 300.0 Rev 2.1 1993	Sulfate	104	mg/L	3.0	06/25/20 09:47	
92482346008	**MW-30D FILTERED**					
	pH	8.33	Std. Units		06/30/20 17:10	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92482346008	**MW-30D FILTERED**					
EPA 6010D	Calcium	4.2	mg/L	1.0	06/22/20 15:57	
EPA 6010D	Iron	0.043	mg/L	0.040	06/22/20 15:57	
EPA 6010D	Magnesium	1.7	mg/L	0.050	06/22/20 15:57	
EPA 6010D	Potassium	1.2	mg/L	0.20	06/22/20 15:57	
EPA 6010D	Sodium	325	mg/L	10.0	06/23/20 12:33	
EPA 6020B	Boron	0.73	mg/L	0.10	06/19/20 20:13	
EPA 6020B	Molybdenum	0.0093J	mg/L	0.010	06/19/20 20:13	
SM 2450C-2011	Total Dissolved Solids	850	mg/L	10.0	06/19/20 18:08	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	582	mg/L	5.0	06/30/20 12:57	
SM 2320B-2011	Alkalinity, Total as CaCO3	583	mg/L	5.0	06/30/20 12:57	
EPA 300.0 Rev 2.1 1993	Chloride	85.1	mg/L	1.0	06/25/20 05:27	
EPA 300.0 Rev 2.1 1993	Fluoride	10.3	mg/L	0.30	06/25/20 10:02	
EPA 300.0 Rev 2.1 1993	Sulfate	92.3	mg/L	3.0	06/25/20 10:02	
92482346009	**MW-40D**					
	pH	7.4	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	109	mg/L	1.0	06/29/20 16:50	
EPA 6010D	Iron	8.8	mg/L	0.040	06/29/20 16:50	
EPA 6010D	Magnesium	14.7	mg/L	0.050	06/29/20 16:50	
EPA 6010D	Manganese	0.31	mg/L	0.040	06/29/20 16:50	
EPA 6010D	Potassium	9.3	mg/L	0.20	06/29/20 16:50	
EPA 6010D	Sodium	464	mg/L	10.0	06/30/20 12:14	
EPA 6020B	Boron	0.19	mg/L	0.10	06/25/20 16:35	
EPA 6020B	Molybdenum	0.015	mg/L	0.010	06/25/20 16:35	
SM 2450C-2011	Total Dissolved Solids	1420	mg/L	10.0	06/22/20 17:40	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	955	mg/L	5.0	06/30/20 16:50	
SM 2320B-2011	Alkalinity, Total as CaCO3	955	mg/L	5.0	06/30/20 16:50	
EPA 300.0 Rev 2.1 1993	Chloride	145	mg/L	9.0	06/26/20 09:14	
EPA 300.0 Rev 2.1 1993	Sulfate	435	mg/L	9.0	06/26/20 09:14	

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWC-8 **Lab ID: 92482346001** Collected: 06/16/20 15:15 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.97**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**120**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 16:47	7440-70-2	
Iron	**0.057**	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 16:47	7439-89-6	
Magnesium	**16.4**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 16:47	7439-95-4	
Manganese	**0.23**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 16:47	7439-96-5	
Potassium	**7.2**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 16:47	7440-09-7	
Sodium	**9.2**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 16:47	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**2.2**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:21	7440-42-8	
Molybdenum	**0.45**	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:21	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**573**	mg/L	10.0	10.0	1		06/18/20 11:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**126**	mg/L	5.0	5.0	1		06/29/20 16:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 16:48		
Alkalinity, Total as CaCO3	**126**	mg/L	5.0	5.0	1		06/29/20 16:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**67.9**	mg/L	1.0	0.60	1		06/24/20 22:13	16887-00-6	
Fluoride	**0.45**	mg/L	0.10	0.050	1		06/24/20 22:13	16984-48-8	
Sulfate	**157**	mg/L	3.0	1.5	3		06/25/20 07:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-1 **Lab ID: 92482346002** Collected: 06/16/20 14:10 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.86**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**157**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 16:51	7440-70-2	
Iron	**0.78**	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 16:51	7439-89-6	
Magnesium	**23.7**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 16:51	7439-95-4	
Manganese	**0.36**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 16:51	7439-96-5	
Potassium	**0.39**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 16:51	7440-09-7	
Sodium	**12.5**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 16:51	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.19**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:27	7440-42-8	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:27	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**653**	mg/L	10.0	10.0	1		06/18/20 11:24		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**376**	mg/L	5.0	5.0	1		06/29/20 19:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 19:20		
Alkalinity, Total as CaCO3	**376**	mg/L	5.0	5.0	1		06/29/20 19:20		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.6**	mg/L	1.0	0.60	1		06/24/20 22:28	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		06/24/20 22:28	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		06/25/20 08:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWA-1 **Lab ID: 92482346003** Collected: 06/16/20 09:48 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.97**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**130**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 17:07	7440-70-2	
Iron	ND	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 17:07	7439-89-6	
Magnesium	**4.7**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 17:07	7439-95-4	
Manganese	**0.034J**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 17:07	7439-96-5	
Potassium	**0.32**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 17:07	7440-09-7	
Sodium	**58.5**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 17:07	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.021J**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:33	7440-42-8	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:33	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**632**	mg/L	10.0	10.0	1		06/18/20 11:25		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**345**	mg/L	5.0	5.0	1		06/30/20 12:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 12:34		
Alkalinity, Total as CaCO3	**345**	mg/L	5.0	5.0	1		06/30/20 12:34		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**41.1**	mg/L	1.0	0.60	1		06/24/20 22:42	16887-00-6	
Fluoride	**0.071J**	mg/L	0.10	0.050	1		06/24/20 22:42	16984-48-8	
Sulfate	**88.2**	mg/L	1.0	0.50	1		06/24/20 22:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWA-3 **Lab ID: 92482346004** Collected: 06/16/20 11:16 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.31**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**85.1**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 17:11	7440-70-2	
Iron	**1.3**	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 17:11	7439-89-6	
Magnesium	**5.2**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 17:11	7439-95-4	
Manganese	**0.24**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 17:11	7439-96-5	
Potassium	**0.44**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 17:11	7440-09-7	
Sodium	**5.9**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 17:11	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.010J**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:38	7440-42-8	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:38	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**448**	mg/L	10.0	10.0	1		06/18/20 11:25		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**195**	mg/L	5.0	5.0	1		06/29/20 17:23		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 17:23		
Alkalinity, Total as CaCO3	**195**	mg/L	5.0	5.0	1		06/29/20 17:23		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:58	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		06/24/20 22:56	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/24/20 22:56	16984-48-8	
Sulfate	**49.5**	mg/L	1.0	0.50	1		06/24/20 22:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWC-7 **Lab ID: 92482346005** Collected: 06/17/20 13:00 Received: 06/18/20 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.2**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**112**	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:01	7440-70-2	M1
Iron	**0.56**	mg/L	0.040	0.015	1	06/19/20 14:00	06/22/20 15:01	7439-89-6	
Magnesium	**10.3**	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:01	7439-95-4	M1
Manganese	**0.22**	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:01	7439-96-5	
Potassium	**2.7**	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:01	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.19	1	06/19/20 14:00	06/22/20 15:01	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**1.0**	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 19:33	7440-42-8	
Molybdenum	**0.048**	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 19:33	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**423**	mg/L	10.0	10.0	1		06/19/20 18:06		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**171**	mg/L	5.0	5.0	1		06/29/20 18:03		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 18:03		
Alkalinity, Total as CaCO3	**171**	mg/L	5.0	5.0	1		06/29/20 18:03		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/24/20 18:51	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**45.2**	mg/L	1.0	0.60	1		06/25/20 04:43	16887-00-6	
Fluoride	**0.077J**	mg/L	0.10	0.050	1		06/25/20 04:43	16984-48-8	
Sulfate	**102**	mg/L	2.0	1.0	2		06/25/20 09:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: FB-01 **Lab ID: 92482346006** Collected: 06/17/20 17:05 Received: 06/18/20 10:37 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								
Calcium	ND	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:49	7440-70-2	
Magnesium	ND	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:49	7439-95-4	
Manganese	ND	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:49	7439-96-5	
Potassium	ND	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:49	7440-09-7	
Sodium	ND	mg/L	1.0	0.19	1	06/19/20 14:00	06/22/20 15:49	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 19:50	7440-42-8	
Iron	ND	mg/L	0.040	0.0097	1	06/19/20 12:30	06/19/20 19:50	7439-89-6	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 19:50	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		06/19/20 18:07		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 18:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 18:14		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		06/29/20 18:14		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/24/20 18:52	18496-25-8	
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		06/25/20 04:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/25/20 04:58	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		06/25/20 04:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-30D **Lab ID: 92482346007** Collected: 06/17/20 13:44 Received: 06/18/20 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**8.33**	Std. Units			1		08/10/20 09:13		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**8.3**	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:53	7440-70-2	
Magnesium	**2.3**	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:53	7439-95-4	
Manganese	**0.013J**	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:53	7439-96-5	
Potassium	**1.4**	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:53	7440-09-7	
Sodium	**376**	mg/L	10.0	1.9	10	06/19/20 14:00	06/23/20 12:29	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.77**	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 20:07	7440-42-8	
Iron	ND	mg/L	0.040	0.0097	1	06/19/20 12:30	06/19/20 19:50	7439-89-6	
Molybdenum	**0.0062J**	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 20:07	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1040**	mg/L	10.0	10.0	1		06/19/20 18:07		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**654**	mg/L	5.0	5.0	1		06/30/20 12:45		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 12:45		
Alkalinity, Total as CaCO3	**654**	mg/L	5.0	5.0	1		06/30/20 12:45		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.051J**	mg/L	0.10	0.050	1		06/24/20 18:52	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**92.5**	mg/L	3.0	1.8	3		06/25/20 09:47	16887-00-6	
Fluoride	**10.9**	mg/L	0.30	0.15	3		06/25/20 09:47	16984-48-8	
Sulfate	**104**	mg/L	3.0	1.5	3		06/25/20 09:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-30D FILTERED **Lab ID: 92482346008** Collected: 06/17/20 13:49 Received: 06/18/20 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**8.33**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**4.2**	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:57	7440-70-2	
Iron	**0.043**	mg/L	0.040	0.015	1	06/19/20 14:00	06/22/20 15:57	7439-89-6	
Magnesium	**1.7**	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:57	7439-95-4	
Manganese	ND	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:57	7439-96-5	
Potassium	**1.2**	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:57	7440-09-7	
Sodium	**325**	mg/L	10.0	1.9	10	06/19/20 14:00	06/23/20 12:33	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.73**	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 20:13	7440-42-8	
Molybdenum	**0.0093J**	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 20:13	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**850**	mg/L	10.0	10.0	1		06/19/20 18:08		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**582**	mg/L	5.0	5.0	1		06/30/20 12:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 12:57		
Alkalinity, Total as CaCO3	**583**	mg/L	5.0	5.0	1		06/30/20 12:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/24/20 18:53	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**85.1**	mg/L	1.0	0.60	1		06/25/20 05:27	16887-00-6	
Fluoride	**10.3**	mg/L	0.30	0.15	3		06/25/20 10:02	16984-48-8	
Sulfate	**92.3**	mg/L	3.0	1.5	3		06/25/20 10:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-40D **Lab ID: 92482346009** Collected: 06/19/20 10:25 Received: 06/22/20 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.4**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**109**	mg/L	1.0	0.14	1	06/29/20 12:40	06/29/20 16:50	7440-70-2	
Iron	**8.8**	mg/L	0.040	0.015	1	06/29/20 12:40	06/29/20 16:50	7439-89-6	
Magnesium	**14.7**	mg/L	0.050	0.011	1	06/29/20 12:40	06/29/20 16:50	7439-95-4	
Manganese	**0.31**	mg/L	0.040	0.0061	1	06/29/20 12:40	06/29/20 16:50	7439-96-5	
Potassium	**9.3**	mg/L	0.20	0.026	1	06/29/20 12:40	06/29/20 16:50	7440-09-7	
Sodium	**464**	mg/L	10.0	1.9	10	06/29/20 12:40	06/30/20 12:14	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.19**	mg/L	0.10	0.0049	1	06/24/20 13:30	06/25/20 16:35	7440-42-8	
Molybdenum	**0.015**	mg/L	0.010	0.00095	1	06/24/20 13:30	06/25/20 16:35	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1420**	mg/L	10.0	10.0	1		06/22/20 17:40		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**955**	mg/L	5.0	5.0	1		06/30/20 16:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 16:50		
Alkalinity, Total as CaCO3	**955**	mg/L	5.0	5.0	1		06/30/20 16:50		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	1.0	0.50	10		06/24/20 19:01	18496-25-8	D3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**145**	mg/L	9.0	5.4	9		06/26/20 09:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/26/20 02:27	16984-48-8	
Sulfate	**435**	mg/L	9.0	4.5	9		06/26/20 09:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548325
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2917356 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	06/19/20 15:48	
Iron	mg/L	ND	0.040	0.015	06/19/20 15:48	
Magnesium	mg/L	ND	0.050	0.011	06/19/20 15:48	
Manganese	mg/L	ND	0.040	0.0061	06/19/20 15:48	
Potassium	mg/L	ND	0.20	0.026	06/22/20 12:08	
Sodium	mg/L	ND	1.0	0.19	06/22/20 12:08	

LABORATORY CONTROL SAMPLE: 2917357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	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	101	80-120	
Potassium	mg/L	1	0.98	98	80-120	
Sodium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2917358 2917359

Parameter	Units	92482102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	174	1	1	174	182	-20	757	75-125	4	20	M1
Iron	mg/L	0.20	1	1	1.2	1.3	103	108	75-125	4	20	
Magnesium	mg/L	23.4	1	1	24.3	25.4	94	206	75-125	5	20	M1
Manganese	mg/L	0.88	1	1	1.9	1.9	98	104	75-125	3	20	
Potassium	mg/L	6.5	1	1	7.5	7.8	101	134	75-125	4	20	M1
Sodium	mg/L	9.6	1	1	10.6	11.0	100	140	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548539
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2918225 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	06/22/20 14:53	
Iron	mg/L	ND	0.040	0.015	06/22/20 14:53	
Magnesium	mg/L	ND	0.050	0.011	06/22/20 14:53	
Manganese	mg/L	ND	0.040	0.0061	06/22/20 14:53	
Potassium	mg/L	ND	0.20	0.026	06/22/20 14:53	
Sodium	mg/L	ND	1.0	0.19	06/22/20 14:53	

LABORATORY CONTROL SAMPLE: 2918226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.0	104	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	0.97	97	80-120	
Sodium	mg/L	1	1.1	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2918227 2918228

Parameter	Units	92482346005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	112	1	1	110	114	-256	180	75-125	4	20	M1
Iron	mg/L	0.56	1	1	1.6	1.6	103	108	75-125	3	20	
Magnesium	mg/L	10.3	1	1	11.0	11.4	74	117	75-125	4	20	M1
Manganese	mg/L	0.22	1	1	1.2	1.2	96	100	75-125	3	20	
Potassium	mg/L	2.7	1	1	3.7	3.8	95	107	75-125	3	20	
Sodium	mg/L	10.3	1	1	11.0	11.4	68	109	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 550184
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346009

METHOD BLANK: 2925536 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	06/29/20 16:20	
Iron	mg/L	ND	0.040	0.015	06/29/20 16:20	
Magnesium	mg/L	ND	0.050	0.011	06/29/20 16:20	
Manganese	mg/L	ND	0.040	0.0061	06/29/20 16:20	
Potassium	mg/L	0.039J	0.20	0.026	06/29/20 16:20	
Sodium	mg/L	ND	1.0	0.19	06/29/20 16:20	

LABORATORY CONTROL SAMPLE: 2925537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.97J	97	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.0	104	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	1.1	105	80-120	
Sodium	mg/L	1	1.1	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2925538 2925539

Parameter	Units	92482800004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	41.3	1	1	41.9	41.8	60	49	75-125	0	20	M1
Iron	mg/L	0.12	1	1	1.1	1.1	102	100	75-125	2	20	
Magnesium	mg/L	10.8	1	1	11.7	11.6	86	78	75-125	1	20	
Manganese	mg/L	0.026J	1	1	0.99	0.99	97	97	75-125	0	20	
Potassium	mg/L	0.53	1	1	1.5	1.5	97	95	75-125	1	20	
Sodium	mg/L	27.0	1	1	27.6	27.6	61	61	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548037
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2915983 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0049	06/19/20 14:13	
Molybdenum	mg/L	ND	0.010	0.00095	06/19/20 14:13	

LABORATORY CONTROL SAMPLE: 2915984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.1	106	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2915985 2915986

Parameter	Units	92482102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	1.2	1	1	2.2	2.2	97	98	75-125	1	20	
Molybdenum	mg/L	0.035	0.1	0.1	0.14	0.14	107	102	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548509
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2918043 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0049	06/19/20 17:32	
Iron	mg/L	ND	0.040	0.0097	06/19/20 17:32	
Molybdenum	mg/L	ND	0.010	0.00095	06/19/20 17:32	

LABORATORY CONTROL SAMPLE: 2918044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	102	80-120	
Iron	mg/L	1	1.0	100	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2918045 2918046

Parameter	Units	92482427001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	54.3 ug/L	1	1	1.0	1.0	96	96	75-125	0	20	
Iron	mg/L	639 ug/L	1	1	1.6	1.6	95	95	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549351
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346009

METHOD BLANK: 2921563 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0049	06/25/20 16:01	
Molybdenum	mg/L	ND	0.010	0.00095	06/25/20 16:01	

LABORATORY CONTROL SAMPLE: 2921564

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.97	97	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921565 2921566

Parameter	Units	92482800006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.086J	1	1	0.96	0.96	87	87	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.094	0.090	93	90	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548159
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2916338 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/18/20 10:55	

LABORATORY CONTROL SAMPLE: 2916339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	418	104	84-108	

SAMPLE DUPLICATE: 2916340

Parameter	Units	92482102004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	665	818	21	10	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548606
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2918729 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/19/20 17:58	

LABORATORY CONTROL SAMPLE: 2918730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	419	105	84-108	

SAMPLE DUPLICATE: 2918731

Parameter	Units	92482647001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	18.0	15.0	18	10	D6

SAMPLE DUPLICATE: 2918732

Parameter	Units	92482647005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	28.0	43.0	42	10	D6

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548907
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346009

METHOD BLANK: 2919762 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/22/20 17:30	

LABORATORY CONTROL SAMPLE: 2919763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	84-108	

SAMPLE DUPLICATE: 2919764

Parameter	Units	92482662002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	163	182	11	10	D6

SAMPLE DUPLICATE: 2919765

Parameter	Units	92482737002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	97.0	86.0	12	10	D6

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549851
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004, 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2923886 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004, 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/29/20 15:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/29/20 15:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/29/20 15:57	

LABORATORY CONTROL SAMPLE: 2923887

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2923888 2923889

Parameter	Units	92482268001 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	ND	50	50	54.3	54.2	109	108	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2923890 2923891

Parameter	Units	92482880003 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	8.3	50	50	63.0	63.9	109	111	80-120	2	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 550396
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346009

METHOD BLANK: 2926273 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/30/20 13:53	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/30/20 13:53	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/30/20 13:53	

LABORATORY CONTROL SAMPLE: 2926274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2926275 2926276

Parameter	Units	92483174015 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	ND	50	50	50.7	50.1	101	100	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2926277 2926278

Parameter	Units	92482649003 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	ND	50	50	57.1	57.5	104	105	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548296
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2917145 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	06/19/20 18:51	

LABORATORY CONTROL SAMPLE: 2917146

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: 2917149 2917150

Parameter	Units	92482295001 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	0.51	0.51	99	98	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2918737 2918738

Parameter	Units	92482295007 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	0.81	0.81	152	152	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549379
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2921729 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	06/24/20 18:37	

LABORATORY CONTROL SAMPLE: 2921730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921731 2921732

Parameter	Units	92482441001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	<0.050	0.5	0.5	0.54	0.54	107	107	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921733 2921734

Parameter	Units	92482441002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	<0.050	0.5	0.5	0.25	0.25	49	49	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549382
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346009

METHOD BLANK: 2921743 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	06/24/20 18:53	

LABORATORY CONTROL SAMPLE: 2921744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921745 2921746

Parameter	Units	92482649001 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	0.55	0.54	110	109	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921747 2921748

Parameter	Units	92482649002 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	0.34	0.34	67	67	80-120	1	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548965
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2919910 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/24/20 15:56	
Fluoride	mg/L	ND	0.10	0.050	06/24/20 15:56	
Sulfate	mg/L	ND	1.0	0.50	06/24/20 15:56	

LABORATORY CONTROL SAMPLE: 2919911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	51.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2919912 2919913

Parameter	Units	92482711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.2	50	50	56.6	56.6	97	97	90-110	0	10	
Fluoride	mg/L	0.57	2.5	2.5	2.7	2.8	86	88	90-110	1	10	M1
Sulfate	mg/L	13.6	50	50	62.3	62.3	98	97	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2919914 2919915

Parameter	Units	92482268001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.5	50	50	62.7	63.0	96	97	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	104	107	90-110	3	10	
Sulfate	mg/L	ND	50	50	48.8	49.1	98	98	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549186
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2920985 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/24/20 23:11	
Fluoride	mg/L	ND	0.10	0.050	06/24/20 23:11	
Sulfate	mg/L	ND	1.0	0.50	06/24/20 23:11	

LABORATORY CONTROL SAMPLE: 2920986

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.2	102	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.9	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2920987 2920988

Parameter	Units	92482762001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.2	50	50	49.9	49.9	97	97	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	97	97	90-110	1	10	
Sulfate	mg/L	ND	50	50	48.9	48.9	97	97	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2920989 2920990

Parameter	Units	92483147008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.7	50	50	55.2	57.4	105	110	90-110	4	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	97	102	90-110	5	10	
Sulfate	mg/L	0.74J	50	50	53.3	55.4	105	109	90-110	4	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549586
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346009

METHOD BLANK: 2922599 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/25/20 23:34	
Fluoride	mg/L	ND	0.10	0.050	06/25/20 23:34	
Sulfate	mg/L	ND	1.0	0.50	06/25/20 23:34	

LABORATORY CONTROL SAMPLE: 2922600

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	105	90-110	
Sulfate	mg/L	50	51.7	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2922601 2922602

Parameter	Units	92483177002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.9	50	50	55.0	54.3	102	101	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	99	107	90-110	8	10	
Sulfate	mg/L	ND	50	50	52.6	51.6	103	101	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2922603 2922604

Parameter	Units	92483187001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	15.7	50	50	67.7	65.2	104	99	90-110	4	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	104	100	90-110	4	10	
Sulfate	mg/L	88.7	50	50	128	126	78	75	90-110	1	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 92482346

[2] This report was revised 8/7/20 to correct a sample mix up between samples MW-30D and the Field Blank.

ANALYTE QUALIFIERS

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.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92482346001	**HGWC-8**				
92482346002	**MW-1**				
92482346003	**HGWA-1**				
92482346004	**HGWA-3**				
92482346005	**HGWC-7**				
92482346007	**MW-30D**				
92482346008	**MW-30D FILTERED**				
92482346009	**MW-40D**				
92482346001	**HGWC-8**	EPA 3010A	548325	EPA 6010D	548371
92482346002	**MW-1**	EPA 3010A	548325	EPA 6010D	548371
92482346003	**HGWA-1**	EPA 3010A	548325	EPA 6010D	548371
92482346004	**HGWA-3**	EPA 3010A	548325	EPA 6010D	548371
92482346005	**HGWC-7**	EPA 3010A	548539	EPA 6010D	548601
92482346006	**FB-01**	EPA 3010A	548539	EPA 6010D	548601
92482346007	**MW-30D**	EPA 3010A	548539	EPA 6010D	548601
92482346008	**MW-30D FILTERED**	EPA 3010A	548539	EPA 6010D	548601
92482346009	**MW-40D**	EPA 3010A	550184	EPA 6010D	550253
92482346001	**HGWC-8**	EPA 3005A	548037	EPA 6020B	548275
92482346002	**MW-1**	EPA 3005A	548037	EPA 6020B	548275
92482346003	**HGWA-1**	EPA 3005A	548037	EPA 6020B	548275
92482346004	**HGWA-3**	EPA 3005A	548037	EPA 6020B	548275
92482346005	**HGWC-7**	EPA 3005A	548509	EPA 6020B	548546
92482346006	**FB-01**	EPA 3005A	548509	EPA 6020B	548546
92482346007	**MW-30D**	EPA 3005A	548509	EPA 6020B	548546
92482346008	**MW-30D FILTERED**	EPA 3005A	548509	EPA 6020B	548546
92482346009	**MW-40D**	EPA 3005A	549351	EPA 6020B	549398
92482346001	**HGWC-8**	SM 2450C-2011	548159		
92482346002	**MW-1**	SM 2450C-2011	548159		
92482346003	**HGWA-1**	SM 2450C-2011	548159		
92482346004	**HGWA-3**	SM 2450C-2011	548159		
92482346005	**HGWC-7**	SM 2450C-2011	548606		
92482346006	**FB-01**	SM 2450C-2011	548606		
92482346007	**MW-30D**	SM 2450C-2011	548606		
92482346008	**MW-30D FILTERED**	SM 2450C-2011	548606		
92482346009	**MW-40D**	SM 2450C-2011	548907		
92482346001	**HGWC-8**	SM 2320B-2011	549851		
92482346002	**MW-1**	SM 2320B-2011	549851		
92482346003	**HGWA-1**	SM 2320B-2011	549851		
92482346004	**HGWA-3**	SM 2320B-2011	549851		
92482346005	**HGWC-7**	SM 2320B-2011	549851		
92482346006	**FB-01**	SM 2320B-2011	549851		
92482346007	**MW-30D**	SM 2320B-2011	549851		
92482346008	**MW-30D FILTERED**	SM 2320B-2011	549851		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92482346009	**MW-40D**	SM 2320B-2011	550396		
92482346001	**HGWC-8**	SM 4500-S2D-2011	548296		
92482346002	**MW-1**	SM 4500-S2D-2011	548296		
92482346003	**HGWA-1**	SM 4500-S2D-2011	548296		
92482346004	**HGWA-3**	SM 4500-S2D-2011	548296		
92482346005	**HGWC-7**	SM 4500-S2D-2011	549379		
92482346006	**FB-01**	SM 4500-S2D-2011	549379		
92482346007	**MW-30D**	SM 4500-S2D-2011	549379		
92482346008	**MW-30D FILTERED**	SM 4500-S2D-2011	549379		
92482346009	**MW-40D**	SM 4500-S2D-2011	549382		
92482346001	**HGWC-8**	EPA 300.0 Rev 2.1 1993	548965		
92482346002	**MW-1**	EPA 300.0 Rev 2.1 1993	548965		
92482346003	**HGWA-1**	EPA 300.0 Rev 2.1 1993	548965		
92482346004	**HGWA-3**	EPA 300.0 Rev 2.1 1993	548965		
92482346005	**HGWC-7**	EPA 300.0 Rev 2.1 1993	549186		
92482346006	**FB-01**	EPA 300.0 Rev 2.1 1993	549186		
92482346007	**MW-30D**	EPA 300.0 Rev 2.1 1993	549186		
92482346008	**MW-30D FILTERED**	EPA 300.0 Rev 2.1 1993	549186		
92482346009	**MW-40D**	EPA 300.0 Rev 2.1 1993	549586		

WO# : 92482346

92482346

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	1 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Non-Rounds
Project Number:	GW6918

Section C Invoice Information:

Attention:	Southern Co
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA ✓ / OTHER

Site Location STATE: GA

Section D Required Client Information — SAMPLE ID

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO3	Other	Chloride Fluoride Sulfate	TDS	Metals*	Alkalinity, Bicarbonate	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G														~~pH =~~
2	~~HGWA-2~~	WT	G														~~pH =~~
3	~~HGWC-7~~	WT	G														~~pH =~~
4	HGWC-8	WT	G	6/16/20	1515	21	3	2	1	1	X	X	X	X	X	N	pH = 6.77
5	MW-1	WT	G	6/16/20	1410	24	3	2	1	1	X	X	X	X	X	N	pH = 6.84
6	~~MW-36D~~	WT	G														~~pH =~~
7	~~MW-40D~~	WT	G														~~pH =~~
8																	
9																	
10																	
11																	
12																	

6/16/2020

ADDITIONAL COMMENTS: Please note any wells taken through any wells not sampled and note which the last sample for this event has been taken.

*Metals: B, Ca, Fe, Mg, Mn, Na, K, Tay

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Shawn Lin, Geosyntec	6/16/2020	1620	Chad Rugg / Pace	6/16/20	1620
Chad Rugg / Pace	6/16/20	1755	Kelvin Mandon / Pace	6/16/20	1755
Kelvin Mandon / Pace	6-17-20	1036	[illegible] / Pace	6-17-20	1057
[illegible] / Pace	6-17-20	1411	[illegible] / PACE	6/17/20	1411

SAMPLE CONDITIONS: Temp in °C: 5.5; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Shawn Lin

SIGNATURE of SAMPLER: Shawn Lin — DATE Signed (MM/DD/YY): 6/16/2020

*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

Pace Analytical

WO# : 92482346
PM: KLH1 Due Date: 07/01/20
CLIENT: GA-GA Power

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

Section A – Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: Fax:
Requested Due Date/TAT:

Section B – Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Non-Routine
Project Number: GW6481

Section C – Invoice Information
Attention: Southern Co
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #:

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER
Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	Metals*	Alkalinity	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G	6/16/20	0945	—	—	17	5	3		1					1	X	X	X	X	X	N	pH = 6.57
2	HGWA-3	WT	G	6/16/20	1145	—	—	16	5	3		1					1	X	X	X	X	X	N	pH = 7.21
3	~~HGWC-7~~																							~~pH =~~
4	~~HGWD-8~~																							~~pH =~~
5	~~MW-1~~																							~~pH =~~
6	~~MW-300~~																							~~pH =~~
7	~~MW-400~~																							~~pH =~~
8																								
9																								
10																								
11																								
12																								

ESD 6/16/20

ADDITIONAL COMMENTS: Please note any wells where through any wells not sampled and note which the last sample for the event was taken.
*Metals: Ca, Fe, Mg, Mn, Mo, K, Na

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Chad Kudd / GSC	6/16/20	1755	Madison Watson / Pace	6/16/20	1755				
Madison Watson / Pace	6/17/20	1056	[illegible] / Pace	6-17-20	1057				
[illegible] / Pace	6-17-20	1411	[illegible] / Pace	6/17/20	1411	3.3	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Kudd
SIGNATURE of SAMPLER: Chad Kudd
DATE Signed (MM/DD/YY): 6/16/20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Do

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

WO# : 92482346

PM: KLH1 Due Date: 07/01/20

CLIENT: GA-GA Power

Section A — Required Client Information

Company: GA Power

Address: Atlanta GA

Email To: SCS Contacts

Phone:

Requested Due Date/TAT:

Section B — Required Project Information

Report To: SCS Contacts

Copy To: Georgia Power Contacts

Purchase Order No.:

Project Name: Plant Homestead AP-1 Non-Routine

Project Number: 3410018

Section C — Invoice Information

Attention: Southern Co

Company Name:

Address:

Pace Quote Reference:

Pace Project Manager: Kevin Herring

Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: GA

Section D — Required Client Information

Valid Matrix Codes

MATRIX / CODE

DRINKING WATER DW

WATER WT

WASTE WATER WW

PRODUCT P

SOIL/SOLID SL

OIL OL

WIPE WP

AIR AR

TISSUE TS

OTHER OT

SAMPLE ID

(A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HSWW-1	WT	G						4	1							1		N	N	
2	HSWW-2	WT	G						4	1							1		N	N	
3	HSWW-7	WT	G	6/17/20	1330			24	3	1							1		N	N	pH = 7.2
4	HSWW-8	WT	G						4	1							1		N	N	
5	MW-1	WT	G						4	1							1		N	N	
6	MW-30D	WT	G	6/17/20	1317			24	3	1							1		N	N	pH = 9.39
7	MW-60D	WT	G						4	1							1		N	N	
8	GA EMRT FD-01	WT	G	6/17/20	1705				3	1							1		N	N	
9	MW-30D Filtered	WT	G	6/17/20	1319			23	5	1							1		N	N	pH = 9.53
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note any water, Utility Trip Blank or any water not sampled shall be returned with the lab samples for the event it was taken (even)	Chad Rogers GCO	6/18/2020	1815	Shelby Hall/Pace Analytical	6/19/20	1345				
	Shelby Hall/Pace Analytical	6/19/20	1037	Brandon Neely/Pace	6/19/20	1037				
Relinquished: Ice Present (Yes or No): Yes	Brandon Neely/Pace	6/19/20	1443	Shelby Hall/Pace	6/19/20	1443	3.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Rogers

SIGNATURE of SAMPLER: Chad Rogers

DATE Signed (MM/DD/YY): 6/17/2020

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-Dec-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

WO# : 92482346

PM: KLH1 Due Date: 07/01/20

CLIENT: GA-GA Power

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	5 Day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Non-Routine
Project Number:	GW6581B

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Unpreserved	HNO_3	Other	Chloride, Fluoride, Sulfate	TDS	Metals*	Alkalinity, Bicarbonate	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G							X	X	X	X	X		
2	~~HGWA-2~~	WT	G							X	X	X	X	X		
3	~~HGWC-7~~	WT	G							X	X	X	X	X		
4	~~HGWC-8~~	WT	G							X	X	X	X	X		
5	~~MW-1~~	WT	G							X	X	X	X	X		
6	~~MW-30D~~	WT	G							X	X	X	X	X		
7	MW-40D	WT	G	6/19/20	10:5	3	1	1	1	X	X	X	X	X	N	pH=7.4 / Last sample
8	~~EB-01~~	WT	G							X	X	X	X	X		
9																
10																
11																
12																

92482346

CR 6/19/20

ADDITIONAL COMMENTS: Please note any wells, cross through any wells not sampled, and note when the last sample for the event has been taken.

*Metals = Ca, Fe, Mg, Mn, Mo, K, Na

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Chad Russo / GEO	6/19/20	1745	Madia Mendez/Geosyntec	6/19/20	1745				
Madia Mendez/Geosyntec	6/22/20	1045	[illegible] / Pace	6/22/20	1045				
[illegible] / Pace	6/22/20	1353	[illegible]	6/22/20	1353	2.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo DATE Signed (MM/DD/YY): 6/19/2020

*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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 20, 2020

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 16, 2020 and September 29, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Co. Services
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495894001	**HGWA-1**	Water	09/15/20 14:01	09/16/20 11:14
92495894002	**HGWA-2**	Water	09/15/20 10:58	09/16/20 11:14
92495894003	**HGWA-3**	Water	09/15/20 11:45	09/16/20 11:14
92495894004	**HGWC-7**	Water	09/16/20 12:24	09/17/20 09:45
92495894005	**HGWC-7 FILTERED**	Water	09/16/20 12:24	09/17/20 09:45
92495894006	**HGWC-8**	Water	09/16/20 09:32	09/17/20 09:45
92495894007	**HGWC-10**	Water	09/16/20 16:15	09/17/20 09:45
92495894008	**MW-29**	Water	09/16/20 13:15	09/17/20 09:45
92495894009	**HGWA-43D**	Water	09/16/20 11:58	09/17/20 09:45
92495894010	**HGWA-44D**	Water	09/16/20 15:18	09/17/20 09:45
92495894011	**HGWC-9**	Water	09/17/20 11:42	09/18/20 10:20
92495894012	**MW-5**	Water	09/17/20 17:51	09/18/20 10:20
92495894013	**MW-20**	Water	09/17/20 15:54	09/18/20 10:20
92495894014	**MW-26D**	Water	09/17/20 13:02	09/18/20 10:20
92495894015	**FD-01**	Water	09/17/20 00:00	09/18/20 10:20
92495894016	**HGWC-11**	Water	09/18/20 13:30	09/21/20 09:25
92495894017	**HGWC-12**	Water	09/18/20 15:50	09/21/20 09:25
92495894018	**MW-25D**	Water	09/18/20 13:20	09/21/20 09:25
92495894019	**MW-27D**	Water	09/18/20 08:53	09/21/20 09:25
92495894020	**HGWC-13**	Water	09/21/20 16:45	09/22/20 09:25
92495894021	**MW-6**	Water	09/21/20 10:19	09/22/20 09:25
92495894022	**MW-7**	Water	09/21/20 16:41	09/22/20 09:25
92495894023	**MW-24D**	Water	09/21/20 17:55	09/22/20 09:25
92495894024	**MW-19**	Water	09/21/20 15:18	09/22/20 09:25
92495894025	**MW-28D**	Water	09/21/20 19:28	09/22/20 09:25
92495894026	**MW-30D**	Water	09/24/20 11:00	09/25/20 10:45
92495894027	**FB-01**	Water	09/24/20 18:50	09/25/20 10:45
92495894028	**MW-40D**	Water	09/28/20 15:15	09/29/20 08:55

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92495894001	**HGWA-1**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894002	**HGWA-2**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894003	**HGWA-3**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894004	**HGWC-7**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894005	**HGWC-7 FILTERED**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894006	**HGWC-8**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894007	**HGWC-10**	EPA 6010D	DRB	6

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894008	**MW-29**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894009	**HGWA-43D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894010	**HGWA-44D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894011	**HGWC-9**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894012	**MW-5**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92495894013	**MW-20**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894014	**MW-26D**	EPA 6010D	DRB	6
		EPA 6020B	CW1, KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894015	**FD-01**	EPA 6010D	DRB	6
		EPA 6020B	CW1, KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894016	**HGWC-11**	EPA 6010D	DRB	6
		EPA 6020B	CW1, KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894017	**HGWC-12**	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894018	**MW-25D**	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894019	**MW-27D**	EPA 6010D	DRB	6

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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894020	**HGWC-13**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894021	**MW-6**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894022	**MW-7**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894023	**MW-24D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894024	**MW-19**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894025	**MW-28D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13

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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894026	**MW-30D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894027	**FB-01**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894028	**MW-40D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

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

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110 Technology Parkway
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894001	**HGWA-1**					
	pH	7.15	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	103	mg/L	1.0	09/23/20 17:49	
EPA 6010D	Iron	0.087	mg/L	0.040	09/23/20 17:49	
EPA 6010D	Magnesium	4.3	mg/L	0.050	09/23/20 17:49	
EPA 6010D	Manganese	0.18	mg/L	0.040	09/23/20 17:49	
EPA 6010D	Potassium	0.34	mg/L	0.20	09/23/20 17:49	B
EPA 6010D	Sodium	21.1	mg/L	1.0	09/23/20 17:49	
EPA 6020B	Barium	0.035	mg/L	0.010	09/23/20 17:15	
EPA 6020B	Boron	0.017J	mg/L	0.10	09/23/20 17:15	
EPA 6020B	Lithium	0.00087J	mg/L	0.030	09/23/20 17:15	
SM 2450C-2011	Total Dissolved Solids	265	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	307	mg/L	5.0	09/24/20 19:36	
SM 2320B-2011	Alkalinity, Total as CaCO3	307	mg/L	5.0	09/24/20 19:36	
EPA 300.0 Rev 2.1 1993	Chloride	13.4	mg/L	1.0	09/18/20 21:31	
EPA 300.0 Rev 2.1 1993	Fluoride	0.082J	mg/L	0.10	09/18/20 21:31	
EPA 300.0 Rev 2.1 1993	Sulfate	47.3	mg/L	1.0	09/18/20 21:31	
92495894002	**HGWA-2**					
	pH	5.22	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	21.1	mg/L	1.0	09/23/20 17:53	
EPA 6010D	Iron	0.78	mg/L	0.040	09/23/20 17:53	
EPA 6010D	Magnesium	2.5	mg/L	0.050	09/23/20 17:53	
EPA 6010D	Manganese	0.61	mg/L	0.040	09/23/20 17:53	
EPA 6010D	Potassium	0.89	mg/L	0.20	09/23/20 17:53	B
EPA 6010D	Sodium	7.4	mg/L	1.0	09/23/20 17:53	
EPA 6020B	Barium	0.12	mg/L	0.010	09/23/20 17:21	
EPA 6020B	Beryllium	0.00013J	mg/L	0.0030	09/23/20 17:21	
EPA 6020B	Boron	0.044J	mg/L	0.10	09/23/20 17:21	
EPA 6020B	Cadmium	0.00012J	mg/L	0.0025	09/23/20 17:21	
EPA 6020B	Cobalt	0.021	mg/L	0.0050	09/23/20 17:21	
EPA 6020B	Lead	0.000080J	mg/L	0.0050	09/23/20 17:21	
EPA 6020B	Lithium	0.0015J	mg/L	0.030	09/23/20 17:21	
SM 2450C-2011	Total Dissolved Solids	124	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	26.1	mg/L	5.0	09/24/20 13:36	
SM 2320B-2011	Alkalinity, Total as CaCO3	26.1	mg/L	5.0	09/24/20 13:36	
EPA 300.0 Rev 2.1 1993	Chloride	5.0	mg/L	1.0	09/18/20 21:46	
EPA 300.0 Rev 2.1 1993	Sulfate	51.5	mg/L	1.0	09/18/20 21:46	
92495894003	**HGWA-3**					
	pH	7.29	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	73.1	mg/L	1.0	09/23/20 17:57	
EPA 6010D	Iron	0.26	mg/L	0.040	09/23/20 17:57	
EPA 6010D	Magnesium	4.6	mg/L	0.050	09/23/20 17:57	
EPA 6010D	Manganese	0.22	mg/L	0.040	09/23/20 17:57	
EPA 6010D	Potassium	0.46	mg/L	0.20	09/23/20 17:57	B
EPA 6010D	Sodium	4.9	mg/L	1.0	09/23/20 17:57	
EPA 6020B	Barium	0.12	mg/L	0.010	09/23/20 17:27	
EPA 6020B	Boron	0.0071J	mg/L	0.10	09/23/20 17:27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894003	**HGWA-3**					
EPA 6020B	Lead	0.000042J	mg/L	0.0050	09/23/20 17:27	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	09/23/20 17:27	
SM 2450C-2011	Total Dissolved Solids	258	mg/L	10.0	09/17/20 15:19	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	187	mg/L	5.0	09/24/20 13:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	187	mg/L	5.0	09/24/20 13:43	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	09/18/20 22:01	
EPA 300.0 Rev 2.1 1993	Sulfate	44.7	mg/L	1.0	09/18/20 22:01	
92495894004	**HGWC-7**					
	pH	7.30	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	98.0	mg/L	1.0	09/24/20 20:39	M1
EPA 6010D	Iron	0.30	mg/L	0.040	09/24/20 20:39	
EPA 6010D	Magnesium	8.9	mg/L	0.050	09/24/20 20:39	M1
EPA 6010D	Manganese	0.15	mg/L	0.040	09/24/20 20:39	
EPA 6010D	Potassium	2.3	mg/L	0.20	09/24/20 20:39	
EPA 6010D	Sodium	8.7	mg/L	1.0	09/24/20 20:39	M1
EPA 6020B	Antimony	0.00034J	mg/L	0.0030	09/23/20 19:13	
EPA 6020B	Barium	0.068	mg/L	0.010	09/23/20 19:13	
EPA 6020B	Boron	1.1	mg/L	0.10	09/23/20 19:13	
EPA 6020B	Chromium	0.00074J	mg/L	0.010	09/23/20 19:13	
EPA 6020B	Cobalt	0.00065J	mg/L	0.0050	09/23/20 19:13	
EPA 6020B	Lead	0.00020J	mg/L	0.0050	09/23/20 19:13	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	09/23/20 19:13	
EPA 6020B	Molybdenum	0.046	mg/L	0.010	09/23/20 19:13	
SM 2450C-2011	Total Dissolved Solids	392	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	177	mg/L	5.0	09/24/20 16:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	177	mg/L	5.0	09/24/20 16:19	
EPA 300.0 Rev 2.1 1993	Chloride	46.4	mg/L	1.0	09/19/20 22:06	
EPA 300.0 Rev 2.1 1993	Fluoride	0.081J	mg/L	0.10	09/19/20 22:06	
EPA 300.0 Rev 2.1 1993	Sulfate	109	mg/L	2.0	09/20/20 07:28	
92495894005	**HGWC-7 FILTERED**					
	pH	7.30	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	105	mg/L	1.0	09/24/20 20:57	M1
EPA 6010D	Iron	0.019J	mg/L	0.040	09/24/20 20:57	
EPA 6010D	Magnesium	9.5	mg/L	0.050	09/24/20 20:57	M1
EPA 6010D	Manganese	0.16	mg/L	0.040	09/24/20 20:57	
EPA 6010D	Potassium	2.4	mg/L	0.20	09/24/20 20:57	M1
EPA 6010D	Sodium	9.4	mg/L	1.0	09/24/20 20:57	M1
EPA 6020B	Barium	0.069	mg/L	0.010	09/23/20 19:19	
EPA 6020B	Boron	1.1	mg/L	0.10	09/23/20 19:19	
EPA 6020B	Cobalt	0.00051J	mg/L	0.0050	09/23/20 19:19	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	09/23/20 19:19	
EPA 6020B	Molybdenum	0.048	mg/L	0.010	09/23/20 19:19	
SM 2450C-2011	Total Dissolved Solids	399	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	177	mg/L	5.0	09/24/20 16:31	
SM 2320B-2011	Alkalinity, Total as CaCO3	177	mg/L	5.0	09/24/20 16:31	
EPA 300.0 Rev 2.1 1993	Chloride	46.4	mg/L	1.0	09/19/20 22:21	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894005	**HGWC-7 FILTERED**					
EPA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	09/19/20 22:21	
EPA 300.0 Rev 2.1 1993	Sulfate	109	mg/L	2.0	09/20/20 07:43	
92495894006	**HGWC-8**					
	pH	6.92	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	119	mg/L	1.0	09/24/20 21:01	
EPA 6010D	Iron	0.30	mg/L	0.040	09/24/20 21:01	
EPA 6010D	Magnesium	16.4	mg/L	0.050	09/24/20 21:01	
EPA 6010D	Manganese	0.22	mg/L	0.040	09/24/20 21:01	
EPA 6010D	Potassium	7.1	mg/L	0.20	09/24/20 21:01	
EPA 6010D	Sodium	8.5	mg/L	1.0	09/24/20 21:01	
EPA 6020B	Barium	0.060	mg/L	0.010	09/23/20 19:25	
EPA 6020B	Beryllium	0.00010J	mg/L	0.0030	09/23/20 19:25	
EPA 6020B	Boron	1.9	mg/L	0.10	09/23/20 19:25	
EPA 6020B	Cadmium	0.00023J	mg/L	0.0025	09/23/20 19:25	
EPA 6020B	Chromium	0.0015J	mg/L	0.010	09/23/20 19:25	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	09/23/20 19:25	
EPA 6020B	Lead	0.00020J	mg/L	0.0050	09/23/20 19:25	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	09/23/20 19:25	
EPA 6020B	Molybdenum	0.43	mg/L	0.010	09/23/20 19:25	
SM 2450C-2011	Total Dissolved Solids	552	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	133	mg/L	5.0	09/24/20 16:42	
SM 2320B-2011	Alkalinity, Total as CaCO3	133	mg/L	5.0	09/24/20 16:42	
EPA 300.0 Rev 2.1 1993	Chloride	74.6	mg/L	1.0	09/19/20 22:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.53	mg/L	0.10	09/19/20 22:36	
EPA 300.0 Rev 2.1 1993	Sulfate	194	mg/L	4.0	09/20/20 07:58	
92495894007	**HGWC-10**					
	pH	6.66	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	139	mg/L	1.0	09/24/20 21:06	
EPA 6010D	Magnesium	10.8	mg/L	0.050	09/24/20 21:06	
EPA 6010D	Manganese	1.3	mg/L	0.040	09/24/20 21:06	
EPA 6010D	Potassium	1.3	mg/L	0.20	09/24/20 21:06	
EPA 6010D	Sodium	8.9	mg/L	1.0	09/24/20 21:06	
EPA 6020B	Barium	0.068	mg/L	0.010	09/23/20 19:42	
EPA 6020B	Boron	1.1	mg/L	1.0	09/24/20 13:51	
EPA 6020B	Molybdenum	0.0014J	mg/L	0.010	09/23/20 19:42	
SM 2450C-2011	Total Dissolved Solids	490	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	247	mg/L	5.0	09/28/20 15:50	
SM 2320B-2011	Alkalinity, Total as CaCO3	247	mg/L	5.0	09/28/20 15:50	
EPA 300.0 Rev 2.1 1993	Chloride	39.7	mg/L	1.0	09/20/20 01:05	
EPA 300.0 Rev 2.1 1993	Sulfate	169	mg/L	4.0	09/20/20 08:12	
92495894008	**MW-29**					
	pH	6.88	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	126	mg/L	1.0	09/24/20 21:10	
EPA 6010D	Iron	0.035J	mg/L	0.040	09/24/20 21:10	
EPA 6010D	Magnesium	11.4	mg/L	0.050	09/24/20 21:10	
EPA 6010D	Manganese	1.2	mg/L	0.040	09/24/20 21:10	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894008	**MW-29**					
EPA 6010D	Potassium	0.94	mg/L	0.20	09/24/20 21:10	
EPA 6010D	Sodium	10.9	mg/L	1.0	09/24/20 21:10	
EPA 6020B	Barium	0.076	mg/L	0.010	09/23/20 19:47	
EPA 6020B	Boron	1.7	mg/L	1.0	09/24/20 13:57	
EPA 6020B	Cobalt	0.0013J	mg/L	0.0050	09/23/20 19:47	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	09/23/20 19:47	
EPA 6020B	Molybdenum	0.0021J	mg/L	0.010	09/23/20 19:47	
SM 2450C-2011	Total Dissolved Solids	547	mg/L	10.0	09/18/20 10:01	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	194	mg/L	5.0	09/24/20 17:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	194	mg/L	5.0	09/24/20 17:02	
EPA 300.0 Rev 2.1 1993	Chloride	75.3	mg/L	1.0	09/20/20 01:20	
EPA 300.0 Rev 2.1 1993	Sulfate	143	mg/L	3.0	09/20/20 08:27	
92495894009	**HGWA-43D**					
	pH	7.52	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	56.0	mg/L	1.0	09/23/20 18:49	
EPA 6010D	Iron	0.020J	mg/L	0.040	09/23/20 18:49	
EPA 6010D	Magnesium	18.3	mg/L	0.050	09/23/20 18:49	
EPA 6010D	Manganese	0.010J	mg/L	0.040	09/23/20 18:49	
EPA 6010D	Potassium	0.97	mg/L	0.20	09/23/20 18:49	B
EPA 6010D	Sodium	14.0	mg/L	1.0	09/23/20 18:49	
EPA 6020B	Antimony	0.00051J	mg/L	0.0030	09/23/20 18:54	
EPA 6020B	Barium	0.26	mg/L	0.010	09/23/20 18:54	
EPA 6020B	Boron	0.061J	mg/L	0.10	09/23/20 18:54	
EPA 6020B	Lead	0.000050J	mg/L	0.0050	09/23/20 18:54	
EPA 6020B	Lithium	0.0018J	mg/L	0.030	09/23/20 18:54	
EPA 6020B	Molybdenum	0.0044J	mg/L	0.010	09/23/20 18:54	
SM 2450C-2011	Total Dissolved Solids	272	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	251	mg/L	5.0	09/28/20 15:11	
SM 2320B-2011	Alkalinity, Total as CaCO3	251	mg/L	5.0	09/28/20 15:11	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	09/19/20 21:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	09/19/20 21:36	
EPA 300.0 Rev 2.1 1993	Sulfate	43.0	mg/L	1.0	09/19/20 21:36	
92495894010	**HGWA-44D**					
	pH	7.83	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	30.0	mg/L	1.0	09/23/20 18:53	
EPA 6010D	Iron	0.42	mg/L	0.040	09/23/20 18:53	
EPA 6010D	Magnesium	15.1	mg/L	0.050	09/23/20 18:53	
EPA 6010D	Manganese	0.020J	mg/L	0.040	09/23/20 18:53	
EPA 6010D	Potassium	3.2	mg/L	0.20	09/23/20 18:53	
EPA 6010D	Sodium	50.3	mg/L	1.0	09/23/20 18:53	
EPA 6020B	Antimony	0.00049J	mg/L	0.0030	09/23/20 19:00	
EPA 6020B	Barium	0.24	mg/L	0.010	09/23/20 19:00	
EPA 6020B	Boron	0.23	mg/L	0.10	09/23/20 19:00	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	09/23/20 19:00	
EPA 6020B	Lead	0.00021J	mg/L	0.0050	09/23/20 19:00	
EPA 6020B	Lithium	0.014J	mg/L	0.030	09/23/20 19:00	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894010	**HGWA-44D**					
EPA 6020B	Molybdenum	0.0019J	mg/L	0.010	09/23/20 19:00	
SM 2450C-2011	Total Dissolved Solids	270	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	294	mg/L	5.0	09/28/20 15:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	294	mg/L	5.0	09/28/20 15:19	
SM 4500-S2D-2011	Sulfide	0.11	mg/L	0.10	09/22/20 14:17	
EPA 300.0 Rev 2.1 1993	Chloride	7.2	mg/L	1.0	09/19/20 21:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.52	mg/L	0.10	09/19/20 21:51	
EPA 300.0 Rev 2.1 1993	Sulfate	6.9	mg/L	1.0	09/19/20 21:51	
92495894011	**HGWC-9**					
	pH	6.99	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	164	mg/L	1.0	09/24/20 21:23	
EPA 6010D	Iron	0.19	mg/L	0.040	09/24/20 21:23	
EPA 6010D	Magnesium	16.6	mg/L	0.050	09/24/20 21:23	
EPA 6010D	Manganese	0.42	mg/L	0.040	09/24/20 21:23	
EPA 6010D	Potassium	3.0	mg/L	0.20	09/24/20 21:23	
EPA 6010D	Sodium	11.3	mg/L	1.0	09/24/20 21:23	
EPA 6020B	Barium	0.11	mg/L	0.010	09/28/20 18:26	
EPA 6020B	Boron	2.0	mg/L	1.0	09/30/20 11:07	
EPA 6020B	Cobalt	0.00070J	mg/L	0.0050	09/28/20 18:26	
EPA 6020B	Lead	0.00022J	mg/L	0.0050	09/28/20 18:26	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	09/28/20 18:26	
EPA 6020B	Molybdenum	0.030	mg/L	0.010	09/28/20 18:26	
SM 2450C-2011	Total Dissolved Solids	680	mg/L	20.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	194	mg/L	5.0	09/24/20 19:13	
SM 2320B-2011	Alkalinity, Total as CaCO3	194	mg/L	5.0	09/24/20 19:13	
EPA 300.0 Rev 2.1 1993	Chloride	105	mg/L	4.0	09/22/20 15:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/22/20 08:02	
EPA 300.0 Rev 2.1 1993	Sulfate	209	mg/L	4.0	09/22/20 15:28	
92495894012	**MW-5**					
	pH	6.48	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	103	mg/L	1.0	09/24/20 21:28	
EPA 6010D	Magnesium	11.6	mg/L	0.050	09/24/20 21:28	
EPA 6010D	Manganese	0.0019J	mg/L	0.040	09/24/20 21:28	
EPA 6010D	Potassium	0.85	mg/L	0.20	09/24/20 21:28	
EPA 6010D	Sodium	18.1	mg/L	1.0	09/24/20 21:28	
EPA 6020B	Barium	0.043	mg/L	0.010	09/28/20 18:32	
EPA 6020B	Boron	0.067J	mg/L	0.10	09/28/20 18:32	
EPA 6020B	Chromium	0.0021J	mg/L	0.010	09/28/20 18:32	
EPA 6020B	Selenium	0.0028J	mg/L	0.010	09/28/20 18:32	
SM 2450C-2011	Total Dissolved Solids	486	mg/L	10.0	09/22/20 14:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	179	mg/L	5.0	09/24/20 19:25	
SM 2320B-2011	Alkalinity, Total as CaCO3	179	mg/L	5.0	09/24/20 19:25	
EPA 300.0 Rev 2.1 1993	Chloride	28.7	mg/L	1.0	09/22/20 08:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.094J	mg/L	0.10	09/22/20 08:47	
EPA 300.0 Rev 2.1 1993	Sulfate	153	mg/L	3.0	09/22/20 16:12	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894013	**MW-20**					
	pH	6.78	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	110	mg/L	1.0	09/24/20 21:32	
EPA 6010D	Iron	2.8	mg/L	0.040	09/24/20 21:32	
EPA 6010D	Magnesium	8.5	mg/L	0.050	09/24/20 21:32	
EPA 6010D	Manganese	0.24	mg/L	0.040	09/24/20 21:32	
EPA 6010D	Potassium	0.22	mg/L	0.20	09/24/20 21:32	
EPA 6010D	Sodium	10.3	mg/L	1.0	09/24/20 21:32	
EPA 6020B	Barium	0.096	mg/L	0.010	09/28/20 18:38	
EPA 6020B	Boron	0.11	mg/L	0.10	09/28/20 18:38	
SM 2450C-2011	Total Dissolved Solids	460	mg/L	10.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	231	mg/L	5.0	09/30/20 11:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	231	mg/L	5.0	09/30/20 11:48	
EPA 300.0 Rev 2.1 1993	Chloride	29.7	mg/L	1.0	09/22/20 09:02	
EPA 300.0 Rev 2.1 1993	Sulfate	110	mg/L	2.0	09/22/20 16:57	
92495894014	**MW-26D**					
	pH	7.08	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	150	mg/L	1.0	09/24/20 21:36	
EPA 6010D	Iron	0.29	mg/L	0.040	09/24/20 21:36	
EPA 6010D	Magnesium	16.9	mg/L	0.050	09/24/20 21:36	
EPA 6010D	Manganese	0.16	mg/L	0.040	09/24/20 21:36	
EPA 6010D	Potassium	1.8	mg/L	0.20	09/24/20 21:36	
EPA 6010D	Sodium	11.9	mg/L	1.0	09/24/20 21:36	
EPA 6020B	Barium	0.099	mg/L	0.010	09/25/20 18:36	
EPA 6020B	Boron	2.0	mg/L	0.10	09/29/20 16:39	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	09/25/20 18:36	
EPA 6020B	Molybdenum	0.014	mg/L	0.010	09/25/20 18:36	
SM 2450C-2011	Total Dissolved Solids	732	mg/L	20.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	187	mg/L	5.0	09/30/20 12:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	187	mg/L	5.0	09/30/20 12:19	
EPA 300.0 Rev 2.1 1993	Chloride	103	mg/L	4.0	09/22/20 17:12	
EPA 300.0 Rev 2.1 1993	Fluoride	0.069J	mg/L	0.10	09/22/20 09:17	
EPA 300.0 Rev 2.1 1993	Sulfate	174	mg/L	4.0	09/22/20 17:12	
92495894015	**FD-01**					
EPA 6010D	Calcium	148	mg/L	1.0	09/24/20 21:41	
EPA 6010D	Iron	0.22	mg/L	0.040	09/24/20 21:41	
EPA 6010D	Magnesium	15.6	mg/L	0.050	09/24/20 21:41	
EPA 6010D	Manganese	0.16	mg/L	0.040	09/24/20 21:41	
EPA 6010D	Potassium	1.8	mg/L	0.20	09/24/20 21:41	
EPA 6010D	Sodium	11.5	mg/L	1.0	09/24/20 21:41	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	09/25/20 18:59	
EPA 6020B	Barium	0.099	mg/L	0.010	09/25/20 18:59	
EPA 6020B	Boron	2.1	mg/L	0.10	09/29/20 16:56	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	09/25/20 18:59	
EPA 6020B	Molybdenum	0.016	mg/L	0.010	09/25/20 18:59	
SM 2450C-2011	Total Dissolved Solids	702	mg/L	20.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	185	mg/L	5.0	09/30/20 12:30	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894015	**FD-01**					
SM 2320B-2011	Alkalinity, Total as CaCO3	185	mg/L	5.0	09/30/20 12:30	
EPA 300.0 Rev 2.1 1993	Chloride	104	mg/L	4.0	09/22/20 17:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.10	09/22/20 09:32	
EPA 300.0 Rev 2.1 1993	Sulfate	181	mg/L	4.0	09/22/20 17:26	
92495894016	**HGWC-11**					
	pH	6.42	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	122	mg/L	1.0	09/24/20 21:45	
EPA 6010D	Magnesium	16.2	mg/L	0.050	09/24/20 21:45	
EPA 6010D	Manganese	0.017J	mg/L	0.040	09/24/20 21:45	
EPA 6010D	Potassium	3.7	mg/L	0.20	09/24/20 21:45	
EPA 6010D	Sodium	5.5	mg/L	1.0	09/24/20 21:45	
EPA 6020B	Antimony	0.00038J	mg/L	0.0030	09/25/20 19:04	
EPA 6020B	Arsenic	0.00081J	mg/L	0.0050	09/25/20 19:04	
EPA 6020B	Barium	0.043	mg/L	0.010	09/25/20 19:04	
EPA 6020B	Boron	0.91	mg/L	0.10	09/29/20 17:02	
EPA 6020B	Lead	0.000060J	mg/L	0.0050	09/25/20 19:04	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	09/25/20 19:04	
EPA 6020B	Selenium	0.0042J	mg/L	0.010	09/25/20 19:04	
SM 2450C-2011	Total Dissolved Solids	626	mg/L	10.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	91.6	mg/L	5.0	09/30/20 13:28	
SM 2320B-2011	Alkalinity, Total as CaCO3	91.6	mg/L	5.0	09/30/20 13:28	
EPA 300.0 Rev 2.1 1993	Chloride	34.9	mg/L	1.0	09/24/20 08:39	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	09/24/20 08:39	
EPA 300.0 Rev 2.1 1993	Sulfate	272	mg/L	4.0	09/24/20 21:54	
92495894017	**HGWC-12**					
	pH	7.15	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	163	mg/L	1.0	09/24/20 21:58	
EPA 6010D	Iron	0.083	mg/L	0.040	09/24/20 21:58	
EPA 6010D	Magnesium	17.3	mg/L	0.050	09/24/20 21:58	
EPA 6010D	Manganese	2.0	mg/L	0.040	09/24/20 21:58	
EPA 6010D	Potassium	7.2	mg/L	0.20	09/24/20 21:58	
EPA 6010D	Sodium	9.4	mg/L	1.0	09/24/20 21:58	
EPA 6020B	Arsenic	0.0031J	mg/L	0.0050	09/25/20 19:10	
EPA 6020B	Barium	0.086	mg/L	0.010	09/25/20 19:10	
EPA 6020B	Boron	1.6	mg/L	0.10	09/25/20 19:10	
EPA 6020B	Chromium	0.00091J	mg/L	0.010	09/25/20 19:10	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	09/25/20 19:10	
EPA 6020B	Lead	0.000096J	mg/L	0.0050	09/25/20 19:10	
EPA 6020B	Lithium	0.010J	mg/L	0.030	09/25/20 19:10	
EPA 6020B	Molybdenum	0.046	mg/L	0.010	09/25/20 19:10	
SM 2450C-2011	Total Dissolved Solids	704	mg/L	20.0	09/22/20 14:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	172	mg/L	5.0	09/30/20 13:37	
SM 2320B-2011	Alkalinity, Total as CaCO3	172	mg/L	5.0	09/30/20 13:37	
EPA 300.0 Rev 2.1 1993	Chloride	74.6	mg/L	1.0	09/24/20 08:53	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	09/24/20 08:53	
EPA 300.0 Rev 2.1 1993	Sulfate	266	mg/L	4.0	09/25/20 10:16	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894018	**MW-25D**					
	pH	7.64	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	25.1	mg/L	1.0	09/24/20 22:03	
EPA 6010D	Iron	0.088	mg/L	0.040	09/24/20 22:03	
EPA 6010D	Magnesium	8.3	mg/L	0.050	09/24/20 22:03	
EPA 6010D	Manganese	0.040J	mg/L	0.040	09/24/20 22:03	
EPA 6010D	Potassium	0.42	mg/L	0.20	09/24/20 22:03	
EPA 6010D	Sodium	103	mg/L	1.0	09/24/20 22:03	
EPA 6020B	Barium	0.44	mg/L	0.010	09/25/20 19:27	
EPA 6020B	Boron	0.36	mg/L	0.10	09/25/20 19:27	
EPA 6020B	Lithium	0.046	mg/L	0.030	09/25/20 19:27	
EPA 6020B	Molybdenum	0.00094J	mg/L	0.010	09/25/20 19:27	
SM 2450C-2011	Total Dissolved Solids	382	mg/L	10.0	09/23/20 13:15	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	288	mg/L	5.0	09/30/20 20:37	
SM 2320B-2011	Alkalinity, Total as CaCO3	288	mg/L	5.0	09/30/20 20:37	
SM 4500-S2D-2011	Sulfide	2.9	mg/L	1.0	09/22/20 15:14	
EPA 300.0 Rev 2.1 1993	Chloride	33.4	mg/L	1.0	09/24/20 09:08	
EPA 300.0 Rev 2.1 1993	Fluoride	1.6	mg/L	0.10	09/24/20 09:08	
EPA 300.0 Rev 2.1 1993	Sulfate	27.4	mg/L	1.0	09/24/20 09:08	
92495894019	**MW-27D**					
	pH	7.51	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	24.8	mg/L	1.0	09/25/20 20:10	
EPA 6010D	Iron	0.15	mg/L	0.040	09/25/20 20:10	
EPA 6010D	Magnesium	17.0	mg/L	0.050	09/25/20 20:10	
EPA 6010D	Manganese	0.13	mg/L	0.040	09/25/20 20:10	
EPA 6010D	Potassium	0.95	mg/L	0.20	09/25/20 20:10	
EPA 6010D	Sodium	27.3	mg/L	1.0	09/25/20 20:10	
EPA 6020B	Antimony	0.00031J	mg/L	0.0030	09/25/20 19:33	
EPA 6020B	Barium	1.0	mg/L	0.010	09/25/20 19:33	
EPA 6020B	Boron	0.12	mg/L	0.10	09/25/20 19:33	
EPA 6020B	Chromium	0.00070J	mg/L	0.010	09/25/20 19:33	
EPA 6020B	Lithium	0.0084J	mg/L	0.030	09/25/20 19:33	
EPA 6020B	Molybdenum	0.0018J	mg/L	0.010	09/25/20 19:33	
SM 2450C-2011	Total Dissolved Solids	211	mg/L	10.0	09/23/20 13:16	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	169	mg/L	5.0	09/30/20 14:16	
SM 2320B-2011	Alkalinity, Total as CaCO3	169	mg/L	5.0	09/30/20 14:16	
EPA 300.0 Rev 2.1 1993	Chloride	30.4	mg/L	1.0	09/24/20 09:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	09/24/20 09:51	
EPA 300.0 Rev 2.1 1993	Sulfate	7.5	mg/L	1.0	09/24/20 09:51	
92495894020	**HGWC-13**					
	pH	7.34	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	173	mg/L	1.0	09/25/20 20:27	
EPA 6010D	Iron	0.87	mg/L	0.040	09/25/20 20:27	
EPA 6010D	Magnesium	15.6	mg/L	0.050	09/25/20 20:27	
EPA 6010D	Manganese	2.1	mg/L	0.040	09/25/20 20:27	
EPA 6010D	Potassium	4.6	mg/L	0.20	09/25/20 20:27	
EPA 6010D	Sodium	6.4	mg/L	1.0	09/25/20 20:27	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894020	**HGWC-13**					
EPA 6020B	Antimony	0.00029J	mg/L	0.0030	09/30/20 17:37	
EPA 6020B	Arsenic	0.39	mg/L	0.0050	09/30/20 17:37	
EPA 6020B	Barium	0.052	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Beryllium	0.00011J	mg/L	0.0030	09/30/20 17:37	
EPA 6020B	Boron	1.6	mg/L	0.10	09/30/20 17:37	
EPA 6020B	Chromium	0.00056J	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Cobalt	0.0032J	mg/L	0.0050	09/30/20 17:37	
EPA 6020B	Lead	0.00015J	mg/L	0.0050	09/30/20 17:37	
EPA 6020B	Lithium	0.028J	mg/L	0.030	09/30/20 17:37	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Selenium	0.0016J	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Thallium	0.00036J	mg/L	0.0010	09/30/20 17:37	
SM 2450C-2011	Total Dissolved Solids	732	mg/L	20.0	09/23/20 13:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	114	mg/L	5.0	09/30/20 14:57	
SM 2320B-2011	Alkalinity, Total as CaCO3	114	mg/L	5.0	09/30/20 14:57	
EPA 300.0 Rev 2.1 1993	Chloride	41.2	mg/L	1.0	09/24/20 16:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.44	mg/L	0.10	09/24/20 16:36	
EPA 300.0 Rev 2.1 1993	Sulfate	359	mg/L	5.0	09/25/20 10:45	
92495894021	**MW-6**					
	pH	6.88	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	173	mg/L	1.0	09/25/20 20:31	
EPA 6010D	Iron	0.49	mg/L	0.040	09/25/20 20:31	
EPA 6010D	Magnesium	13.5	mg/L	0.050	09/25/20 20:31	
EPA 6010D	Manganese	0.50	mg/L	0.040	09/25/20 20:31	
EPA 6010D	Potassium	1.4	mg/L	0.20	09/25/20 20:31	
EPA 6010D	Sodium	12.6	mg/L	1.0	09/25/20 20:31	
EPA 6020B	Antimony	0.0014J	mg/L	0.0030	09/30/20 18:00	
EPA 6020B	Barium	0.083	mg/L	0.010	09/30/20 18:00	
EPA 6020B	Boron	0.82	mg/L	0.10	09/30/20 18:00	
EPA 6020B	Cobalt	0.00041J	mg/L	0.0050	09/30/20 18:00	
EPA 6020B	Lead	0.00026J	mg/L	0.0050	09/30/20 18:00	
EPA 6020B	Molybdenum	0.0025J	mg/L	0.010	09/30/20 18:00	
SM 2450C-2011	Total Dissolved Solids	656	mg/L	20.0	09/23/20 13:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	273	mg/L	5.0	09/30/20 20:54	
SM 2320B-2011	Alkalinity, Total as CaCO3	273	mg/L	5.0	09/30/20 20:54	
EPA 300.0 Rev 2.1 1993	Chloride	58.1	mg/L	1.0	09/24/20 16:50	
EPA 300.0 Rev 2.1 1993	Sulfate	221	mg/L	3.0	09/25/20 10:59	
92495894022	**MW-7**					
	pH	6.50	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	75.3	mg/L	1.0	09/25/20 20:58	M1
EPA 6010D	Magnesium	8.6	mg/L	0.050	09/25/20 20:58	M1
EPA 6010D	Manganese	0.0077J	mg/L	0.040	09/25/20 20:58	
EPA 6010D	Potassium	0.91	mg/L	0.20	09/25/20 20:58	B
EPA 6010D	Sodium	8.4	mg/L	1.0	09/25/20 20:58	M1
EPA 6020B	Antimony	0.00051J	mg/L	0.0030	09/30/20 18:06	
EPA 6020B	Barium	0.065	mg/L	0.010	09/30/20 18:06	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894022	**MW-7**					
EPA 6020B	Boron	0.20	mg/L	0.10	09/30/20 18:06	
EPA 6020B	Chromium	0.0017J	mg/L	0.010	09/30/20 18:06	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	09/30/20 18:06	
EPA 6020B	Selenium	0.0026J	mg/L	0.010	09/30/20 18:06	
SM 2450C-2011	Total Dissolved Solids	326	mg/L	10.0	09/24/20 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	128	mg/L	5.0	09/30/20 15:16	
SM 2320B-2011	Alkalinity, Total as CaCO3	128	mg/L	5.0	09/30/20 15:16	
EPA 300.0 Rev 2.1 1993	Chloride	11.1	mg/L	1.0	09/24/20 17:05	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	09/25/20 11:14	
92495894023	**MW-24D**					
	pH	7.65	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	87.6	mg/L	1.0	09/25/20 21:15	
EPA 6010D	Iron	0.076	mg/L	0.040	09/25/20 21:15	
EPA 6010D	Magnesium	4.9	mg/L	0.050	09/25/20 21:15	
EPA 6010D	Manganese	0.13	mg/L	0.040	09/25/20 21:15	
EPA 6010D	Potassium	0.50	mg/L	0.20	09/25/20 21:15	B
EPA 6010D	Sodium	12.0	mg/L	1.0	09/25/20 21:15	
EPA 6020B	Barium	0.053	mg/L	0.010	09/30/20 18:12	
EPA 6020B	Boron	0.45	mg/L	0.10	09/30/20 18:12	
EPA 6020B	Lead	0.000042J	mg/L	0.0050	09/30/20 18:12	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	09/30/20 18:12	
EPA 6020B	Molybdenum	0.00099J	mg/L	0.010	09/30/20 18:12	
SM 2450C-2011	Total Dissolved Solids	391	mg/L	10.0	09/24/20 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	5.0	09/30/20 15:25	
SM 2320B-2011	Alkalinity, Total as CaCO3	105	mg/L	5.0	09/30/20 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	45.2	mg/L	1.0	09/24/20 17:19	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	09/25/20 11:29	
92495894024	**MW-19**					
	pH	6.41	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	135	mg/L	1.0	09/25/20 21:28	
EPA 6010D	Iron	0.16	mg/L	0.040	09/25/20 21:28	
EPA 6010D	Magnesium	15.5	mg/L	0.050	09/25/20 21:28	
EPA 6010D	Manganese	3.3	mg/L	0.040	09/25/20 21:28	
EPA 6010D	Potassium	4.2	mg/L	0.20	09/25/20 21:28	
EPA 6010D	Sodium	6.7	mg/L	1.0	09/25/20 21:28	
EPA 6020B	Barium	0.056	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Boron	0.89	mg/L	0.10	09/30/20 18:17	
EPA 6020B	Cadmium	0.00018J	mg/L	0.0025	09/30/20 18:17	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Cobalt	0.032	mg/L	0.0050	09/30/20 18:17	
EPA 6020B	Lead	0.000085J	mg/L	0.0050	09/30/20 18:17	
EPA 6020B	Lithium	0.013J	mg/L	0.030	09/30/20 18:17	
EPA 6020B	Molybdenum	0.064	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Selenium	0.0033J	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Thallium	0.00030J	mg/L	0.0010	09/30/20 18:17	
SM 2450C-2011	Total Dissolved Solids	608	mg/L	20.0	09/24/20 10:27	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894024	**MW-19**					
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	89.9	mg/L	5.0	10/01/20 16:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	89.9	mg/L	5.0	10/01/20 16:02	
EPA 300.0 Rev 2.1 1993	Chloride	35.0	mg/L	1.0	09/24/20 17:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	09/24/20 17:33	
EPA 300.0 Rev 2.1 1993	Sulfate	305	mg/L	4.0	09/25/20 11:43	
92495894025	**MW-28D**					
	pH	7.46	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	76.8	mg/L	1.0	09/25/20 21:32	
EPA 6010D	Iron	0.30	mg/L	0.040	09/25/20 21:32	
EPA 6010D	Magnesium	22.9	mg/L	0.050	09/25/20 21:32	
EPA 6010D	Manganese	0.034J	mg/L	0.040	09/25/20 21:32	
EPA 6010D	Potassium	1.0	mg/L	0.20	09/25/20 21:32	B
EPA 6010D	Sodium	9.8	mg/L	1.0	09/25/20 21:32	
EPA 6020B	Barium	0.18	mg/L	0.010	09/30/20 18:34	
EPA 6020B	Boron	0.45	mg/L	0.10	09/30/20 18:34	
EPA 6020B	Chromium	0.00085J	mg/L	0.010	09/30/20 18:34	
EPA 6020B	Lead	0.00018J	mg/L	0.0050	09/30/20 18:34	
EPA 6020B	Lithium	0.0053J	mg/L	0.030	09/30/20 18:34	
EPA 6020B	Molybdenum	0.018	mg/L	0.010	09/30/20 18:34	
SM 2450C-2011	Total Dissolved Solids	393	mg/L	10.0	09/24/20 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	184	mg/L	5.0	10/01/20 16:10	
SM 2320B-2011	Alkalinity, Total as CaCO3	184	mg/L	5.0	10/01/20 16:10	
SM 4500-S2D-2011	Sulfide	0.30	mg/L	0.10	09/24/20 11:45	
EPA 300.0 Rev 2.1 1993	Chloride	42.9	mg/L	1.0	09/24/20 17:48	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/24/20 17:48	
EPA 300.0 Rev 2.1 1993	Sulfate	84.2	mg/L	1.0	09/24/20 17:48	
92495894026	**MW-30D**					
	Performed by	CUSTOMER			09/29/20 12:27	
	pH	8.72	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	6.3	mg/L	1.0	10/05/20 20:25	
EPA 6010D	Iron	0.092	mg/L	0.040	10/05/20 20:25	
EPA 6010D	Magnesium	1.5	mg/L	0.050	10/05/20 20:25	
EPA 6010D	Manganese	0.0040J	mg/L	0.040	10/05/20 20:25	
EPA 6010D	Potassium	1.5	mg/L	0.20	10/05/20 20:25	
EPA 6010D	Sodium	296	mg/L	1.0	10/05/20 20:25	
EPA 6020B	Arsenic	0.0017J	mg/L	0.0050	10/05/20 20:23	
EPA 6020B	Barium	0.11	mg/L	0.010	10/05/20 20:23	
EPA 6020B	Boron	0.62	mg/L	0.50	10/07/20 11:52	
EPA 6020B	Chromium	0.00065J	mg/L	0.010	10/05/20 20:23	
EPA 6020B	Lead	0.000068J	mg/L	0.0050	10/05/20 20:23	
EPA 6020B	Lithium	0.13	mg/L	0.030	10/05/20 20:23	
EPA 6020B	Molybdenum	0.011	mg/L	0.010	10/05/20 20:23	
SM 2450C-2011	Total Dissolved Solids	790	mg/L	20.0	09/30/20 09:28	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	437	mg/L	5.0	10/08/20 15:01	
SM 2320B-2011	Alkalinity,Carbonate (CaCO3)	5.8	mg/L	5.0	10/08/20 15:01	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894026	**MW-30D**					
SM 2320B-2011	Alkalinity, Total as CaCO3	442	mg/L	5.0	10/08/20 15:01	
SM 4500-S2D-2011	Sulfide	0.58	mg/L	0.10	09/29/20 13:40	
EPA 300.0 Rev 2.1 1993	Chloride	45.4	mg/L	1.0	09/29/20 13:56	
EPA 300.0 Rev 2.1 1993	Fluoride	8.2	mg/L	0.40	09/29/20 19:15	
EPA 300.0 Rev 2.1 1993	Sulfate	205	mg/L	4.0	09/29/20 19:15	
92495894027	**FB-01**					
EPA 6020B	Boron	0.0064J	mg/L	0.10	10/05/20 20:29	
92495894028	**MW-40D**					
	Performed by	CUSTOMER			09/29/20 13:37	
	pH	7.69	Std. Units		09/29/20 13:37	
EPA 6010D	Calcium	289	mg/L	10.0	10/06/20 16:28	
EPA 6010D	Iron	9.6	mg/L	0.040	10/05/20 20:43	
EPA 6010D	Magnesium	58.2	mg/L	0.050	10/05/20 20:43	
EPA 6010D	Manganese	0.36	mg/L	0.040	10/05/20 20:43	
EPA 6010D	Potassium	19.6	mg/L	0.20	10/05/20 20:43	
EPA 6010D	Sodium	1960	mg/L	10.0	10/06/20 16:28	
EPA 6020B	Antimony	0.0015J	mg/L	0.015	10/07/20 11:58	D3
EPA 6020B	Arsenic	0.0063J	mg/L	0.025	10/07/20 11:58	D3
EPA 6020B	Barium	0.35	mg/L	0.050	10/07/20 11:58	
EPA 6020B	Beryllium	0.00049J	mg/L	0.015	10/07/20 11:58	D3
EPA 6020B	Boron	0.57	mg/L	0.50	10/07/20 11:58	
EPA 6020B	Chromium	0.0080J	mg/L	0.050	10/07/20 11:58	D3
EPA 6020B	Cobalt	0.0037J	mg/L	0.025	10/07/20 11:58	D3
EPA 6020B	Lead	0.0075J	mg/L	0.025	10/07/20 11:58	D3
EPA 6020B	Lithium	0.095J	mg/L	0.15	10/07/20 11:58	D3
EPA 6020B	Molybdenum	0.016J	mg/L	0.050	10/07/20 11:58	D3
SM 2450C-2011	Total Dissolved Solids	6470	mg/L	50.0	10/01/20 15:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	1010	mg/L	5.0	10/08/20 19:04	
SM 2320B-2011	Alkalinity, Total as CaCO3	1010	mg/L	5.0	10/08/20 19:04	
SM 4500-S2D-2011	Sulfide	0.20	mg/L	0.10	10/01/20 12:53	
EPA 300.0 Rev 2.1 1993	Chloride	542	mg/L	50.0	10/01/20 17:23	M6
EPA 300.0 Rev 2.1 1993	Fluoride	0.41	mg/L	0.10	10/01/20 08:56	
EPA 300.0 Rev 2.1 1993	Sulfate	3480	mg/L	50.0	10/01/20 17:23	M6

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-1 **Lab ID: 92495894001** Collected: 09/15/20 14:01 Received: 09/16/20 11:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.15**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**103**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 17:49	7440-70-2	
Iron	**0.087**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 17:49	7439-89-6	
Magnesium	**4.3**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 17:49	7439-95-4	
Manganese	**0.18**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 17:49	7439-96-5	
Potassium	**0.34**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 17:49	7440-09-7	B
Sodium	**21.1**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 17:49	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 17:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 17:15	7440-38-2	
Barium	**0.035**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 17:15	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 17:15	7440-41-7	
Boron	**0.017J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 17:15	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 17:15	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 17:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 17:15	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 17:15	7439-92-1	
Lithium	**0.00087J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 17:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 17:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 17:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 17:15	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**265**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**307**	mg/L	5.0	5.0	1		09/24/20 19:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 19:36		
Alkalinity, Total as CaCO3	**307**	mg/L	5.0	5.0	1		09/24/20 19:36		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:10	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**13.4**	mg/L	1.0	0.60	1		09/18/20 21:31	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-1 **Lab ID: 92495894001** Collected: 09/15/20 14:01 Received: 09/16/20 11:14 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	**0.082J**	mg/L	0.10	0.050	1		09/18/20 21:31	16984-48-8	
Sulfate	**47.3**	mg/L	1.0	0.50	1		09/18/20 21:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-2 **Lab ID: 92495894002** Collected: 09/15/20 10:58 Received: 09/16/20 11:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.22**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**21.1**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 17:53	7440-70-2	
Iron	**0.78**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 17:53	7439-89-6	
Magnesium	**2.5**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 17:53	7439-95-4	
Manganese	**0.61**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 17:53	7439-96-5	
Potassium	**0.89**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 17:53	7440-09-7	B
Sodium	**7.4**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 17:53	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 17:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 17:21	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 17:21	7440-39-3	
Beryllium	**0.00013J**	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 17:21	7440-41-7	
Boron	**0.044J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 17:21	7440-42-8	
Cadmium	**0.00012J**	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 17:21	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 17:21	7440-47-3	
Cobalt	**0.021**	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 17:21	7440-48-4	
Lead	**0.000080J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 17:21	7439-92-1	
Lithium	**0.0015J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 17:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 17:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 17:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 17:21	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**124**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**26.1**	mg/L	5.0	5.0	1		09/24/20 13:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 13:36		
Alkalinity, Total as CaCO3	**26.1**	mg/L	5.0	5.0	1		09/24/20 13:36		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:11	18496-25-8	
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		09/18/20 21:46	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-2 **Lab ID: 92495894002** Collected: 09/15/20 10:58 Received: 09/16/20 11:14 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		09/18/20 21:46	16984-48-8	
Sulfate	**51.5**	mg/L	1.0	0.50	1		09/18/20 21:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-3 **Lab ID: 92495894003** Collected: 09/15/20 11:45 Received: 09/16/20 11:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.29**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**73.1**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 17:57	7440-70-2	
Iron	**0.26**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 17:57	7439-89-6	
Magnesium	**4.6**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 17:57	7439-95-4	
Manganese	**0.22**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 17:57	7439-96-5	
Potassium	**0.46**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 17:57	7440-09-7	B
Sodium	**4.9**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 17:57	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 17:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 17:27	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 17:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 17:27	7440-41-7	
Boron	**0.0071J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 17:27	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 17:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 17:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 17:27	7440-48-4	
Lead	**0.000042J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 17:27	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 17:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 17:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 17:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 17:27	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**258**	mg/L	10.0	10.0	1		09/17/20 15:19		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**187**	mg/L	5.0	5.0	1		09/24/20 13:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 13:43		
Alkalinity, Total as CaCO3	**187**	mg/L	5.0	5.0	1		09/24/20 13:43		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:13	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.0**	mg/L	1.0	0.60	1		09/18/20 22:01	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-3 **Lab ID: 92495894003** Collected: 09/15/20 11:45 Received: 09/16/20 11:14 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		09/18/20 22:01	16984-48-8	
Sulfate	**44.7**	mg/L	1.0	0.50	1		09/18/20 22:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 **Lab ID: 92495894004** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.30**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**98.0**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 20:39	7440-70-2	M1
Iron	**0.30**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 20:39	7439-89-6	
Magnesium	**8.9**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 20:39	7439-95-4	M1
Manganese	**0.15**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 20:39	7439-96-5	
Potassium	**2.3**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 20:39	7440-09-7	
Sodium	**8.7**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 20:39	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00034J**	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:13	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:13	7440-41-7	
Boron	**1.1**	mg/L	0.10	0.0052	1	09/23/20 13:53	09/23/20 19:13	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:13	7440-43-9	
Chromium	**0.00074J**	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:13	7440-47-3	
Cobalt	**0.00065J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:13	7440-48-4	
Lead	**0.00020J**	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:13	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:13	7439-93-2	
Molybdenum	**0.046**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:13	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**392**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**177**	mg/L	5.0	5.0	1		09/24/20 16:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 16:19		
Alkalinity, Total as CaCO3	**177**	mg/L	5.0	5.0	1		09/24/20 16:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:18	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**46.4**	mg/L	1.0	0.60	1		09/19/20 22:06	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 **Lab ID: 92495894004** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 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	**0.081J**	mg/L	0.10	0.050	1		09/19/20 22:06	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		09/20/20 07:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 FILTERED **Lab ID: 92495894005** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.30**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**105**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 20:57	7440-70-2	M1
Iron	**0.019J**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 20:57	7439-89-6	
Magnesium	**9.5**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 20:57	7439-95-4	M1
Manganese	**0.16**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 20:57	7439-96-5	
Potassium	**2.4**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 20:57	7440-09-7	M1
Sodium	**9.4**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 20:57	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:19	7440-38-2	
Barium	**0.069**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:19	7440-41-7	
Boron	**1.1**	mg/L	0.10	0.0052	1	09/23/20 13:53	09/23/20 19:19	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:19	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:19	7440-47-3	
Cobalt	**0.00051J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:19	7439-92-1	
Lithium	**0.0020J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:19	7439-93-2	
Molybdenum	**0.048**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:19	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**399**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**177**	mg/L	5.0	5.0	1		09/24/20 16:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 16:31		
Alkalinity, Total as CaCO3	**177**	mg/L	5.0	5.0	1		09/24/20 16:31		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:19	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**46.4**	mg/L	1.0	0.60	1		09/19/20 22:21	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 FILTERED **Lab ID: 92495894005** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 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	**0.085J**	mg/L	0.10	0.050	1		09/19/20 22:21	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		09/20/20 07:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-8 **Lab ID: 92495894006** Collected: 09/16/20 09:32 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.92**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**119**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:01	7440-70-2	
Iron	**0.30**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:01	7439-89-6	
Magnesium	**16.4**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:01	7439-95-4	
Manganese	**0.22**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:01	7439-96-5	
Potassium	**7.1**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:01	7440-09-7	
Sodium	**8.5**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:01	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:25	7440-38-2	
Barium	**0.060**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:25	7440-39-3	
Beryllium	**0.00010J**	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:25	7440-41-7	
Boron	**1.9**	mg/L	0.10	0.0052	1	09/23/20 13:53	09/23/20 19:25	7440-42-8	
Cadmium	**0.00023J**	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:25	7440-43-9	
Chromium	**0.0015J**	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:25	7440-47-3	
Cobalt	**0.0019J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:25	7440-48-4	
Lead	**0.00020J**	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:25	7439-92-1	
Lithium	**0.0033J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:25	7439-93-2	
Molybdenum	**0.43**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:25	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**552**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**133**	mg/L	5.0	5.0	1		09/24/20 16:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 16:42		
Alkalinity, Total as CaCO3	**133**	mg/L	5.0	5.0	1		09/24/20 16:42		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:20	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**74.6**	mg/L	1.0	0.60	1		09/19/20 22:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-8 **Lab ID: 92495894006** Collected: 09/16/20 09:32 Received: 09/17/20 09:45 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	**0.53**	mg/L	0.10	0.050	1		09/19/20 22:36	16984-48-8	
Sulfate	**194**	mg/L	4.0	2.0	4		09/20/20 07:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-10 **Lab ID: 92495894007** Collected: 09/16/20 16:15 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.66**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**139**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:06	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:06	7439-89-6	
Magnesium	**10.8**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:06	7439-95-4	
Manganese	**1.3**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:06	7439-96-5	
Potassium	**1.3**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:06	7440-09-7	
Sodium	**8.9**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:06	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:42	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:42	7440-41-7	
Boron	**1.1**	mg/L	1.0	0.052	10	09/23/20 13:53	09/24/20 13:51	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:42	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:42	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:42	7439-93-2	
Molybdenum	**0.0014J**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**490**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**247**	mg/L	5.0	5.0	1		09/28/20 15:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/28/20 15:50		
Alkalinity, Total as CaCO3	**247**	mg/L	5.0	5.0	1		09/28/20 15:50		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:20	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**39.7**	mg/L	1.0	0.60	1		09/20/20 01:05	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-10 **Lab ID: 92495894007** Collected: 09/16/20 16:15 Received: 09/17/20 09:45 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		09/20/20 01:05	16984-48-8	
Sulfate	**169**	mg/L	4.0	2.0	4		09/20/20 08:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-29 **Lab ID: 92495894008** Collected: 09/16/20 13:15 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.88**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**126**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:10	7440-70-2	
Iron	**0.035J**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:10	7439-89-6	
Magnesium	**11.4**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:10	7439-95-4	
Manganese	**1.2**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:10	7439-96-5	
Potassium	**0.94**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:10	7440-09-7	
Sodium	**10.9**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:10	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:47	7440-38-2	
Barium	**0.076**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:47	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:47	7440-41-7	
Boron	**1.7**	mg/L	1.0	0.052	10	09/23/20 13:53	09/24/20 13:57	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:47	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:47	7440-47-3	
Cobalt	**0.0013J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:47	7439-92-1	
Lithium	**0.0021J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:47	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:47	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**547**	mg/L	10.0	10.0	1		09/18/20 10:01		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**194**	mg/L	5.0	5.0	1		09/24/20 17:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 17:02		
Alkalinity, Total as CaCO3	**194**	mg/L	5.0	5.0	1		09/24/20 17:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:21	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**75.3**	mg/L	1.0	0.60	1		09/20/20 01:20	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-29 **Lab ID: 92495894008** Collected: 09/16/20 13:15 Received: 09/17/20 09:45 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		09/20/20 01:20	16984-48-8	
Sulfate	**143**	mg/L	3.0	1.5	3		09/20/20 08:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-43D **Lab ID: 92495894009** Collected: 09/16/20 11:58 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.52**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**56.0**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 18:49	7440-70-2	
Iron	**0.020J**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 18:49	7439-89-6	
Magnesium	**18.3**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 18:49	7439-95-4	
Manganese	**0.010J**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 18:49	7439-96-5	
Potassium	**0.97**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 18:49	7440-09-7	B
Sodium	**14.0**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 18:49	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00051J**	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 18:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 18:54	7440-38-2	
Barium	**0.26**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 18:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 18:54	7440-41-7	
Boron	**0.061J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 18:54	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 18:54	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 18:54	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 18:54	7440-48-4	
Lead	**0.000050J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 18:54	7439-92-1	
Lithium	**0.0018J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 18:54	7439-93-2	
Molybdenum	**0.0044J**	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 18:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 18:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	10/13/20 08:00	10/13/20 12:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**272**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**251**	mg/L	5.0	5.0	1		09/28/20 15:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/28/20 15:11		
Alkalinity, Total as CaCO3	**251**	mg/L	5.0	5.0	1		09/28/20 15:11		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:17	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-43D **Lab ID: 92495894009** Collected: 09/16/20 11:58 Received: 09/17/20 09:45 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								
Chloride	**4.1**	mg/L	1.0	0.60	1		09/19/20 21:36	16887-00-6	
Fluoride	**0.22**	mg/L	0.10	0.050	1		09/19/20 21:36	16984-48-8	
Sulfate	**43.0**	mg/L	1.0	0.50	1		09/19/20 21:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-44D **Lab ID: 92495894010** Collected: 09/16/20 15:18 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.83**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**30.0**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 18:53	7440-70-2	
Iron	**0.42**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 18:53	7439-89-6	
Magnesium	**15.1**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 18:53	7439-95-4	
Manganese	**0.020J**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 18:53	7439-96-5	
Potassium	**3.2**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 18:53	7440-09-7	
Sodium	**50.3**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 18:53	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00049J**	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 19:00	7440-38-2	
Barium	**0.24**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 19:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 19:00	7440-41-7	
Boron	**0.23**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 19:00	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 19:00	7440-43-9	
Chromium	**0.0012J**	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 19:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 19:00	7440-48-4	
Lead	**0.00021J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 19:00	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 19:00	7439-93-2	
Molybdenum	**0.0019J**	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 19:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 19:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	10/13/20 08:00	10/13/20 12:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**270**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**294**	mg/L	5.0	5.0	1		09/28/20 15:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/28/20 15:19		
Alkalinity, Total as CaCO3	**294**	mg/L	5.0	5.0	1		09/28/20 15:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.11**	mg/L	0.10	0.050	1		09/22/20 14:17	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-44D **Lab ID: 92495894010** Collected: 09/16/20 15:18 Received: 09/17/20 09:45 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								
Chloride	**7.2**	mg/L	1.0	0.60	1		09/19/20 21:51	16887-00-6	
Fluoride	**0.52**	mg/L	0.10	0.050	1		09/19/20 21:51	16984-48-8	
Sulfate	**6.9**	mg/L	1.0	0.50	1		09/19/20 21:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-9 **Lab ID: 92495894011** Collected: 09/17/20 11:42 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.99**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**164**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:23	7440-70-2	
Iron	**0.19**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:23	7439-89-6	
Magnesium	**16.6**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:23	7439-95-4	
Manganese	**0.42**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:23	7439-96-5	
Potassium	**3.0**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:23	7440-09-7	
Sodium	**11.3**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:23	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 08:45	09/28/20 18:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 08:45	09/28/20 18:26	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00071	1	09/24/20 08:45	09/28/20 18:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 08:45	09/28/20 18:26	7440-41-7	
Boron	**2.0**	mg/L	1.0	0.052	10	09/24/20 08:45	09/30/20 11:07	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 08:45	09/28/20 18:26	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 08:45	09/28/20 18:26	7440-47-3	
Cobalt	**0.00070J**	mg/L	0.0050	0.00038	1	09/24/20 08:45	09/28/20 18:26	7440-48-4	
Lead	**0.00022J**	mg/L	0.0050	0.000036	1	09/24/20 08:45	09/28/20 18:26	7439-92-1	
Lithium	**0.0040J**	mg/L	0.030	0.00081	1	09/24/20 08:45	09/28/20 18:26	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.00069	1	09/24/20 08:45	09/28/20 18:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 08:45	09/28/20 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 08:45	09/28/20 18:26	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**680**	mg/L	20.0	20.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**194**	mg/L	5.0	5.0	1		09/24/20 19:13		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 19:13		
Alkalinity, Total as CaCO3	**194**	mg/L	5.0	5.0	1		09/24/20 19:13		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:38	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**105**	mg/L	4.0	2.4	4		09/22/20 15:28	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-9 **Lab ID: 92495894011** Collected: 09/17/20 11:42 Received: 09/18/20 10:20 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	**0.10**	mg/L	0.10	0.050	1		09/22/20 08:02	16984-48-8	
Sulfate	**209**	mg/L	4.0	2.0	4		09/22/20 15:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-5 **Lab ID: 92495894012** Collected: 09/17/20 17:51 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.48**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**103**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:28	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:28	7439-89-6	
Magnesium	**11.6**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:28	7439-95-4	
Manganese	**0.0019J**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:28	7439-96-5	
Potassium	**0.85**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:28	7440-09-7	
Sodium	**18.1**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:28	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 08:45	09/28/20 18:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 08:45	09/28/20 18:32	7440-38-2	
Barium	**0.043**	mg/L	0.010	0.00071	1	09/24/20 08:45	09/28/20 18:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 08:45	09/28/20 18:32	7440-41-7	
Boron	**0.067J**	mg/L	0.10	0.0052	1	09/24/20 08:45	09/28/20 18:32	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 08:45	09/28/20 18:32	7440-43-9	
Chromium	**0.0021J**	mg/L	0.010	0.00055	1	09/24/20 08:45	09/28/20 18:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 08:45	09/28/20 18:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 08:45	09/28/20 18:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/24/20 08:45	09/28/20 18:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/24/20 08:45	09/28/20 18:32	7439-98-7	
Selenium	**0.0028J**	mg/L	0.010	0.0016	1	09/24/20 08:45	09/28/20 18:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 08:45	09/28/20 18:32	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**486**	mg/L	10.0	10.0	1		09/22/20 14:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**179**	mg/L	5.0	5.0	1		09/24/20 19:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 19:25		
Alkalinity, Total as CaCO3	**179**	mg/L	5.0	5.0	1		09/24/20 19:25		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:38	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.7**	mg/L	1.0	0.60	1		09/22/20 08:47	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-5 **Lab ID: 92495894012** Collected: 09/17/20 17:51 Received: 09/18/20 10:20 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		09/22/20 08:47	16984-48-8	
Sulfate	**153**	mg/L	3.0	1.5	3		09/22/20 16:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-20 **Lab ID: 92495894013** Collected: 09/17/20 15:54 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.78**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**110**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:32	7440-70-2	
Iron	**2.8**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:32	7439-89-6	
Magnesium	**8.5**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:32	7439-95-4	
Manganese	**0.24**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:32	7439-96-5	
Potassium	**0.22**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:32	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:32	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 08:45	09/28/20 18:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 08:45	09/28/20 18:38	7440-38-2	
Barium	**0.096**	mg/L	0.010	0.00071	1	09/24/20 08:45	09/28/20 18:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 08:45	09/28/20 18:38	7440-41-7	
Boron	**0.11**	mg/L	0.10	0.0052	1	09/24/20 08:45	09/28/20 18:38	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 08:45	09/28/20 18:38	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 08:45	09/28/20 18:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 08:45	09/28/20 18:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 08:45	09/28/20 18:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/24/20 08:45	09/28/20 18:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/24/20 08:45	09/28/20 18:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 08:45	09/28/20 18:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 08:45	09/28/20 18:38	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**460**	mg/L	10.0	10.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**231**	mg/L	5.0	5.0	1		09/30/20 11:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 11:48		
Alkalinity, Total as CaCO3	**231**	mg/L	5.0	5.0	1		09/30/20 11:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:41	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.7**	mg/L	1.0	0.60	1		09/22/20 09:02	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-20 **Lab ID: 92495894013** Collected: 09/17/20 15:54 Received: 09/18/20 10:20 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		09/22/20 09:02	16984-48-8	
Sulfate	**110**	mg/L	2.0	1.0	2		09/22/20 16:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-26D **Lab ID: 92495894014** Collected: 09/17/20 13:02 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.08**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**150**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:36	7440-70-2	
Iron	**0.29**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:36	7439-89-6	
Magnesium	**16.9**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:36	7439-95-4	
Manganese	**0.16**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:36	7439-96-5	
Potassium	**1.8**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:36	7440-09-7	
Sodium	**11.9**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:36	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 18:36	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 18:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/29/20 16:39	7440-41-7	
Boron	**2.0**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/29/20 16:39	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 18:36	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 18:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 18:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 18:36	7439-92-1	
Lithium	**0.0032J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 18:36	7439-93-2	
Molybdenum	**0.014**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 18:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 18:36	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**732**	mg/L	20.0	20.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**187**	mg/L	5.0	5.0	1		09/30/20 12:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 12:19		
Alkalinity, Total as CaCO3	**187**	mg/L	5.0	5.0	1		09/30/20 12:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:42	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**103**	mg/L	4.0	2.4	4		09/22/20 17:12	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-26D **Lab ID: 92495894014** Collected: 09/17/20 13:02 Received: 09/18/20 10:20 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	**0.069J**	mg/L	0.10	0.050	1		09/22/20 09:17	16984-48-8	
Sulfate	**174**	mg/L	4.0	2.0	4		09/22/20 17:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: FD-01 **Lab ID: 92495894015** Collected: 09/17/20 00:00 Received: 09/18/20 10:20 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								
Calcium	**148**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:41	7440-70-2	
Iron	**0.22**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:41	7439-89-6	
Magnesium	**15.6**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:41	7439-95-4	
Manganese	**0.16**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:41	7439-96-5	
Potassium	**1.8**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:41	7440-09-7	
Sodium	**11.5**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:41	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0013J**	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 18:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 18:59	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 18:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/29/20 16:56	7440-41-7	
Boron	**2.1**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/29/20 16:56	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 18:59	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 18:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 18:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 18:59	7439-92-1	
Lithium	**0.0035J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 18:59	7439-93-2	
Molybdenum	**0.016**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 18:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 18:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 18:59	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**702**	mg/L	20.0	20.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**185**	mg/L	5.0	5.0	1		09/30/20 12:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 12:30		
Alkalinity, Total as CaCO3	**185**	mg/L	5.0	5.0	1		09/30/20 12:30		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**104**	mg/L	4.0	2.4	4		09/22/20 17:26	16887-00-6	
Fluoride	**0.064J**	mg/L	0.10	0.050	1		09/22/20 09:32	16984-48-8	
Sulfate	**181**	mg/L	4.0	2.0	4		09/22/20 17:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-11 **Lab ID: 92495894016** Collected: 09/18/20 13:30 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.42**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**122**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:45	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:45	7439-89-6	
Magnesium	**16.2**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:45	7439-95-4	
Manganese	**0.017J**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:45	7439-96-5	
Potassium	**3.7**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:45	7440-09-7	
Sodium	**5.5**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:45	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00038J**	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:04	7440-36-0	
Arsenic	**0.00081J**	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:04	7440-38-2	
Barium	**0.043**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/29/20 17:02	7440-41-7	
Boron	**0.91**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/29/20 17:02	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:04	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:04	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:04	7440-48-4	
Lead	**0.000060J**	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:04	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:04	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:04	7439-98-7	
Selenium	**0.0042J**	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:04	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**626**	mg/L	10.0	10.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**91.6**	mg/L	5.0	5.0	1		09/30/20 13:28		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 13:28		
Alkalinity, Total as CaCO3	**91.6**	mg/L	5.0	5.0	1		09/30/20 13:28		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**34.9**	mg/L	1.0	0.60	1		09/24/20 08:39	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-11 **Lab ID: 92495894016** Collected: 09/18/20 13:30 Received: 09/21/20 09:25 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	**0.15**	mg/L	0.10	0.050	1		09/24/20 08:39	16984-48-8	
Sulfate	**272**	mg/L	4.0	2.0	4		09/24/20 21:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-12 **Lab ID: 92495894017** Collected: 09/18/20 15:50 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.15**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**163**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:58	7440-70-2	
Iron	**0.083**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:58	7439-89-6	
Magnesium	**17.3**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:58	7439-95-4	
Manganese	**2.0**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:58	7439-96-5	
Potassium	**7.2**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:58	7440-09-7	
Sodium	**9.4**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:58	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:10	7440-36-0	
Arsenic	**0.0031J**	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:10	7440-38-2	
Barium	**0.086**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/25/20 19:10	7440-41-7	
Boron	**1.6**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/25/20 19:10	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:10	7440-43-9	
Chromium	**0.00091J**	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:10	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:10	7440-48-4	
Lead	**0.000096J**	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:10	7439-92-1	
Lithium	**0.010J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:10	7439-93-2	
Molybdenum	**0.046**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:10	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**704**	mg/L	20.0	20.0	1		09/22/20 14:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**172**	mg/L	5.0	5.0	1		09/30/20 13:37		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 13:37		
Alkalinity, Total as CaCO3	**172**	mg/L	5.0	5.0	1		09/30/20 13:37		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**74.6**	mg/L	1.0	0.60	1		09/24/20 08:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-12 **Lab ID: 92495894017** Collected: 09/18/20 15:50 Received: 09/21/20 09:25 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	**0.15**	mg/L	0.10	0.050	1		09/24/20 08:53	16984-48-8	
Sulfate	**266**	mg/L	4.0	2.0	4		09/25/20 10:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-25D **Lab ID: 92495894018** Collected: 09/18/20 13:20 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.64**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**25.1**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 22:03	7440-70-2	
Iron	**0.088**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 22:03	7439-89-6	
Magnesium	**8.3**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 22:03	7439-95-4	
Manganese	**0.040J**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 22:03	7439-96-5	
Potassium	**0.42**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 22:03	7440-09-7	
Sodium	**103**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 22:03	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:27	7440-38-2	
Barium	**0.44**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/25/20 19:27	7440-41-7	
Boron	**0.36**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/25/20 19:27	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:27	7439-92-1	
Lithium	**0.046**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:27	7439-93-2	
Molybdenum	**0.00094J**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:27	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**382**	mg/L	10.0	10.0	1		09/23/20 13:15		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**288**	mg/L	5.0	5.0	1		09/30/20 20:37		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 20:37		
Alkalinity, Total as CaCO3	**288**	mg/L	5.0	5.0	1		09/30/20 20:37		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**2.9**	mg/L	1.0	0.50	10		09/22/20 15:14	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**33.4**	mg/L	1.0	0.60	1		09/24/20 09:08	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-25D **Lab ID: 92495894018** Collected: 09/18/20 13:20 Received: 09/21/20 09:25 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	**1.6**	mg/L	0.10	0.050	1		09/24/20 09:08	16984-48-8	
Sulfate	**27.4**	mg/L	1.0	0.50	1		09/24/20 09:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-27D **Lab ID: 92495894019** Collected: 09/18/20 08:53 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.51**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**24.8**	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 20:10	7440-70-2	
Iron	**0.15**	mg/L	0.040	0.016	1	09/24/20 14:17	09/25/20 20:10	7439-89-6	
Magnesium	**17.0**	mg/L	0.050	0.0076	1	09/24/20 14:17	09/25/20 20:10	7439-95-4	
Manganese	**0.13**	mg/L	0.040	0.0017	1	09/24/20 14:17	09/25/20 20:10	7439-96-5	
Potassium	**0.95**	mg/L	0.20	0.056	1	09/24/20 14:17	09/25/20 20:10	7440-09-7	
Sodium	**27.3**	mg/L	1.0	0.26	1	09/24/20 14:17	09/25/20 20:10	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00031J**	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:33	7440-38-2	
Barium	**1.0**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/25/20 19:33	7440-41-7	
Boron	**0.12**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/25/20 19:33	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:33	7440-43-9	
Chromium	**0.00070J**	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:33	7439-92-1	
Lithium	**0.0084J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:33	7439-93-2	
Molybdenum	**0.0018J**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:33	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**211**	mg/L	10.0	10.0	1		09/23/20 13:16		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**169**	mg/L	5.0	5.0	1		09/30/20 14:16		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 14:16		
Alkalinity, Total as CaCO3	**169**	mg/L	5.0	5.0	1		09/30/20 14:16		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:47	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**30.4**	mg/L	1.0	0.60	1		09/24/20 09:51	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-27D **Lab ID: 92495894019** Collected: 09/18/20 08:53 Received: 09/21/20 09:25 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	**0.22**	mg/L	0.10	0.050	1		09/24/20 09:51	16984-48-8	
Sulfate	**7.5**	mg/L	1.0	0.50	1		09/24/20 09:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-13 **Lab ID: 92495894020** Collected: 09/21/20 16:45 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.34**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**173**	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 20:27	7440-70-2	
Iron	**0.87**	mg/L	0.040	0.016	1	09/24/20 14:17	09/25/20 20:27	7439-89-6	
Magnesium	**15.6**	mg/L	0.050	0.0076	1	09/24/20 14:17	09/25/20 20:27	7439-95-4	
Manganese	**2.1**	mg/L	0.040	0.0017	1	09/24/20 14:17	09/25/20 20:27	7439-96-5	
Potassium	**4.6**	mg/L	0.20	0.056	1	09/24/20 14:17	09/25/20 20:27	7440-09-7	
Sodium	**6.4**	mg/L	1.0	0.26	1	09/24/20 14:17	09/25/20 20:27	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00029J**	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 17:37	7440-36-0	
Arsenic	**0.39**	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 17:37	7440-38-2	
Barium	**0.052**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 17:37	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 17:37	7440-41-7	
Boron	**1.6**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 17:37	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 17:37	7440-43-9	
Chromium	**0.00056J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 17:37	7440-47-3	
Cobalt	**0.0032J**	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 17:37	7440-48-4	
Lead	**0.00015J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 17:37	7439-92-1	
Lithium	**0.028J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 17:37	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 17:37	7439-98-7	
Selenium	**0.0016J**	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 17:37	7782-49-2	
Thallium	**0.00036J**	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 17:37	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**732**	mg/L	20.0	20.0	1		09/23/20 13:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**114**	mg/L	5.0	5.0	1		09/30/20 14:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 14:57		
Alkalinity, Total as CaCO3	**114**	mg/L	5.0	5.0	1		09/30/20 14:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**41.2**	mg/L	1.0	0.60	1		09/24/20 16:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-13 **Lab ID: 92495894020** Collected: 09/21/20 16:45 Received: 09/22/20 09:25 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	**0.44**	mg/L	0.10	0.050	1		09/24/20 16:36	16984-48-8	
Sulfate	**359**	mg/L	5.0	2.5	5		09/25/20 10:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-6 **Lab ID: 92495894021** Collected: 09/21/20 10:19 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.88**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**173**	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 20:31	7440-70-2	
Iron	**0.49**	mg/L	0.040	0.016	1	09/24/20 14:17	09/25/20 20:31	7439-89-6	
Magnesium	**13.5**	mg/L	0.050	0.0076	1	09/24/20 14:17	09/25/20 20:31	7439-95-4	
Manganese	**0.50**	mg/L	0.040	0.0017	1	09/24/20 14:17	09/25/20 20:31	7439-96-5	
Potassium	**1.4**	mg/L	0.20	0.056	1	09/24/20 14:17	09/25/20 20:31	7440-09-7	
Sodium	**12.6**	mg/L	1.0	0.26	1	09/24/20 14:17	09/25/20 20:31	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0014J**	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:00	7440-38-2	
Barium	**0.083**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:00	7440-41-7	
Boron	**0.82**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:00	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:00	7440-47-3	
Cobalt	**0.00041J**	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:00	7440-48-4	
Lead	**0.00026J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:00	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:00	7439-93-2	
Molybdenum	**0.0025J**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:00	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**656**	mg/L	20.0	20.0	1		09/23/20 13:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**273**	mg/L	5.0	5.0	1		09/30/20 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 20:54		
Alkalinity, Total as CaCO3	**273**	mg/L	5.0	5.0	1		09/30/20 20:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**58.1**	mg/L	1.0	0.60	1		09/24/20 16:50	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-6 **Lab ID: 92495894021** Collected: 09/21/20 10:19 Received: 09/22/20 09:25 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		09/24/20 16:50	16984-48-8	
Sulfate	**221**	mg/L	3.0	1.5	3		09/25/20 10:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-7 **Lab ID: 92495894022** Collected: 09/21/20 16:41 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.50**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**75.3**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 20:58	7440-70-2	M1
Iron	ND	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 20:58	7439-89-6	
Magnesium	**8.6**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 20:58	7439-95-4	M1
Manganese	**0.0077J**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 20:58	7439-96-5	
Potassium	**0.91**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 20:58	7440-09-7	B
Sodium	**8.4**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 20:58	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00051J**	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:06	7440-38-2	
Barium	**0.065**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:06	7440-41-7	
Boron	**0.20**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:06	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:06	7440-43-9	
Chromium	**0.0017J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:06	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:06	7439-93-2	
Molybdenum	**0.0015J**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:06	7439-98-7	
Selenium	**0.0026J**	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:06	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**326**	mg/L	10.0	10.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**128**	mg/L	5.0	5.0	1		09/30/20 15:16		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 15:16		
Alkalinity, Total as CaCO3	**128**	mg/L	5.0	5.0	1		09/30/20 15:16		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**11.1**	mg/L	1.0	0.60	1		09/24/20 17:05	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-7 **Lab ID: 92495894022** Collected: 09/21/20 16:41 Received: 09/22/20 09:25 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		09/24/20 17:05	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		09/25/20 11:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-24D **Lab ID: 92495894023** Collected: 09/21/20 17:55 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.65**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**87.6**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 21:15	7440-70-2	
Iron	**0.076**	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 21:15	7439-89-6	
Magnesium	**4.9**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 21:15	7439-95-4	
Manganese	**0.13**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 21:15	7439-96-5	
Potassium	**0.50**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 21:15	7440-09-7	B
Sodium	**12.0**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 21:15	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:12	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:12	7440-41-7	
Boron	**0.45**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:12	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:12	7440-48-4	
Lead	**0.000042J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:12	7439-92-1	
Lithium	**0.0024J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:12	7439-93-2	
Molybdenum	**0.00099J**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:12	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**391**	mg/L	10.0	10.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	5.0	5.0	1		09/30/20 15:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 15:25		
Alkalinity, Total as CaCO3	**105**	mg/L	5.0	5.0	1		09/30/20 15:25		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**45.2**	mg/L	1.0	0.60	1		09/24/20 17:19	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-24D **Lab ID: 92495894023** Collected: 09/21/20 17:55 Received: 09/22/20 09:25 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		09/24/20 17:19	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		09/25/20 11:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-19 **Lab ID: 92495894024** Collected: 09/21/20 15:18 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.41**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**135**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 21:28	7440-70-2	
Iron	**0.16**	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 21:28	7439-89-6	
Magnesium	**15.5**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 21:28	7439-95-4	
Manganese	**3.3**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 21:28	7439-96-5	
Potassium	**4.2**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 21:28	7440-09-7	
Sodium	**6.7**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 21:28	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:17	7440-38-2	
Barium	**0.056**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:17	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:17	7440-41-7	
Boron	**0.89**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:17	7440-42-8	
Cadmium	**0.00018J**	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:17	7440-43-9	
Chromium	**0.0014J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:17	7440-47-3	
Cobalt	**0.032**	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:17	7440-48-4	
Lead	**0.000085J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:17	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:17	7439-93-2	
Molybdenum	**0.064**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:17	7439-98-7	
Selenium	**0.0033J**	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:17	7782-49-2	
Thallium	**0.00030J**	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:17	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**608**	mg/L	20.0	20.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**89.9**	mg/L	5.0	5.0	1		10/01/20 16:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/01/20 16:02		
Alkalinity, Total as CaCO3	**89.9**	mg/L	5.0	5.0	1		10/01/20 16:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**35.0**	mg/L	1.0	0.60	1		09/24/20 17:33	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-19 **Lab ID: 92495894024** Collected: 09/21/20 15:18 Received: 09/22/20 09:25 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	**0.17**	mg/L	0.10	0.050	1		09/24/20 17:33	16984-48-8	
Sulfate	**305**	mg/L	4.0	2.0	4		09/25/20 11:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-28D **Lab ID: 92495894025** Collected: 09/21/20 19:28 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.46**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**76.8**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 21:32	7440-70-2	
Iron	**0.30**	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 21:32	7439-89-6	
Magnesium	**22.9**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 21:32	7439-95-4	
Manganese	**0.034J**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 21:32	7439-96-5	
Potassium	**1.0**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 21:32	7440-09-7	B
Sodium	**9.8**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 21:32	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:34	7440-38-2	
Barium	**0.18**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:34	7440-41-7	
Boron	**0.45**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:34	7440-43-9	
Chromium	**0.00085J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:34	7440-48-4	
Lead	**0.00018J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:34	7439-92-1	
Lithium	**0.0053J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:34	7439-93-2	
Molybdenum	**0.018**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:34	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**393**	mg/L	10.0	10.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**184**	mg/L	5.0	5.0	1		10/01/20 16:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/01/20 16:10		
Alkalinity, Total as CaCO3	**184**	mg/L	5.0	5.0	1		10/01/20 16:10		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.30**	mg/L	0.10	0.050	1		09/24/20 11:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**42.9**	mg/L	1.0	0.60	1		09/24/20 17:48	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-28D **Lab ID: 92495894025** Collected: 09/21/20 19:28 Received: 09/22/20 09:25 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	**0.10**	mg/L	0.10	0.050	1		09/24/20 17:48	16984-48-8	
Sulfate	**84.2**	mg/L	1.0	0.50	1		09/24/20 17:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-30D **Lab ID: 92495894026** Collected: 09/24/20 11:00 Received: 09/25/20 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		09/29/20 12:27		
pH	**8.72**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**6.3**	mg/L	1.0	0.070	1	10/01/20 18:49	10/05/20 20:25	7440-70-2	
Iron	**0.092**	mg/L	0.040	0.016	1	10/01/20 18:49	10/05/20 20:25	7439-89-6	
Magnesium	**1.5**	mg/L	0.050	0.0076	1	10/01/20 18:49	10/05/20 20:25	7439-95-4	
Manganese	**0.0040J**	mg/L	0.040	0.0017	1	10/01/20 18:49	10/05/20 20:25	7439-96-5	
Potassium	**1.5**	mg/L	0.20	0.056	1	10/01/20 18:49	10/05/20 20:25	7440-09-7	
Sodium	**296**	mg/L	1.0	0.26	1	10/01/20 18:49	10/05/20 20:25	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	10/02/20 15:00	10/05/20 20:23	7440-36-0	
Arsenic	**0.0017J**	mg/L	0.0050	0.00078	1	10/02/20 15:00	10/05/20 20:23	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00071	1	10/02/20 15:00	10/05/20 20:23	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	10/02/20 15:00	10/05/20 20:23	7440-41-7	
Boron	**0.62**	mg/L	0.50	0.026	5	10/02/20 15:00	10/07/20 11:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	10/02/20 15:00	10/05/20 20:23	7440-43-9	
Chromium	**0.00065J**	mg/L	0.010	0.00055	1	10/02/20 15:00	10/05/20 20:23	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	10/02/20 15:00	10/05/20 20:23	7440-48-4	
Lead	**0.000068J**	mg/L	0.0050	0.000036	1	10/02/20 15:00	10/05/20 20:23	7439-92-1	
Lithium	**0.13**	mg/L	0.030	0.00081	1	10/02/20 15:00	10/05/20 20:23	7439-93-2	
Molybdenum	**0.011**	mg/L	0.010	0.00069	1	10/02/20 15:00	10/05/20 20:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	10/02/20 15:00	10/05/20 20:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/02/20 15:00	10/05/20 20:23	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**790**	mg/L	20.0	20.0	1		09/30/20 09:28		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**437**	mg/L	5.0	5.0	1		10/08/20 15:01		
Alkalinity,Carbonate (CaCO3)	**5.8**	mg/L	5.0	5.0	1		10/08/20 15:01		
Alkalinity, Total as CaCO3	**442**	mg/L	5.0	5.0	1		10/08/20 15:01		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.58**	mg/L	0.10	0.050	1		09/29/20 13:40	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-30D **Lab ID: 92495894026** Collected: 09/24/20 11:00 Received: 09/25/20 10:45 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								
Chloride	**45.4**	mg/L	1.0	0.60	1		09/29/20 13:56	16887-00-6	
Fluoride	**8.2**	mg/L	0.40	0.20	4		09/29/20 19:15	16984-48-8	
Sulfate	**205**	mg/L	4.0	2.0	4		09/29/20 19:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: FB-01 **Lab ID: 92495894027** Collected: 09/24/20 18:50 Received: 09/25/20 10:45 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								
Calcium	ND	mg/L	1.0	0.070	1	10/01/20 18:49	10/05/20 20:38	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	10/01/20 18:49	10/05/20 20:38	7439-89-6	
Magnesium	ND	mg/L	0.050	0.0076	1	10/01/20 18:49	10/05/20 20:38	7439-95-4	
Manganese	ND	mg/L	0.040	0.0017	1	10/01/20 18:49	10/05/20 20:38	7439-96-5	
Potassium	ND	mg/L	0.20	0.056	1	10/01/20 18:49	10/05/20 20:38	7440-09-7	
Sodium	ND	mg/L	1.0	0.26	1	10/01/20 18:49	10/05/20 20:38	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	10/02/20 15:00	10/05/20 20:29	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	10/02/20 15:00	10/05/20 20:29	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	10/02/20 15:00	10/05/20 20:29	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	10/02/20 15:00	10/05/20 20:29	7440-41-7	
Boron	**0.0064J**	mg/L	0.10	0.0052	1	10/02/20 15:00	10/05/20 20:29	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	10/02/20 15:00	10/05/20 20:29	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	10/02/20 15:00	10/05/20 20:29	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	10/02/20 15:00	10/05/20 20:29	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	10/02/20 15:00	10/05/20 20:29	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	10/02/20 15:00	10/05/20 20:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	10/02/20 15:00	10/05/20 20:29	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	10/02/20 15:00	10/05/20 20:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/02/20 15:00	10/05/20 20:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	10/19/20 11:30	10/19/20 16:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/30/20 09:28		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/08/20 15:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/08/20 15:10		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		10/08/20 15:10		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/29/20 13:41	18496-25-8	
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		09/29/20 14:11	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: FB-01 **Lab ID: 92495894027** Collected: 09/24/20 18:50 Received: 09/25/20 10:45 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		09/29/20 14:11	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/29/20 14:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-40D **Lab ID: 92495894028** Collected: 09/28/20 15:15 Received: 09/29/20 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		09/29/20 13:37		
pH	**7.69**	Std. Units			1		09/29/20 13:37		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**289**	mg/L	10.0	0.70	10	10/01/20 18:49	10/06/20 16:28	7440-70-2	
Iron	**9.6**	mg/L	0.040	0.016	1	10/01/20 18:49	10/05/20 20:43	7439-89-6	
Magnesium	**58.2**	mg/L	0.050	0.0076	1	10/01/20 18:49	10/05/20 20:43	7439-95-4	
Manganese	**0.36**	mg/L	0.040	0.0017	1	10/01/20 18:49	10/05/20 20:43	7439-96-5	
Potassium	**19.6**	mg/L	0.20	0.056	1	10/01/20 18:49	10/05/20 20:43	7440-09-7	
Sodium	**1960**	mg/L	10.0	2.6	10	10/01/20 18:49	10/06/20 16:28	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0015J**	mg/L	0.015	0.0014	5	10/02/20 15:00	10/07/20 11:58	7440-36-0	D3
Arsenic	**0.0063J**	mg/L	0.025	0.0039	5	10/02/20 15:00	10/07/20 11:58	7440-38-2	D3
Barium	**0.35**	mg/L	0.050	0.0036	5	10/02/20 15:00	10/07/20 11:58	7440-39-3	
Beryllium	**0.00049J**	mg/L	0.015	0.00023	5	10/02/20 15:00	10/07/20 11:58	7440-41-7	D3
Boron	**0.57**	mg/L	0.50	0.026	5	10/02/20 15:00	10/07/20 11:58	7440-42-8	
Cadmium	ND	mg/L	0.012	0.00059	5	10/02/20 15:00	10/07/20 11:58	7440-43-9	D3
Chromium	**0.0080J**	mg/L	0.050	0.0028	5	10/02/20 15:00	10/07/20 11:58	7440-47-3	D3
Cobalt	**0.0037J**	mg/L	0.025	0.0019	5	10/02/20 15:00	10/07/20 11:58	7440-48-4	D3
Lead	**0.0075J**	mg/L	0.025	0.00018	5	10/02/20 15:00	10/07/20 11:58	7439-92-1	D3
Lithium	**0.095J**	mg/L	0.15	0.0040	5	10/02/20 15:00	10/07/20 11:58	7439-93-2	D3
Molybdenum	**0.016J**	mg/L	0.050	0.0034	5	10/02/20 15:00	10/07/20 11:58	7439-98-7	D3
Selenium	ND	mg/L	0.050	0.0078	5	10/02/20 15:00	10/07/20 11:58	7782-49-2	D3
Thallium	ND	mg/L	0.0050	0.00072	5	10/02/20 15:00	10/07/20 11:58	7440-28-0	D3
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**6470**	mg/L	50.0	50.0	1		10/01/20 15:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**1010**	mg/L	5.0	5.0	1		10/08/20 19:04		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/08/20 19:04		
Alkalinity, Total as CaCO3	**1010**	mg/L	5.0	5.0	1		10/08/20 19:04		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.20**	mg/L	0.10	0.050	1		10/01/20 12:53	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-40D **Lab ID: 92495894028** Collected: 09/28/20 15:15 Received: 09/29/20 08:55 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								
Chloride	**542**	mg/L	50.0	30.0	50		10/01/20 17:23	16887-00-6	M6
Fluoride	**0.41**	mg/L	0.10	0.050	1		10/01/20 08:56	16984-48-8	
Sulfate	**3480**	mg/L	50.0	25.0	50		10/01/20 17:23	14808-79-8	M6

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568201
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3010803 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/23/20 17:40	
Iron	mg/L	ND	0.040	0.016	09/23/20 17:40	
Magnesium	mg/L	ND	0.050	0.0076	09/23/20 17:40	
Manganese	mg/L	ND	0.040	0.0017	09/23/20 17:40	
Potassium	mg/L	0.14J	0.20	0.056	09/23/20 17:40	
Sodium	mg/L	ND	1.0	0.26	09/23/20 17:40	

LABORATORY CONTROL SAMPLE: 3010804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	0.99	99	80-120	
Manganese	mg/L	1	0.98	98	80-120	
Potassium	mg/L	1	1.1	105	80-120	
Sodium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010805 3010806

Parameter	Units	92495900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	20.4	1	1	21.1	21.9	69	147	75-125	4	20	M1
Iron	mg/L	0.028J	1	1	0.96	0.97	93	95	75-125	2	20	
Magnesium	mg/L	0.88	1	1	1.8	1.8	94	97	75-125	2	20	
Manganese	mg/L	0.0083J	1	1	0.95	0.96	94	95	75-125	1	20	
Potassium	mg/L	0.28	1	1	1.2	1.2	92	94	75-125	2	20	
Sodium	mg/L	7.7	1	1	8.5	8.9	83	118	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568471
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018

METHOD BLANK: 3011975 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/24/20 20:30	
Iron	mg/L	ND	0.040	0.016	09/24/20 20:30	
Magnesium	mg/L	ND	0.050	0.0076	09/24/20 20:30	
Manganese	mg/L	ND	0.040	0.0017	09/24/20 20:30	
Potassium	mg/L	ND	0.20	0.056	09/24/20 20:30	
Sodium	mg/L	ND	1.0	0.26	09/24/20 20:30	

LABORATORY CONTROL SAMPLE: 3011976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.92J	92	80-120	
Iron	mg/L	1	0.96	96	80-120	
Magnesium	mg/L	1	0.96	96	80-120	
Manganese	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	0.85	85	80-120	
Sodium	mg/L	1	0.97J	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011977 3011978

Parameter	Units	92495894004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	98.0	1	1	103	99.8	522	175	75-125	3	20	M1
Iron	mg/L	0.30	1	1	1.3	1.4	97	107	75-125	7	20	
Magnesium	mg/L	8.9	1	1	10.3	10.1	139	122	75-125	2	20	M1
Manganese	mg/L	0.15	1	1	1.1	1.2	96	109	75-125	11	20	
Potassium	mg/L	2.3	1	1	3.4	3.4	108	107	75-125	0	20	
Sodium	mg/L	8.7	1	1	10.0	9.8	133	107	75-125	3	20	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011979 3011980

Parameter	Units	92495894005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	105	1	1	124	132	1930	2680	75-125	6	20	M1
Iron	mg/L	0.019J	1	1	0.96	0.94	94	92	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011979 3011980

Parameter	Units	92495894005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	mg/L	9.5	1	1	17.3	18.3	782	883	75-125	6	20	M1
Manganese	mg/L	0.16	1	1	0.96	0.95	80	79	75-125	1	20	
Potassium	mg/L	2.4	1	1	4.7	4.8	227	242	75-125	3	20	M1
Sodium	mg/L	9.4	1	1	6.6	6.9	-281	-247	75-125	5	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568747
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894019, 92495894020, 92495894021

METHOD BLANK: 3013294 Matrix: Water
Associated Lab Samples: 92495894019, 92495894020, 92495894021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 18:16	
Iron	mg/L	ND	0.040	0.016	09/25/20 18:16	
Magnesium	mg/L	ND	0.050	0.0076	09/25/20 18:16	
Manganese	mg/L	ND	0.040	0.0017	09/25/20 18:16	
Potassium	mg/L	ND	0.20	0.056	09/25/20 18:16	
Sodium	mg/L	ND	1.0	0.26	09/25/20 18:16	

LABORATORY CONTROL SAMPLE: 3013295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.98J	98	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	1.0	100	80-120	
Manganese	mg/L	1	1.0	101	80-120	
Potassium	mg/L	1	1.0	105	80-120	
Sodium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013296 3013297

Parameter	Units	92495904004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	75.8	1	1	74.9	75.7	-84	-9	75-125	1	20	M1
Iron	mg/L	0.031J	1	1	0.94	0.96	91	93	75-125	2	20	
Magnesium	mg/L	5.6	1	1	6.4	6.4	81	89	75-125	1	20	
Manganese	mg/L	0.0055J	1	1	0.95	0.97	94	97	75-125	3	20	
Potassium	mg/L	0.90	1	1	1.8	1.9	93	99	75-125	3	20	
Sodium	mg/L	7.1	1	1	8.0	8.0	82	87	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568748
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3013298 Matrix: Water
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 20:40	
Iron	mg/L	ND	0.040	0.016	09/25/20 20:40	
Magnesium	mg/L	ND	0.050	0.0076	09/25/20 20:40	
Manganese	mg/L	ND	0.040	0.0017	09/25/20 20:40	
Potassium	mg/L	0.12J	0.20	0.056	09/25/20 20:40	
Sodium	mg/L	ND	1.0	0.26	09/25/20 20:40	

LABORATORY CONTROL SAMPLE: 3013299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.95J	95	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Manganese	mg/L	1	0.96	96	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013300 3013301

Parameter	Units	92495894022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	75.3	1	1	79.7	76.2	438	83	75-125	5	20	M1
Iron	mg/L	ND	1	1	0.96	0.93	95	92	75-125	3	20	
Magnesium	mg/L	8.6	1	1	10	9.5	138	94	75-125	4	20	M1
Manganese	mg/L	0.0077J	1	1	0.99	0.96	98	95	75-125	3	20	
Potassium	mg/L	0.91	1	1	2.0	2.0	110	110	75-125	0	20	
Sodium	mg/L	8.4	1	1	9.8	9.4	137	92	75-125	5	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570395
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894026, 92495894027, 92495894028

METHOD BLANK: 3021771 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027, 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	10/05/20 18:52	
Iron	mg/L	ND	0.040	0.016	10/05/20 18:52	
Magnesium	mg/L	ND	0.050	0.0076	10/05/20 18:52	
Manganese	mg/L	ND	0.040	0.0017	10/05/20 18:52	
Potassium	mg/L	ND	0.20	0.056	10/05/20 18:52	
Sodium	mg/L	ND	1.0	0.26	10/05/20 18:52	

LABORATORY CONTROL SAMPLE: 3021772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	
Iron	mg/L	1	0.99	99	80-120	
Magnesium	mg/L	1	1.0	101	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	1.0	104	80-120	
Sodium	mg/L	1	1.1	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3021773 3021774

Parameter	Units	92496524015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	72.8	1	1	73.5	75.1	70	232	75-125	2	20	M1
Iron	mg/L	0.39	1	1	1.4	1.5	103	107	75-125	3	20	
Magnesium	mg/L	12.8	1	1	13.8	14.1	96	132	75-125	3	20	M1
Manganese	mg/L	8.6	1	1	9.5	9.7	86	110	75-125	2	20	
Potassium	mg/L	0.72	1	1	1.8	1.8	110	108	75-125	1	20	
Sodium	mg/L	8.1	1	1	9.1	9.3	95	124	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568198
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3010799 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/23/20 17:04	
Arsenic	mg/L	ND	0.0050	0.00078	09/23/20 17:04	
Barium	mg/L	ND	0.010	0.00071	09/23/20 17:04	
Beryllium	mg/L	ND	0.0030	0.000046	09/23/20 17:04	
Boron	mg/L	ND	0.10	0.0052	09/23/20 17:04	
Cadmium	mg/L	ND	0.0025	0.00012	09/23/20 17:04	
Chromium	mg/L	ND	0.010	0.00055	09/23/20 17:04	
Cobalt	mg/L	ND	0.0050	0.00038	09/23/20 17:04	
Lead	mg/L	ND	0.0050	0.000036	09/23/20 17:04	
Lithium	mg/L	ND	0.030	0.00081	09/23/20 17:04	
Molybdenum	mg/L	ND	0.010	0.00069	09/23/20 17:04	
Selenium	mg/L	ND	0.010	0.0016	09/23/20 17:04	
Thallium	mg/L	ND	0.0010	0.00014	09/23/20 17:04	

LABORATORY CONTROL SAMPLE: 3010800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.090	90	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010801 3010802

Parameter	Units	92495900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L				0.10	0.10				1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.097	97	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010801 3010802

Parameter	Units	92495900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.024	0.1	0.1	0.12	0.12	100	100	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Boron	mg/L	0.013J	1	1	0.97	0.98	96	96	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.098	98	97	75-125	0	20	
Lead	mg/L	0.000049J	0.1	0.1	0.095	0.097	95	97	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.092	0.092	91	92	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568417
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

METHOD BLANK: 3011604 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/23/20 18:33	
Arsenic	mg/L	ND	0.0050	0.00078	09/23/20 18:33	
Barium	mg/L	ND	0.010	0.00071	09/23/20 18:33	
Beryllium	mg/L	ND	0.0030	0.000046	09/23/20 18:33	
Boron	mg/L	ND	0.10	0.0052	09/23/20 18:33	
Cadmium	mg/L	ND	0.0025	0.00012	09/23/20 18:33	
Chromium	mg/L	ND	0.010	0.00055	09/23/20 18:33	
Cobalt	mg/L	ND	0.0050	0.00038	09/23/20 18:33	
Lead	mg/L	ND	0.0050	0.000036	09/23/20 18:33	
Lithium	mg/L	ND	0.030	0.00081	09/23/20 18:33	
Molybdenum	mg/L	ND	0.010	0.00069	09/23/20 18:33	
Selenium	mg/L	ND	0.010	0.0016	09/23/20 18:33	
Thallium	mg/L	ND	0.0010	0.00014	09/23/20 18:33	

LABORATORY CONTROL SAMPLE: 3011605

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	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011606 3011607

Parameter	Units	92495876001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011606 3011607

Parameter	Units	92495876001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.030	0.1	0.1	0.13	0.13	96	95	75-125	1	20	
Beryllium	mg/L	0.00012J	0.1	0.1	0.098	0.095	98	95	75-125	2	20	
Boron	mg/L	0.0065J	1	1	1.0	0.98	100	97	75-125	3	20	
Cadmium	mg/L	0.00016J	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	1	20	
Lead	mg/L	0.00065J	0.1	0.1	0.098	0.099	97	99	75-125	2	20	
Lithium	mg/L	0.0014J	0.1	0.1	0.10	0.10	101	100	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.096	96	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568430
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894011, 92495894012, 92495894013

METHOD BLANK: 3011696 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012, 92495894013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/28/20 15:48	
Arsenic	mg/L	ND	0.0050	0.00078	09/28/20 15:48	
Barium	mg/L	ND	0.010	0.00071	09/28/20 15:48	
Beryllium	mg/L	ND	0.0030	0.000046	09/28/20 15:48	
Boron	mg/L	ND	0.10	0.0052	09/28/20 15:48	
Cadmium	mg/L	ND	0.0025	0.00012	09/28/20 15:48	
Chromium	mg/L	ND	0.010	0.00055	09/28/20 15:48	
Cobalt	mg/L	ND	0.0050	0.00038	09/28/20 15:48	
Lead	mg/L	ND	0.0050	0.000036	09/28/20 15:48	
Lithium	mg/L	ND	0.030	0.00081	09/28/20 15:48	
Molybdenum	mg/L	ND	0.010	0.00069	09/28/20 15:48	
Selenium	mg/L	ND	0.010	0.0016	09/28/20 15:48	
Thallium	mg/L	ND	0.0010	0.00014	09/28/20 15:48	

LABORATORY CONTROL SAMPLE: 3011697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.1	115	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012194 3012195

Parameter	Units	92495870011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012194 3012195

Parameter	Units	92495870011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.0079J	0.1	0.1	0.10	0.11	96	103	75-125	6	20	
Beryllium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Boron	mg/L	0.0079J	1	1	1.1	1.2	112	116	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	102	75-125	5	20	
Chromium	mg/L	ND	0.1	0.1	0.098	0.10	98	104	75-125	7	20	
Cobalt	mg/L	ND	0.1	0.1	0.096	0.10	96	101	75-125	6	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.10	97	103	75-125	6	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.11	101	106	75-125	5	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.091	0.097	90	96	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.10	97	102	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568749
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

METHOD BLANK: 3013302 Matrix: Water
Associated Lab Samples: 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/25/20 18:19	
Arsenic	mg/L	ND	0.0050	0.00078	09/25/20 18:19	
Barium	mg/L	ND	0.010	0.00071	09/25/20 18:19	
Beryllium	mg/L	ND	0.0030	0.000046	09/25/20 18:19	
Boron	mg/L	ND	0.10	0.0052	09/25/20 18:19	
Cadmium	mg/L	ND	0.0025	0.00012	09/25/20 18:19	
Chromium	mg/L	ND	0.010	0.00055	09/25/20 18:19	
Cobalt	mg/L	ND	0.0050	0.00038	09/25/20 18:19	
Lead	mg/L	ND	0.0050	0.000036	09/25/20 18:19	
Lithium	mg/L	ND	0.030	0.00081	09/25/20 18:19	
Molybdenum	mg/L	ND	0.010	0.00069	09/25/20 18:19	
Selenium	mg/L	ND	0.010	0.0016	09/25/20 18:19	
Thallium	mg/L	ND	0.0010	0.00014	09/25/20 18:19	

LABORATORY CONTROL SAMPLE: 3013303

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	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013304 3013305

Parameter	Units	92495894014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	104	108	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.11	101	106	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013304 3013305

Parameter	Units	92495894014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.099	0.1	0.1	0.18	0.19	85	89	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	4	20	
Boron	mg/L	2.0	1	1	3.0	3.1	102	106	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	104	75-125	7	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	101	108	75-125	7	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.10	97	101	75-125	4	20	
Lithium	mg/L	0.0032J	0.1	0.1	0.095	0.099	92	96	75-125	4	20	
Molybdenum	mg/L	0.014	0.1	0.1	0.12	0.12	105	109	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.10	97	103	75-125	7	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.099	94	99	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569670
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3017842 Matrix: Water
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/30/20 17:26	
Arsenic	mg/L	ND	0.0050	0.00078	09/30/20 17:26	
Barium	mg/L	ND	0.010	0.00071	09/30/20 17:26	
Beryllium	mg/L	ND	0.0030	0.000046	09/30/20 17:26	
Boron	mg/L	ND	0.10	0.0052	09/30/20 17:26	
Cadmium	mg/L	ND	0.0025	0.00012	09/30/20 17:26	
Chromium	mg/L	ND	0.010	0.00055	09/30/20 17:26	
Cobalt	mg/L	ND	0.0050	0.00038	09/30/20 17:26	
Lead	mg/L	ND	0.0050	0.000036	09/30/20 17:26	
Lithium	mg/L	ND	0.030	0.00081	09/30/20 17:26	
Molybdenum	mg/L	ND	0.010	0.00069	09/30/20 17:26	
Selenium	mg/L	ND	0.010	0.0016	09/30/20 17:26	
Thallium	mg/L	ND	0.0010	0.00014	09/30/20 17:26	

LABORATORY CONTROL SAMPLE: 3017843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017844 3017845

Parameter	Units	92495894020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00029J	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Arsenic	mg/L	0.39	0.1	0.1	0.48	0.48	88	90	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017844 3017845

Parameter	Units	92495894020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.052	0.1	0.1	0.15	0.15	98	101	75-125	2	20	
Beryllium	mg/L	0.00011J	0.1	0.1	0.087	0.090	87	90	75-125	4	20	
Boron	mg/L	1.6	1	1	2.4	2.5	79	89	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20	
Chromium	mg/L	0.00056J	0.1	0.1	0.093	0.094	93	93	75-125	1	20	
Cobalt	mg/L	0.0032J	0.1	0.1	0.094	0.096	91	92	75-125	2	20	
Lead	mg/L	0.00015J	0.1	0.1	0.093	0.093	93	92	75-125	0	20	
Lithium	mg/L	0.028J	0.1	0.1	0.12	0.12	87	89	75-125	2	20	
Molybdenum	mg/L	0.032	0.1	0.1	0.13	0.13	95	99	75-125	3	20	
Selenium	mg/L	0.0016J	0.1	0.1	0.094	0.10	92	98	75-125	6	20	
Thallium	mg/L	0.00036J	0.1	0.1	0.095	0.096	94	95	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570627
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894026, 92495894027, 92495894028

METHOD BLANK: 3022878 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027, 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/05/20 18:29	
Arsenic	mg/L	ND	0.0050	0.00078	10/05/20 18:29	
Barium	mg/L	ND	0.010	0.00071	10/05/20 18:29	
Beryllium	mg/L	ND	0.0030	0.000046	10/05/20 18:29	
Boron	mg/L	ND	0.10	0.0052	10/05/20 18:29	
Cadmium	mg/L	ND	0.0025	0.00012	10/05/20 18:29	
Chromium	mg/L	ND	0.010	0.00055	10/05/20 18:29	
Cobalt	mg/L	ND	0.0050	0.00038	10/05/20 18:29	
Lead	mg/L	ND	0.0050	0.000036	10/05/20 18:29	
Lithium	mg/L	ND	0.030	0.00081	10/05/20 18:29	
Molybdenum	mg/L	ND	0.010	0.00069	10/05/20 18:29	
Selenium	mg/L	ND	0.010	0.0016	10/05/20 18:29	
Thallium	mg/L	ND	0.0010	0.00014	10/05/20 18:29	

LABORATORY CONTROL SAMPLE: 3022879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	101	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	0.097	97	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3022880 3022881

Parameter	Units	92498084008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.095	102	95	75-125	7	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.095	100	95	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3022880 3022881

Parameter	Units	92498084008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.026	0.1	0.1	0.13	0.12	101	91	75-125	9	20	
Beryllium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	4	20	
Boron	mg/L	0.053	1	1	1.1	1.1	105	103	75-125	2	20	
Cadmium	mg/L	0.00012J	0.1	0.1	0.10	0.094	99	94	75-125	6	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.096	103	95	75-125	8	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.093	100	93	75-125	7	20	
Lead	mg/L	ND	0.1	0.1	0.099	0.094	99	94	75-125	5	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.096	100	96	75-125	4	20	
Molybdenum	mg/L	0.0089J	0.1	0.1	0.11	0.10	100	93	75-125	7	20	
Selenium	mg/L	0.0051J	0.1	0.1	0.11	0.099	101	94	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.094	100	93	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 572608
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894009, 92495894010

METHOD BLANK: 3032633 Matrix: Water
Associated Lab Samples: 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	10/13/20 12:38	

LABORATORY CONTROL SAMPLE: 3032634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3032635 3032636

Parameter	Units	92499821002 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	0.0025	0.0026	97	102	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 574037
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894027

METHOD BLANK: 3039024 Matrix: Water
Associated Lab Samples: 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	10/19/20 15:26	

LABORATORY CONTROL SAMPLE: 3039025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3039026 3039027

Parameter	Units	92500270001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	0.090J ug/L	0.0025	0.0025	0.0024	0.0024	92	93	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567372
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

METHOD BLANK: 3006601 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/18/20 09:58	

LABORATORY CONTROL SAMPLE: 3006602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	84-108	

SAMPLE DUPLICATE: 3006603

Parameter	Units	92495653011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	622	654	5	10	

SAMPLE DUPLICATE: 3006604

Parameter	Units	92495900008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1220	1250	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567872
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3009209 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/17/20 15:18	

LABORATORY CONTROL SAMPLE: 3009210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	84-108	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568080 | Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017

METHOD BLANK: 3010068 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/22/20 14:20	

LABORATORY CONTROL SAMPLE: 3010069

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	84-108	

SAMPLE DUPLICATE: 3010070

Parameter	Units	92495870014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	111	110	1	10	

SAMPLE DUPLICATE: 3010071

Parameter	Units	92495900015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	188	187	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568395
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894018, 92495894019, 92495894020, 92495894021

METHOD BLANK: 3011476 Matrix: Water
Associated Lab Samples: 92495894018, 92495894019, 92495894020, 92495894021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/23/20 13:15	

LABORATORY CONTROL SAMPLE: 3011477

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	375	94	84-108	

SAMPLE DUPLICATE: 3011478

Parameter	Units	92495894018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	382	404	6	10	

SAMPLE DUPLICATE: 3011479

Parameter	Units	92495870020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	93.0	91.0	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568648
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3012738 Matrix: Water
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/24/20 10:26	

LABORATORY CONTROL SAMPLE: 3012739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	84-108	

SAMPLE DUPLICATE: 3012740

Parameter	Units	92497007001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	204	1	10	

SAMPLE DUPLICATE: 3012944

Parameter	Units	92496771001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	158	157	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569874
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3018862 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/20 09:26	

LABORATORY CONTROL SAMPLE: 3018863

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	84-108	

SAMPLE DUPLICATE: 3018864

Parameter	Units	92497404001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	130	150	14	10	D6

SAMPLE DUPLICATE: 3018865

Parameter	Units	92495894026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	790	774	2	10	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570220
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894028

METHOD BLANK: 3020462 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/01/20 15:26	

LABORATORY CONTROL SAMPLE: 3020463

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

SAMPLE DUPLICATE: 3020464

Parameter	Units	92496524014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	188	205	9	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568673
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3012830 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/24/20 13:03	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 13:03	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 13:03	

LABORATORY CONTROL SAMPLE: 3012831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012832 3012833

Parameter	Units	92495900001 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	307	50	50	358	359	102	104	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012834 3012835

Parameter	Units	92495900007 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	ND	50	50	42.7	42.2	85	84	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568674
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012

METHOD BLANK: 3012844 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/24/20 15:38	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 15:38	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 15:38	

LABORATORY CONTROL SAMPLE: 3012845

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012846 3012847

Parameter	Units	92495900010 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	294	50	50	329	322	69	57	80-120	2	25	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012848 3012849

Parameter	Units	92496584005 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	15.8	50	50	68.4	68.9	105	106	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568970
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019, 92495894020, 92495894021, 92495894022, 92495894023

METHOD BLANK: 3014490 Matrix: Water
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019, 92495894020, 92495894021, 92495894022, 92495894023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/30/20 11:38	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/30/20 11:38	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/30/20 11:38	

LABORATORY CONTROL SAMPLE: 3014491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.5	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3014492 3014493

Parameter	Units	92495894013 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	231	50	50	274	281	86	100	80-120	3	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3014494 3014495

Parameter	Units	92495894018 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	288	50	50	343	338	111	100	80-120	2	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570242
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894024, 92495894025

METHOD BLANK: 3020557 Matrix: Water
Associated Lab Samples: 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/01/20 14:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/01/20 14:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/01/20 14:25	

LABORATORY CONTROL SAMPLE: 3020558

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.2	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020559 3020560

Parameter	Units	92496574010 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	20.2	50	50	70.4	71.4	100	102	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020561 3020562

Parameter	Units	92496574018 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	ND	50	50	51.4	51.5	103	103	80-120	0	25	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 571506
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3026929 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/08/20 14:21	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 14:21	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 14:21	

LABORATORY CONTROL SAMPLE: 3026930

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.1	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3026931 3026932

Parameter	Units	92497532022 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	231	50	50	288	286	114	110	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3026933 3026934

Parameter	Units	92497532028 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	90.3	50	50	141	143	101	104	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 571655
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894028

METHOD BLANK: 3027877 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/08/20 18:28	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 18:28	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 18:28	

LABORATORY CONTROL SAMPLE: 3027878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3027879 3027880

Parameter	Units	92497913003 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	57.8	50	50	108	109	100	103	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3029635 3029636

Parameter	Units	92495904018 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	313	50	50	353	358	79	90	80-120	2	25	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568020
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894009, 92495894010

METHOD BLANK: 3009676 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/22/20 14:09	

LABORATORY CONTROL SAMPLE: 3009677

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: 3009678 3009679

Parameter	Units	92495900001 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	0.52	0.52	98	98	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009680 3009681

Parameter	Units	92495900002 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	0.39	0.39	77	77	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568021
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894011, 92495894012

METHOD BLANK: 3009682 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/22/20 14:24	

LABORATORY CONTROL SAMPLE: 3009683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009684 3009685

Parameter	Units	92496157004 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	0.46	0.47	90	91	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009686 3009687

Parameter	Units	92496157005 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	0.38	0.38	72	72	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568022
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

METHOD BLANK: 3009689 Matrix: Water
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/22/20 14:40	

LABORATORY CONTROL SAMPLE: 3009690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009691 3009692

Parameter	Units	92495894013 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	0.50	94	94	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009693 3009694

Parameter	Units	92495894014 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	0.51	0.51	98	98	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568633
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3012716 Matrix: Water
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/24/20 11:36	

LABORATORY CONTROL SAMPLE: 3012717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012718 3012719

Parameter	Units	92496675001 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	0.49	0.49	96	96	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012720 3012721

Parameter	Units	92496675002 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	0.45	83	83	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569578
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3017573 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/29/20 13:31	

LABORATORY CONTROL SAMPLE: 3017574

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017575 3017576

Parameter	Units	92497532005 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	0.55	0.54	108	108	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017577 3017578

Parameter	Units	92497358003 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	0.54	0.55	107	108	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570214
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894028

METHOD BLANK: 3020426 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	10/01/20 12:47	

LABORATORY CONTROL SAMPLE: 3020427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020428 3020429

Parameter	Units	92497738004 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	0.55	0.55	108	108	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020430 3020431

Parameter	Units	92497738003 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	0.56	0.56	109	109	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567529
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894001, 92495894002, 92495894003

METHOD BLANK: 3007534 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/18/20 16:46	
Fluoride	mg/L	ND	0.10	0.050	09/18/20 16:46	
Sulfate	mg/L	ND	1.0	0.50	09/18/20 16:46	

LABORATORY CONTROL SAMPLE: 3007535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	52.4	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3007536 3007537

Parameter	Units	92496029001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	13.6	50	50	68.1	69.2	109	111	90-110	2	10	M1
Fluoride	mg/L	0.10	2.5	2.5	2.8	2.9	109	112	90-110	3	10	M1
Sulfate	mg/L	7.4	50	50	62.2	63.3	110	112	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3007538 3007539

Parameter	Units	92495653005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.5	50	50	58.5	62.8	106	115	90-110	7	10	M1
Fluoride	mg/L	0.057J	2.5	2.5	2.8	3.0	108	116	90-110	7	10	M1
Sulfate	mg/L	241	50	50	287	291	91	100	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567607
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894009, 92495894010

METHOD BLANK: 3008004 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/19/20 15:23	
Fluoride	mg/L	ND	0.10	0.050	09/19/20 15:23	
Sulfate	mg/L	ND	1.0	0.50	09/19/20 15:23	

LABORATORY CONTROL SAMPLE: 3008005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.3	105	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008008 3008009

Parameter	Units	92495964005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.9	50	50	61.3	62.0	107	108	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	107	108	90-110	1	10	
Sulfate	mg/L	256	50	50	298	299	85	87	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008006 3008007

Parameter	Units	92495653007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.4	50	50	57.4	58.2	106	108	90-110	1	10	
Fluoride	mg/L	0.13	2.5	2.5	2.8	2.8	107	109	90-110	1	10	
Sulfate	mg/L	334	50	50	389	385	111	103	90-110	1	10	M6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567633
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894007, 92495894008

METHOD BLANK: 3008109 Matrix: Water
Associated Lab Samples: 92495894007, 92495894008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/19/20 22:51	
Fluoride	mg/L	ND	0.10	0.050	09/19/20 22:51	
Sulfate	mg/L	ND	1.0	0.50	09/19/20 22:51	

LABORATORY CONTROL SAMPLE: 3008110

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.0	106	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	53.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008111 3008112

Parameter	Units	92496222001 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	52.6	53.5	105	107	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	105	107	90-110	2	10	
Sulfate	mg/L	ND	50	50	52.3	53.3	105	106	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567943
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015

METHOD BLANK: 3009484 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/22/20 07:03	
Fluoride	mg/L	ND	0.10	0.050	09/22/20 07:03	
Sulfate	mg/L	ND	1.0	0.50	09/22/20 07:03	

LABORATORY CONTROL SAMPLE: 3009485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.8	110	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	54.9	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009486 3009487

Parameter	Units	92495894011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	105	50	50	152	155	94	101	90-110	2	10	
Fluoride	mg/L	0.10	2.5	2.5	2.7	2.7	103	104	90-110	1	10	
Sulfate	mg/L	209	50	50	255	261	92	103	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009488 3009489

Parameter	Units	92495900016 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	52.8	52.5	106	105	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.6	52.2	105	104	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568377
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894016, 92495894017, 92495894018, 92495894019

METHOD BLANK: 3011350 Matrix: Water
Associated Lab Samples: 92495894016, 92495894017, 92495894018, 92495894019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/20 06:58	
Fluoride	mg/L	ND	0.10	0.050	09/24/20 06:58	
Sulfate	mg/L	ND	1.0	0.50	09/24/20 06:58	

LABORATORY CONTROL SAMPLE: 3011351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011352 3011353

Parameter	Units	92495656005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.9	50	50	55.8	56.2	108	109	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.8	109	110	90-110	1	10	
Sulfate	mg/L	5.9	50	50	59.3	59.6	107	108	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011354 3011355

Parameter	Units	92496524001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.6	50	50	56.8	57.6	108	110	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.8	108	110	90-110	2	10	
Sulfate	mg/L	1.0	50	50	54.0	54.8	106	108	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568379
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3011360 Matrix: Water
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/20 14:11	
Fluoride	mg/L	ND	0.10	0.050	09/24/20 14:11	
Sulfate	mg/L	ND	1.0	0.50	09/24/20 14:11	

LABORATORY CONTROL SAMPLE: 3011361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.6	103	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	50.7	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011362 3011363

Parameter	Units	92495870024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.64J	50	50	54.6	55.2	108	109	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.8	110	110	90-110	0	10	
Sulfate	mg/L	0.90J	50	50	53.7	54.3	106	107	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011364 3011365

Parameter	Units	92495900019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	236	50	50	284	284	96	95	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	100	90-110	4	10	
Sulfate	mg/L	1010	50	50	1040	1040	78	68	90-110	1	10	M6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569516
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3017410 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/29/20 08:53	
Fluoride	mg/L	ND	0.10	0.050	09/29/20 08:53	
Sulfate	mg/L	ND	1.0	0.50	09/29/20 08:53	

LABORATORY CONTROL SAMPLE: 3017411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.8	110	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	54.9	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017412 3017413

Parameter	Units	92497532015 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	52.8	52.1	106	104	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	106	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.5	52.0	105	104	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017414 3017415

Parameter	Units	92495894027 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	52.5	52.9	105	105	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.1	52.0	104	104	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570137
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894028

METHOD BLANK: 3020267 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/01/20 07:56	
Fluoride	mg/L	ND	0.10	0.050	10/01/20 07:56	
Sulfate	mg/L	ND	1.0	0.50	10/01/20 07:56	

LABORATORY CONTROL SAMPLE: 3020268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.3	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	53.4	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020269 3020270

Parameter	Units	92495894028 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	542	50	50	583	587	82	89	90-110	1	10	M6
Fluoride	mg/L	0.41	2.5	2.5	3.2	3.1	110	109	90-110	1	10	
Sulfate	mg/L	3480	50	50	3520	3530	86	111	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020271 3020272

Parameter	Units	92496914018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.6	50	50	56.0	56.5	109	110	90-110	1	10	
Fluoride	mg/L	0.063J	2.5	2.5	2.8	2.8	109	111	90-110	2	10	M1
Sulfate	mg/L	110	50	50	160	161	101	103	90-110	1	10	

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QUALIFIERS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
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.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
MW	Due to matrix interference, achieving a constant weight is not possible.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894001	**HGWA-1**				
92495894002	**HGWA-2**				
92495894003	**HGWA-3**				
92495894004	**HGWC-7**				
92495894005	**HGWC-7 FILTERED**				
92495894006	**HGWC-8**				
92495894007	**HGWC-10**				
92495894008	**MW-29**				
92495894009	**HGWA-43D**				
92495894010	**HGWA-44D**				
92495894011	**HGWC-9**				
92495894012	**MW-5**				
92495894013	**MW-20**				
92495894014	**MW-26D**				
92495894016	**HGWC-11**				
92495894017	**HGWC-12**				
92495894018	**MW-25D**				
92495894019	**MW-27D**				
92495894020	**HGWC-13**				
92495894021	**MW-6**				
92495894022	**MW-7**				
92495894023	**MW-24D**				
92495894024	**MW-19**				
92495894025	**MW-28D**				
92495894026	**MW-30D**				
92495894028	**MW-40D**				
92495894001	**HGWA-1**	EPA 3010A	568201	EPA 6010D	568230
92495894002	**HGWA-2**	EPA 3010A	568201	EPA 6010D	568230
92495894003	**HGWA-3**	EPA 3010A	568201	EPA 6010D	568230
92495894004	**HGWC-7**	EPA 3010A	568471	EPA 6010D	568669
92495894005	**HGWC-7 FILTERED**	EPA 3010A	568471	EPA 6010D	568669
92495894006	**HGWC-8**	EPA 3010A	568471	EPA 6010D	568669
92495894007	**HGWC-10**	EPA 3010A	568471	EPA 6010D	568669
92495894008	**MW-29**	EPA 3010A	568471	EPA 6010D	568669
92495894009	**HGWA-43D**	EPA 3010A	568201	EPA 6010D	568230
92495894010	**HGWA-44D**	EPA 3010A	568201	EPA 6010D	568230
92495894011	**HGWC-9**	EPA 3010A	568471	EPA 6010D	568669
92495894012	**MW-5**	EPA 3010A	568471	EPA 6010D	568669
92495894013	**MW-20**	EPA 3010A	568471	EPA 6010D	568669
92495894014	**MW-26D**	EPA 3010A	568471	EPA 6010D	568669
92495894015	**FD-01**	EPA 3010A	568471	EPA 6010D	568669
92495894016	**HGWC-11**	EPA 3010A	568471	EPA 6010D	568669
92495894017	**HGWC-12**	EPA 3010A	568471	EPA 6010D	568669
92495894018	**MW-25D**	EPA 3010A	568471	EPA 6010D	568669
92495894019	**MW-27D**	EPA 3010A	568747	EPA 6010D	568813
92495894020	**HGWC-13**	EPA 3010A	568747	EPA 6010D	568813

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894021	**MW-6**	EPA 3010A	568747	EPA 6010D	568813
92495894022	**MW-7**	EPA 3010A	568748	EPA 6010D	568812
92495894023	**MW-24D**	EPA 3010A	568748	EPA 6010D	568812
92495894024	**MW-19**	EPA 3010A	568748	EPA 6010D	568812
92495894025	**MW-28D**	EPA 3010A	568748	EPA 6010D	568812
92495894026	**MW-30D**	EPA 3010A	570395	EPA 6010D	570414
92495894027	**FB-01**	EPA 3010A	570395	EPA 6010D	570414
92495894028	**MW-40D**	EPA 3010A	570395	EPA 6010D	570414
92495894001	**HGWA-1**	EPA 3005A	568198	EPA 6020B	568229
92495894002	**HGWA-2**	EPA 3005A	568198	EPA 6020B	568229
92495894003	**HGWA-3**	EPA 3005A	568198	EPA 6020B	568229
92495894004	**HGWC-7**	EPA 3005A	568417	EPA 6020B	568454
92495894005	**HGWC-7 FILTERED**	EPA 3005A	568417	EPA 6020B	568454
92495894006	**HGWC-8**	EPA 3005A	568417	EPA 6020B	568454
92495894007	**HGWC-10**	EPA 3005A	568417	EPA 6020B	568454
92495894008	**MW-29**	EPA 3005A	568417	EPA 6020B	568454
92495894009	**HGWA-43D**	EPA 3005A	568198	EPA 6020B	568229
92495894010	**HGWA-44D**	EPA 3005A	568198	EPA 6020B	568229
92495894011	**HGWC-9**	EPA 3005A	568430	EPA 6020B	568663
92495894012	**MW-5**	EPA 3005A	568430	EPA 6020B	568663
92495894013	**MW-20**	EPA 3005A	568430	EPA 6020B	568663
92495894014	**MW-26D**	EPA 3005A	568749	EPA 6020B	568811
92495894015	**FD-01**	EPA 3005A	568749	EPA 6020B	568811
92495894016	**HGWC-11**	EPA 3005A	568749	EPA 6020B	568811
92495894017	**HGWC-12**	EPA 3005A	568749	EPA 6020B	568811
92495894018	**MW-25D**	EPA 3005A	568749	EPA 6020B	568811
92495894019	**MW-27D**	EPA 3005A	568749	EPA 6020B	568811
92495894020	**HGWC-13**	EPA 3005A	569670	EPA 6020B	569718
92495894021	**MW-6**	EPA 3005A	569670	EPA 6020B	569718
92495894022	**MW-7**	EPA 3005A	569670	EPA 6020B	569718
92495894023	**MW-24D**	EPA 3005A	569670	EPA 6020B	569718
92495894024	**MW-19**	EPA 3005A	569670	EPA 6020B	569718
92495894025	**MW-28D**	EPA 3005A	569670	EPA 6020B	569718
92495894026	**MW-30D**	EPA 3005A	570627	EPA 6020B	570682
92495894027	**FB-01**	EPA 3005A	570627	EPA 6020B	570682
92495894028	**MW-40D**	EPA 3005A	570627	EPA 6020B	570682
92495894009	**HGWA-43D**	EPA 7470A	572608	EPA 7470A	572822
92495894010	**HGWA-44D**	EPA 7470A	572608	EPA 7470A	572822
92495894027	**FB-01**	EPA 7470A	574037	EPA 7470A	574115
92495894001	**HGWA-1**	SM 2450C-2011	567872		
92495894002	**HGWA-2**	SM 2450C-2011	567872		
92495894003	**HGWA-3**	SM 2450C-2011	567872		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894004	**HGWC-7**	SM 2450C-2011	567372		
92495894005	**HGWC-7 FILTERED**	SM 2450C-2011	567372		
92495894006	**HGWC-8**	SM 2450C-2011	567372		
92495894007	**HGWC-10**	SM 2450C-2011	567372		
92495894008	**MW-29**	SM 2450C-2011	567372		
92495894009	**HGWA-43D**	SM 2450C-2011	567872		
92495894010	**HGWA-44D**	SM 2450C-2011	567872		
92495894011	**HGWC-9**	SM 2450C-2011	568080		
92495894012	**MW-5**	SM 2450C-2011	568080		
92495894013	**MW-20**	SM 2450C-2011	568080		
92495894014	**MW-26D**	SM 2450C-2011	568080		
92495894015	**FD-01**	SM 2450C-2011	568080		
92495894016	**HGWC-11**	SM 2450C-2011	568080		
92495894017	**HGWC-12**	SM 2450C-2011	568080		
92495894018	**MW-25D**	SM 2450C-2011	568395		
92495894019	**MW-27D**	SM 2450C-2011	568395		
92495894020	**HGWC-13**	SM 2450C-2011	568395		
92495894021	**MW-6**	SM 2450C-2011	568395		
92495894022	**MW-7**	SM 2450C-2011	568648		
92495894023	**MW-24D**	SM 2450C-2011	568648		
92495894024	**MW-19**	SM 2450C-2011	568648		
92495894025	**MW-28D**	SM 2450C-2011	568648		
92495894026	**MW-30D**	SM 2450C-2011	569874		
92495894027	**FB-01**	SM 2450C-2011	569874		
92495894028	**MW-40D**	SM 2450C-2011	570220		
92495894001	**HGWA-1**	SM 2320B-2011	568673		
92495894002	**HGWA-2**	SM 2320B-2011	568673		
92495894003	**HGWA-3**	SM 2320B-2011	568673		
92495894004	**HGWC-7**	SM 2320B-2011	568674		
92495894005	**HGWC-7 FILTERED**	SM 2320B-2011	568674		
92495894006	**HGWC-8**	SM 2320B-2011	568674		
92495894007	**HGWC-10**	SM 2320B-2011	568674		
92495894008	**MW-29**	SM 2320B-2011	568674		
92495894009	**HGWA-43D**	SM 2320B-2011	568673		
92495894010	**HGWA-44D**	SM 2320B-2011	568673		
92495894011	**HGWC-9**	SM 2320B-2011	568674		
92495894012	**MW-5**	SM 2320B-2011	568674		
92495894013	**MW-20**	SM 2320B-2011	568970		
92495894014	**MW-26D**	SM 2320B-2011	568970		
92495894015	**FD-01**	SM 2320B-2011	568970		
92495894016	**HGWC-11**	SM 2320B-2011	568970		
92495894017	**HGWC-12**	SM 2320B-2011	568970		
92495894018	**MW-25D**	SM 2320B-2011	568970		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894019	**MW-27D**	SM 2320B-2011	568970		
92495894020	**HGWC-13**	SM 2320B-2011	568970		
92495894021	**MW-6**	SM 2320B-2011	568970		
92495894022	**MW-7**	SM 2320B-2011	568970		
92495894023	**MW-24D**	SM 2320B-2011	568970		
92495894024	**MW-19**	SM 2320B-2011	570242		
92495894025	**MW-28D**	SM 2320B-2011	570242		
92495894026	**MW-30D**	SM 2320B-2011	571506		
92495894027	**FB-01**	SM 2320B-2011	571506		
92495894028	**MW-40D**	SM 2320B-2011	571655		
92495894001	**HGWA-1**	SM 4500-S2D-2011	568020		
92495894002	**HGWA-2**	SM 4500-S2D-2011	568020		
92495894003	**HGWA-3**	SM 4500-S2D-2011	568020		
92495894004	**HGWC-7**	SM 4500-S2D-2011	568020		
92495894005	**HGWC-7 FILTERED**	SM 4500-S2D-2011	568020		
92495894006	**HGWC-8**	SM 4500-S2D-2011	568020		
92495894007	**HGWC-10**	SM 4500-S2D-2011	568020		
92495894008	**MW-29**	SM 4500-S2D-2011	568020		
92495894009	**HGWA-43D**	SM 4500-S2D-2011	568020		
92495894010	**HGWA-44D**	SM 4500-S2D-2011	568020		
92495894011	**HGWC-9**	SM 4500-S2D-2011	568021		
92495894012	**MW-5**	SM 4500-S2D-2011	568021		
92495894013	**MW-20**	SM 4500-S2D-2011	568022		
92495894014	**MW-26D**	SM 4500-S2D-2011	568022		
92495894015	**FD-01**	SM 4500-S2D-2011	568022		
92495894016	**HGWC-11**	SM 4500-S2D-2011	568022		
92495894017	**HGWC-12**	SM 4500-S2D-2011	568022		
92495894018	**MW-25D**	SM 4500-S2D-2011	568022		
92495894019	**MW-27D**	SM 4500-S2D-2011	568022		
92495894020	**HGWC-13**	SM 4500-S2D-2011	568633		
92495894021	**MW-6**	SM 4500-S2D-2011	568633		
92495894022	**MW-7**	SM 4500-S2D-2011	568633		
92495894023	**MW-24D**	SM 4500-S2D-2011	568633		
92495894024	**MW-19**	SM 4500-S2D-2011	568633		
92495894025	**MW-28D**	SM 4500-S2D-2011	568633		
92495894026	**MW-30D**	SM 4500-S2D-2011	569578		
92495894027	**FB-01**	SM 4500-S2D-2011	569578		
92495894028	**MW-40D**	SM 4500-S2D-2011	570214		
92495894001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	567529		
92495894002	**HGWA-2**	EPA 300.0 Rev 2.1 1993	567529		
92495894003	**HGWA-3**	EPA 300.0 Rev 2.1 1993	567529		
92495894004	**HGWC-7**	EPA 300.0 Rev 2.1 1993	567607		
92495894005	**HGWC-7 FILTERED**	EPA 300.0 Rev 2.1 1993	567607		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894006	**HGWC-8**	EPA 300.0 Rev 2.1 1993	567607		
92495894007	**HGWC-10**	EPA 300.0 Rev 2.1 1993	567633		
92495894008	**MW-29**	EPA 300.0 Rev 2.1 1993	567633		
92495894009	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	567607		
92495894010	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	567607		
92495894011	**HGWC-9**	EPA 300.0 Rev 2.1 1993	567943		
92495894012	**MW-5**	EPA 300.0 Rev 2.1 1993	567943		
92495894013	**MW-20**	EPA 300.0 Rev 2.1 1993	567943		
92495894014	**MW-26D**	EPA 300.0 Rev 2.1 1993	567943		
92495894015	**FD-01**	EPA 300.0 Rev 2.1 1993	567943		
92495894016	**HGWC-11**	EPA 300.0 Rev 2.1 1993	568377		
92495894017	**HGWC-12**	EPA 300.0 Rev 2.1 1993	568377		
92495894018	**MW-25D**	EPA 300.0 Rev 2.1 1993	568377		
92495894019	**MW-27D**	EPA 300.0 Rev 2.1 1993	568377		
92495894020	**HGWC-13**	EPA 300.0 Rev 2.1 1993	568379		
92495894021	**MW-6**	EPA 300.0 Rev 2.1 1993	568379		
92495894022	**MW-7**	EPA 300.0 Rev 2.1 1993	568379		
92495894023	**MW-24D**	EPA 300.0 Rev 2.1 1993	568379		
92495894024	**MW-19**	EPA 300.0 Rev 2.1 1993	568379		
92495894025	**MW-28D**	EPA 300.0 Rev 2.1 1993	568379		
92495894026	**MW-30D**	EPA 300.0 Rev 2.1 1993	569516		
92495894027	**FB-01**	EPA 300.0 Rev 2.1 1993	569516		
92495894028	**MW-40D**	EPA 300.0 Rev 2.1 1993	570137		

Sample Condition Upon Receipt

PaceAnalytical

Client Name: GA Power

WO#: 92495894

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

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

Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 214 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.4 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 9/16/2009

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

F-ALL-C003rev.3, 11September2008

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

Section A — Required Client Information

Company	GA Power
Address	Atlanta, GA
Email To	SCS Contacts
Phone	Fax
Requested Due Date/TAT	10 Day

Section B — Required Project Information

Report To	SCS Contacts
Copy To	Geosyntec Contacts
Purchase Order No.	
Project Name	Plant Hammond AP-1 Semiannual
Project Number	GW6391B

Section C — Invoice Information

Attention	Southern Co.
Company Name	
Address	
Pace Quote Reference	
Pace Project Manager	Kevin Herring
Pace Profile #	10839-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D — Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO_3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major Ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G	9-15-20	1401	20	7	3	3	1	X	X	X	X	X	N	pH = 7.15
2	HGWA-2	WT	G	9-15-20	1158	20	7	3	3	1	X	X	X	X	X	N	pH = 5.22
~~3~~	~~HGWA-3~~	~~WT~~	~~G~~														
~~4~~	~~HGWC-7~~	~~WT~~	~~G~~														
~~5~~	~~HGWC-8~~	~~WT~~	~~G~~														
~~6~~	~~HGWC-9~~	~~WT~~	~~G~~														
~~7~~	~~HGWC-10~~	~~WT~~	~~G~~														
~~8~~	~~HGWC-11~~	~~WT~~	~~G~~														
~~9~~	~~HGWC-12~~	~~WT~~	~~G~~														
~~10~~	~~HGWC-13~~	~~WT~~	~~G~~														
~~11~~	~~HAMW-5~~	~~WT~~	~~G~~														
~~12~~	~~HAMW-6~~	~~WT~~	~~G~~														

G2UG 5844

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note which the last sample for the event has been taken.
*App. III & IV Metals: [illegible]
Major ions**: Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfate
One sample set submitted for HGWA-1, HGWA-2, HGWA-3, [illegible] Split [illegible] will be reported by AP-ST[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Victor Taylor / SCS	9-15-20	17:05	[illegible] / GPC	9/15/20	1705
[illegible] / GPC	9/15/20	1810	[illegible] / Pace	9/15/20	1810
[illegible] / Pace	9/16/20	1113	[illegible] / Pace	9/16/20	1114
[illegible] Williams / Pace	9/16/20	1450	[illegible]	9/16/20	1450

SAMPLE CONDITIONS: Temp in °C / Received on Ice (Y/N) / Custody Sealed Cooler (Y/N) / Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Victor Taylor

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 9-15-20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

Section A – Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone:
Fax:
Requested Due Date/TAT: 10 Day

Section B – Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581B

Section C – Invoice Information
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10036-1910820-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER
Site Location STATE: GA

Pace Project No./ Lab I.D.: 92495494

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO_3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	
1	~~HGWA-1~~	WT	G													N	pH =
2	~~HGWA-2~~	WT	G													N	pH =
3	HGWA-3	WT	G	9/15	1145	20	7	3	3	1	X	X	X	X	X	N	pH = 7.29
4	~~[illegible]~~	WT	G													N	pH =
5	~~[illegible]~~	WT	G													N	pH =
6	~~[illegible]~~	WT	G													N	pH =
7	~~[illegible]~~	WT	G													N	pH =
8	~~[illegible]~~	WT	G													N	pH =
9	~~[illegible]~~	WT	G													N	pH =
10	~~[illegible]~~	WT	G													N	pH =
11	~~[illegible]~~	WT	G													N	pH =
12	~~[illegible]~~	WT	G													N	pH =

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Chad Russo / GPC	9/15/20	1820	Marlia Mabry / GPC	9/15/20	1820
Marlia Mabry / GPC	9/16/20	1113	Ryan Willis / Pace	9/16/20	1114
Ryan Willis / Pace	9/16/20	1457	[illegible]	9/16/20	1450

ADDITIONAL COMMENTS: [illegible]

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9/15/2020

SAMPLE CONDITIONS: Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 4

Section A — Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Requested Due Date/TAT: 10 Day

Section B — Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581B

Section C — Invoice Information
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10539-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location (STATE): GA

Pace Project No./ Lab I.D.: 92495894

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE COLLECTED	TIME COLLECTED	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G			N	pH =
2	~~HGWA-2~~	WT	G			N	pH =
3	~~HGWA-3~~	WT	G			N	pH =
4	HGWC-7	WT	G	9-16-20	1234	N	pH = 7.50 004
5	~~HGWC-8~~ HGWC-7-FD	WT	G	9-16-20	1234	N	pH = 7.50 005
6	~~HGWC-9~~	WT	G			N	pH =
7	~~HGWC-10~~	WT	G			N	pH =
8	~~HGWC-11~~	WT	G			N	pH =
9	~~HGWC-12~~	WT	G			N	pH =
10	~~HGWC-13~~	WT	G			N	pH =
11	~~MW-5~~	WT	G			N	pH =
12	~~MW-6~~	WT	G			N	pH =

Requested Analysis: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major Ions

ADDITIONAL COMMENTS:
Please note dry wells, wells that were not sampled, and note when the last sample for the event has been taken.
One sample set submitted for HGWA-1, HGWA-2, HGWA-3 ... but they will be reported by AP-1/2/3 SDGs.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / GEO	9-16-20	1830	[signature] / GEO	9/16	1830
[signature] / GEO	9/16	1955	[signature] / GEO	9/16/20	1955
[signature] / GEO	9/17	0845	[signature] / Pace	9/17/20	0845
[signature] / Pace	9/17/20	1306	[signature]	9/18/20	1305

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): Y; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: [handwritten name]
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-16-20

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 7 (4)

Section A – Required Client Information

Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone:
Fax:
Requested Due Date/TAT: 14 Day

Section B – Required Project Information

Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6591B

Section C – Invoice Information

Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10639-1/10639-2

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./Lab I.D.: 92495894

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	HGWA-1	WT	G				X	X	X	X	X	N	pH =
2	HGWA-2	WT	G				X	X	X	X	X	N	pH =
3	HGWA-3	WT	G				X	X	X	X	X	N	pH =
4	HGWC-7	WT	G				X	X	X	X	X	N	pH =
5	HGWC-8	WT	G	9/16	0932	7	X	X	X	X	X	N	pH = 6.92 — 006
6	HGWC-9	WT	G				X	X	X	X	X	N	pH =
7	HGWC-10	WT	G	9/16	1635	7	X	X	X	X	X	N	pH =
8	HGWC-11	WT	G				X	X	X	X	X	N	pH = 6.66 — 007
9	HGWC-12	WT	G				X	X	X	X	X	N	pH =
10	HGWC-[illegible]	WT	G				X	X	X	X	X	N	pH =
11	MW-5	WT	G				X	X	X	X	X	N	pH =
12	MW-6	WT	G				X	X	X	X	X	N	pH =

ADDITIONAL COMMENTS

Please note dry wells, wells not sampled, and note when the last sample for the event has been taken.
*App. III & IV Metals: [illegible]
Major ions: [illegible]
One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MW-[illegible], MW-[illegible] but they will be reported for AP-[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible signature]	9/16	1835	[illegible signature] / GEO	9/16	1835
[illegible signature] / GEO	9/16	1958	[illegible signature] / GEO	9/16	1955
[illegible signature] / GEO	9/17	0945	[illegible signature] / Pace	9/17	0945
[illegible signature] / Pace	9/17	1305	[illegible signature]	9/17	1305

SAMPLE CONDITIONS: Temp in °C: 4.1 · Received on Ice (Y/N): Y · Custody Sealed Cooler (Y/N): Y · Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: [illegible]
SIGNATURE of SAMPLER: [illegible signature]
DATE Signed (MM/DD/YY): 9/16/20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 4

Section A – Required Client Information

- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts
- Phone:
- Fax:
- Requested Due Date/TAT: 10 day

Section B – Required Project Information

- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond AP-1 Semiannual
- Project Number: GW6518

Section C – Invoice Information

- Attention: Southern Co.
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Kevin Herring
- Pace Profile #: 10636-10710636-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER [X]

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G			[illegible]		
2	MW-10	WT	G			[illegible]	N	pH =
3	MW-20	WT	G			[illegible]	N	pH =
4	MW-24D	WT	G			[illegible]	N	pH =
5	MW-25D	WT	G			[illegible]	N	pH =
6	MW-26D	WT	G			[illegible]	N	pH =
7	MW-27D	WT	G			[illegible]	N	pH =
8	MW-28D	WT	G			[illegible]	N	pH =
9	MW-29	WT	G	9/16	1835	[illegible]	N	pH =
10	MW-30D	WT	G			[illegible]	N	pH = 6.44
11	MW-40D	WT	G			[illegible]	N	pH =
12	FD-01	WT	G			[illegible]	N	pH =

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Requested Analysis Filtered (Y/N) – Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RA2 226/228; Major ions

Pace Project No.: 92465894

ADDITIONAL COMMENTS

[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible signature]	9/16	1835	[illegible signature] / GEO	9/16	1835
[illegible signature] / GEO	9/16	1955	[illegible signature] / GEO	9/16/20	1955
[illegible signature] / GEO	9/17/20	0945	[illegible signature] / Pace	9/17/20	0945
[illegible signature] / Pace	9/17/20	1305	Charles Hoole	9/17/20	1305

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): Y; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

- PRINT Name of SAMPLER: James J Kessler
- SIGNATURE of SAMPLER: [signature]
- DATE Signed (MM/DD/YY): 9/16

[illegible fine print]

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 4 of 4

Section A — Required Client Information:
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone:
Fax:
Requested Due Date/TAT: 10 day

Section B — Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581B

Section C — Invoice Information:
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10826-4/10830-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER CCR
Site Location STATE: GA

Pace Project No./Lab I.D.: 92495894

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	Collected Date	Collected Time	Composite Date	Composite Time	Sample Temp at Collection	# of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	Full App. III/IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	MW-43D	WT	G	9/14	1159	-	-	20	7	3		3					1	X	X	X	X	X	N	pH = 7.52	006
2	MW-44D	WT	G	9/16	1515	-	-	19	7	3		3					1	X	X	X	X	X	N	pH = 7.93	010
3	~~FB-01~~	WT	G																					
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

CR 9/16/2020

ADDITIONAL COMMENTS: [illegible] Full App. III & IV metals: Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Hg, Mo, Se, Tl. Major ions: Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfate. [illegible] MW-43D, MW-44D [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo / GEO	9/16	1955	Malia M... / GEO	9/16/20	1955				
Malia M... / GEO	9/17/20	0945	[illegible] / Pace	9/17/20	0945				
[illegible] / Pace	9/17/20	1306	Charles [illegible]	9/17/20	1305	4.1	Y	Y	Y

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: Chad Russo
DATE Signed (MM/DD/YY): 9/16/20

*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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

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Page: 1 of 10 (handwritten "2" above)

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6618

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10609-15*10939-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N): N

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020; RAD 226/228; Major ions

Pace Project No./Lab I.D.: 92495894

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	Collected Date	Collected Time	Sample Temp at Collection	# of Containers	Unpreserved	HNO3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Notes
1	HGWA-1	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
2	HGWA-2	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
3	HGWA-3	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
4	HGWC-7	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
5	HGWC-8	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
6	HGWC-9	WT	G	9/17	1142	[illegible]	7	3	3	1	X	X	X	X	X	N	pH=6.99 011
7	HGWC-10	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
8	HGWC-11	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
9	HGWC-12	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
10	HGWC-13	WT	G				7	3	3	1	X	X	X	X	X	N	pH=
11	MW-5	WT	G	9/17	1731	[illegible]	7	3	3	1	X	X	X	X	X	N	pH=6.48 012
12	MW-6	WT	G				7	3	3	1	X	X	X	X	X	N	pH=

ADDITIONAL COMMENTS: Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken. *App. III & IV Metals ... Major ions ... One sample will be submitted for HGWA-1, HGWA-2, HGWA-3 ... MS/MSD ... [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Geosyntec	9/17	1840	[illegible] / [illegible]	9/17	1840
[illegible] / [illegible]	9/17	2000	[illegible] / [illegible]	9/17/20	2000
[illegible] / [illegible]	9/18/20	1017	[illegible] / Pace	9/18/20	1018
[illegible] / Pace	9/18/20	1345	[illegible]	9/18/20	1345

SAMPLE CONDITIONS: Temp in °C: 5.3; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): Y; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Thomas [illegible]
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 09/17/20

*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.

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of (2)

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6591B

Section C – Invoice Information

Attention:	Southern Co
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10630-1/10630-2

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☒ OTHER CCR

Site Location STATE: GA

Section D – Required Client Information

Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	COMPOSITE END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals 6010/6020	RAD 226/228	[illegible]	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
2	~~MW-19~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
3	MW-20	WT	G	9/17	1534	–	–	21	7	3		3					1		X	X	X	X	X	N	pH= 6.78 017
4	~~MW-24D~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
5	~~MW-25D~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
6	MW-26D	WT	G	9/17	1302	–	–	22	7	3		3					1		X	X	X	X	X	N	pH= 7.08 014
7	~~MW-27D~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
8	~~MW-28D~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
9	~~MW-29~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
10	~~MW-30D~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
11	~~MW-40D~~	WT	G			–	–		7	3		3					1		X	X	X	X	X	N	pH=
12	FD-01	WT	G	9/17	–	–	–	22	7	3		3					1		X	X	X	X	X	N	015

Pace Project No./Lab I.D.: 92495894

ADDITIONAL COMMENTS

Please note: by wells, strike through any wells not sampled and note when the last sample for the event has been taken.
*App. III & IV Metals: [illegible]
**App. IV [illegible]: [illegible]
The sample set submitted for [illegible] [illegible] but they will be reported for AP-1/3/5 [illegible].

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Thomas Kessler / Geosyntec	9/17	1840	[illegible] / GEO	9/17	1840				
[illegible] / GEO	9/17	1080	[illegible] / GEO	9/19/20	2000				
[illegible] / GEO	9/19/20	1017	[illegible] / Pace	9/19	1026				
[illegible] / Pace	9/19/20	1545	[illegible]	9/19/20	1745	5.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kessler
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 09/17/20

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.

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 2

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Semiannual	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 day	Project Number:	GW0001B	Pace Profile #:	10039-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO3	Other	Chloride, Fluoride, Sulfate	TDS	App III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
~~1~~	~~HGWA-1~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~2~~	~~HGWA-2~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~3~~	~~HGWA-3~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~4~~	~~HGWC-7~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~5~~	~~HGWC-8~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~6~~	~~HGWC-9~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~7~~	~~HGWC-10~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
8	HGWC-11	WT	G	09-18-20	15:50	–	–	25	7	3	3	1	X	X	X	X	X	N	pH = 6.46 016
9	HGWC-12	WT	G	09-18-20	15:35	–	–	24	7	3	3	1	X	X	X	X	X	N	pH = 7.15 017
~~10~~	~~HGWC-13~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~11~~	~~MW-5~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~
~~12~~	~~MW-6~~	~~WT~~	~~G~~						~~7~~	~~3~~	~~3~~	~~1~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~N~~	~~pH =~~

Pace Project No./Lab I.D.: 92495844

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.	[illegible] / Geosyntec	9-19-20	1645	Chad [illegible] / GEO	9/18	1645	
*App. III & IV Metals = [illegible]	[illegible] / GEO	9/18	1910	[illegible] / GEO	9/18/20	1910	
Major ions** = Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide	[illegible] / GEO	9/21/20	0926	[illegible] / Pace	9/21/20	926	
One sample set submitted for HGWA-1, HGWA-2, HGWA-3, [illegible]	[illegible] / Pace	9/21/20	1208	[illegible]	9/21/20	1208	3.6 / Y / N / Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 9-18-20

Sample conditions columns: 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.

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 2

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:	Plant Hammond AP-1 Semiannual	Pace Quote Reference:	
Requested Due Date/TAT:	10 Day	Project Number:	GW6581S	Pace Project Manager:	Kevin Herring
				Pace Profile #:	10838-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER CCR

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START / GRAB DATE	TIME	COMPOSITE END DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals 6010/6020	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92495844
1	~~MW-7~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
2	~~MW-15~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
3	~~MW-20~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
4	~~MW-24D~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
5	MW-25D	WT	G	9/18	1320	-	-	25	[illegible]	2		1					1	X	X	X	X	X	N	pH=7.64 014
6	~~MW-26D~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
7	MW-27D	WT	G	9/18	0858	-	-	20	[illegible]	2		1					1	X	X	X	X	X	N	pH=7.51 015
8	~~MW-28D~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
9	~~MW-29~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
10	~~MW-30D~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
11	~~MW-40D~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~
12	~~FD-01~~	WT	G			-	-		[illegible]	2		1					1	X	X	X	X	X	N	~~pH=~~

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.	[signature] / GEO	9/18	1920	[signature] / GEO	9/18/20	1920				
*App. III & IV Metals=Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl	[signature] / GEO	9/21/20	0925	[signature] / Pace	9/21/20	926				
Major ions*= Na, Boron Alk, Fe, Mg, Mn, K, Na, Sulfide. One sample not submitted for HGWA-1, HGWA-2, HGWA-3, MW-400, MW-44D but they will be reported for AP-1/2/3 SSOs	[signature] / Pace	9/21/20	1208	Charles Hoole	9/21/20	1208	5.6	Y	N	~~/~~

			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SAMPLER NAME AND SIGNATURE						
PRINT Name of SAMPLER:	Chad Russo					
SIGNATURE of SAMPLER:	[signature]	DATE Signed (MM/DD/YY): 9/18/2020				

*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

CHAIN-OF-CUSTODY / Analytical Request Document

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Pace Analytical

Page: 1 of 5

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92U45884

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G																		N	pH =
2	HGWA-2	WT	G																		N	pH =
3	HGWA-3	WT	G																		N	pH =
4	HGWC-7	WT	G																		N	pH =
5	HGWC-8	WT	G																		N	pH =
6	HGWC-9	WT	G																		N	pH =
7	HGWC-10	WT	G																		N	pH =
8	HGWC-11	WT	G																		N	pH =
9	HGWC-12	WT	G																		N	pH =
10	HGWC-13	WT	G	9-21-20	1145	20	[illegible]	[illegible]		[illegible]					[illegible]	X	X	X	X	X	N	pH = 7.9
11	MW-2	WT	G																		N	pH =
12	MW-3	WT	G																		N	pH =

Requested Analysis Filtered (Y/N): N N N N N

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.

*App. III & IV Metals [illegible]

Major ions** [illegible]

One sample not submitted for HGWA-1, HGWA-2, HGWA-3, MW-4(?), MW-4(?) but they will be reported for AP-1 [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
[illegible] / [illegible]	9-21-20	1850	[illegible] / GCO	9/21	1850				
[illegible] / GCO	9/21	2110	[illegible] / GCO	9/21/20	2110				
[illegible] / GCO	9/22/20	0925	[illegible]	9/22/20	925				
[illegible] / Pace	9/22/20	1215	[illegible]	9/22/20	1215	4.1	Y	N	Y
						Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 9-21-20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 5

Section A – Required Client Information

Company	GA Power
Address	Atlanta, GA
Email To	SCS Contacts
Phone	Fax
Requested Due Date/TAT	10 Day

Section B – Required Project Information

Report To	SCS Contacts
Copy To	Geosyntec Contacts
Purchase Order No.	
Project Name	Plant Hammond AP-1 Semiannual
Project Number	GW6051B

Section C – Invoice Information

Attention	Southern Co.
Company Name	
Address	
Pace Quote Reference	
Pace Project Manager	Kevin Herring
Pace Profile #	10839-10712839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N): Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

Pace Project No./Lab I.D.: 92495841

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	HGWA-1	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
2	HGWA-2	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
3	HGWA-3	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
4	[illegible]	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
5	HGWC-8	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
6	HGWC-9	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
7	HGWC-10	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
8	HGWC-11	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
9	HGWC-12	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
10	HGWC-13	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
11	MW-5	WT	G				7	3		3					1	X	X	X	X	X	N	[illegible]
12	MW-6	WT	G	9/21	1015		7	3		3					1	X	X	X	X	X	N	pH = 6.88

ADDITIONAL COMMENTS: Please note dry wells, order through any wells not sampled, and note when the last sample for the event has been taken. * App. III & IV Metals ... Major ions ... One sample not submitted for HGWA-1, HGWA-2, HGWA-3 ... [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Chad Russo	9/21	2110	[illegible] / GEO	9/21/20	2110
[illegible] / GEO	9/22/20	0925	[illegible] / Pace	9/22/20	925
[illegible] / Pace	9/22/20	1215	[illegible]	9/23/20	1015

SAMPLE CONDITIONS: Temp in °C 4.1; Received on Ice (Y/N) Y; Custody Sealed Cooler (Y/N) N; Samples Intact (Y/N) Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/21/2020

*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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 5

Section A – Required Client Information

- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts
- Phone:
- Fax:
- Requested Due Date/TAT: 10 Day

Section B – Required Project Information

- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond AP-1 Semiannual
- Project Number: GW6581B

Section C – Invoice Information

- Attention: Southern Co
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Kevin Herring
- Pace Profile #: 13039-10/10839-2

REGULATORY AGENCY

- NPDES
- GROUND WATER
- DRINKING WATER
- UST
- RCRA
- OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92545944

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G	9/14	1641	–	–	21	7	3		3					1	X	X	X	X	X	N	pH=6.50 022
2	MW-15	WT	G																					
3	MW-22	WT	G																					
4	MW-24D	WT	G																					
5	MW-25D	WT	G																					
6	MW-26D	WT	G																					
7	MW-27D	WT	G																					
8	MW-28D	WT	G																					
9	DUP-01	WT	G																					
10	MW-30D	WT	G																					
11	MW-40D	WT	G																					
12	FD-01	WT	G																					

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.

App. III & IV Metals ... Major ions ... Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo / GES	9/21	240	Martin Morgan / GES	9/21/21	2110				
Martin Morgan / GES	9/22/21	0925	[illegible] / Pace	9/22/21	925				
[illegible] / Pace	9/22/21	1215	[illegible]	9/22/21	1445	4.1	Y	N	Y
						Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo

DATE Signed (MM/DD/YY): 9/21/2021

*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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 4 of 5

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Semiannual	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 Day	Project Number:	GW6281B	Pace Profile #:	10826-10/12639-2

REGULATORY AGENCY: NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE/TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G					~~pH=~~
2	~~MWL-15~~	WT	G					~~pH=~~
3	~~MW-08~~	WT	G					~~pH=~~
4	MW-24D	WT	G	9-21-20 1745	20	7	N	pH= 7.45 023
5	~~MW-25D~~	WT	G					~~pH=~~
6	~~MW-26D~~	WT	G					~~pH=~~
7	~~MW-27D~~	WT	G					~~pH=~~
8	~~MW-28D~~	WT	G					~~pH=~~
9	~~MW-20~~	WT	G					~~pH=~~
10	~~MW-29D~~	WT	G					~~pH=~~
11	~~MW-40D~~	WT	G					~~pH=~~
12	~~FD-01~~	WT	G					~~pH=~~

Pace Project No./Lab I.D.: 92495444

ADDITIONAL COMMENTS: Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken. App. III & IV Metals... Major ions... One sample set submitted for ... will be reported for AP-1/2/3 EDDs.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Jason Tillman / Geosyntec	9-21-20	1850	[illegible] / Pace	9/21	1850
[illegible] / Pace	9/21	1930	[illegible] / Pace	9/21/20	2110
[illegible] / Pace	9/22/20	0925	[illegible] / Pace	9/22/20	925
[illegible] / Pace	9/22/20	1210	Chad [illegible]	9/22/20	1145

SAMPLE CONDITIONS: Temp in °C 4.1; Received on Ice (Y/N) Y; Custody Sealed Cooler (Y/N) N; Samples Intact (Y/N) Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jason Tillman
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9-21-20

*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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 5 of 5

Section A – Required Client Information

Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: 14 day

Section B – Required Project Information

Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581S

Section C – Invoice Information

Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10639-12/10639-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER
Site Location STATE: GA

Section D – Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92495844
1	MW-7	WT	G								X	X	X	X	X	N	pH=
2	MW-19	WT	G	9/21	1514	22	3	1	1	1	X	X	X	X	X	N	pH= 6.41 024
3	MW-20	WT	G								X	X	X	X	X	N	pH=
4	MW-24D	WT	G								X	X	X	X	X	N	pH=
5	MW-25D	WT	G								X	X	X	X	X	N	pH=
6	MW-26D	WT	G								X	X	X	X	X	N	pH=
7	MW-27D	WT	G								X	X	X	X	X	N	pH=
8	MW-28D	WT	G	9/21	1525	21	3	1	1	1	X	X	X	X	X	N	pH= 7.16 025
9	MW-29	WT	G								X	X	X	X	X	N	pH=
10	MW-30D	WT	G								X	X	X	X	X	N	pH=
11	MW-40D	WT	G								X	X	X	X	X	N	pH=
12	FD-01	WT	G								X	X	X	X	X	N	pH=

ADDITIONAL COMMENTS: [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Thomas Kessler / Geosyntec	09/21	2000	[signature] / GCO	9/21	2030
[signature] / GCO	9/21	2116	Malia Menjivar / Pace	9/21/20	2117
Malia Menjivar / Pace	9/22/20	0925	[signature] / Pace	9/22/20	925
[signature] / Pace	9/22/20	1216	Charles [signature]	9/22/20	1215

SAMPLE CONDITIONS: Temp in °C: 4.1 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): N | Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Thomas Kessler
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 09/21/20

[illegible]

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 2

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	[illegible]

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	[illegible]

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D – Required Client Information

Requested Analysis Filtered (Y/N): Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020; RAD 226/228; Major ions

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE/TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G				N	pH=
2	~~MW-10~~	WT	G				N	pH=
3	~~MW-20~~	WT	G				N	pH=
4	~~MW-24D~~	WT	G				N	pH=
5	~~MW-26D~~	WT	G				N	pH=
6	~~[illegible]~~	WT	G				N	pH=
7	~~MW-27D~~	WT	G				N	pH=
8	~~MW-28D~~	WT	G				N	pH=
9	~~MW-29~~	WT	G				N	pH=
10	MW-30D	WT	G	9-2[illegible]-20 1105	15	[illegible]	N	pH= 8.72 002
11	~~MW-40D~~	WT	G				N	pH=
12	~~FD-01~~	WT	G				N	

Pace Project No.: 9246564

ADDITIONAL COMMENTS

Please note any wells struck through are wells not sampled, and note where the last sample for the event has been taken.

App. III & IV Metals: [illegible]

Major ions: [illegible]

[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Vrosh Thakur / [illegible]	9-24-20	1938	[illegible] / SCO	9/24	1930
[illegible] / SCO	9/24	2030	[illegible] / Pace	9/24	2030
[illegible] / Pace	9/25	1045	[illegible] / Pace	9/25	1045
[illegible] / Pace	9/25	1233	[illegible] / Pace	9/25	1233

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.7	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Vrosh Thakur

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 9-24-20

*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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 2

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-4/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	# OF CONTAINERS	Unpreserved	HNO3	Other	Chloride, Fluoride, Sulfate	TDS	Full App. III&IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-43D~~	WT	G									X	X	X	X	X	N	
2	~~MW-44D~~	WT	G									X	X	X	X	X	N	
3	FB-01	WT	G	9/24	1150	–	–	7	3	3	1	X	X	X	X	X	N	023
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Pace Project No.: 92494584

Handwritten across table: 9/24/2020

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Chad Rogers / GEO	9/24	2030	Julia Johnston / GEO	9/24/20	2030				
Julia Johnston / GEO	9/25/20	1045	[illegible] / Pace	9/25/20	1045				
[illegible] / Pace	9/25/20	1233	K. Wellington / PACE	9/25/20	1233	1.7	Y	N	Y

ADDITIONAL COMMENTS: [illegible]

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Rogers
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9/24/2020

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CHAIN-OF-CUSTODY / Analytical Request Document

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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:	Plant Hammond AP-1 Semiannual	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 Day	Project Number:	GW6391B	Pace Profile #:	10638-12 10639-2

Page: 1 of 1

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G	–	–			N	
2	MW-19	WT	G	–	–			N	
3	MW-20	WT	G	–	–			N	
4	[illegible]	WT	G	–	–			N	
5	[illegible]	WT	G	–	–			N	
6	[illegible]	WT	G	–	–			N	
7	MW-37D	WT	G	–	–			N	
8	[illegible]	WT	G	–	–			N	
9	MW-25	WT	G	–	–			N	
10	[illegible]	WT	G	–	–			N	
11	MW-40D	WT	G	9/28	1515	3.7		N	pH=7.09 lab sample 026
12	FD-01	WT	G	–	–			N	

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; [illegible]

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / GPC	9/28	1845	[signature] / Pace	9-28	1845
[signature] / Pace	9-29	0752	[signature] / Pace	9/30	0752
[signature] / Pace	9/30	0955	[signature] / Pace	9/30	0955
[signature] / Pace	9/30	1130	[signature]	9/30	1130

SAMPLE CONDITIONS: Temp in °C: 5.6; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 9/28/20

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 21, 2020

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 16, 2020 and September 29, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Co. Services
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495887001	**HGWA-1**	Water	09/15/20 14:01	09/16/20 11:14
92495887002	**HGWA-2**	Water	09/15/20 10:58	09/16/20 11:14
92495887003	**HGWA-3**	Water	09/15/20 11:45	09/16/20 11:14
92495887004	**HGWC-7**	Water	09/16/20 12:24	09/17/20 09:45
92495887005	**HGWC-7 FILTERED**	Water	09/16/20 12:24	09/17/20 09:45
92495887006	**HGWC-8**	Water	09/16/20 09:32	09/17/20 09:45
92495887007	**HGWC-10**	Water	09/16/20 16:15	09/17/20 09:45
92495887008	**MW-29**	Water	09/16/20 13:15	09/17/20 09:45
92495887009	**HGWA-43D**	Water	09/16/20 11:58	09/17/20 09:45
92495887010	**HGWA-44D**	Water	09/16/20 15:18	09/17/20 09:45
92495887011	**HGWC-9**	Water	09/17/20 11:42	09/18/20 10:20
92495887012	**MW-5**	Water	09/17/20 17:51	09/18/20 10:20
92495887013	**MW-20**	Water	09/17/20 15:54	09/18/20 10:20
92495887014	**MW-26D**	Water	09/17/20 13:02	09/18/20 10:20
92495887015	**FD-01**	Water	09/17/20 00:00	09/18/20 10:20
92495887016	**HGWC-11**	Water	09/18/20 13:30	09/21/20 09:25
92495887017	**HGWC-12**	Water	09/18/20 15:50	09/21/20 09:25
92495887018	**MW-25D**	Water	09/18/20 13:20	09/21/20 09:25
92495887019	**MW-27D**	Water	09/18/20 08:53	09/21/20 09:25
92495887020	**HGWC-13**	Water	09/21/20 16:45	09/22/20 09:25
92495887021	**MW-6**	Water	09/21/20 10:19	09/22/20 09:25
92495887022	**MW-7**	Water	09/21/20 16:41	09/22/20 09:25
92495887023	**MW-24D**	Water	09/21/20 17:55	09/22/20 09:25
92495887024	**MW-19**	Water	09/21/20 15:18	09/22/20 09:25
92495887025	**MW-28D**	Water	09/21/20 19:28	09/22/20 09:25
92495887026	**MW-30D**	Water	09/24/20 11:00	09/25/20 10:45
92495887027	**FB-01**	Water	09/24/20 18:50	09/25/20 10:45
92495887028	**MW-40D**	Water	09/28/20 15:15	09/29/20 08:55

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92495887001	**HGWA-1**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887002	**HGWA-2**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887003	**HGWA-3**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887004	**HGWC-7**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887005	**HGWC-7 FILTERED**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887006	**HGWC-8**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887007	**HGWC-10**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887008	**MW-29**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
92495887009	**HGWA-43D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92495887010	**HGWA-44D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92495887011	**HGWC-9**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887012	**MW-5**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887013	**MW-20**	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887014	**MW-26D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887015	**FD-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887016	**HGWC-11**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887017	**HGWC-12**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887018	**MW-25D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887019	**MW-27D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887020	**HGWC-13**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887021	**MW-6**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887022	**MW-7**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887023	**MW-24D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887024	**MW-19**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887025	**MW-28D**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Total Radium Calculation	JAL	1	PASI-PA
92495887026	**MW-30D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887027	**FB-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495887028	**MW-40D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887001	**HGWA-1**					
EPA 9315	Radium-226	0.0193 ± 0.226 (0.595) C:83% T:NA	pCi/L		10/07/20 07:29	
EPA 9320	Radium-228	0.729 ± 0.435 (0.807) C:71% T:83%	pCi/L		10/07/20 14:00	
Total Radium Calculation	Total Radium	0.748 ± 0.661 (1.40)	pCi/L		10/09/20 14:09	
92495887002	**HGWA-2**					
EPA 9315	Radium-226	0.124 ± 0.339 (0.807) C:87% T:NA	pCi/L		10/07/20 07:30	
EPA 9320	Radium-228	-0.233 ± 0.417 (1.01) C:66% T:81%	pCi/L		10/07/20 14:00	
Total Radium Calculation	Total Radium	0.124 ± 0.756 (1.82)	pCi/L		10/09/20 14:09	
92495887003	**HGWA-3**					
EPA 9315	Radium-226	0.161 ± 0.215 (0.449) C:89% T:NA	pCi/L		10/07/20 07:30	
EPA 9320	Radium-228	-0.305 ± 0.343 (0.865) C:74% T:83%	pCi/L		10/07/20 14:00	
Total Radium Calculation	Total Radium	0.161 ± 0.558 (1.31)	pCi/L		10/09/20 14:09	
92495887004	**HGWC-7**					
EPA 9315	Radium-226	0.0715 ± 0.193 (0.470) C:90% T:NA	pCi/L		10/07/20 07:46	
EPA 9320	Radium-228	0.0635 ± 0.473 (1.08) C:72% T:73%	pCi/L		10/07/20 14:01	
Total Radium Calculation	Total Radium	0.135 ± 0.666 (1.55)	pCi/L		10/09/20 14:09	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887005	**HGWC-7 FILTERED**					
EPA 9315	Radium-226	0.0498 ± 0.188 (0.477) C:85% T:NA	pCi/L		10/07/20 07:37	
EPA 9320	Radium-228	0.302 ± 0.549 (1.20) C:69% T:73%	pCi/L		10/07/20 14:01	
Total Radium Calculation	Total Radium	0.352 ± 0.737 (1.68)	pCi/L		10/09/20 14:09	
92495887006	**HGWC-8**					
EPA 9315	Radium-226	0.203 ± 0.242 (0.498) C:91% T:NA	pCi/L		10/07/20 07:37	
EPA 9320	Radium-228	0.323 ± 0.678 (1.50) C:68% T:52%	pCi/L		10/07/20 14:02	
Total Radium Calculation	Total Radium	0.526 ± 0.920 (2.00)	pCi/L		10/09/20 14:09	
92495887007	**HGWC-10**					
EPA 9315	Radium-226	-0.0781 ± 0.129 (0.469) C:79% T:NA	pCi/L		10/07/20 07:37	
EPA 9320	Radium-228	-0.245 ± 0.637 (1.51) C:71% T:54%	pCi/L		10/07/20 14:02	
Total Radium Calculation	Total Radium	0.000 ± 0.766 (1.98)	pCi/L		10/09/20 14:09	
92495887008	**MW-29**					
EPA 9315	Radium-226	0.193 ± 0.277 (0.604) C:86% T:NA	pCi/L		10/07/20 07:37	
EPA 9320	Radium-228	-0.196 ± 0.532 (1.26) C:68% T:69%	pCi/L		10/07/20 14:02	
Total Radium Calculation	Total Radium	0.193 ± 0.809 (1.86)	pCi/L		10/09/20 14:09	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887009	**HGWA-43D**					
EPA 9315	Radium-226	0.531 ± 0.341 (0.558) C:83% T:NA	pCi/L		10/07/20 07:38	
EPA 9320	Radium-228	-0.0158 ± 0.401 (0.931) C:73% T:74%	pCi/L		10/08/20 11:52	
Total Radium Calculation	Total Radium	0.531 ± 0.742 (1.49)	pCi/L		10/19/20 11:59	
92495887010	**HGWA-44D**					
EPA 9315	Radium-226	0.129 ± 0.179 (0.380) C:100% T:NA	pCi/L		10/07/20 07:38	
EPA 9320	Radium-228	0.293 ± 0.412 (0.887) C:76% T:83%	pCi/L		10/08/20 11:52	
Total Radium Calculation	Total Radium	0.422 ± 0.591 (1.27)	pCi/L		10/19/20 11:59	
92495887011	**HGWC-9**					
EPA 9315	Radium-226	0.313 ± 0.290 (0.557) C:86% T:NA	pCi/L		10/08/20 06:52	
EPA 9320	Radium-228	1.07 ± 0.638 (1.20) C:62% T:76%	pCi/L		10/08/20 12:27	
Total Radium Calculation	Total Radium	1.38 ± 0.928 (1.76)	pCi/L		10/20/20 08:55	
92495887012	**MW-5**					
EPA 9315	Radium-226	0.0116 ± 0.184 (0.501) C:85% T:NA	pCi/L		10/08/20 06:52	
EPA 9320	Radium-228	0.606 ± 0.544 (1.11) C:71% T:67%	pCi/L		10/08/20 15:42	
Total Radium Calculation	Total Radium	0.618 ± 0.728 (1.61)	pCi/L		10/20/20 08:55	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887013	**MW-20**					
EPA 9315	Radium-226	0.321 ± 0.326 (0.654) C:77% T:NA	pCi/L		10/08/20 07:40	
EPA 9320	Radium-228	0.148 ± 0.560 (1.27) C:62% T:63%	pCi/L		10/08/20 15:42	
Total Radium Calculation	Total Radium	0.469 ± 0.886 (1.92)	pCi/L		10/20/20 08:55	
92495887014	**MW-26D**					
EPA 9315	Radium-226	0.153 ± 0.237 (0.522) C:85% T:NA	pCi/L		10/08/20 06:52	
EPA 9320	Radium-228	0.267 ± 0.684 (1.53) C:70% T:44%	pCi/L		10/08/20 15:43	
Total Radium Calculation	Total Radium	0.420 ± 0.921 (2.05)	pCi/L		10/20/20 08:55	
92495887015	**FD-01**					
EPA 9315	Radium-226	0.125 ± 0.189 (0.406) C:86% T:NA	pCi/L		10/08/20 06:53	
EPA 9320	Radium-228	0.625 ± 0.711 (1.50) C:69% T:67%	pCi/L		10/08/20 15:49	
Total Radium Calculation	Total Radium	0.750 ± 0.900 (1.91)	pCi/L		10/20/20 08:55	
92495887016	**HGWC-11**					
EPA 9315	Radium-226	-0.0506 ± 0.306 (0.815) C:83% T:NA	pCi/L		10/08/20 06:53	
EPA 9320	Radium-228	1.24 ± 0.942 (1.88) C:68% T:50%	pCi/L		10/08/20 15:49	
Total Radium Calculation	Total Radium	1.24 ± 1.25 (2.70)	pCi/L		10/20/20 08:55	

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887017	**HGWC-12**					
EPA 9315	Radium-226	0.590 ± 0.316 (0.419) C:93% T:NA	pCi/L		10/08/20 06:53	
EPA 9320	Radium-228	0.326 ± 0.701 (1.54) C:73% T:58%	pCi/L		10/08/20 15:49	
Total Radium Calculation	Total Radium	0.916 ± 1.02 (1.96)	pCi/L		10/20/20 08:55	
92495887018	**MW-25D**					
EPA 9315	Radium-226	0.303 ± 0.261 (0.476) C:93% T:NA	pCi/L		10/08/20 06:53	
EPA 9320	Radium-228	0.866 ± 0.437 (0.727) C:58% T:88%	pCi/L		10/09/20 12:28	
Total Radium Calculation	Total Radium	1.17 ± 0.698 (1.20)	pCi/L		10/20/20 08:55	
92495887019	**MW-27D**					
EPA 9315	Radium-226	0.603 ± 0.304 (0.400) C:100% T:NA	pCi/L		10/08/20 06:53	
EPA 9320	Radium-228	0.527 ± 0.467 (0.941) C:57% T:85%	pCi/L		10/09/20 12:28	
Total Radium Calculation	Total Radium	1.13 ± 0.771 (1.34)	pCi/L		10/20/20 08:55	
92495887020	**HGWC-13**					
EPA 9315	Radium-226	0.298 ± 0.266 (0.496) C:86% T:NA	pCi/L		10/08/20 06:54	
EPA 9320	Radium-228	1.23 ± 0.536 (0.823) C:58% T:77%	pCi/L		10/09/20 15:43	
Total Radium Calculation	Total Radium	1.53 ± 0.802 (1.32)	pCi/L		10/20/20 09:06	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887021	**MW-6**					
EPA 9315	Radium-226	0.310 ± 0.248 (0.422) C:88% T:NA	pCi/L		10/08/20 06:54	
EPA 9320	Radium-228	0.486 ± 0.599 (1.27) C:49% T:72%	pCi/L		10/09/20 15:43	
Total Radium Calculation	Total Radium	0.796 ± 0.847 (1.69)	pCi/L		10/20/20 09:06	
92495887022	**MW-7**					
EPA 9315	Radium-226	0.157 ± 0.263 (0.591) C:86% T:NA	pCi/L		10/08/20 06:54	
EPA 9320	Radium-228	1.39 ± 0.641 (1.08) C:65% T:70%	pCi/L		10/09/20 15:43	
Total Radium Calculation	Total Radium	1.55 ± 0.904 (1.67)	pCi/L		10/20/20 09:06	
92495887023	**MW-24D**					
EPA 9315	Radium-226	0.0640 ± 0.226 (0.561) C:82% T:NA	pCi/L		10/08/20 06:54	
EPA 9320	Radium-228	1.17 ± 0.703 (1.30) C:63% T:58%	pCi/L		10/09/20 15:43	
Total Radium Calculation	Total Radium	1.23 ± 0.929 (1.86)	pCi/L		10/20/20 09:06	
92495887024	**MW-19**					
EPA 9315	Radium-226	0.290 ± 0.298 (0.605) C:92% T:NA	pCi/L		10/08/20 06:55	
EPA 9320	Radium-228	1.07 ± 0.565 (1.00) C:59% T:79%	pCi/L		10/09/20 15:43	
Total Radium Calculation	Total Radium	1.36 ± 0.863 (1.61)	pCi/L		10/20/20 09:06	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495887025	**MW-28D**					
EPA 9315	Radium-226	0.286 ± 0.245 (0.423) C:88% T:NA	pCi/L		10/07/20 07:52	
EPA 9320	Radium-228	1.10 ± 0.577 (1.02) C:61% T:74%	pCi/L		10/09/20 15:44	
Total Radium Calculation	Total Radium	1.39 ± 0.822 (1.44)	pCi/L		10/20/20 09:06	
92495887026	**MW-30D**					
EPA 9315	Radium-226	0.374 ± 0.261 (0.378) C:76% T:NA	pCi/L		10/14/20 06:37	
EPA 9320	Radium-228	0.435 ± 0.379 (0.763) C:77% T:80%	pCi/L		10/15/20 11:07	
Total Radium Calculation	Total Radium	0.809 ± 0.640 (1.14)	pCi/L		10/20/20 09:06	
92495887027	**FB-01**					
EPA 9315	Radium-226	-0.0189 ± 0.155 (0.475) C:73% T:NA	pCi/L		10/15/20 07:04	
EPA 9320	Radium-228	-0.0638 ± 0.357 (0.848) C:70% T:82%	pCi/L		10/15/20 11:15	
Total Radium Calculation	Total Radium	0.000 ± 0.512 (1.32)	pCi/L		10/20/20 09:06	
92495887028	**MW-40D**					
EPA 9315	Radium-226	1.95 ± 0.479 (0.439) C:93% T:NA	pCi/L		10/19/20 18:23	
EPA 9320	Radium-228	0.502 ± 0.556 (1.17) C:67% T:65%	pCi/L		10/15/20 11:14	
Total Radium Calculation	Total Radium	2.45 ± 1.04 (1.61)	pCi/L		10/20/20 10:07	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWA-1 **Lab ID: 92495887001** Collected: 09/15/20 14:01 Received: 09/16/20 11:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0193 ± 0.226 (0.595) C:83% T:NA**	pCi/L	10/07/20 07:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.729 ± 0.435 (0.807) C:71% T:83%**	pCi/L	10/07/20 14:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.748 ± 0.661 (1.40)**	pCi/L	10/09/20 14:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWA-2 **Lab ID: 92495887002** Collected: 09/15/20 10:58 Received: 09/16/20 11:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.124 ± 0.339 (0.807) C:87% T:NA**	pCi/L	10/07/20 07:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.233 ± 0.417 (1.01) C:66% T:81%**	pCi/L	10/07/20 14:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.124 ± 0.756 (1.82)**	pCi/L	10/09/20 14:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWA-3 **Lab ID: 92495887003** Collected: 09/15/20 11:45 Received: 09/16/20 11:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.161 ± 0.215 (0.449) C:89% T:NA**	pCi/L	10/07/20 07:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.305 ± 0.343 (0.865) C:74% T:83%**	pCi/L	10/07/20 14:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.161 ± 0.558 (1.31)**	pCi/L	10/09/20 14:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-7 **Lab ID: 92495887004** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 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	**0.0715 ± 0.193 (0.470) C:90% T:NA**	pCi/L	10/07/20 07:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0635 ± 0.473 (1.08) C:72% T:73%**	pCi/L	10/07/20 14:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.135 ± 0.666 (1.55)**	pCi/L	10/09/20 14:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-7 FILTERED **Lab ID: 92495887005** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 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	**0.0498 ± 0.188 (0.477) C:85% T:NA**	pCi/L	10/07/20 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.302 ± 0.549 (1.20) C:69% T:73%**	pCi/L	10/07/20 14:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.352 ± 0.737 (1.68)**	pCi/L	10/09/20 14:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-8 **Lab ID: 92495887006** Collected: 09/16/20 09:32 Received: 09/17/20 09:45 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	**0.203 ± 0.242 (0.498) C:91% T:NA**	pCi/L	10/07/20 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.323 ± 0.678 (1.50) C:68% T:52%**	pCi/L	10/07/20 14:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.526 ± 0.920 (2.00)**	pCi/L	10/09/20 14:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-10 **Lab ID: 92495887007** Collected: 09/16/20 16:15 Received: 09/17/20 09:45 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	**-0.0781 ± 0.129 (0.469) C:79% T:NA**	pCi/L	10/07/20 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.245 ± 0.637 (1.51) C:71% T:54%**	pCi/L	10/07/20 14:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.766 (1.98)**	pCi/L	10/09/20 14:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-29 **Lab ID: 92495887008** Collected: 09/16/20 13:15 Received: 09/17/20 09:45 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	**0.193 ± 0.277 (0.604) C:86% T:NA**	pCi/L	10/07/20 07:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.196 ± 0.532 (1.26) C:68% T:69%**	pCi/L	10/07/20 14:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.193 ± 0.809 (1.86)**	pCi/L	10/09/20 14:09	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWA-43D **Lab ID: 92495887009** Collected: 09/16/20 11:58 Received: 09/17/20 09:45 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	**0.531 ± 0.341 (0.558) C:83% T:NA**	pCi/L	10/07/20 07:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.0158 ± 0.401 (0.931) C:73% T:74%**	pCi/L	10/08/20 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.531 ± 0.742 (1.49)**	pCi/L	10/19/20 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWA-44D **Lab ID: 92495887010** Collected: 09/16/20 15:18 Received: 09/17/20 09:45 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	**0.129 ± 0.179 (0.380) C:100% T:NA**	pCi/L	10/07/20 07:38	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.293 ± 0.412 (0.887) C:76% T:83%**	pCi/L	10/08/20 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.422 ± 0.591 (1.27)**	pCi/L	10/19/20 11:59	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-9 **Lab ID: 92495887011** Collected: 09/17/20 11:42 Received: 09/18/20 10:20 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	**0.313 ± 0.290 (0.557) C:86% T:NA**	pCi/L	10/08/20 06:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.07 ± 0.638 (1.20) C:62% T:76%**	pCi/L	10/08/20 12:27	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.38 ± 0.928 (1.76)**	pCi/L	10/20/20 08:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-5 **Lab ID: 92495887012** Collected: 09/17/20 17:51 Received: 09/18/20 10:20 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	**0.0116 ± 0.184 (0.501) C:85% T:NA**	pCi/L	10/08/20 06:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.606 ± 0.544 (1.11) C:71% T:67%**	pCi/L	10/08/20 15:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.618 ± 0.728 (1.61)**	pCi/L	10/20/20 08:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-20 **Lab ID: 92495887013** Collected: 09/17/20 15:54 Received: 09/18/20 10:20 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	**0.321 ± 0.326 (0.654) C:77% T:NA**	pCi/L	10/08/20 07:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.148 ± 0.560 (1.27) C:62% T:63%**	pCi/L	10/08/20 15:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.469 ± 0.886 (1.92)**	pCi/L	10/20/20 08:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-26D **Lab ID: 92495887014** Collected: 09/17/20 13:02 Received: 09/18/20 10:20 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	**0.153 ± 0.237 (0.522) C:85% T:NA**	pCi/L	10/08/20 06:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.267 ± 0.684 (1.53) C:70% T:44%**	pCi/L	10/08/20 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.420 ± 0.921 (2.05)**	pCi/L	10/20/20 08:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: FD-01 **Lab ID: 92495887015** Collected: 09/17/20 00:00 Received: 09/18/20 10:20 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	**0.125 ± 0.189 (0.406) C:86% T:NA**	pCi/L	10/08/20 06:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.625 ± 0.711 (1.50) C:69% T:67%**	pCi/L	10/08/20 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.750 ± 0.900 (1.91)**	pCi/L	10/20/20 08:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-11 **Lab ID: 92495887016** Collected: 09/18/20 13:30 Received: 09/21/20 09:25 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	**-0.0506 ± 0.306 (0.815) C:83% T:NA**	pCi/L	10/08/20 06:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.24 ± 0.942 (1.88) C:68% T:50%**	pCi/L	10/08/20 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.24 ± 1.25 (2.70)**	pCi/L	10/20/20 08:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-12 **Lab ID: 92495887017** Collected: 09/18/20 15:50 Received: 09/21/20 09:25 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	**0.590 ± 0.316 (0.419) C:93% T:NA**	pCi/L	10/08/20 06:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.326 ± 0.701 (1.54) C:73% T:58%**	pCi/L	10/08/20 15:49	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.916 ± 1.02 (1.96)**	pCi/L	10/20/20 08:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-25D **Lab ID: 92495887018** Collected: 09/18/20 13:20 Received: 09/21/20 09:25 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	**0.303 ± 0.261 (0.476) C:93% T:NA**	pCi/L	10/08/20 06:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.866 ± 0.437 (0.727) C:58% T:88%**	pCi/L	10/09/20 12:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.17 ± 0.698 (1.20)**	pCi/L	10/20/20 08:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-27D **Lab ID: 92495887019** Collected: 09/18/20 08:53 Received: 09/21/20 09:25 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	**0.603 ± 0.304 (0.400) C:100% T:NA**	pCi/L	10/08/20 06:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.527 ± 0.467 (0.941) C:57% T:85%**	pCi/L	10/09/20 12:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.13 ± 0.771 (1.34)**	pCi/L	10/20/20 08:55	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: HGWC-13 **Lab ID: 92495887020** Collected: 09/21/20 16:45 Received: 09/22/20 09:25 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	**0.298 ± 0.266 (0.496) C:86% T:NA**	pCi/L	10/08/20 06:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.23 ± 0.536 (0.823) C:58% T:77%**	pCi/L	10/09/20 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.53 ± 0.802 (1.32)**	pCi/L	10/20/20 09:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-6 **Lab ID: 92495887021** Collected: 09/21/20 10:19 Received: 09/22/20 09:25 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	**0.310 ± 0.248 (0.422) C:88% T:NA**	pCi/L	10/08/20 06:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.486 ± 0.599 (1.27) C:49% T:72%**	pCi/L	10/09/20 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.796 ± 0.847 (1.69)**	pCi/L	10/20/20 09:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-7 **Lab ID: 92495887022** Collected: 09/21/20 16:41 Received: 09/22/20 09:25 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	**0.157 ± 0.263 (0.591) C:86% T:NA**	pCi/L	10/08/20 06:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.39 ± 0.641 (1.08) C:65% T:70%**	pCi/L	10/09/20 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.55 ± 0.904 (1.67)**	pCi/L	10/20/20 09:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-24D **Lab ID: 92495887023** Collected: 09/21/20 17:55 Received: 09/22/20 09:25 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	**0.0640 ± 0.226 (0.561) C:82% T:NA**	pCi/L	10/08/20 06:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.17 ± 0.703 (1.30) C:63% T:58%**	pCi/L	10/09/20 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.23 ± 0.929 (1.86)**	pCi/L	10/20/20 09:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-19 **Lab ID: 92495887024** Collected: 09/21/20 15:18 Received: 09/22/20 09:25 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	**0.290 ± 0.298 (0.605) C:92% T:NA**	pCi/L	10/08/20 06:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.07 ± 0.565 (1.00) C:59% T:79%**	pCi/L	10/09/20 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.36 ± 0.863 (1.61)**	pCi/L	10/20/20 09:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-28D **Lab ID: 92495887025** Collected: 09/21/20 19:28 Received: 09/22/20 09:25 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	**0.286 ± 0.245 (0.423) C:88% T:NA**	pCi/L	10/07/20 07:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.10 ± 0.577 (1.02) C:61% T:74%**	pCi/L	10/09/20 15:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.39 ± 0.822 (1.44)**	pCi/L	10/20/20 09:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-30D **Lab ID: 92495887026** Collected: 09/24/20 11:00 Received: 09/25/20 10:45 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	**0.374 ± 0.261 (0.378) C:76% T:NA**	pCi/L	10/14/20 06:37	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.435 ± 0.379 (0.763) C:77% T:80%**	pCi/L	10/15/20 11:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.809 ± 0.640 (1.14)**	pCi/L	10/20/20 09:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: FB-01 **Lab ID: 92495887027** Collected: 09/24/20 18:50 Received: 09/25/20 10:45 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	**-0.0189 ± 0.155 (0.475) C:73% T:NA**	pCi/L	10/15/20 07:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.0638 ± 0.357 (0.848) C:70% T:82%**	pCi/L	10/15/20 11:15	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.000 ± 0.512 (1.32)**	pCi/L	10/20/20 09:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Sample: MW-40D **Lab ID: 92495887028** Collected: 09/28/20 15:15 Received: 09/29/20 08:55 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	**1.95 ± 0.479 (0.439) C:93% T:NA**	pCi/L	10/19/20 18:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.502 ± 0.556 (1.17) C:67% T:65%**	pCi/L	10/15/20 11:14	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.45 ± 1.04 (1.61)**	pCi/L	10/20/20 10:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 415616 | Analysis Method: EPA 9315
QC Batch Method: EPA 9315 | Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92495887002, 92495887003, 92495887004, 92495887005, 92495887006, 92495887007, 92495887008, 92495887009, 92495887010

METHOD BLANK: 2009756 Matrix: Water

Associated Lab Samples: 92495887002, 92495887003, 92495887004, 92495887005, 92495887006, 92495887007, 92495887008, 92495887009, 92495887010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0920 ± 0.177 (0.408) C:91% T:NA	pCi/L	10/07/20 07:30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 417134
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887026

METHOD BLANK: 2016817
Matrix: Water
Associated Lab Samples: 92495887026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.280 ± 0.239 (0.418) C:85% T:NA	pCi/L	10/14/20 06:41	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 418550
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887028

METHOD BLANK: 2023109
Matrix: Water
Associated Lab Samples: 92495887028

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0638 ± 0.107 (0.209) C:94% T:NA	pCi/L	10/19/20 18:23	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 416276
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887025

METHOD BLANK: 2012761 Matrix: Water
Associated Lab Samples: 92495887025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.169 ± 0.216 (0.447) C:97% T:NA	pCi/L	10/07/20 07:50	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 415620 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887018, 92495887019, 92495887020, 92495887021, 92495887022, 92495887023, 92495887024, 92495887025

METHOD BLANK: 2009760 Matrix: Water
Associated Lab Samples: 92495887018, 92495887019, 92495887020, 92495887021, 92495887022, 92495887023, 92495887024, 92495887025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.796 ± 0.463 (0.837) C:62% T:83%	pCi/L	10/09/20 12:28	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 415615
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887001

METHOD BLANK: 2009755
Matrix: Water
Associated Lab Samples: 92495887001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.119 ± 0.160 (0.326) C:94% T:NA	pCi/L	10/06/20 17:26	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 415617 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887011, 92495887012, 92495887013, 92495887014, 92495887015, 92495887016, 92495887017, 92495887018, 92495887019, 92495887020, 92495887021, 92495887022, 92495887023, 92495887024

METHOD BLANK: 2009757 Matrix: Water
Associated Lab Samples: 92495887011, 92495887012, 92495887013, 92495887014, 92495887015, 92495887016, 92495887017, 92495887018, 92495887019, 92495887020, 92495887021, 92495887022, 92495887023, 92495887024

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	1.55 ± 0.513 (0.438) C:92% T:NA	pCi/L	10/08/20 06:52	1g

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 415618 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887001, 92495887002, 92495887003, 92495887004, 92495887005, 92495887006, 92495887007, 92495887008

METHOD BLANK: 2009758 Matrix: Water
Associated Lab Samples: 92495887001, 92495887002, 92495887003, 92495887004, 92495887005, 92495887006, 92495887007, 92495887008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.318 ± 0.350 (0.730) C:76% T:82%	pCi/L	10/07/20 10:48	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 417135
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887026

METHOD BLANK: 2016818
Matrix: Water
Associated Lab Samples: 92495887026

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.274 ± 0.291 (0.602) C:84% T:86%	pCi/L	10/15/20 11:05	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 415619 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887009, 92495887010, 92495887011, 92495887012, 92495887013, 92495887014, 92495887015, 92495887016, 92495887017

METHOD BLANK: 2009759 Matrix: Water
Associated Lab Samples: 92495887009, 92495887010, 92495887011, 92495887012, 92495887013, 92495887014, 92495887015, 92495887016, 92495887017

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.390 ± 0.341 (0.687) C:75% T:83%	pCi/L	10/08/20 11:51	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 417136
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887027

METHOD BLANK: 2016820
Matrix: Water
Associated Lab Samples: 92495887027

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0209 ± 0.127 (0.392) C:91% T:NA	pCi/L	10/15/20 07:09	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

QC Batch: 417137
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92495887027, 92495887028

METHOD BLANK: 2016821
Matrix: Water
Associated Lab Samples: 92495887027, 92495887028

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.369 ± 0.373 (0.768) C:73% T:75%	pCi/L	10/15/20 11:15	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1g	Analyte detected in MB at concentration above MDC and RL of 1.0 pCi/L. Samples results are reportable without qualification if they are less than their associated MDC or RL of 1.0 pCi/L.

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495887001	**HGWA-1**	EPA 9315	415615		
92495887002	**HGWA-2**	EPA 9315	415616		
92495887003	**HGWA-3**	EPA 9315	415616		
92495887004	**HGWC-7**	EPA 9315	415616		
92495887005	**HGWC-7 FILTERED**	EPA 9315	415616		
92495887006	**HGWC-8**	EPA 9315	415616		
92495887007	**HGWC-10**	EPA 9315	415616		
92495887008	**MW-29**	EPA 9315	415616		
92495887009	**HGWA-43D**	EPA 9315	415616		
92495887010	**HGWA-44D**	EPA 9315	415616		
92495887011	**HGWC-9**	EPA 9315	415617		
92495887012	**MW-5**	EPA 9315	415617		
92495887013	**MW-20**	EPA 9315	415617		
92495887014	**MW-26D**	EPA 9315	415617		
92495887015	**FD-01**	EPA 9315	415617		
92495887016	**HGWC-11**	EPA 9315	415617		
92495887017	**HGWC-12**	EPA 9315	415617		
92495887018	**MW-25D**	EPA 9315	415617		
92495887019	**MW-27D**	EPA 9315	415617		
92495887020	**HGWC-13**	EPA 9315	415617		
92495887021	**MW-6**	EPA 9315	415617		
92495887022	**MW-7**	EPA 9315	415617		
92495887023	**MW-24D**	EPA 9315	415617		
92495887024	**MW-19**	EPA 9315	415617		
92495887025	**MW-28D**	EPA 9315	416276		
92495887026	**MW-30D**	EPA 9315	417134		
92495887027	**FB-01**	EPA 9315	417136		
92495887028	**MW-40D**	EPA 9315	418550		
92495887001	**HGWA-1**	EPA 9320	415618		
92495887002	**HGWA-2**	EPA 9320	415618		
92495887003	**HGWA-3**	EPA 9320	415618		
92495887004	**HGWC-7**	EPA 9320	415618		
92495887005	**HGWC-7 FILTERED**	EPA 9320	415618		
92495887006	**HGWC-8**	EPA 9320	415618		
92495887007	**HGWC-10**	EPA 9320	415618		
92495887008	**MW-29**	EPA 9320	415618		
92495887009	**HGWA-43D**	EPA 9320	415619		
92495887010	**HGWA-44D**	EPA 9320	415619		
92495887011	**HGWC-9**	EPA 9320	415619		
92495887012	**MW-5**	EPA 9320	415619		
92495887013	**MW-20**	EPA 9320	415619		
92495887014	**MW-26D**	EPA 9320	415619		
92495887015	**FD-01**	EPA 9320	415619		
92495887016	**HGWC-11**	EPA 9320	415619		
92495887017	**HGWC-12**	EPA 9320	415619		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL RADS
Pace Project No.: 92495887

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495887018	**MW-25D**	EPA 9320	415620		
92495887019	**MW-27D**	EPA 9320	415620		
92495887020	**HGWC-13**	EPA 9320	415620		
92495887021	**MW-6**	EPA 9320	415620		
92495887022	**MW-7**	EPA 9320	415620		
92495887023	**MW-24D**	EPA 9320	415620		
92495887024	**MW-19**	EPA 9320	415620		
92495887025	**MW-28D**	EPA 9320	415620		
92495887026	**MW-30D**	EPA 9320	417135		
92495887027	**FB-01**	EPA 9320	417137		
92495887028	**MW-40D**	EPA 9320	417137		
92495887001	**HGWA-1**	Total Radium Calculation	417873		
92495887002	**HGWA-2**	Total Radium Calculation	417873		
92495887003	**HGWA-3**	Total Radium Calculation	417873		
92495887004	**HGWC-7**	Total Radium Calculation	417873		
92495887005	**HGWC-7 FILTERED**	Total Radium Calculation	417873		
92495887006	**HGWC-8**	Total Radium Calculation	417873		
92495887007	**HGWC-10**	Total Radium Calculation	417873		
92495887008	**MW-29**	Total Radium Calculation	417873		
92495887009	**HGWA-43D**	Total Radium Calculation	419145		
92495887010	**HGWA-44D**	Total Radium Calculation	419145		
92495887011	**HGWC-9**	Total Radium Calculation	419262		
92495887012	**MW-5**	Total Radium Calculation	419262		
92495887013	**MW-20**	Total Radium Calculation	419262		
92495887014	**MW-26D**	Total Radium Calculation	419262		
92495887015	**FD-01**	Total Radium Calculation	419262		
92495887016	**HGWC-11**	Total Radium Calculation	419262		
92495887017	**HGWC-12**	Total Radium Calculation	419262		
92495887018	**MW-25D**	Total Radium Calculation	419262		
92495887019	**MW-27D**	Total Radium Calculation	419262		
92495887020	**HGWC-13**	Total Radium Calculation	419263		
92495887021	**MW-6**	Total Radium Calculation	419263		
92495887022	**MW-7**	Total Radium Calculation	419263		
92495887023	**MW-24D**	Total Radium Calculation	419263		
92495887024	**MW-19**	Total Radium Calculation	419263		
92495887025	**MW-28D**	Total Radium Calculation	419263		
92495887026	**MW-30D**	Total Radium Calculation	419263		
92495887027	**FB-01**	Total Radium Calculation	419263		
92495887028	**MW-40D**	Total Radium Calculation	419264		

Pace Analytical

Sample Condition Upon Rec

WO# : 92495887

Client Name: GA Power

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Oth:

Tracking #:

Proj. Due Date:
Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 214 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.4 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 9/16/2009

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

F-ALL-C003rev.3, 11September2008

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Semiannual	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 Day	Project Number:	GW6978	Pace Profile #:	10839-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	COMPOSITE END DATE	COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G	9-15-20	1401	–	–	22	7	3		3					1	X	X	X	X	X	N	pH = 2.15
2	HGWA-2	WT	G	9-15-20	1050	–	–	20	7	3		3					1	X	X	X	X	X	N	pH = 6.22
3	~~HGWA-3~~	WT	G																				N	pH =
4	~~HGWC-7~~	WT	G																				N	pH =
5	~~HGWC-8~~	WT	G																				N	pH =
6	~~HGWC-9~~	WT	G																				N	pH =
7	~~HGWC-10~~	WT	G																				N	pH =
8	~~HGWC-11~~	WT	G																				N	pH =
9	~~HGWC-12~~	WT	G																				N	pH =
10	~~HGWC-13~~	WT	G																				N	pH =
11	~~HMW-5~~	WT	G																				N	pH =
12	~~HMW-6~~	WT	G																				N	pH =

92465867

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.	Victor Thaker / SCO	9-15-20	1705	[illegible] / SCO	9/15/20	1705	
*App. III & IV Metals [illegible]	[illegible] / SCO	9/15/20	1830	[illegible] / Pace	9/15/20	1830	
Major ions** [illegible]	[illegible] / Pace	9/16/20	1113	[illegible] / Pace	9/16/20	1114	
[illegible]	[illegible] William / Pace	9/16/20	1400	[illegible]	9/16/20	1450	

SAMPLER NAME AND SIGNATURE: Victor Thaker

PRINT Name of SAMPLER: Victor Thaker

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9-15-20

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 2

Section A – Required Client Information

Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: [illegible]

Section B – Required Project Information

Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581B

Section C – Invoice Information

Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: [illegible]

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G				N	pH =
2	HGWA-2	WT	G				N	pH =
3	HGWA-3	WT	G	9/15	1145	20	N	pH = 7.29
4	HGWC-7	WT	G				N	pH =
5	HGWC-8	WT	G				N	pH =
6	HGWD-9	WT	G				N	pH =
7	HGWD-10	WT	G				N	pH =
8	HGWD-11	WT	G				N	pH =
9	HGWD-12	WT	G				N	pH =
10	HGWD-13	WT	G				N	pH =
11	WW-[illegible]	WT	G				N	pH =
12	WW-[illegible]	WT	G				N	pH =

Pace Project No./Lab I.D.: 92495357

Requested Analysis: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major Ions

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Chad Russo / GPC	9/15/20	1630	Christian [illegible] / Geo	9/15/20	1630
Christian [illegible] / Geo	9/16/20	1113	Ryan Wilkins / Pace	9/16/20	1114
Ryan Wilkins / Pace	9/16/20	1457	[illegible]	9/16/20	1450

ADDITIONAL COMMENTS: Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken. [illegible]

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9/15/2020

SAMPLE CONDITIONS: 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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 4

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581[illegible]

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-10T10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D — Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	Collected Date	Collected Time	# OF CONTAINERS	Requested Analysis: Chloride, Fluoride, Sulfate / TDS / App. III & IV Metals / RAD 226/228 / Major Ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
~~1~~	~~HGWA-1~~	WT	G				X X X X X	N	pH=
~~2~~	~~HGWA-2~~	WT	G				X X X X X	N	pH=
~~3~~	~~HGWA-3~~	WT	G				X X X X X	N	pH=
4	HGWC-7	WT	G	9-16-20	1224		X X X X X	N	pH= 7.50 — 004
5	~~HGWC-8~~ HGWC-7-FD	WT	G	9-16-20	1224		X X X X X	N	pH= 7.50 — 005
~~6~~	~~HGWC-9~~	WT	G				X X X X X	N	pH=
~~7~~	~~HGWC-10~~	WT	G				X X X X X	N	pH=
~~8~~	~~HGWC-11~~	WT	G				X X X X X	N	pH=
~~9~~	~~HGWC-12~~	WT	G				X X X X X	N	pH=
~~10~~	~~HGWC-13~~	WT	G				X X X X X	N	pH=
~~11~~	~~MW-5~~	WT	G				X X X X X	N	pH=
~~12~~	~~MW-6~~	WT	G				X X X X X	N	pH=

Pace Project No./Lab I.D.: 92495987

ADDITIONAL COMMENTS

Please note dry wells, wells though any wells not sampled, and note when the last sample for the event has been taken.

*App. III & IV Metals—Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl

Major ions**= Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MW-4SD, MW-4MD but they will be reported for AP-1/AP-2 SDGs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
V. Thakur / GEO	9-16-20	1830	[illegible] / GEO	9/16	1830
[illegible] / GEO	9/16	1955	[illegible] / GEO	9/16/20	1955
[illegible] / GEO	9/17	0845	[illegible] / Pace	9/17/20	0845
[illegible] / Pace	9/17/20	1306	Charles Hawkins	9/17/20	1305

SAMPLE CONDITIONS: Temp in °C: 4.1 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): Y | Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VASANT THAKUR

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9-16-20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 7

Section A – Required Client Information

- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts

Section B – Required Project Information

- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Project Name: Plant Hammond AP-1 Semiannual

Section C – Invoice Information

- Attention: Southern Co.
- Pace Profile #: [illegible]
- Pace Project Manager: Kevin Herring

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92345567

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	Residual Chlorine (Y/N)	Notes
1	HGWA-1	WT	G			N	pH =
2	HGWA-2	WT	G			N	pH =
3	HGWA-3	WT	G			N	pH =
4	HGWC-7	WT	G			N	pH =
5	HGWC-8	WT	G	9/16	0932	N	pH = 6.92 006
6	HGWC-9	WT	G			N	pH =
7	HGWC-10	WT	G	9/16	1615	N	pH = 6.66 007
8	HGWC-11	WT	G			N	pH =
9	HGWC-12	WT	G			N	pH =
10	HGWC-23	WT	G			N	pH =
11	MW-5	WT	G			N	pH =
12	MW-6	WT	G			N	pH =

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	9/16	1835	[illegible] / GPC	9/16	1835
[illegible] / GPC	9/16	1958	[illegible] / GAO	9/16/24	1955
[illegible] / GAU	9/17/24	0945	[illegible] / Pace	9/17/24	0945
[illegible] / Pace	9/17/24	1505	[illegible]	9/17/24	1505

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): Y; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas J. Kerr

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 9/16/20

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 3 of 3 (4)

Section A – Required Client Information

Company	GA Power
Address	Atlanta, GA
Email To	SCS Contacts
Phone	Fax
Requested Due Date/TAT	10 day

Section B – Required Project Information

Report To	SCS Contacts
Copy To	Geosyntec Contacts
Purchase Order No.	
Project Name	Plant Hammond AP-1 Semiannual
Project Number	CGG0216

Section C – Invoice Information

Attention	Southern Co.
Company Name	
Address	
Pace Quote Reference	
Pace Project Manager	Kevin Herring
Pace Profile #	10036-13710039-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

4244587 (Pace Project No./ Lab I.D.)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Unpreserved	HNO_3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
2	MW-16	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
3	MW-20	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
4	MW-24D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
5	MW-25D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
6	MW-26D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
7	MW-27D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
8	MW-28D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
9	MW-29	WT	G	9/16	1315	7	3	3	1	X	X	X	X	X	N	pH = 6.41 / 006
10	MW-30D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
11	MW-40D	WT	G			7	3	3	1	X	X	X	X	X	N	pH =
12	FD-01	WT	G			7	3	3	1	X	X	X	X	X	N	pH =

ADDITIONAL COMMENTS

Please note by wells. Strike through any wells not sampled, and note when the last sample for the event has been taken.

*App. III & IV Metals - Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl.

Major ions**: Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MW-40D, MW-44D but they will be reported for AP-1/2/3 SSOs.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Geosyntec	9/16	1835	[illegible] / Pace	9/16	1835
[illegible] / Pace	9/16	1955	[illegible] / geo	9/16/20	1955
[illegible] / geo	9/17/20	0945	[illegible] / Pace	9/17/20	0945
[illegible] / Pace	9/17/20	1505	Charles Hanks	9/17/20	1305

SAMPLE CONDITIONS: Temp in °C: 4.1 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): Y | Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas J Kessler

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/16

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6618

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	[illegible]

Page: 4 of 4

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	Tot App. III/IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	MW-43D	WT	G	9/16	1159		7	3		3					1	X	X	X	X	X	N	pH = 7.52 004
2	MW-44D	WT	G	9/16	1518		7	3		3					1	X	X	X	X	X	N	pH = 7.93 010
3	FB-01	WT	G																			

92494587 (Pace Project No.)

9/16/2020 (initialed)

ADDITIONAL COMMENTS: Please note any wells, listed through any wells not sampled, and note when the last sample for the event has been taken. Tot App. III & IV Metals: [illegible]. Major ions = Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide. One sample set submitted for [illegible] ... MW-43D, MW-44D but they will be reported for AP [illegible].

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo / GEO	9/16	1959	Mackin [illegible] / GEO	9/16/20	1955				
Mackin [illegible] / GEO	9/17/20	0945	[illegible] / Pace	9/17/20	0945				
[illegible] / Pace	9/17/20	1306	Charles [illegible]	9/17/20	1305	4.1	Y	Y	7

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo — DATE Signed (MM/DD/YY): 9/16/2020

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 2

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6618

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10828-1,0/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D. 92495887
1	HGWA-1	WT	G					X	X	X	X	X	N	pH=
2	HGWA-2	WT	G					X	X	X	X	X	N	pH=
3	HGWA-3	WT	G					X	X	X	X	X	N	pH=
4	HGWC-7	WT	G					X	X	X	X	X	N	pH=
5	HGWC-8	WT	G					X	X	X	X	X	N	pH=
6	HGWC-9	WT	G	9/17	1142	[illegible]	7	X	X	X	X	X	N	pH=6.99 011
7	HGWC-10	WT	G					X	X	X	X	X	N	pH=
8	HGWC-11	WT	G					X	X	X	X	X	N	pH=
9	HGWC-12	WT	G					X	X	X	X	X	N	pH=
10	HGWC-13	WT	G					X	X	X	X	X	N	pH=
11	MW-5	WT	G	9/17	1351	[illegible]	7	X	X	X	X	X	N	pH=6.48 012
12	MW-6	WT	G					X	X	X	X	X	N	pH=

ADDITIONAL COMMENTS: [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
T. / Geosyntec	9/17	1840	[illegible] / GPC	9/17	1840				
[illegible] / GPC	9/17	2000	[illegible] / GPC	9/18	2000				
[illegible] / GPC	9/18/20	1017	[illegible] / Pace	9/18	1018				
[illegible] / Pace	9/18	1845	[illegible]	9/18/20	1845	5.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas [illegible]

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/17/20

[illegible]

F-ALL-Q-020rev.07, 15-Feb-2007

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Page: [illegible]

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Semiannual	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 Day	Project Number:	GW6541B	Pace Profile #:	10836-1/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals [illegible]; RAD 226/228; Major ions

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G					N	pH=
2	MW-19	WT	G					N	pH=
3	MW-20	WT	G	9/17	1531	21	7	N	pH= 6.78 / 017
4	MW-24D	WT	G					N	pH=
5	MW-25D	WT	G					N	pH=
6	MW-26D	WT	G	9/17	1302	22	7	N	pH= 7.06 / 014
7	MW-27D	WT	G					N	pH=
8	MW-28D	WT	G					N	pH=
9	MW-29	WT	G					N	pH=
10	MW-30D	WT	G					N	pH=
11	MW-40D	WT	G					N	pH=
12	FD-01	WT	G	9/17	-	22	7	N	015

Pace Project No.: 92495857

ADDITIONAL COMMENTS: Please note any wells, cross through any wells not sampled and note when the last sample for the event has been collected. *App. III & IV Metals: [illegible]. Major ions: [illegible]. [illegible] MW-40D, MW-44D [illegible] AP-1 [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Thomas Kessler / Geosyntec	9/17	1840	[illegible] / GCO	9/17	1840	
[illegible] / GCO	9/17	2000	[illegible] / Pace	9/18	2000	
[illegible] / Pace	9/19/20	1017	[illegible] / Pace	9/19	1026	
[illegible] / Pace	9/19	1845	[illegible]	9/19/20	1845	5.1 Y Y Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Thomas Kessler
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 09/17/20

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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 2

Section A — Required Client Information:
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: 10 Day

Section B — Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581B

Section C — Invoice Information:
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10639-10/10639-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92495667

Requested Analysis Filtered (Y/N): N N N N N

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G				7		pH =
2	~~HGWA-2~~	WT	G				7		pH =
3	~~HGWA-3~~	WT	G				7		pH =
4	~~HGWC-7~~	WT	G				7		pH =
5	~~HGWC-8~~	WT	G				7		pH =
6	~~HGWC-9~~	WT	G				7		pH =
7	~~HGWC-10~~	WT	G				7		pH =
8	HGWC-11	WT	G	20-9-20	1530	23	7	N	pH = 6.8[illegible] 016
9	HGWC-12	WT	G	20-9-20	1530	24	7	N	pH = 7.15 017
10	~~HGWC-13~~	WT	G				7		pH =
11	~~MW-5~~	WT	G				7		pH =
12	~~MW-6~~	WT	G				7		pH =

ADDITIONAL COMMENTS: [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Geosyntec	9-18-20	1645	[illegible] / Pace	9/18	1645
[illegible] / GCO	9/18	1920	[illegible] / Pace	9/18/20	1920
[illegible] / Pace	9/21/20	0925	[illegible] / Pace	9/21/20	0925
[illegible] / Pace	9/21/20	1209	[illegible]	9/21/20	1208

SAMPLE CONDITIONS: Temp in °C: 3.6 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): N | Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: [illegible]
SIGNATURE of SAMPLER: [illegible]
DATE Signed (MM/DD/YY): 9-18-20

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Section A — Required Client Information

Company	GA Power
Address	Atlanta, GA
Email To	SCS Contacts
Phone	Fax
Requested Due Date/TAT	10 Day

Section B — Required Project Information

Report To	SCS Contacts
Copy To	Geosyntec Contacts
Purchase Order No.	
Project Name	Plant Hammond AP-1 Semiannual
Project Number	GW6581B

Section C — Invoice Information

Attention	Southern Co.
Company Name	
Address	
Pace Quote Reference	
Pace Project Manager	Kevin Herring
Pace Profile #	10639-1/10639-2

Regulatory Agency: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER [illegible]

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major Ions

Pace Project No./ Lab I.D.: 92465887

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	Collected Date	Collected Time	Sample Temp at Collection	# of Containers	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	MW-7	WT	G				[illegible]	N	pH=
2	MW-19	WT	G				[illegible]	N	pH=
3	MW-20	WT	G				[illegible]	N	pH=
4	MW-24D	WT	G				[illegible]	N	pH=
5	MW-25D	WT	G	9/18	1320	23	[illegible]	N	pH= 7.64 — 015
6	MW-26D	WT	G				[illegible]	N	pH=
7	MW-27D	WT	G	9/18	0858	20	[illegible]	N	pH= 7.51 — 016
8	MW-28D	WT	G				[illegible]	N	pH=
9	MW-29	WT	G				[illegible]	N	pH=
10	MW-30D	WT	G				[illegible]	N	pH=
11	MW-40D	WT	G				[illegible]	N	pH=
12	FD-01	WT	G				[illegible]	N	

Additional Comments: Please note any wells, sites through any wells not sampled, and note where the last sample for the project has been taken. *App. III & IV Metals [illegible]. Major ions [illegible]. One sample not submitted for [illegible] will be reported for [illegible].

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Sample Conditions
[signature] / GPC	9/19	1920	[signature] / GPC	9/19/20	1920	
[signature] / GPC	9/21/20	0925	[signature] / Pace	9/21/20	925	
[signature] / Pace	9/21/20	1208	[signature]	9/21/20	1208	5.6 / Y / N / —

Sampler Name and Signature

Print Name of Sampler: Chad R. S[illegible]

Signature of Sampler: [signature] Date Signed: 9/19/2020

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.

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Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW0581B

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-1 / 10839-2

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D – Required Client Information

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: [illegible]

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
~~1~~	~~HGWA-1~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~2~~	~~HGWA-2~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~3~~	~~HGWA-3~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~4~~	~~HGWC-7~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~5~~	~~HGWC-8~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~6~~	~~HGWC-9~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~7~~	~~HGWC-10~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~8~~	~~HGWC-11~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~9~~	~~HGWC-12~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
10	HGWC-13	WT	G	9-21-20	16:45	–	–	28	7	3		3					1	X	X	X	X	X	N	pH = 7.3 [illegible]
~~11~~	~~MW-5~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~12~~	~~MW-6~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =

Pace Project No./Lab I.D.: 92495887

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note dry wells, wells through any wells not sampled, and note when the last sample for the event has been taken.	[illegible] / Geosyntec	9-21-20	1600	[illegible] / Pace	9/21	1650				
*App. III & IV Metals = [illegible]	[illegible] / Pace	9/21	2110	[illegible] / Pace	9/21/20	2110				
Major ions** = [illegible]	[illegible] / Pace	9/22/20	0935	[illegible]	9/22/20	935				
One sample set submitted for HGWA-1, HGWA-2, HGWA-3, [illegible] but they will be reported for [illegible]	[illegible]	9/22/20	[illegible]	[illegible]	9/22/20	1215	4.1	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 9-21-20

*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.

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Section A – Required Client Information

Company	GA Power
Address	Atlanta, GA
Email To	SCS Contacts
Phone	Fax
Requested Due Date/TAT	14 Day

Section B – Required Project Information

Report To	SCS Contacts
Copy To	Geosyntec Contacts
Purchase Order No.	
Project Name	Plant Hammond AP-1 Semiannual
Project Number	GW6961B

Section C – Invoice Information

Attention	Southern Co.
Company Name	
Address	
Pace Quote Reference	
Pace Project Manager	Kevin Herring
Pace Profile #	10039-10110638-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D – Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Collected Date	Collected Time	Composite End Date	Composite End Time	Sample Temp at Collection	# of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
2	HGWA-2	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
3	HGWA-3	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
4	[illegible]	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
5	HGWC-8	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
6	HGWC-9	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
7	HGWA-10	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
8	HGWC-11	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
9	HGWC-12	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
10	HGWC-13	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
11	MW-5	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	
12	MW-6	WT	G	9/21	1045	-	-	21	7	3		3					1	X	X	X	X	X	N	pH = 6.88

Lab I.D.: 92495889

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.

*App. III & IV Metals=Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl

Major ions**=Al, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MW-4(D), MW-4(O) but they will be reported for AP-1/2/3 SDGs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo	9/21	2100	Jalin [illegible] / GEO	9/21/20	2110				
[illegible] / GEO	9/22/20	0925	[illegible] / Pace	9/22/20	925				
[illegible] / Pace	9/22/20	1216	Charles Hentz	9/22/20	1215	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo

DATE Signed (MM/DD/YY): 9/21/2020

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.

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Section A Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6018

Section C Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10828-10/10829-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 9245867

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RA226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G	9/21	1041	-	-	21	7	3		3					1	X	X	X	X	X	N	pH=6.50 071
2	MW-15	WT	G																					
3	AMW-20	WT	G						7	3		3					1	X	X	X	X	X		pH=
4	MW-24D	WT	G			-	-		7	3		3					1							pH=
5	MW-25S	WT	G			-	-		7	3		3					1							pH=
6	MW-26D	WT	G																					pH=
7	MW-27D	WT	G						7	3		3					1	X	X	X	X	X		pH=
8	MW-28D	WT	G															X	X	X	X	X		pH=
9	GWA-...	WT	G																					pH=
10	MW-30D	WT	G			-	-		7	3		3					1							pH=
11	MW-40D	WT	G						7	3		3					1							pH=
12	FD-01	WT	G			-	-		7	3		3					1							

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.
*App. III & IV Metals=Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl
Major ions**=Alk, Bicarb Alk, TA, Mg, Mn, K, Na, Sulfide
One sample was submitted for HGWA-1, HGWA-2, HGWA-3, MW-40D, MW-44D but they will be reported for AP-1/GYPSUM

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo / GEO	9/21	2115	Marlie Almenhaus / Geo	9/21/21	2110				
Marlie Almenhaus / Geo	9/22/21	0925	[illegible] / Pace	9/22/21	925				
[illegible] / Pace	9/22/21	1216	[illegible]	9/22/21	1245	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo

DATE Signed (MM/DD/YY): 9/21/2021

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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 4 of 5

Section A — Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: Fax:
Requested Due Date/TAT: 14 Day

Section B — Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW0048

Section C — Invoice Information
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10639-10/10639-2

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA 2 OTHER

Site Location STATE: GA

Section D — Required Client Information
Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; TISSUE TS; OTHER OT

SAMPLE ID
(A-Z, 0-9 / -)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED Date	COLLECTED Time	COMPOSITE Date	COMPOSITE Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G						7	1							6		N N N N N N	N	
2	MW-15	WT	G						7	1							6		N N N N N N	N	
3	MW-60	WT	G						7	1							6		N N N N N N	N	
4	MW-24D	WT	G	9-21-20	1357				7	1							6		N N N N N N	N	pH = 7.43 657
5	MW-25D	WT	G						7	1							6		N N N N N N	N	
6	MW-26D	WT	G						7	1							6		N N N N N N	N	
7	MW-27D	WT	G						7	1							6		N N N N N N	N	
8	MW-28D	WT	G						7	1							6		N N N N N N	N	
9	MW-29	WT	G						7	1							6		N N N N N N	N	
10	MW-30D	WT	G						7	1							6		N N N N N N	N	
11	MW-40D	WT	G						7	1							6		N N N N N N	N	
12	FD-01	WT	G						7	1							6		N N N N N N	N	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Please note dry wells, since thorough any wells not sampled, and note when the last sample for the event has been taken. Also, B & W Metals-Ca, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Ra, Tl		9-21-20	1830		9/21/20	1830	
Major ions** Alk, Cl, F, NO3, SO4		9/21/20	0925		9/21/20	925	
One sample was submitted for HG400-4, HG400-5, HG400-6, MW-40D, MW-44D but they will be reported for AP-1/2/3 SDGs		9/22/20	1210		9/22/20	1145	4.1 Y N/A N

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: [illegible]
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-21-20

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 of 5

Section A Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6281S

Section C Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10809-10710809-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92495867

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G																				N	pH =
2	MW-19	WT	G	9/21	1516	–	–	22	7	3		3					1	X	X	X	X	X	N	pH = 6.41 024
3	MW-20	WT	G																				N	pH =
4	MW-24D	WT	G																				N	pH =
5	MW-25D	WT	G																				N	pH =
6	MW-26D	WT	G																				N	pH =
7	MW-27D	WT	G																				N	pH =
8	MW-28D	WT	G	9/21	1020	–	–	21	7	3		3					1	X	X	X	X	X	N	pH = 7.16 025
9	MW-29	WT	G																				N	pH =
10	MW-30D	WT	G																				N	pH =
11	MW-40D	WT	G																				N	pH =
12	FD-01	WT	G																				N	pH =

(Rows 1, 3–7 and 9–12 are struck through by hand.)

ADDITIONAL COMMENTS

Please note dry wells, wells through any wells not sampled, and note when the last sample for the event has been taken.
*App. III & IV Metals (Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl)
Major ions** = [illegible]
One sample set submitted for [illegible] MW-40D, MW-44D but they will be reported for AP-1/2/3 SOGs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Harvey Kessler / [illegible]	9/21	2000	[signature] / GCO	9/21	2000
[signature] / GCO	9/21	2110	[signature] / Pace	9/21/20	2117
[signature] / Pace	9/22/20	0925	[signature] / Pace	9/22/20	925
[signature] / Pace	9/22/20	1215	[signature]	9/22/20	1215

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Harvey Jones
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 09/21/20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 2

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:
		Address:
Email To: SCS Contacts	Purchase Order No.:	Pace Quote Reference:
Phone: / Fax:	Project Name: Plant Hammond AP-1 Semiannual	Pace Project Manager: Kevin Herring
Requested Due Date/TAT: 10 Day	Project Number: GW6591B	Pace Profile #: 10826-10/10834-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020; RAD 226/228; Major ions

Pace Project No./ Lab I.D.: 92266885

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE/TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Analyses	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G			[illegible]	X X X X X	N	pH =
2	~~MW-15~~	WT	G	-		[illegible]	X X X X X	N	pH =
3	~~MW-20~~	WT	G	-		[illegible]	X X X X X	N	pH =
4	~~MW-24D~~	WT	G	-		[illegible]	X X X X X	N	pH =
5	~~MW-26D~~	WT	G			[illegible]	X X X X X	N	pH =
6	~~MW-28D~~	WT	G			[illegible]	X X X X X	N	pH =
7	~~MW-27D~~	WT	G			[illegible]	X X X X X	N	pH =
8	~~MW-28D~~	WT	G			[illegible]	X X X X X	N	pH =
9	~~MW-29~~	WT	G			[illegible]	X X X X X	N	pH =
10	MW-30D	WT	G	9/24/20 1150	13	[illegible]	X X X X X	N	pH = 8.72 / 002
11	~~MW-40D~~	WT	G	-		[illegible]	X X X X X	N	pH =
12	~~FD-01~~	WT	G			[illegible]	X X X X X	N	

ADDITIONAL COMMENTS: Please note dry wells; strike through any wells not sampled, and note where the last sample for the event has been taken. App. III & IV Metals = [illegible]. Major ions = [illegible]. One sample not submitted for [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Yishay Thiwat / Geosyntec	9-24-20	1935	Chad Rose / GCo	9/24	1930
Chad Rose / GCo	9/24	2030	Mattie [illegible] / GCo	9/24/20	2030
Mattie [illegible] / GCo	9/25/20	10:15	[illegible] / Pace	9/25/20	10:45
[illegible] / Pace	9/25/20	1255	K. Williams / Pace	9/25/20	1253

SAMPLE CONDITIONS: Temp in °C: 1.7; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Yishay Thiwat
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-24-20

*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

CHAIN-OF-CUSTODY / Analytical Request Document

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Pace Analytical

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Semiannual	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 day	Project Number:	GW6081B	Pace Profile #:	10839-4/10839-2

Page: 2 of 2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	Chloride, Fluoride, Sulfate	TDS	Full App. III/IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-43D~~	WT	G						7	3		3					1		X	X	X	X	X	N	
2	~~MW-44D~~	WT	G						7	3		3					1		X	X	X	X	X	N	
3	FB-01	WT	G	9/24	1850	–	–		7	3		3					1		X	X	X	X	X	N	023
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

Pace Project No./Lab I.D.: GW45807

9/24/2020

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note dry wells, strike through any wells not sampled, and note when the last sample to the event has been taken.	Chad Ko[illegible] / GPC	9/24	2035	[illegible] / GPC	9/24/20	2030				
[illegible]	[illegible] / GPC	9/25/20	1045	[illegible] / Pace	9/25/20	1046				
Major ions: [illegible]	[illegible] / Pace	9/25/20	1233	K. Wellington / PACE	9/25/20	1233	1.7	Y	N	Y
One sample not submitted for [illegible]							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/24/2020

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6591B

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-1/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D – Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G						
2	~~MW-19~~	WT	G						
3	~~MW-20~~	WT	G						
4	~~MW-21D~~	WT	G						
5	~~MW-24D~~	WT	G						
6	~~MW-26D~~	WT	G						
7	~~MW-27D~~	WT	G						
8	~~MW-28D~~	WT	G						
9	~~MW-29~~	WT	G						
10	~~MW-38D~~	WT	G						
11	MW-40D	WT	G	9/28	1515	2.7		N	pH - 7.67 last sample
12	~~FD-01~~	WT	G						

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Requested Analysis Filtered (Y/N): Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020; RAD 226/228; Major ions

Pace Project No./Lab I.D.: 92465887

ADDITIONAL COMMENTS

Please note: by wells, strike through any wells not sampled and note when the last sample for the event has been taken.

*App. III & IV Metals = Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl

Major ions** = Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

One sample not submitted for HGWA-1, HGWA-2, HGWA-3, MW-42D, MW-44D, but they will be reported for AP-1

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
GPCO	9/28	1845	Pace	9-28	1845
Pace	9-29	0752	Pace	9/29	0752
Pace	9/29/20	0835	Pace	9/29/20	855
Pace	9/29/20	1130		9/29/20	1130

SAMPLE CONDITIONS: Temp in °C: 5.6; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

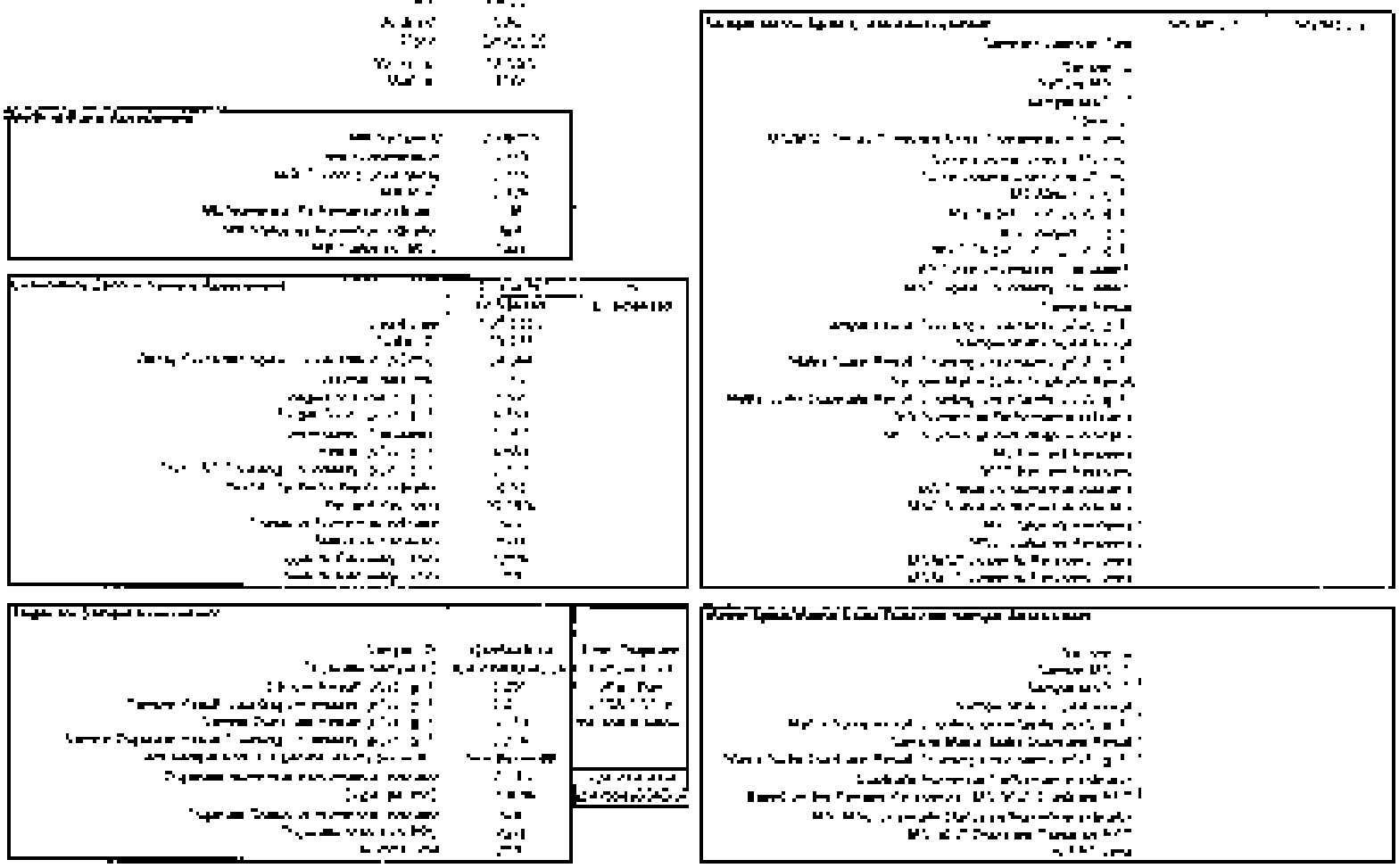
SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 9/28/20

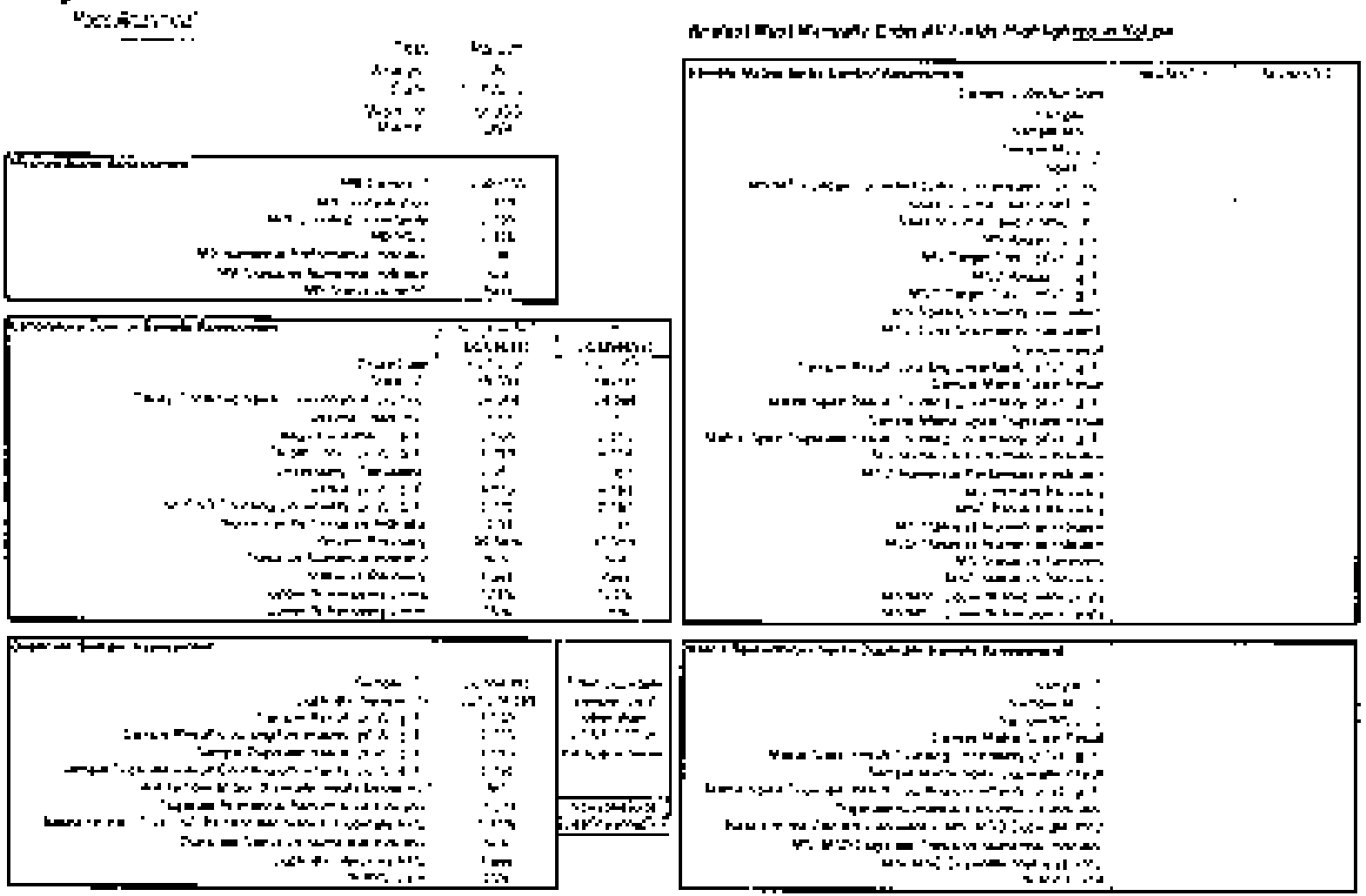
*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

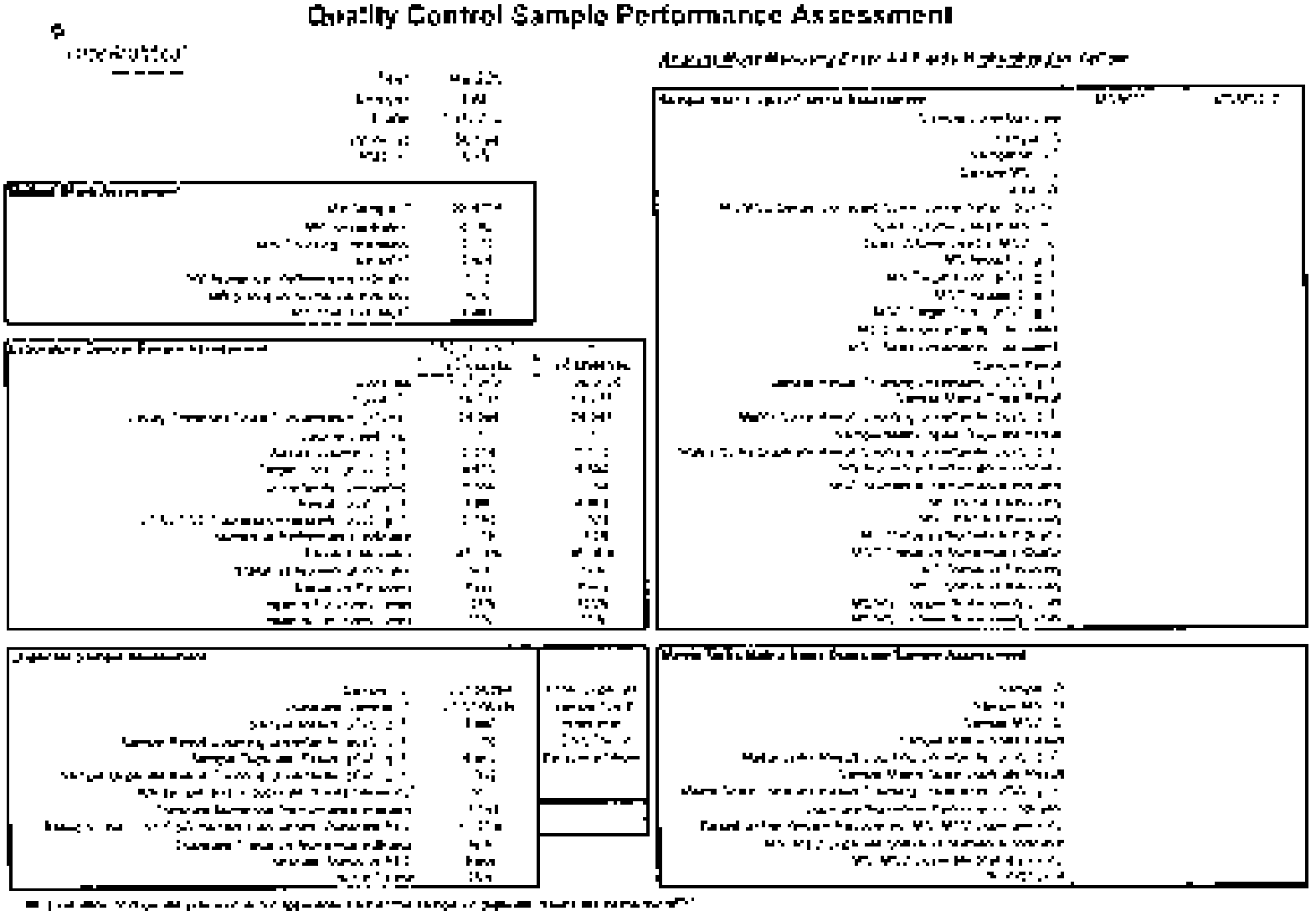
F-ALL-Q-020rev.07, 15-Feb-2007

Quality Control Sample Performance Assessment

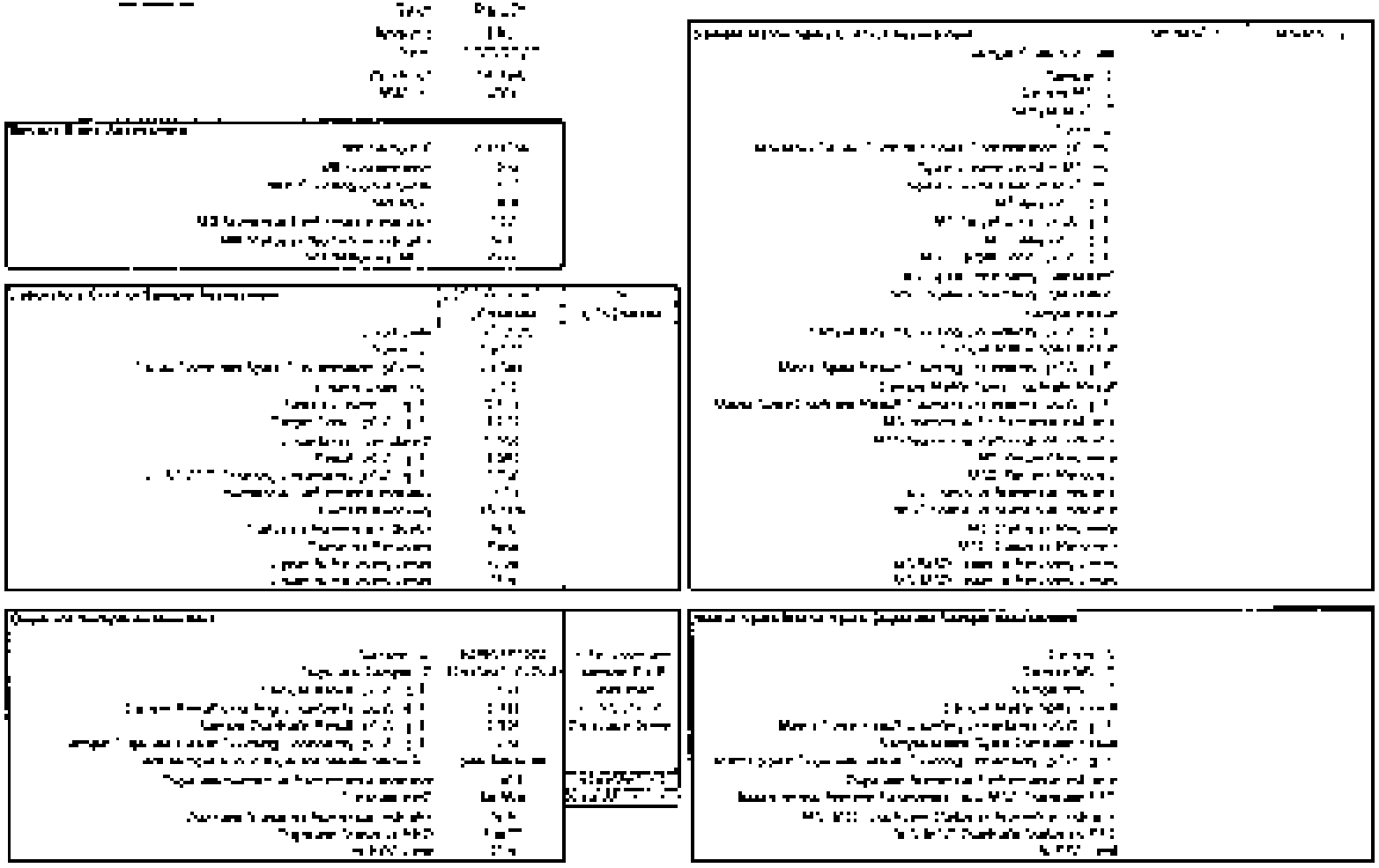


Quality Control Sample Performance Assessment




Quality Control Sample Performance Assessment

Quality Control Sample Performance Assessment



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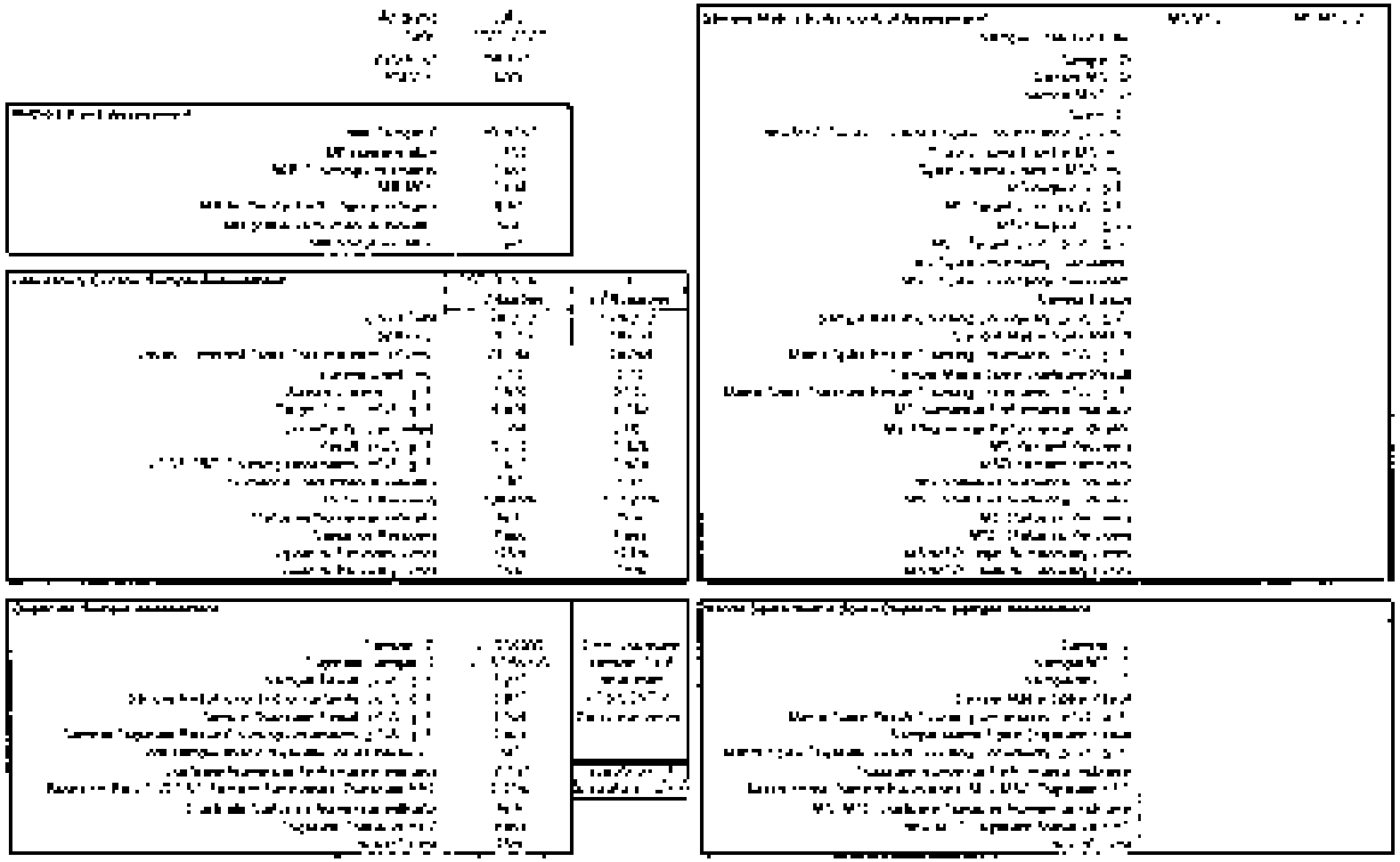

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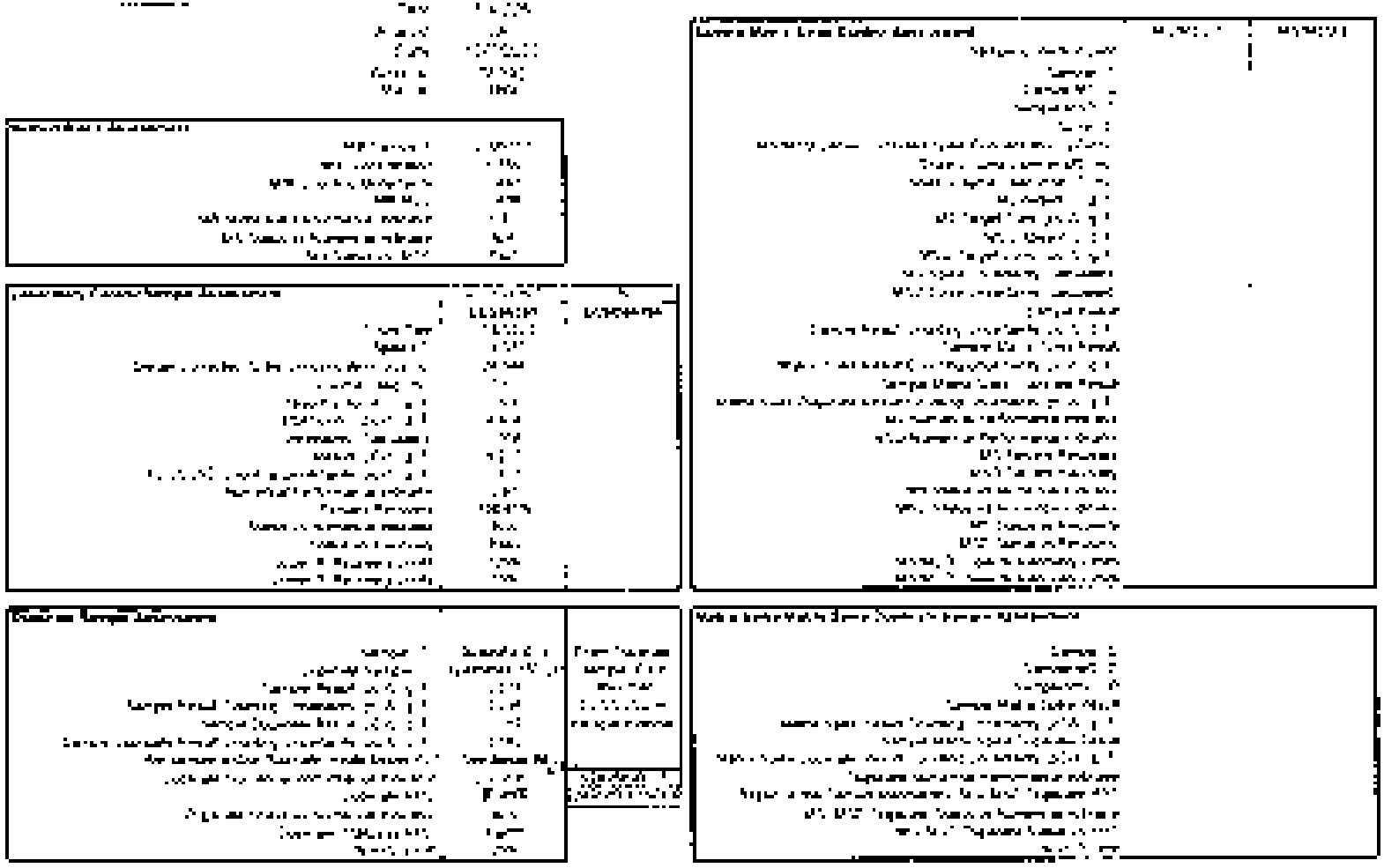

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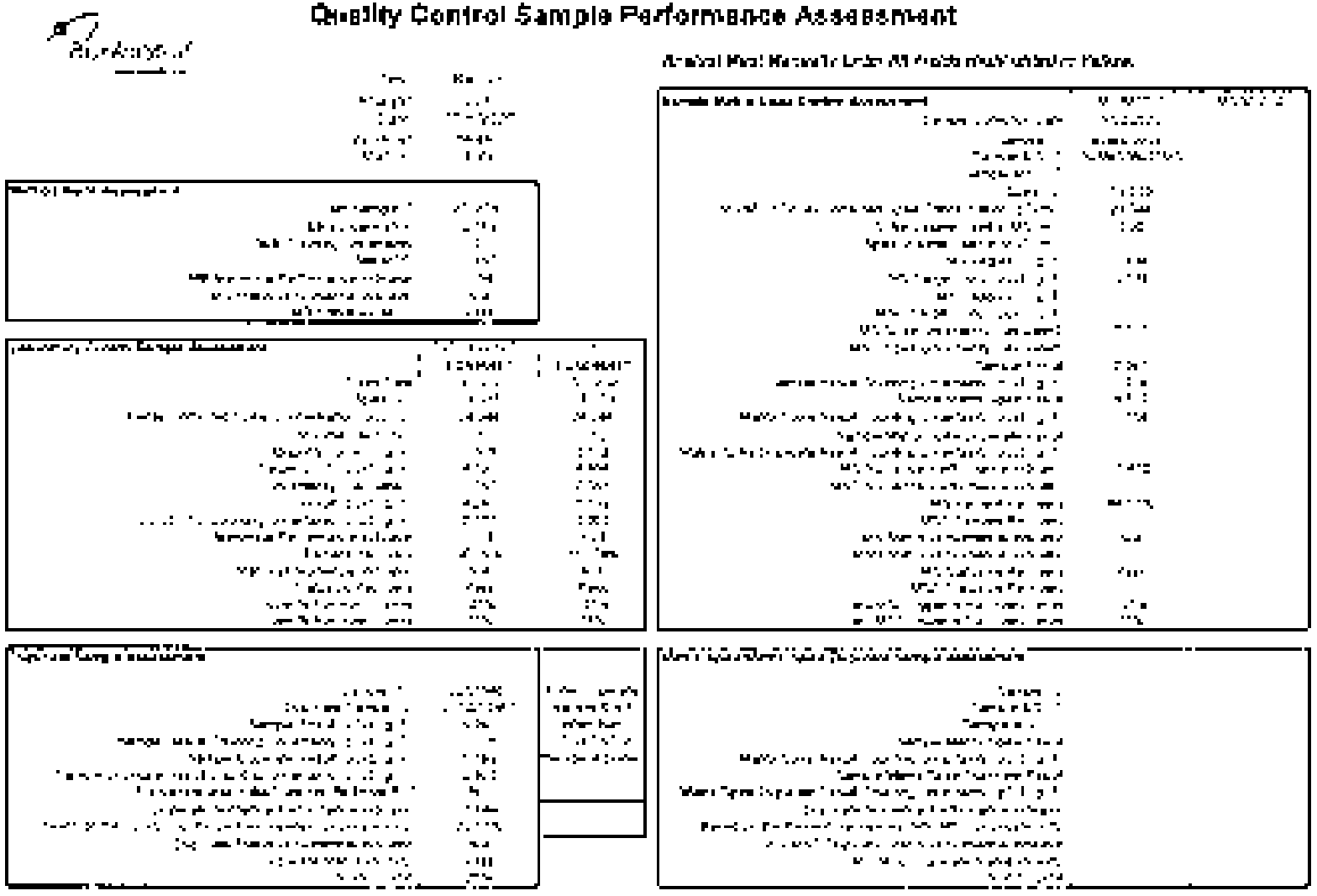
Quality Control Sample Performance Assessment



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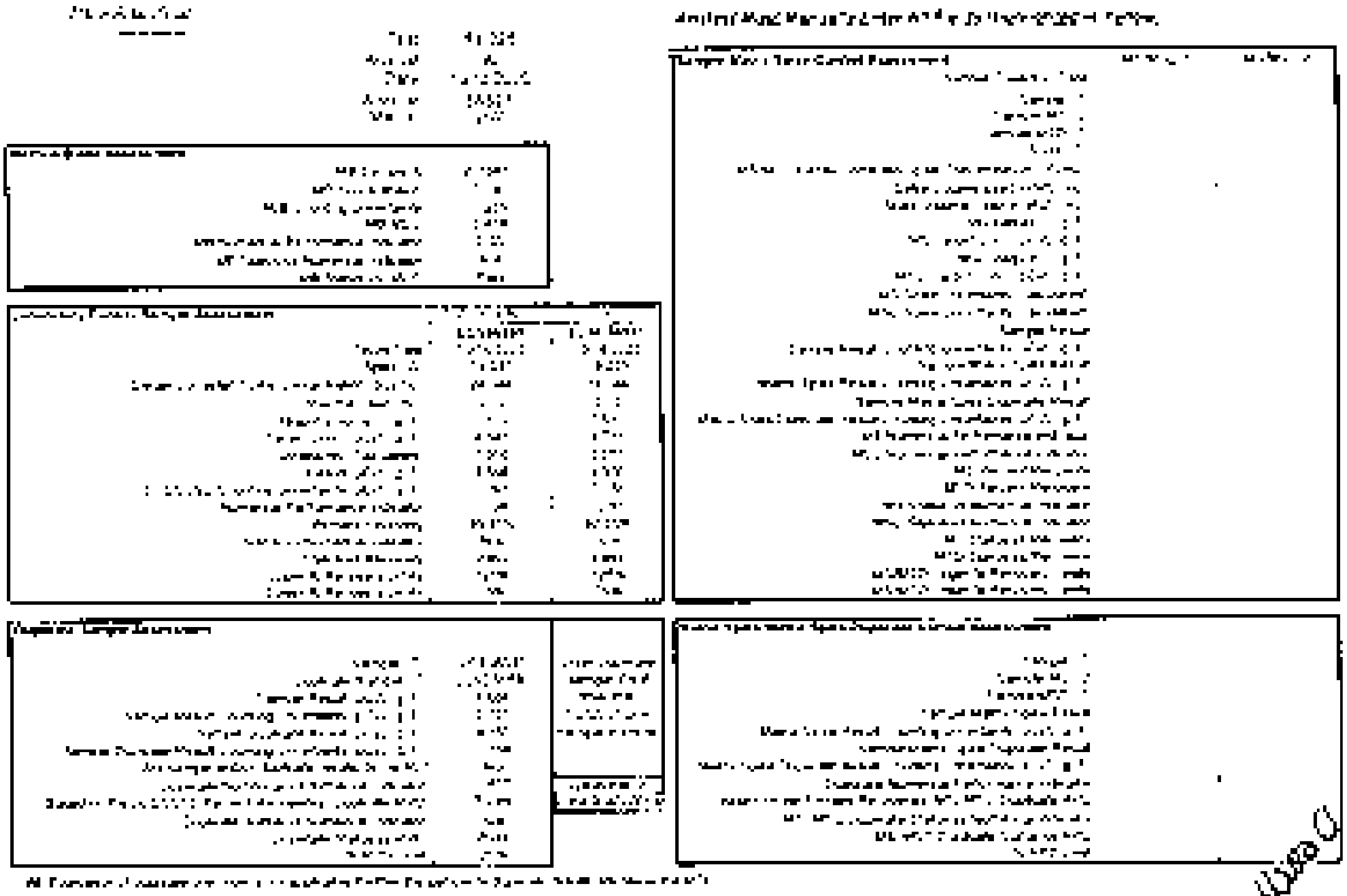

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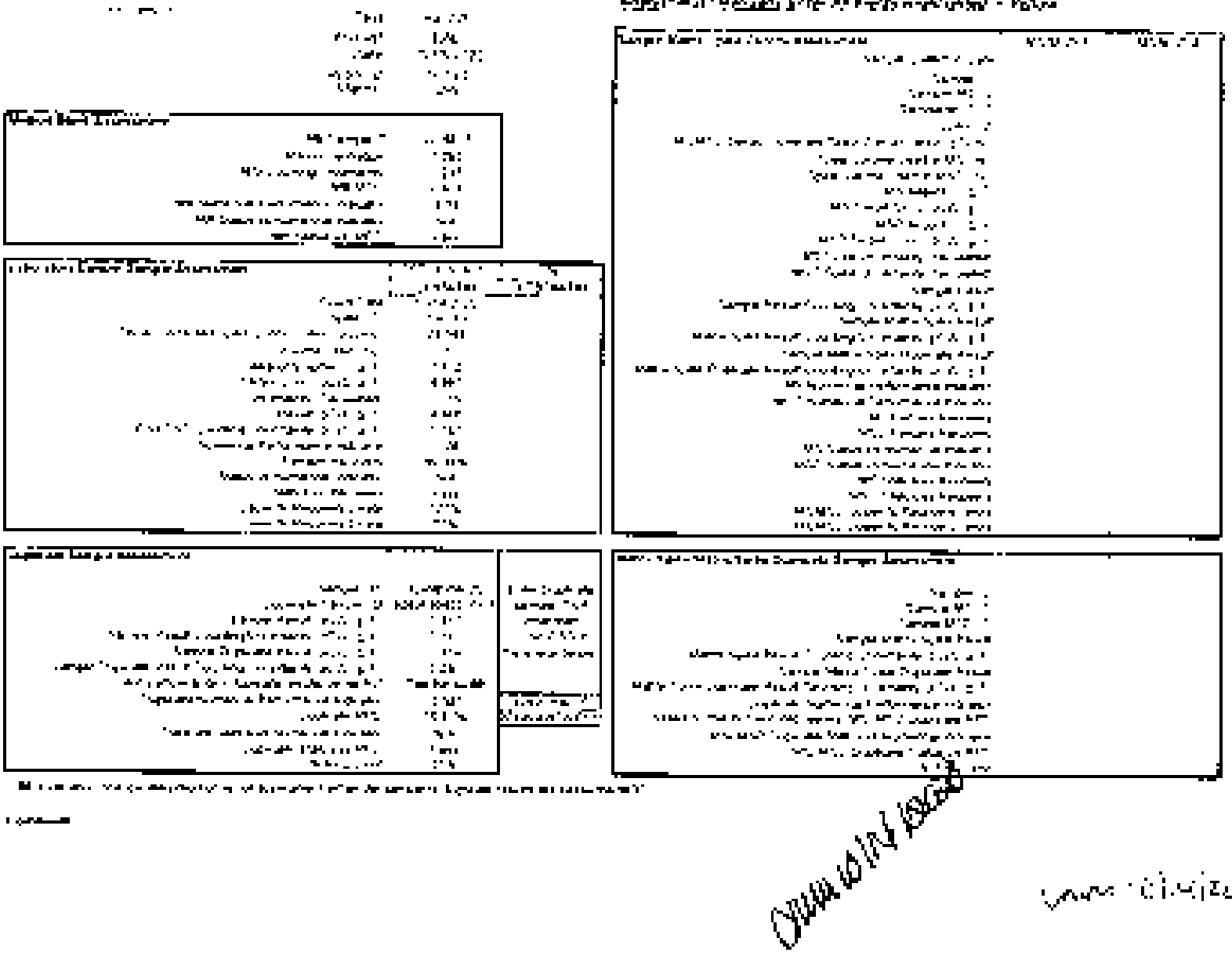

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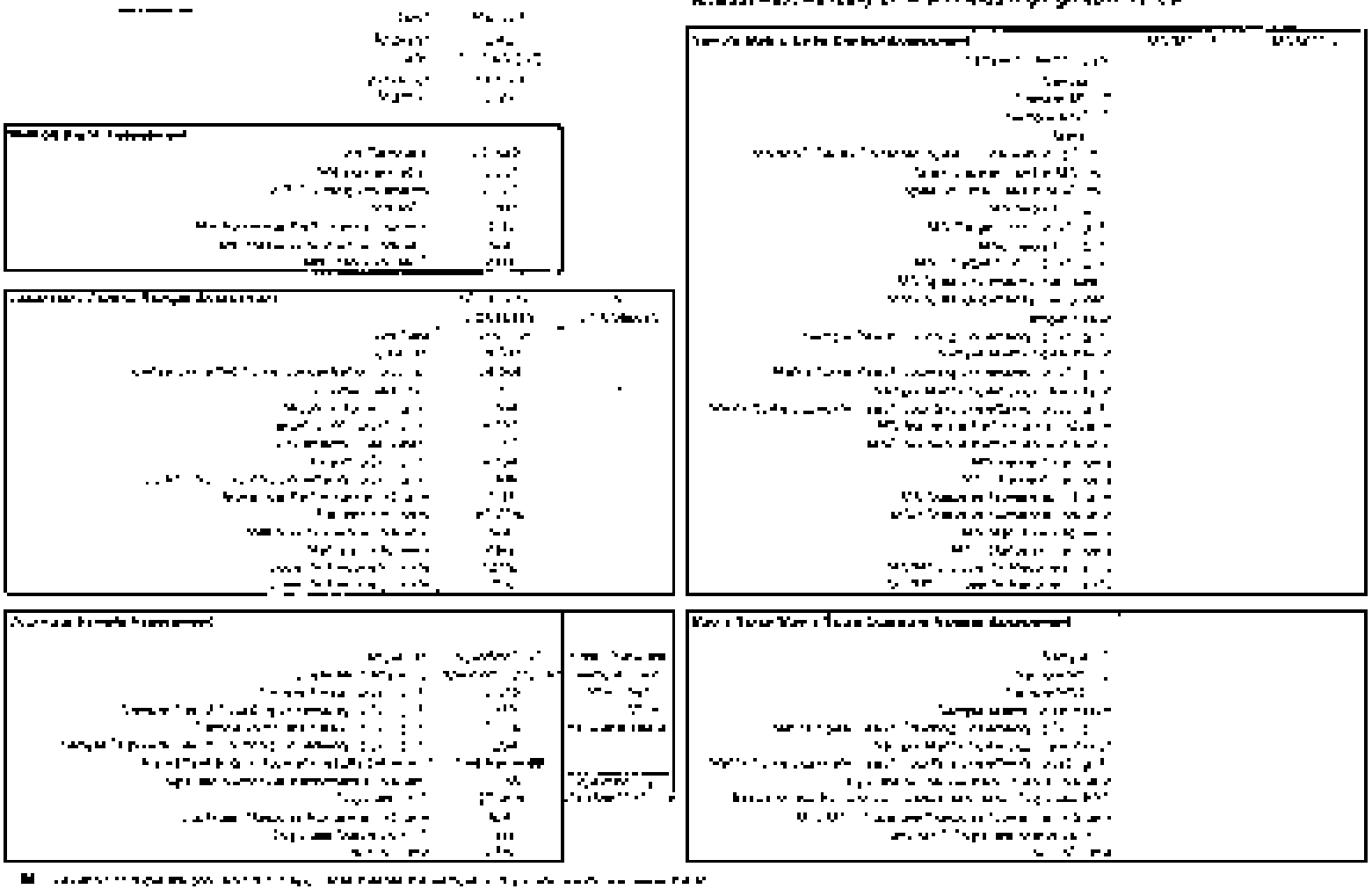

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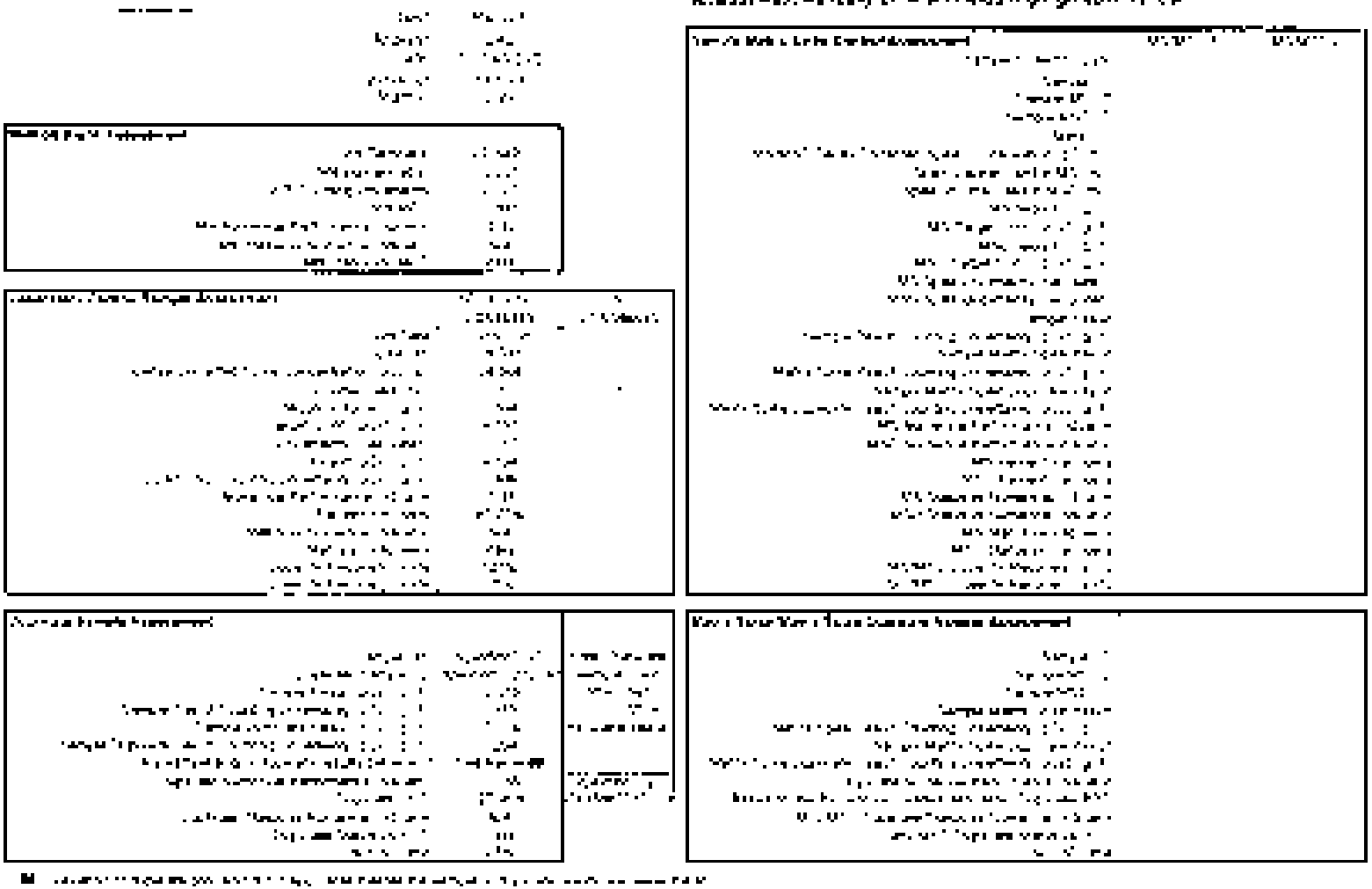

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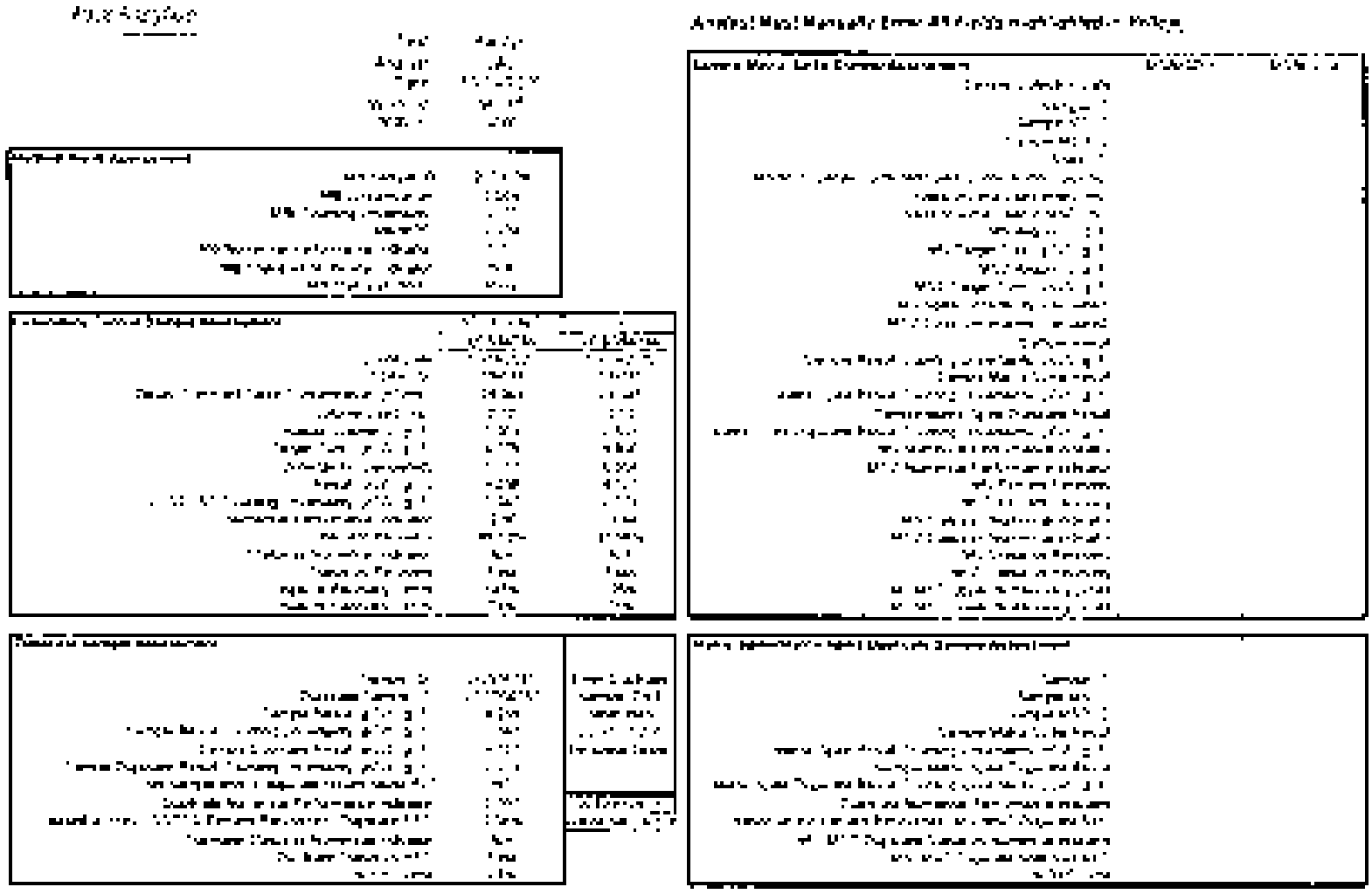

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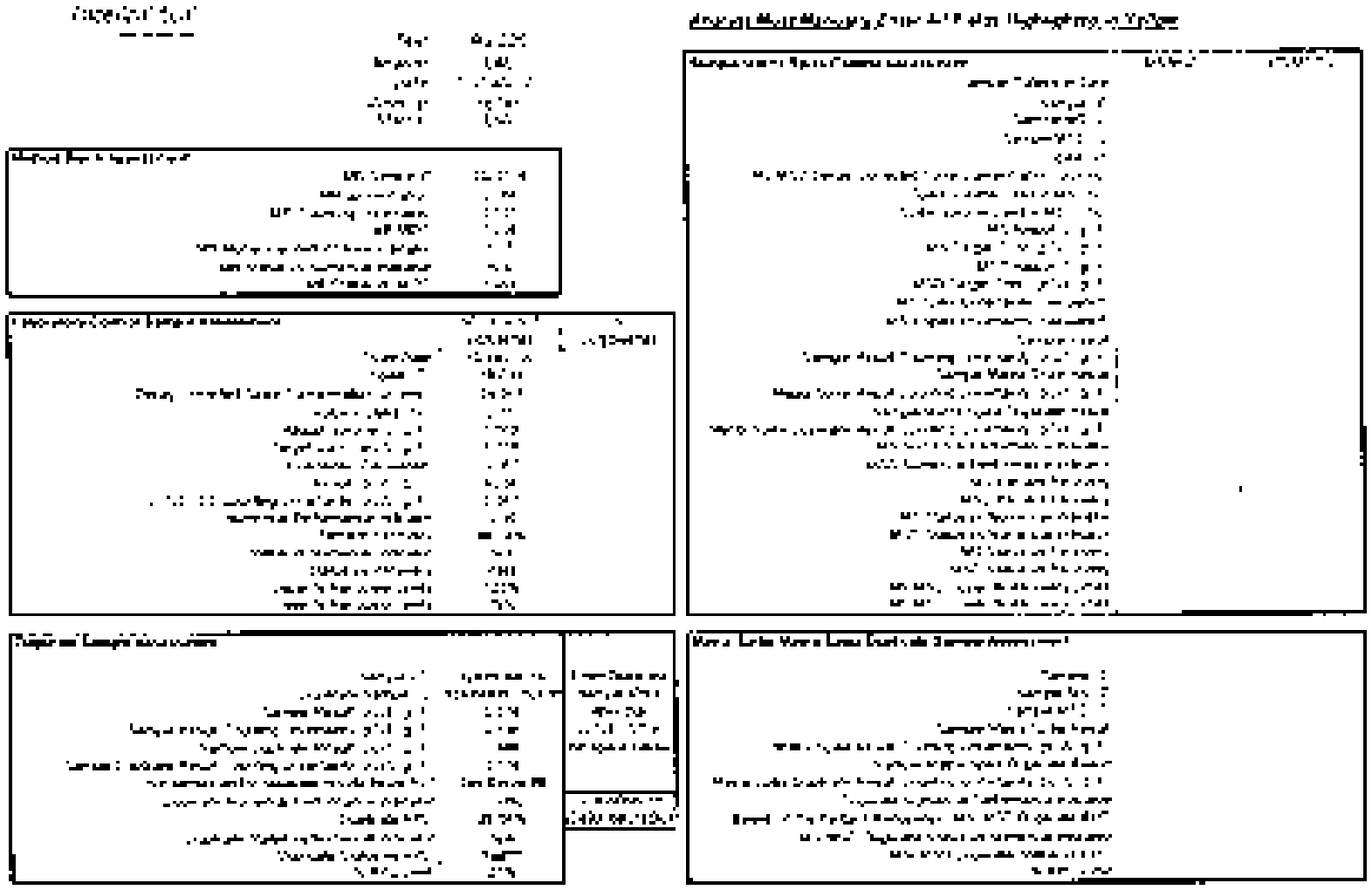

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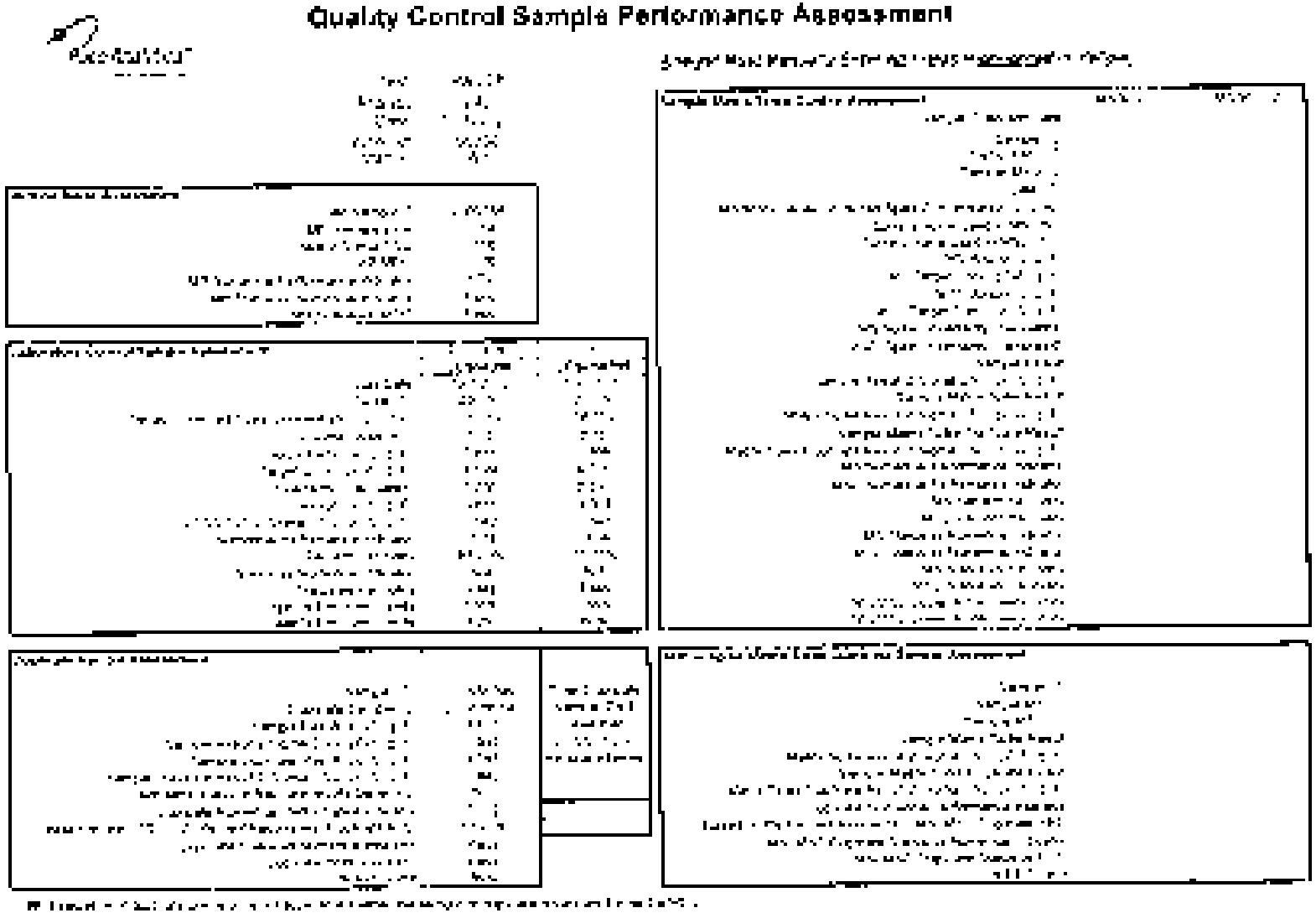

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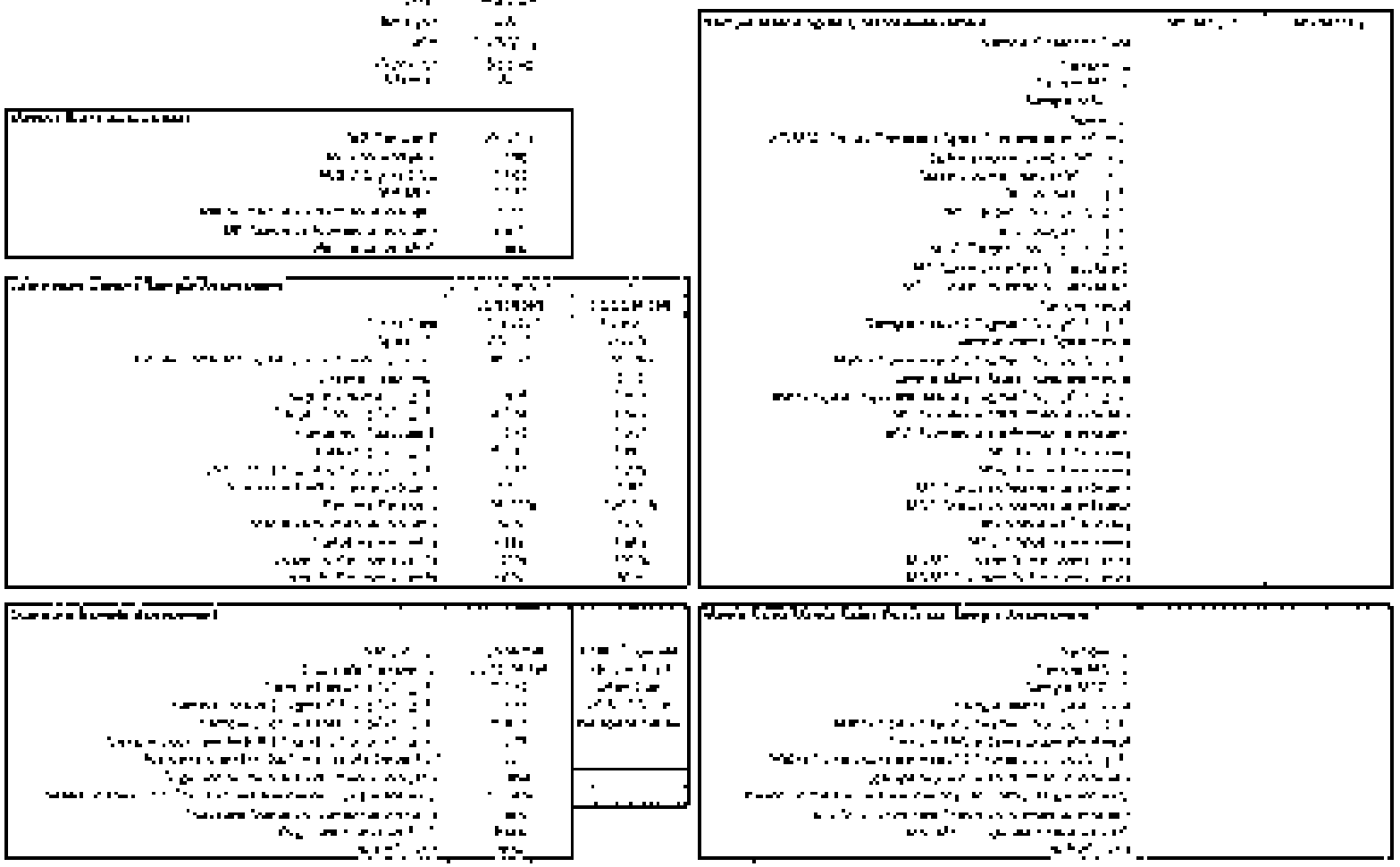
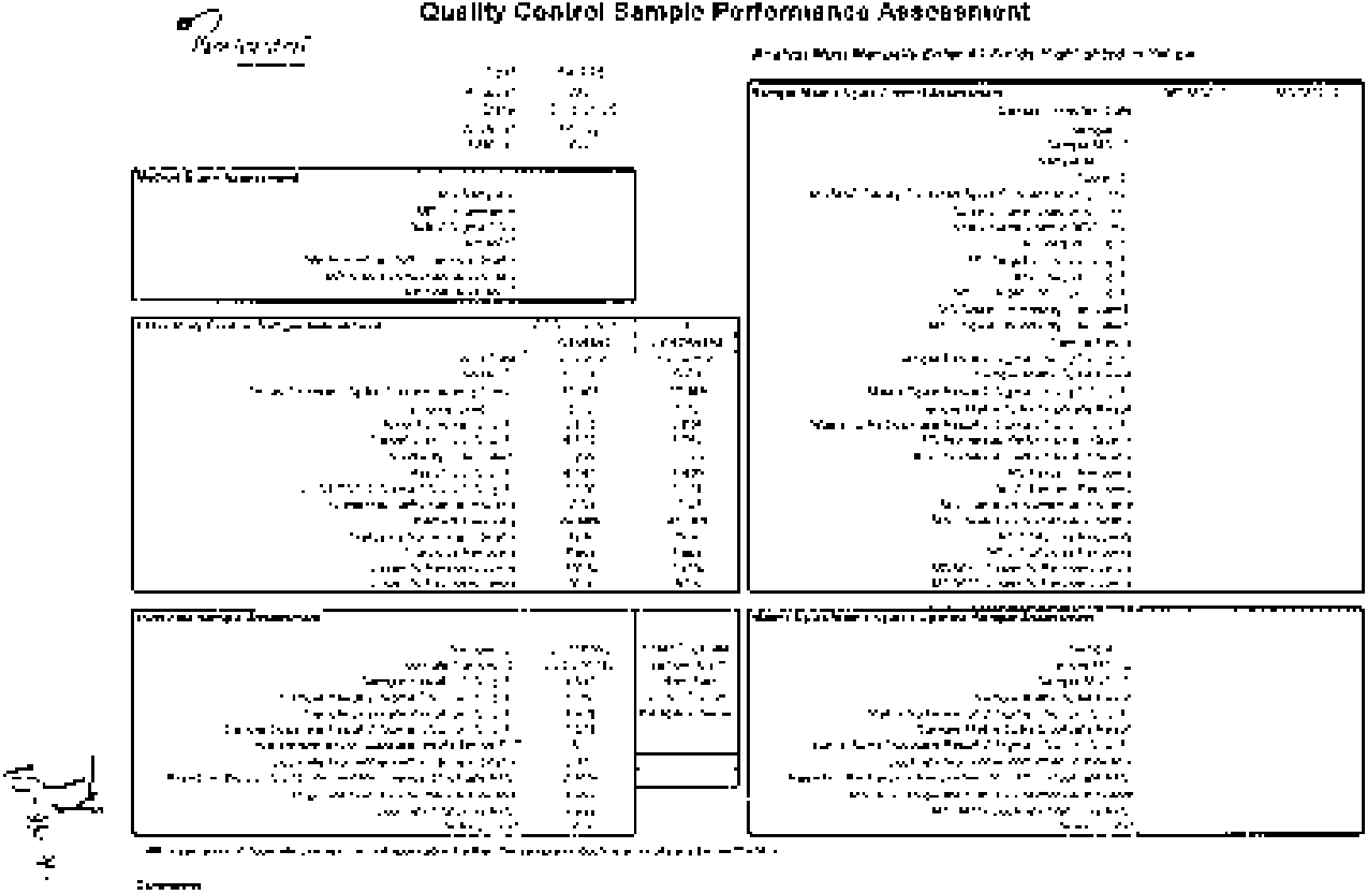


Quality Control Sample Performance Assessment

Quality Control Sample Performance Assessment



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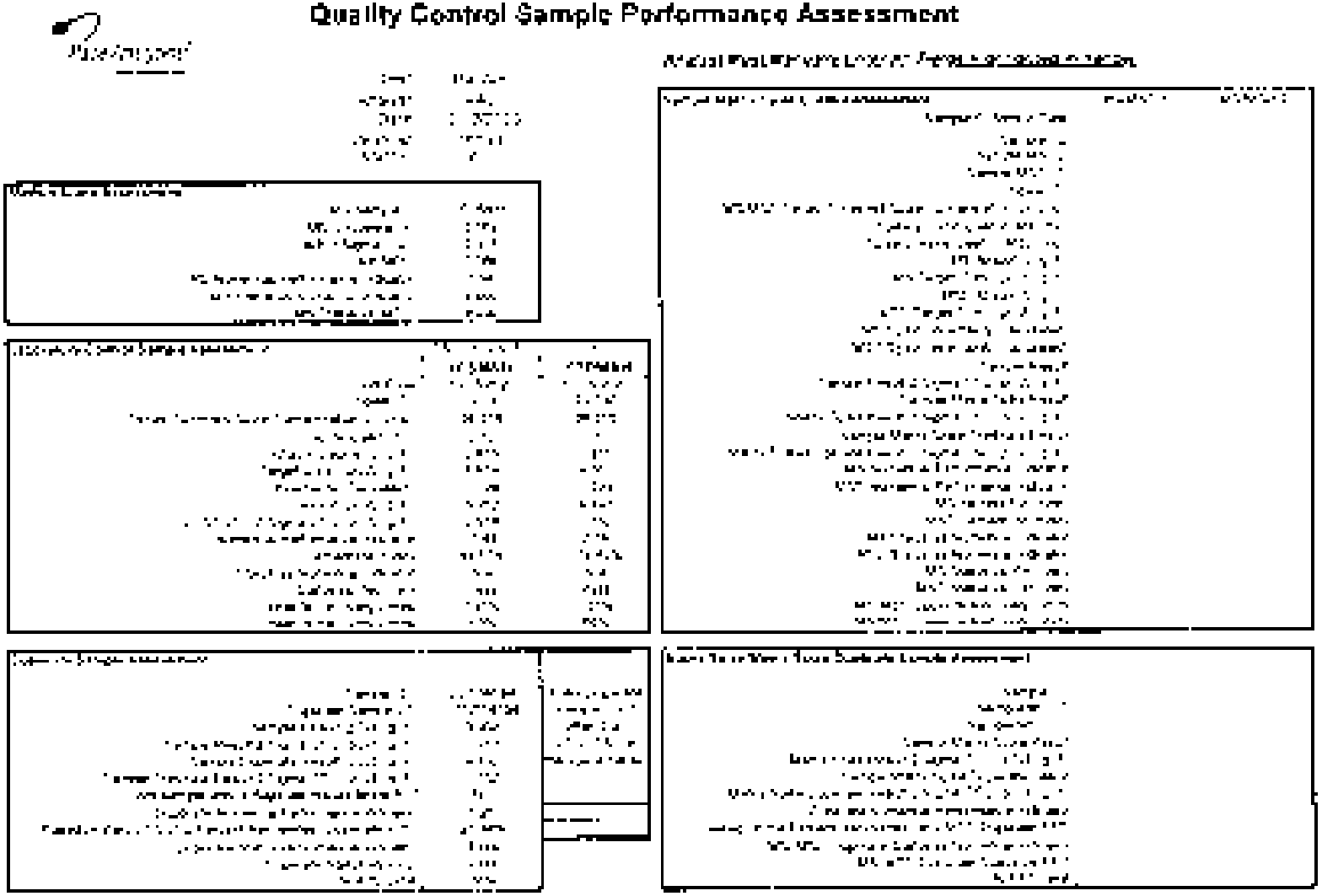
Quality Control Sample Performance Assessment



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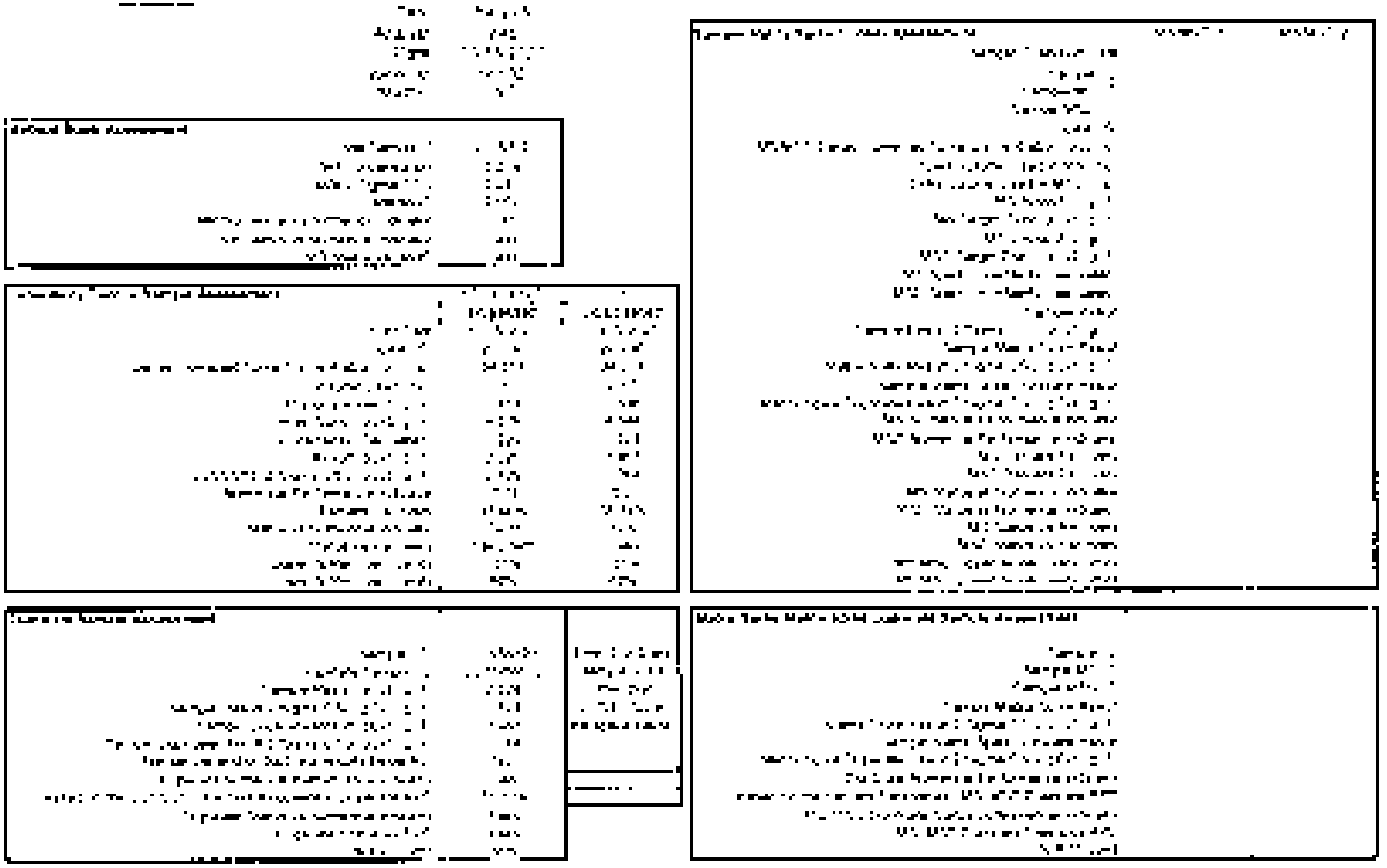

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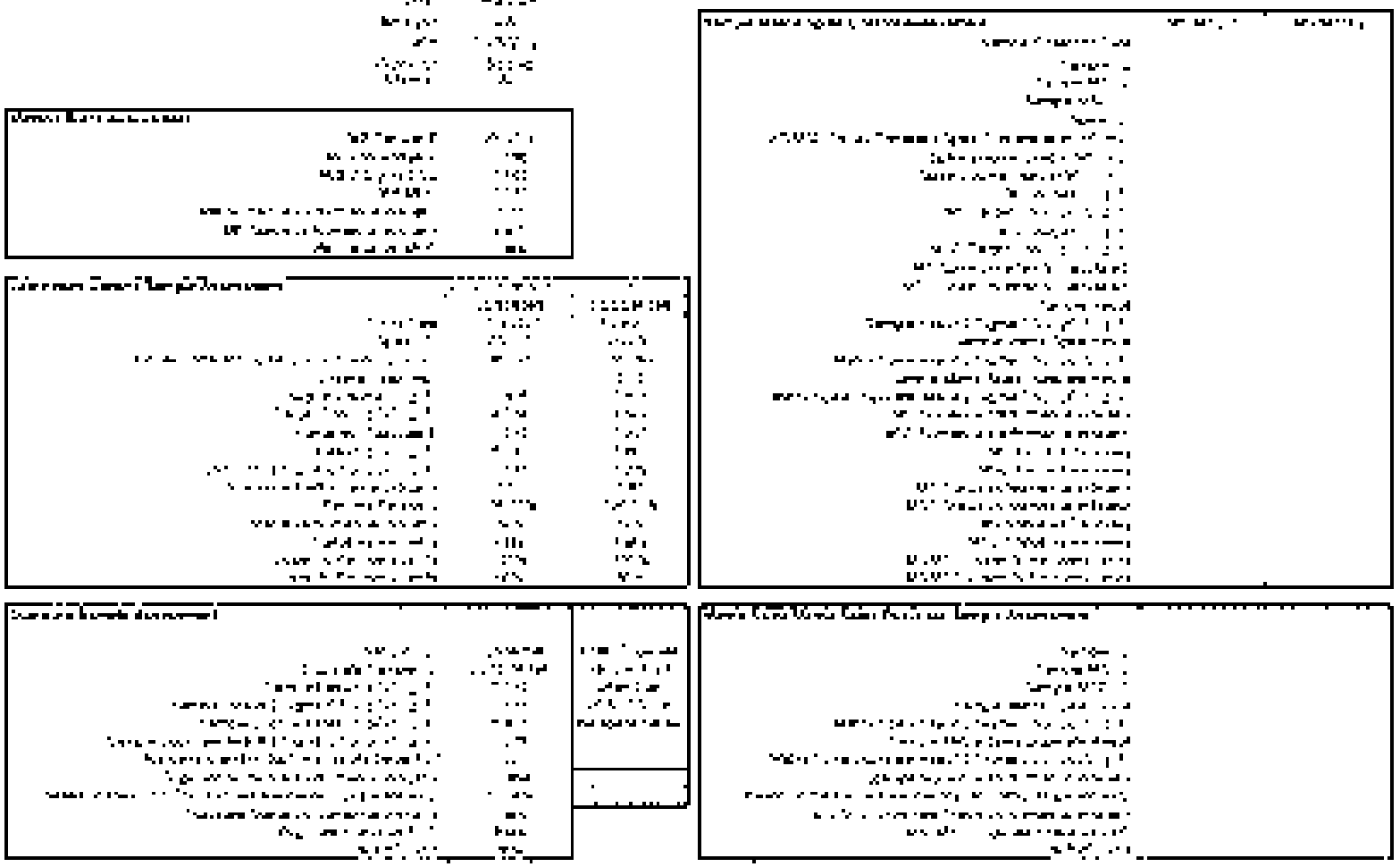

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 05, 2021

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 17, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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 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

REPORT OF LABORATORY ANALYSIS

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(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92528339001	**PMW-01**	Water	03/16/21 10:31	03/17/21 13:10
92528339002	**PMW-02**	Water	03/16/21 12:58	03/17/21 13:10

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92528339001	**PMW-01**	EPA 6010D	DRB	6
		EPA 6020B	CW1	4
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92528339002	**PMW-02**	EPA 6010D	DRB	6
		EPA 6020B	CW1	4
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92528339001	**PMW-01**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.19	Std. Units		03/22/21 11:58	
EPA 6010D	Iron	12.9	mg/L	0.040	03/26/21 21:01	
EPA 6010D	Manganese	2.7	mg/L	0.040	03/26/21 21:01	
EPA 6010D	Potassium	4.5	mg/L	0.20	03/26/21 21:01	
EPA 6010D	Sodium	5.2	mg/L	1.0	03/26/21 21:01	
EPA 6010D	Calcium	272	mg/L	1.0	03/26/21 21:01	
EPA 6010D	Magnesium	14.0	mg/L	0.050	03/26/21 21:01	
EPA 6020B	Arsenic	0.15	mg/L	0.0050	03/30/21 19:27	
EPA 6020B	Boron	0.82	mg/L	0.040	03/30/21 19:27	
EPA 6020B	Lithium	0.019J	mg/L	0.030	03/30/21 19:27	
EPA 6020B	Molybdenum	0.022	mg/L	0.010	03/30/21 19:27	
SM 2450C-2011	Total Dissolved Solids	952	mg/L	20.0	03/23/21 08:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	142	mg/L	5.0	03/29/21 19:33	
SM 2320B-2011	Alkalinity, Total as CaCO3	142	mg/L	5.0	03/29/21 19:33	
EPA 300.0 Rev 2.1 1993	Chloride	28.2	mg/L	1.0	03/23/21 03:49	
EPA 300.0 Rev 2.1 1993	Fluoride	0.64	mg/L	0.10	03/23/21 03:49	
EPA 300.0 Rev 2.1 1993	Sulfate	540	mg/L	11.0	03/23/21 13:08	
92528339002	**PMW-02**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.71	Std. Units		03/22/21 11:58	
EPA 6010D	Iron	0.69	mg/L	0.040	03/26/21 21:06	
EPA 6010D	Manganese	1.2	mg/L	0.040	03/26/21 21:06	
EPA 6010D	Potassium	7.0	mg/L	0.20	03/26/21 21:06	
EPA 6010D	Sodium	17.2	mg/L	1.0	03/26/21 21:06	
EPA 6010D	Calcium	245	mg/L	1.0	03/26/21 21:06	
EPA 6010D	Magnesium	22.8	mg/L	0.050	03/26/21 21:06	
EPA 6020B	Arsenic	0.59	mg/L	0.0050	03/30/21 19:32	
EPA 6020B	Boron	2.2	mg/L	0.040	03/30/21 19:32	
EPA 6020B	Lithium	0.034	mg/L	0.030	03/30/21 19:32	
EPA 6020B	Molybdenum	0.13	mg/L	0.010	03/30/21 19:32	
SM 2450C-2011	Total Dissolved Solids	966	mg/L	20.0	03/23/21 08:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	221	mg/L	5.0	03/29/21 19:44	
SM 2320B-2011	Alkalinity, Total as CaCO3	221	mg/L	5.0	03/29/21 19:44	
EPA 300.0 Rev 2.1 1993	Chloride	53.4	mg/L	1.0	03/23/21 04:29	M6
EPA 300.0 Rev 2.1 1993	Fluoride	0.74	mg/L	0.10	03/23/21 04:29	
EPA 300.0 Rev 2.1 1993	Sulfate	457	mg/L	9.0	03/23/21 13:23	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Sample: PMW-01 **Lab ID: 92528339001** Collected: 03/16/21 10:31 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.19**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**12.9**	mg/L	0.040	0.016	1	03/26/21 10:56	03/26/21 21:01	7439-89-6	
Manganese	**2.7**	mg/L	0.040	0.0017	1	03/26/21 10:56	03/26/21 21:01	7439-96-5	
Potassium	**4.5**	mg/L	0.20	0.056	1	03/26/21 10:56	03/26/21 21:01	7440-09-7	
Sodium	**5.2**	mg/L	1.0	0.26	1	03/26/21 10:56	03/26/21 21:01	7440-23-5	
Calcium	**272**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 21:01	7440-70-2	
Magnesium	**14.0**	mg/L	0.050	0.0076	1	03/26/21 10:56	03/26/21 21:01	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Arsenic	**0.15**	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 19:27	7440-38-2	
Boron	**0.82**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 19:27	7440-42-8	
Lithium	**0.019J**	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 19:27	7439-93-2	
Molybdenum	**0.022**	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 19:27	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**952**	mg/L	20.0	20.0	1		03/23/21 08:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**142**	mg/L	5.0	5.0	1		03/29/21 19:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		03/29/21 19:33		
Alkalinity, Total as CaCO3	**142**	mg/L	5.0	5.0	1		03/29/21 19:33		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		03/19/21 05:48	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.2**	mg/L	1.0	0.60	1		03/23/21 03:49	16887-00-6	
Fluoride	**0.64**	mg/L	0.10	0.050	1		03/23/21 03:49	16984-48-8	
Sulfate	**540**	mg/L	11.0	5.5	11		03/23/21 13:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Sample: PMW-02 **Lab ID: 92528339002** Collected: 03/16/21 12:58 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.71**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.69**	mg/L	0.040	0.016	1	03/26/21 10:56	03/26/21 21:06	7439-89-6	
Manganese	**1.2**	mg/L	0.040	0.0017	1	03/26/21 10:56	03/26/21 21:06	7439-96-5	
Potassium	**7.0**	mg/L	0.20	0.056	1	03/26/21 10:56	03/26/21 21:06	7440-09-7	
Sodium	**17.2**	mg/L	1.0	0.26	1	03/26/21 10:56	03/26/21 21:06	7440-23-5	
Calcium	**245**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 21:06	7440-70-2	
Magnesium	**22.8**	mg/L	0.050	0.0076	1	03/26/21 10:56	03/26/21 21:06	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Arsenic	**0.59**	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 19:32	7440-38-2	
Boron	**2.2**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 19:32	7440-42-8	
Lithium	**0.034**	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 19:32	7439-93-2	
Molybdenum	**0.13**	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 19:32	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**966**	mg/L	20.0	20.0	1		03/23/21 08:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**221**	mg/L	5.0	5.0	1		03/29/21 19:44		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		03/29/21 19:44		
Alkalinity, Total as CaCO3	**221**	mg/L	5.0	5.0	1		03/29/21 19:44		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		03/19/21 05:53	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**53.4**	mg/L	1.0	0.60	1		03/23/21 04:29	16887-00-6	M6
Fluoride	**0.74**	mg/L	0.10	0.050	1		03/23/21 04:29	16984-48-8	
Sulfate	**457**	mg/L	9.0	4.5	9		03/23/21 13:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 609342
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92528339001, 92528339002

METHOD BLANK: 3209682 Matrix: Water
Associated Lab Samples: 92528339001, 92528339002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	03/26/21 19:09	
Iron	mg/L	ND	0.040	0.016	03/26/21 19:09	
Magnesium	mg/L	ND	0.050	0.0076	03/26/21 19:09	
Manganese	mg/L	ND	0.040	0.0017	03/26/21 19:09	
Potassium	mg/L	ND	0.20	0.056	03/26/21 19:09	
Sodium	mg/L	ND	1.0	0.26	03/26/21 19:09	

LABORATORY CONTROL SAMPLE: 3209683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	
Iron	mg/L	1	1.0	101	80-120	
Magnesium	mg/L	1	1.1	108	80-120	
Manganese	mg/L	1	1.0	100	80-120	
Potassium	mg/L	1	1.1	110	80-120	
Sodium	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3209684 3209685

Parameter	Units	92527268006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	146	1	1	147	153	8	641	75-125	4	20	M1
Iron	mg/L	ND	1	1	1.0	1.0	103	103	75-125	1	20	
Magnesium	mg/L	10.6	1	1	11.8	12.1	122	149	75-125	2	20	M1
Manganese	mg/L	0.90	1	1	1.9	1.9	97	102	75-125	3	20	
Potassium	mg/L	2.0	1	1	3.1	3.2	114	128	75-125	4	20	M1
Sodium	mg/L	10.0	1	1	11.0	11.5	103	151	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 609689
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92528339001, 92528339002

METHOD BLANK: 3211380 Matrix: Water
Associated Lab Samples: 92528339001, 92528339002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00078	03/30/21 18:18	
Boron	mg/L	ND	0.040	0.0052	03/30/21 18:18	
Lithium	mg/L	ND	0.030	0.00081	03/30/21 18:18	
Molybdenum	mg/L	ND	0.010	0.00069	03/30/21 18:18	

LABORATORY CONTROL SAMPLE: 3211381

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.99	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211382 3211383

Parameter	Units	92528827004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.098	0.094	97	93	75-125	4	20	
Boron	mg/L	47.7 ug/L	1	1	1.1	1.0	103	100	75-125	3	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.097	99	96	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 608136
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92528339001, 92528339002

METHOD BLANK: 3203650 Matrix: Water
Associated Lab Samples: 92528339001, 92528339002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/23/21 07:58	

LABORATORY CONTROL SAMPLE: 3203651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	414	104	90-111	

SAMPLE DUPLICATE: 3203652

Parameter	Units	92527612006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	99.0	97.0	2	10	

SAMPLE DUPLICATE: 3203653

Parameter	Units	92528339001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	952	1020	7	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 609940
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92528339001, 92528339002

METHOD BLANK: 3212293 Matrix: Water
Associated Lab Samples: 92528339001, 92528339002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	03/29/21 16:34	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	03/29/21 16:34	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	03/29/21 16:34	

LABORATORY CONTROL SAMPLE: 3212294

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	46.1	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3212295 3212296

Parameter	Units	92528542001 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	89.3	50	50	138	146	98	113	80-120	5	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3212297 3212298

Parameter	Units	92528542002 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	30.0	50	50	80.1	81.2	100	102	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 607825
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92528339001, 92528339002

METHOD BLANK: 3202116 Matrix: Water
Associated Lab Samples: 92528339001, 92528339002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	03/19/21 05:47	

LABORATORY CONTROL SAMPLE: 3202117

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.49	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202118 3202119

Parameter	Units	92528339001 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	0.51	0.53	93	98	80-120	5	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 608283
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92528339001

METHOD BLANK: 3204500 Matrix: Water
Associated Lab Samples: 92528339001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/22/21 20:49	
Fluoride	mg/L	ND	0.10	0.050	03/22/21 20:49	
Sulfate	mg/L	ND	1.0	0.50	03/22/21 20:49	

LABORATORY CONTROL SAMPLE: 3204501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.5	105	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	52.9	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204502 3204503

Parameter	Units	92528546001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.7	50	50	69.8	70.2	102	103	90-110	1	10	
Fluoride	mg/L	10.4	2.5	2.5	12.8	12.8	96	95	90-110	0	10	
Sulfate	mg/L	1220	50	50	1340	1340	237	231	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204504 3204505

Parameter	Units	92528730001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.8	50	50	60.7	58.7	104	100	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	104	99	90-110	5	10	
Sulfate	mg/L	10.4	50	50	62.6	60.5	104	100	90-110	3	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

QC Batch: 608285
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92528339002

METHOD BLANK: 3204508 Matrix: Water
Associated Lab Samples: 92528339002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/23/21 04:02	
Fluoride	mg/L	ND	0.10	0.050	03/23/21 04:02	
Sulfate	mg/L	ND	1.0	0.50	03/23/21 04:02	

LABORATORY CONTROL SAMPLE: 3204509

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	50	51.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204510 3204511

Parameter	Units	92528339002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	53.4	50	50	91.2	90.1	75	73	90-110	1	10	M6
Fluoride	mg/L	0.74	2.5	2.5	3.3	3.2	102	100	90-110	2	10	
Sulfate	mg/L	457	50	50	503	503	93	93	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204512 3204513

Parameter	Units	92527612010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.7	50	50	58.1	56.8	107	104	90-110	2	10	
Fluoride	mg/L	0.089J	2.5	2.5	2.8	2.7	107	104	90-110	2	10	
Sulfate	mg/L	28.3	50	50	80.9	79.7	105	103	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 NR
Pace Project No.: 92528339

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92528339001	**PMW-01**				
92528339002	**PMW-02**				
92528339001	**PMW-01**	EPA 3010A	609342	EPA 6010D	609604
92528339002	**PMW-02**	EPA 3010A	609342	EPA 6010D	609604
92528339001	**PMW-01**	EPA 3005A	609689	EPA 6020B	609798
92528339002	**PMW-02**	EPA 3005A	609689	EPA 6020B	609798
92528339001	**PMW-01**	SM 2450C-2011	608136		
92528339002	**PMW-02**	SM 2450C-2011	608136		
92528339001	**PMW-01**	SM 2320B-2011	609940		
92528339002	**PMW-02**	SM 2320B-2011	609940		
92528339001	**PMW-01**	SM 4500-S2D-2011	607825		
92528339002	**PMW-02**	SM 4500-S2D-2011	607825		
92528339001	**PMW-01**	EPA 300.0 Rev 2.1 1993	608283		
92528339002	**PMW-02**	EPA 300.0 Rev 2.1 1993	608285		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project WO# : 92528339

92528339

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: FTS 2/1/21

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: 5.4 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): 5.4

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

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

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: ____

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 2 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

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

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

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

Project # **WO#: 92528339**

PM: KLH1 Due Date: 03/31/21

CLIENT: GA-GA Power

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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																					
2		2	1			1	1																					
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 NR
Project Number:	GW6061B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	

Page: 1 of 1

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D — Required Client Information

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	Arsenic, Boron, Calcium, Iron	Lithium, Magnesium, Manganese	Molybdenum, Potassium, Sodium	TDS	Bicarb. Alkalinity, Total Alkalinity	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PMW-01	WT	G	3/16/2021	[illegible]	17	3	1		1					1	X	X	X	X	X	X	X	N	pH = 7.19
2	PMW-02	WT	G	3/16/21	0926	16	3	1		1					1	X	X	X	X	X	X	X	N	pH = 7.21
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note dry wells, strike through any wells not sampled and note when the last pumping for the event has been taken.	[illegible signature]	3/17/21	1310	Ryan Williams / Pace	3/17/21	1310				
	Ryan Williams / Pace	3/17/21	1510	[illegible signature]	3/17/21	1510	5.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 3/16/21

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

Time Series Analytical Data

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

June 10, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 103518 CCR - Hammond AP

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

http://environmental.southernco.com/gpc/environmental-lab/chem.html

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,

R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

SAMPLE SUMMARY

Workorder: 103518 CCR - Hammond AP

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103518001	HGWC-7	N/A	Water	5/20/2016 09:05	5/20/2016 13:16
103518002	HGWC-8	N/A	Water	5/20/2016 09:09	5/20/2016 13:16
103518003	HGWA-6	N/A	Water	5/20/2016 09:23	5/20/2016 13:16

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103518 CCR - Hammond AP

Lab ID:	**103518001**	**Date Received:**	**5/20/2016 13:16**
Sample ID:	**HGWC-7**	**Date Collected:**	**5/20/2016 09:05**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:45	MRP	
Calcium	117	mg/L	1.00	5.00	6/1/2016 11:30	KLW	6/6/2016 18:45	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 09:04	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 09:04	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Boron	0.885	mg/L	0.0400	0.200	5/25/2016 10:15	KLW	6/3/2016 16:29	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Molybdenum	0.0280	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Barium	0.0687	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 13:44	LBB	
Sulfate	96.0	mg/L	7.50	25.0			6/3/2016 13:44	LBB	
Chloride	50.4	mg/L	1.00	6.25			6/3/2016 13:44	LBB	
Fluoride	0.0828J	mg/L	0.0100	0.3000			6/3/2016 09:45	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	427	mg/L	25	25			5/24/2016 18:35	KLW	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103518 CCR - Hammond AP

Lab ID:	**103518002**	**Date Received:**	**5/20/2016 13:16**
Sample ID:	**HGWC-8**	**Date Collected:**	**5/20/2016 09:09**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:51	MRP	
Calcium	159	mg/L	1.00	5.00	6/1/2016 11:30	KLW	6/6/2016 18:51	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 09:12	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 09:12	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Boron	1.71	mg/L	0.100	0.500	5/25/2016 10:15	KLW	6/3/2016 16:34	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Cobalt	0.00207J	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Molybdenum	0.446	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	6/3/2016 16:34	ELS	
Cadmium	0.000240J	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Barium	0.0808	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/1/2016 11:19	LBB	
Sulfate	219	mg/L	30.0	100			6/1/2016 11:19	LBB	
Chloride	109	mg/L	4.00	25.0			6/1/2016 11:19	LBB	
Fluoride	0.4990	mg/L	0.0100	0.3000			5/31/2016 14:51	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	711	mg/L	25	25			5/24/2016 18:35	KLW	

CERTIFICATE OF ANALYSIS

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Phone: (404) 799-2100
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ANALYTICAL RESULTS

Workorder: 103518 CCR - Hammond AP

Lab ID:	**103518003**	**Date Received:**	**5/20/2016 13:16**
Sample ID:	**HGWA-6**	**Date Collected:**	**5/20/2016 09:23**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:57	MRP	
Calcium	56.1	mg/L	0.200	1.00	6/1/2016 11:30	KLW	6/6/2016 18:57	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 09:17	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 09:17	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Boron	0.0363J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Barium	0.174	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:29	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/1/2016 11:58	LBB	
Sulfate	34.4	mg/L	0.6000	2.00			6/1/2016 11:58	LBB	
Chloride	1.35	mg/L	0.0400	0.2500			5/31/2016 16:46	LBB	
Fluoride	0.0650J	mg/L	0.0100	0.3000			5/31/2016 16:46	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	223	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 103518 CCR - Hammond AP

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: DIGM/4321 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 103518001 103518002 103518003

METHOD BLANK: 106220

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 106221

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.205	102	80-120	
Beryllium	mg/L	0.1	0.0978	97.8	80-120	
Boron	mg/L	0.3	0.313	104	80-120	
Chromium	mg/L	0.1	0.105	105	80-120	
Cobalt	mg/L	0.1	0.106	106	80-120	
Arsenic	mg/L	0.1	0.102	102	80-120	
Selenium	mg/L	0.1	0.0979	97.9	80-120	
Molybdenum	mg/L	0.1	0.0992	99.2	80-120	
Cadmium	mg/L	0.1	0.104	104	80-120	
Antimony	mg/L	0.1	0.105	105	80-120	
Barium	mg/L	0.1	0.102	102	80-120	
Thallium	mg/L	0.1	0.0918	91.8	80-120	
Lead	mg/L	0.1	0.0954	95.4	80-120	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106222 106223 Original: 103483005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.00069	0.2	0.198	0.193	98.8	96.3	75-125	2.6	20	
Beryllium	mg/L	7e-006	0.1	0.0956	0.0944	95.6	94.4	75-125	1.3	20	
Boron	mg/L	0.0289	0.3	0.334	0.329	102	100	75-125	2	20	
Chromium	mg/L	0.00014	0.1	0.107	0.106	107	106	75-125	0.94	20	
Cobalt	mg/L	0.00191	0.1	0.108	0.106	106	105	75-125	0.95	20	
Arsenic	mg/L	0.00064	0.1	0.104	0.103	104	103	75-125	0.97	20	
Selenium	mg/L	0.00013	0.1	0.101	0.0991	101	99	75-125	2	20	
Molybdenum	mg/L	0.00083	0.1	0.106	0.104	105	103	75-125	1.9	20	
Cadmium	mg/L	8.7e-005	0.1	0.106	0.104	106	103	75-125	2.9	20	
Antimony	mg/L	8.8e-005	0.1	0.109	0.106	108	106	75-125	1.9	20	
Barium	mg/L	0.0557	0.1	0.157	0.154	101	98.6	75-125	2.4	20	
Thallium	mg/L	6e-006	0.1	0.0933	0.0922	93.3	92.1	75-125	1.3	20	
Lead	mg/L	2.4e-005	0.1	0.0962	0.0946	96.2	94.6	75-125	1.7	20	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: GRAV/2876 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 103518001 103518002 103518003 103520001 103520002 103520003 103520004 103520005

METHOD BLANK: 106278

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 106281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	240	99.6	90-110	

SAMPLE DUPLICATE: 106279 Original: 103515002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	93	100	7.3	20	

SAMPLE DUPLICATE: 106280 Original: 103520001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	127	128	0.78	20	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: DIGM/4326 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 103518001 103518002 103518003

METHOD BLANK: 106296

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 106297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.31	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106298 106299 Original: 103518003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	56.1	5	62.3	61.4	123	107	75-125	13.9	20	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: IC/3035 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103518001

METHOD BLANK: 106360

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.9	105	90-110	
Fluoride	mg/L	6.83	6.92	101	90-110	

LABORATORY CONTROL SAMPLE: 106361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4843	96.9	90-110	
Sulfate	mg/L	5	4.95	99	90-110	
Fluoride	mg/L	0.5	0.5255	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106356 Original: 103517002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.07		107	0	90-110	0	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106366 106367 Original: 103517006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	9.58	10	19.4	19.4	98.1	98	90-110	0.1	10	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: IC/3036 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103518002 103518003 103520001 103520002 103520003 103520004 103520005

METHOD BLANK: 106368

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106378

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106634

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	

METHOD BLANK: 106670

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	

LABORATORY CONTROL SAMPLE: 106369

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5010	100	90-110	
Fluoride	mg/L	0.5	0.5320	106	90-110	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

LABORATORY CONTROL SAMPLE: 106371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.7	104	90-110	
Fluoride	mg/L	6.83	6.90	101	90-110	

LABORATORY CONTROL SAMPLE: 106379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5010	100	90-110	
Fluoride	mg/L	0.5	0.5350	107	90-110	

LABORATORY CONTROL SAMPLE: 106635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5020	100	90-110	

LABORATORY CONTROL SAMPLE: 106671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4990	99.8	90-110	
Sulfate	mg/L	5	5.01	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106374 106375 Original: 103518002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.499	1	1.52	1.52	102	102	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106380 106381 Original: 103532005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.005	1	1.02	1.01	101	101	90-110	0	10	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106384 106385 Original: 103532005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.2	10.2	102	102	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106628 106629 Original: 103532003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.4	1	2.37	2.37	96.5	96.7	90-110	0.21	10	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: HGPR/1661 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 103518001 103518002 103518003 103520001 103520002 103520003 103520004 103520005

METHOD BLANK: 106460

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0123	101	80-120	

LABORATORY CONTROL SAMPLE: 106461

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00194	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106457 106458 Original: 103517001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00201	0.00196	100	98	80-120	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106462 106463 Original: 103518001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00196	0.00196	98	98	80-120	0	20	

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QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

SAMPLE DUPLICATE: 106459 Original: 103517002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

SAMPLE DUPLICATE: 106464 Original: 103518002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103518 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103518001	HGWC-7	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103518002	HGWC-8	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103518003	HGWA-6	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103518001	HGWC-7	SM 2540C	GRAV/2876		
103518002	HGWC-8	SM 2540C	GRAV/2876		
103518003	HGWA-6	SM 2540C	GRAV/2876		
103518001	HGWC-7	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103518002	HGWC-8	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103518003	HGWA-6	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103518001	HGWC-7	EPA 300	IC/3035		
103518002	HGWC-8	EPA 300	IC/3036		
103518003	HGWA-6	EPA 300	IC/3036		
103518001	HGWC-7	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103518002	HGWC-8	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103518003	HGWA-6	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845

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LABORATORY CERTIFICATIONS

Workorder: 103518 CCR - Hammond AP

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY Work Order No. 103518 Reviewed By: [signature] 5-20-16

Page 1 of 1

[X] Standard Turnaround Time

[ ] # of Business Days (Rush) (Must be cleared through the Lab prior to shipment)

Company: Southern Company Services
Report To: Joju Abraham
Address: 241 Ralph McGill Blvd. SE Bin 10185 Atlanta, GA 30308
Phone/Fax: 404-506-7239
Contact: Joju Abraham
Project Location: Plant Hammond
Account Number:
Special Instructions: Hammond AP CCR GW

Sample Shipment Date: 5-20-2016
Sampled By: Andrew Shoudt (AS) Myles Rogers (MR) Tracy Wendell (TW)
Print Name / Signature
Sample Received Date:
Sample Received By:
Authorization to subcontract analysis will be assumed acceptable to customer unless stated otherwise.

PRESERVATIVE								HNO3 N	Ice I	HNO3 N
ANALYSIS REQUESTED								Metals App III + IV [illegible]	[illegible] Cl, F, SO4, [illegible]	TDS, Sulfides, Radium 226+228, [illegible]

LAB USE ONLY LAB ID	Sample Number	Collection Date	Collection Time	Sample Description	Sample Type	Matrix	No. of Containers	Metals App III + IV	Cl, F, SO4 …	TDS, Sulfides, Radium …	LAB USE ONLY Comments
10351800 1	HGWL-7	5-20-16	09:05	Hammond AP GW	G	GW	3	1	1	1	AS
2	HGWL-8	5-20-16	09:29	Hammond AP GW	G	GW	3	1	1	1	MR
3	HGWA-6	5-20-16	10:23	Hammond AP GW	G	GW	3	1	1	1	TW

Sample Type Key: G-Grab, C-Composite
Matrix Key: SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water, S-Soil, SL-Sludge, W-Wipe, LI-Liquid
Preservative Key: H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY

Relinquished by: [signature]	Date/Time 5-20-2016 13:15	
Received by: [signature]	Date/Time 5-20-16 @1315	
Relinquished by:	Date/Time	
Received by:	Date/Time	

LAB USE ONLY Sample Receipt Information: 5.5 °C GPC # 4 ... with ice cooler in good condition, ... pH<2, [illegible]

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client:	Hammond	**# of Samples:**	3
Workorder No.:	103518	**Tracking No:**	
Carrier:	HAND		

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	5.5
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No non-conformance noticed.

Completed By: Jassim, Aysaar

Date: 05/20/2016

Georgia Power Environmental Laboratories
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Fax: (404) 799-2141

June 14, 2016

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Workorder: 103563 CCR - Hammond AP

Dear Joju Abraham:

The Environmental Laboratory has completed the analysis of your samples and reports the results on the attached pages. Our laboratory maintains current NELAC accreditation for those analytes listed under the scope of accreditation. Analytes not listed in this scope are currently not maintained under an accreditation program. The analytes of this report that are listed under our NELAC scope of accreditation meet all requirements of the NELAC standards, unless otherwise noted by data qualifiers. Internal clients can view the scope and effective dates of our accreditation at:

http://environmental.southernco.com/gpc/environmental-lab/chem.html

External clients can receive a copy of our scope of accreditation by contacting the laboratory.

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

If you have any questions or comments, contact your Program Manager:

L. Biddy

lbbiddy@southernco.com

(404) 799-2132 / 8-530-2132

Respectfully submitted,

R. S. Dickerson
rsdicker@southernco.com
QA/QC Specialist

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SAMPLE SUMMARY

Workorder: 103563 CCR - Hammond AP

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103563001	HGWC-11	N/A	Water	5/23/2016 12:10	5/24/2016 08:55
103563002	HGWC-12	N/A	Water	5/23/2016 13:51	5/24/2016 08:55
103563003	DUP-2	N/A	Water	5/23/2016 00:00	5/24/2016 08:55
103563004	HGWC-14	N/A	Water	5/23/2016 12:28	5/24/2016 08:55
103563005	HGWC-15	N/A	Water	5/23/2016 13:59	5/24/2016 08:55
103563006	HGWC-16	N/A	Water	5/23/2016 15:25	5/24/2016 08:55
103563007	FB-1	N/A	Water	5/23/2016 09:00	5/24/2016 08:55
103563008	FB-2	N/A	Water	5/23/2016 09:30	5/24/2016 08:55
103563009	FERB-1	N/A	Water	5/23/2016 16:30	5/24/2016 08:55
103563010	FERB-2	N/A	Water	5/23/2016 17:00	5/24/2016 08:55
103563011	HGWC-9	N/A	Water	5/23/2016 12:00	5/24/2016 08:55
103563012	HGWC-10	N/A	Water	5/23/2016 14:06	5/24/2016 08:55
103563013	HGWC-17	N/A	Water	5/23/2016 16:21	5/24/2016 08:55
103563014	HGWC-13	N/A	Water	5/23/2016 15:15	5/24/2016 08:55

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563001**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-11**	**Date Collected:**	**5/23/2016 12:10**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 16:10	MRP	
Calcium	131	mg/L	1.00	5.00	5/26/2016 10:40	KLW	6/7/2016 16:10	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:46	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Boron	0.787	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Selenium	0.0106	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Molybdenum	0.0164	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Barium	0.0466	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/1/2016 07:29	LBB	
Sulfate	260	mg/L	7.50	25.0			6/1/2016 19:00	LBB	
Chloride	51.9	mg/L	1.00	6.25			6/1/2016 19:00	LBB	
Fluoride	0.2030J	mg/L	0.0100	0.3000			6/1/2016 07:29	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563001**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-11**	**Date Collected:**	**5/23/2016 12:10**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	564	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563002**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-12**	**Date Collected:**	**5/23/2016 13:51**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 16:16	MRP	
Calcium	195	mg/L	2.00	10.0	5/26/2016 10:40	KLW	6/7/2016 16:16	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:51	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0107J	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Boron	2.20	mg/L	0.100	0.500	5/26/2016 10:15	KLW	5/27/2016 17:48	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Arsenic	0.00460J	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Molybdenum	0.0413J	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 17:48	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Barium	0.133	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 17:48	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 14:59	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/1/2016 08:07	LBB	
Sulfate	288	mg/L	7.50	25.0			6/1/2016 19:39	LBB	
Chloride	160	mg/L	4.00	25.0			6/2/2016 11:50	LBB	
Fluoride	0.2120J	mg/L	0.0100	0.3000			6/1/2016 08:07	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563002**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-12**	**Date Collected:**	**5/23/2016 13:51**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	1060	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563003**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**DUP-2**	**Date Collected:**	**5/23/2016 00:00**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 16:22	MRP	
Calcium	130	mg/L	1.00	5.00	5/26/2016 10:40	KLW	6/7/2016 16:22	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:54	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Boron	0.845	mg/L	0.0400	0.200	5/26/2016 10:15	KLW	5/27/2016 18:02	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Cobalt	0.00204J	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Selenium	0.0101	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Molybdenum	0.0168	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Barium	0.0476	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:36	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/6/2016 20:56	LBB	
Sulfate	270	mg/L	15.0	50.0			6/8/2016 17:53	LBB	
Chloride	53.3	mg/L	2.00	12.5			6/8/2016 17:53	LBB	
Fluoride	0.1881J	mg/L	0.0100	0.3000			6/6/2016 20:56	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563003**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**DUP-2**	**Date Collected:**	**5/23/2016 00:00**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	553	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563004**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-14**	**Date Collected:**	**5/23/2016 12:28**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:10	MRP	
Calcium	664	mg/L	5.00	25.0	5/26/2016 10:40	KLW	6/7/2016 17:10	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:56	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Boron	15.4	mg/L	0.500	2.50	5/26/2016 10:15	KLW	5/27/2016 18:06	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Cobalt	<0.250	mg/L	0.0500	0.250	5/26/2016 10:15	KLW	5/27/2016 18:06	ELS	
Arsenic	0.00268J	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Selenium	0.0170	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Cadmium	0.000139J	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Barium	<0.250	mg/L	0.0500	0.250	5/26/2016 10:15	KLW	5/27/2016 18:06	ELS	
Thallium	0.000306J	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Lead	0.00182J	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/6/2016 21:26	LBB	
Sulfate	1070	mg/L	30.0	100			6/8/2016 18:23	LBB	
Chloride	659	mg/L	8.00	50.0			6/8/2016 18:53	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/6/2016 21:26	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563004**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-14**	**Date Collected:**	**5/23/2016 12:28**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	4130	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563005**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-15**	**Date Collected:**	**5/23/2016 13:59**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:16	MRP	
Calcium	184	mg/L	2.00	10.0	5/26/2016 10:40	KLW	6/7/2016 17:16	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 10:59	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Boron	2.02	mg/L	0.100	0.500	5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Cobalt	0.0419J	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Cadmium	0.00271J	mg/L	0.000500	0.00500	5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Barium	0.0315J	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/6/2016 21:56	LBB	
Sulfate	424	mg/L	30.0	100			6/8/2016 19:23	LBB	
Chloride	209	mg/L	4.00	25.0			6/8/2016 19:23	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/6/2016 21:56	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563005**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-15**	**Date Collected:**	**5/23/2016 13:59**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	1270	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563006**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-16**	**Date Collected:**	**5/23/2016 15:25**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:23	MRP	
Calcium	146	mg/L	1.00	5.00	5/26/2016 10:40	KLW	6/7/2016 17:23	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 11:02	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Boron	1.36	mg/L	0.0400	0.200	5/26/2016 10:15	KLW	5/27/2016 18:16	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Barium	0.0841	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/6/2016 22:26	LBB	
Sulfate	203	mg/L	3.00	10.0			6/8/2016 19:53	LBB	
Chloride	25.8	mg/L	0.4000	2.50			6/8/2016 19:53	LBB	
Fluoride	0.0380J	mg/L	0.0100	0.3000			6/6/2016 22:26	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563006**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-16**	**Date Collected:**	**5/23/2016 15:25**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	570	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563007**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FB-1**	**Date Collected:**	**5/23/2016 09:00**
Sample Description	**Hammond AP GW-Field Blank**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:29	MRP	
Calcium	<0.500	mg/L	0.100	0.500	5/26/2016 10:40	KLW	6/7/2016 17:29	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 11:05	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 19:03	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/6/2016 22:55	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/6/2016 22:55	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/6/2016 22:55	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/6/2016 22:55	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563007**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FB-1**	**Date Collected:**	**5/23/2016 09:00**
Sample Description	**Hammond AP GW-Field Blank**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	<25	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563008**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FB-2**	**Date Collected:**	**5/23/2016 09:30**
Sample Description	**Hammond AP GW-Field Blank**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:35	MRP	
Calcium	<0.500	mg/L	0.100	0.500	5/26/2016 10:40	KLW	6/7/2016 17:35	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 11:07	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 19:08	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 00:25	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/7/2016 00:25	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/7/2016 00:25	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 00:25	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563008**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FB-2**	**Date Collected:**	**5/23/2016 09:30**
Sample Description	**Hammond AP GW-Field Blank**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	<25	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563009**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FERB-1**	**Date Collected:**	**5/23/2016 16:30**
Sample Description	**Hammond AP GW-Equip Rinse**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:41	MRP	
Calcium	<0.500	mg/L	0.100	0.500	5/26/2016 10:40	KLW	6/7/2016 17:41	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 11:10	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 19:12	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 00:55	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/7/2016 00:55	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/7/2016 00:55	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 00:55	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563009**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FERB-1**	**Date Collected:**	**5/23/2016 16:30**
Sample Description	**Hammond AP GW-Equip Rinse**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	<25	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563010**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FERB-2**	**Date Collected:**	**5/23/2016 17:00**
Sample Description	**Hammond AP GW-Equip Rinse**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:47	MRP	
Calcium	<0.500	mg/L	0.100	0.500	5/26/2016 10:40	KLW	6/7/2016 17:47	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 11:52	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 01:25	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/7/2016 01:25	LBB	
Chloride	0.0497J	mg/L	0.0400	0.2500			6/7/2016 01:25	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 01:25	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563010**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**FERB-2**	**Date Collected:**	**5/23/2016 17:00**
Sample Description	**Hammond AP GW-Equip Rinse**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	<25	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563011**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-9**	**Date Collected:**	**5/23/2016 12:00**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:53	MRP	
Calcium	179	mg/L	2.00	10.0	5/26/2016 10:40	KLW	6/7/2016 17:53	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 11:55	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Boron	1.76	mg/L	0.100	0.500	5/26/2016 10:15	KLW	5/27/2016 18:49	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Molybdenum	0.0187	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Barium	0.117	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:42	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 01:55	LBB	
Sulfate	207	mg/L	30.0	100			6/8/2016 20:23	LBB	
Chloride	152	mg/L	4.00	25.0			6/8/2016 20:23	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 01:55	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563011**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-9**	**Date Collected:**	**5/23/2016 12:00**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	984	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563012**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-10**	**Date Collected:**	**5/23/2016 14:06**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 17:59	MRP	
Calcium	167	mg/L	2.00	10.0	5/26/2016 10:40	KLW	6/7/2016 17:59	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 11:58	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Boron	0.720	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Cadmium	0.000115J	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Barium	0.0877	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:47	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 02:25	LBB	
Sulfate	175	mg/L	3.00	10.0			6/8/2016 20:53	LBB	
Chloride	56.1	mg/L	0.4000	2.50			6/8/2016 20:53	LBB	
Fluoride	0.0394J	mg/L	0.0100	0.3000			6/7/2016 02:25	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563012**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-10**	**Date Collected:**	**5/23/2016 14:06**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	629	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563013**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-17**	**Date Collected:**	**5/23/2016 16:21**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 18:05	MRP	
Calcium	225	mg/L	2.00	10.0	5/26/2016 10:40	KLW	6/7/2016 18:05	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:00	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Boron	5.70	mg/L	0.200	1.00	5/26/2016 10:15	KLW	5/27/2016 18:58	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Cobalt	0.0167	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Barium	0.0222J	mg/L	0.0200	0.100	5/26/2016 10:15	KLW	5/27/2016 18:58	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:51	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 04:54	LBB	
Sulfate	395	mg/L	30.0	100			6/8/2016 21:23	LBB	
Chloride	94.0	mg/L	4.00	25.0			6/8/2016 21:23	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/7/2016 04:54	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563013**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-17**	**Date Collected:**	**5/23/2016 16:21**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	1010	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563014**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-13**	**Date Collected:**	**5/23/2016 15:15**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/26/2016 10:40	KLW	6/7/2016 18:35	MRP	
Calcium	133	mg/L	2.00	10.0	5/26/2016 10:40	KLW	6/7/2016 18:35	MRP	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/31/2016 06:22	WCM	5/31/2016 12:03	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0422J	mg/L	0.0100	0.0500	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Boron	2.15	mg/L	0.100	0.500	5/26/2016 10:15	KLW	5/27/2016 17:43	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Cobalt	0.00361J	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Arsenic	0.329	mg/L	0.00500	0.0250	5/26/2016 10:15	KLW	5/27/2016 17:43	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Molybdenum	0.0270	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Barium	0.0779	mg/L	0.00200	0.0100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Thallium	0.000378J	mg/L	0.000200	0.00100	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/26/2016 10:15	KLW	5/27/2016 16:56	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/7/2016 06:24	LBB	
Sulfate	215	mg/L	15.0	50.0			6/8/2016 22:52	LBB	
Chloride	93.2	mg/L	2.00	12.5			6/8/2016 22:52	LBB	
Fluoride	0.2587J	mg/L	0.0100	0.3000			6/7/2016 06:24	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:	**103563014**	**Date Received:**	**5/24/2016 08:55**
Sample ID:	**HGWC-13**	**Date Collected:**	**5/23/2016 15:15**
Sample Description	**Hammond AP GW**	**Matrix:**	**Water**
Location	**Hammond AP**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	683	mg/L	25	25			5/25/2016 17:33	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 103563 CCR - Hammond AP

PARAMETER QUALIFIERS

ND	None detected at the laboratory Method Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
J	The reported value is between the laboratory method detection limit and the laboratory reporting limit

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: IC/3036 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103518002 103518003 103520001 103520002 103520003 103520004 103520005 103563001 103563002

METHOD BLANK: 106378

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106634

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	

METHOD BLANK: 106670

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.7	104	90-110	
Fluoride	mg/L	6.83	6.90	101	90-110	

LABORATORY CONTROL SAMPLE: 106379

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.5	0.5350	107	90-110	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

LABORATORY CONTROL SAMPLE: 106635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5020	100	90-110	

LABORATORY CONTROL SAMPLE: 106671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4990	99.8	90-110	
Sulfate	mg/L	5	5.01	100	90-110	
Fluoride	mg/L	0.5	0.5320	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106630 106631 Original: 103532003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	1.31	10	11.5	11.4	102	101	90-110	0.99	10	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: IC/3037 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103563003 103563004 103563005 103563006 103563007 103563008 103563009 103563010 103563011 103563012 103563013 103563014

METHOD BLANK: 106386

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106396

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106754

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106387

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4858	97.2	90-110	
Sulfate	mg/L	5	5.01	100	90-110	
Fluoride	mg/L	0.5	0.5287	106	90-110	

LABORATORY CONTROL SAMPLE: 106389

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.4	101	90-110	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

LABORATORY CONTROL SAMPLE: 106389

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	6.83	6.70	98	90-110	

LABORATORY CONTROL SAMPLE: 106397

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4655	93.1	90-110	
Sulfate	mg/L	5	4.90	97.9	90-110	
Fluoride	mg/L	0.5	0.5194	104	90-110	

LABORATORY CONTROL SAMPLE: 106755

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4766	95.3	90-110	
Sulfate	mg/L	5	4.90	98	90-110	
Fluoride	mg/L	0.5	0.5231	105	90-110	

LABORATORY CONTROL SAMPLE: 106756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	6.95	6.92	99.6	90-110	

LABORATORY CONTROL SAMPLE: 106757

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106390 106391 Original: 103563007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0041	1	0.9645	0.9204	96	91.6	90-110	4.7	10	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106392 106393 Original: 103563007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.02	0.9657	102	96.6	90-110	5.4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106394 106395 Original: 103563007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.87	9.42	98.7	94.2	90-110	4.7	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106398 106399 Original: 103563013

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	94	100	194	195	99.7	101	90-110	1.3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106400 106404 Original: 103563013

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.06	1.05	106	105	90-110	0.95	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106405 106406 Original: 103563013

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	395	1000	1400	1400	100	101	90-110	1	10	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: GRAV/2878 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 103563001, 103563002, 103563003, 103563004, 103563005, 103563006, 103563007, 103563008, 103563009, 103563010, 103563011, 103563012, 103563013, 103563014

METHOD BLANK: 106427

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
WET CHEMISTRY				
TDS	mg/L	<25	25	

LABORATORY CONTROL SAMPLE: 106430

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	240	99.6	90-110	

SAMPLE DUPLICATE: 106428 Original: 103563002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	1060	1070	0.75	20	

SAMPLE DUPLICATE: 106429 Original: 103567002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	48	47	2.1	20	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: DIGM/4329 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 103533001, 103533002, 103533004, 103533005, 103533006, 103563001, 103563002, 103563003, 103563004, 103563005, 103563006, 103563007, 103563008, 103563009, 103563010, 103563011, 103563012, 103563013, 103563014

METHOD BLANK: 106465

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
INORGANICS				
Calcium	mg/L	<0.500	0.500	

LABORATORY CONTROL SAMPLE: 106466

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	4.87	97.5	80-120	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: DIGM/4330 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 103533001, 103533002, 103533003, 103533004, 103533005, 103533006, 103563001, 103563002, 103563003, 103563004, 103563005, 103563006, 103563007, 103563008, 103563009, 103563010, 103563011, 103563012, 103563013, 103563014

METHOD BLANK: 106469

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Arsenic	mg/L	<0.00500	0.00500	
Selenium	mg/L	<0.0100	0.0100	
Molybdenum	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 106470

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.203	102	80-120	
Beryllium	mg/L	0.1	0.0942	94.2	80-120	
Boron	mg/L	0.3	0.291	97.1	80-120	
Chromium	mg/L	0.1	0.0981	98.1	80-120	
Cobalt	mg/L	0.1	0.0989	98.9	80-120	
Arsenic	mg/L	0.1	0.0943	94.3	80-120	
Selenium	mg/L	0.1	0.0944	94.4	80-120	
Molybdenum	mg/L	0.1	0.0939	93.9	80-120	
Cadmium	mg/L	0.1	0.0963	96.3	80-120	
Antimony	mg/L	0.1	0.0960	96	80-120	
Barium	mg/L	0.1	0.0962	96.2	80-120	
Thallium	mg/L	0.1	0.0867	86.7	80-120	
Lead	mg/L	0.1	0.0894	89.4	80-120	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106471 106472 Original: 103563002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.0107	0.2	0.212	0.213	101	101	75-125	0	20	
Beryllium	mg/L	5e-006	0.1	0.0988	0.0940	98.8	94	75-125	5	20	
Chromium	mg/L	0.00017	0.1	0.108	0.104	108	104	75-125	3.8	20	
Cobalt	mg/L	0.00178	0.1	0.107	0.104	105	103	75-125	1.9	20	
Arsenic	mg/L	0.0046	0.1	0.111	0.107	107	102	75-125	4.8	20	
Selenium	mg/L	0.00023	0.1	0.103	0.0962	103	95.9	75-125	7.1	20	
Cadmium	mg/L	1.1e-005	0.1	0.106	0.103	106	103	75-125	2.9	20	
Antimony	mg/L	0.00013	0.1	0.110	0.107	110	107	75-125	2.8	20	
Thallium	mg/L	8.8e-005	0.1	0.0956	0.0932	95.5	93.1	75-125	2.5	20	
Lead	mg/L	3.7e-005	0.1	0.0986	0.0953	98.6	95.3	75-125	3.4	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106471 106472 Original: 103563002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Boron	mg/L	2.2	0.3	2.54	2.51	113	104	75-125	8.3	20	
Molybdenum	mg/L	0.0413	0.1	0.149	0.146	108	105	75-125	2.8	20	
Barium	mg/L	0.133	0.1	0.239	0.235	106	102	75-125	3.8	20	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: HGPR/1662 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 103563001 103563002 103563003 103563004 103563005 103563006 103563007 103563008 103563009

METHOD BLANK: 106483

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106479

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0123	101	80-120	

LABORATORY CONTROL SAMPLE: 106484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00197	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106485 106486 Original: 103561002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	0	0.002	0.00210	0.00207	105	104	80-120	0.96	20	

SAMPLE DUPLICATE: 106482 Original: 103532002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

SAMPLE DUPLICATE: 106487 Original: 103563001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch: HGPR/1663 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 103563010 103563011 103563012 103563013 103563014

METHOD BLANK: 106531

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

METHOD BLANK: 106537

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Mercury	mg/L	<0.000500	0.000500	

LABORATORY CONTROL SAMPLE: 106532

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00204	102	80-120	

LABORATORY CONTROL SAMPLE: 106533

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0126	103	80-120	

LABORATORY CONTROL SAMPLE: 106538

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00209	104	80-120	

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QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106534 106535 Original: 103567001

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	8.7e-006	0.002	0.00208	0.00201	104	100	80-120	3.9	20	

SAMPLE DUPLICATE: 106536 Original: 103567002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	0	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103563 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103563001	HGWC-11	EPA 300	IC/3036		
103563002	HGWC-12	EPA 300	IC/3036		
103563003	DUP-2	EPA 300	IC/3037		
103563004	HGWC-14	EPA 300	IC/3037		
103563005	HGWC-15	EPA 300	IC/3037		
103563006	HGWC-16	EPA 300	IC/3037		
103563007	FB-1	EPA 300	IC/3037		
103563008	FB-2	EPA 300	IC/3037		
103563009	FERB-1	EPA 300	IC/3037		
103563010	FERB-2	EPA 300	IC/3037		
103563011	HGWC-9	EPA 300	IC/3037		
103563012	HGWC-10	EPA 300	IC/3037		
103563013	HGWC-17	EPA 300	IC/3037		
103563014	HGWC-13	EPA 300	IC/3037		
103563001	HGWC-11	SM 2540C	GRAV/2878		
103563002	HGWC-12	SM 2540C	GRAV/2878		
103563003	DUP-2	SM 2540C	GRAV/2878		
103563004	HGWC-14	SM 2540C	GRAV/2878		
103563005	HGWC-15	SM 2540C	GRAV/2878		
103563006	HGWC-16	SM 2540C	GRAV/2878		
103563007	FB-1	SM 2540C	GRAV/2878		
103563008	FB-2	SM 2540C	GRAV/2878		
103563009	FERB-1	SM 2540C	GRAV/2878		
103563010	FERB-2	SM 2540C	GRAV/2878		
103563011	HGWC-9	SM 2540C	GRAV/2878		
103563012	HGWC-10	SM 2540C	GRAV/2878		
103563013	HGWC-17	SM 2540C	GRAV/2878		
103563014	HGWC-13	SM 2540C	GRAV/2878		
103563001	HGWC-11	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563002	HGWC-12	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563003	DUP-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103563 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103563004	HGWC-14	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563005	HGWC-15	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563006	HGWC-16	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563007	FB-1	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563008	FB-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563009	FERB-1	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563010	FERB-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563011	HGWC-9	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563012	HGWC-10	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563013	HGWC-17	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563014	HGWC-13	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563001	HGWC-11	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563002	HGWC-12	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563003	DUP-2	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563004	HGWC-14	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563005	HGWC-15	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563006	HGWC-16	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563007	FB-1	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563008	FB-2	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563009	FERB-1	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563010	FERB-2	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563011	HGWC-9	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563012	HGWC-10	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563013	HGWC-17	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563014	HGWC-13	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
103563001	HGWC-11	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563002	HGWC-12	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563003	DUP-2	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563004	HGWC-14	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563005	HGWC-15	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563006	HGWC-16	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563007	FB-1	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103563 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103563008	FB-2	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563009	FERB-1	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563010	FERB-2	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563011	HGWC-9	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563012	HGWC-10	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563013	HGWC-17	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563014	HGWC-13	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848

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LABORATORY CERTIFICATIONS

Workorder: 103563 CCR - Hammond AP

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. 105585 — Reviewed By: [signature] 5-24-16

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[X] Standard Turnaround Time
[ ] # of Business Days (Rush) (Must be cleared through Env. Lab prior to shipment)

Company: Southern Company Services
Report To: Teju Abraham
Address: 241 Ralph McGill Blvd SE BIN10185 Atlanta, GA 30308
Phone/Fax: 404-506-7239
Contact: Teju Abraham
Project Location: Plant Hammond
Account Number:
Special Instructions: Hammond AP CCR GW

Sample Shipment Date: 5-24-2016
Sampled By: Will Vinyard (WV), Myles Rogers (MR), Tony Woodall (TW), Greg Jones (GJ)
Signature
Sample Received Date:
Sample Received By:
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE: HNO_3 N | Ice I | HNO_3 N

ANALYSIS REQUESTED: Metals App III | [illegible] Cl, F, SO_4 EPA 300 | TDS SM2540C | Radium 226+228 Ga-Tech

LAB USE ONLY LAB ID	Sample Number	Collection Date	Collection Time	Sample Description	Sample Type	Matrix	No. of Containers	Metals App III	Cl, F, SO4 / TDS	Radium	LAB USE ONLY Comments
10536300 1	HGWC-11	5-23-16	12:10	Hammond AP GW	G	GW	3	1	1	1	TW
2	HGWC-12	5-23-16	13:51	Hammond AP GW	G	GW	3	1	1	1	↓
3	DUP-2	5-23-16		Hammond AP GW	G	GW	3	1	1	1	↓
4	HGWC-14	5-23-16	12:28	Hammond AP GW	G	GW	3	1	1	1	WV
5	HGWC-15	5-23-16	13:59	Hammond AP GW	G	GW	3	1	1	1	↓
6	HGWC-16	5-23-16	15:25	Hammond AP GW	G	GW	3	1	1	1	↓
7	FB-1	5-23-16	09:00	Hammond AP GW - Field Blank	G		3	1	1	1	GJ
8	FB-2	5-23-16	09:30	Hammond AP GW - Field Blank	G		3	1	1	1	↓
9	FERB-1	5-23-16	16:30	Hammond AP GW - Equip Rinse	G		3	1	1	1	WV
10	FERB-2	5-23-16	17:00	Hammond AP GW - Equip Rinse	G		3	1	1	1	↓

FOR CHAIN OF CUSTODY USE ONLY

Relinquished by: [signature] Date/Time 5/24/16 0853
Received by: [signature] Date/Time 5-24-16 @0855
Relinquished by: Date/Time
Received by: Date/Time

LAB USE ONLY: Sample Receipt Information: 3.8°C (GPEL IR #2) with ice, containers good condition, no head space, [illegible]

WHITE, CANARY & PINK — Laboratory GOLDENROD — Originator (See Back For Instructions)

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103563
Reviewed By: [signature] 5-24-16

Page 2 of 2

[X] Standard Turnaround Time
[ ] # of Business Days (Rush) (Must be cleared through Env. Lab. prior to shipment)

Company: Southern Company Services
Report To: Joju Abraham
Address: 241 Ralph McGill Blvd SE B10185 Atlanta GA 30308
Phone/Fax: 404-506-7239
Contact: Joju Abraham
Project Location: Plant Hammond
Account Number:
Special Instructions: Hammond AP CCR GW

Sample Shipment Date: 5-24-2016
Sampled By: W.B.Vinzant (WX) Myles Register (MR) Tony Wendell (TW) Greg Jones (GJ)
Signature
Sample Received Date:
Sample Received By:
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY LAB ID	Sample Number	Collection Date	Collection Time	Sample Description	Sample Type	Matrix	No. of Containers	Metals App. III + IV EPA 6010+EPA 7470 (Preservative: HNO3 N)	Cl, F, SO4 EPA 300 TDS SM2540C (Preservative: ICE I)	Radium, EPA 9315 Ga. Tech (Preservative: HNO3 N)				LAB USE ONLY Comments
10356301	HGWC-9	5-23-16	1200	Hammond AP GW	G	GW	3	1	1	1				MR
12	HGWC-10	5-23-16	1406	Hammond AP GW	G	GW	3	1	1	1				↓
13	HGWC-17	5-23-16	1621	Hammond AP GW	G	GW	3	1	1	1				↓
14	HGWC-13	5-23-16	1515	Hammond AP GW	G	GW	3	1	1	1				TW

CHAIN OF CUSTODY USE ONLY

Relinquished by:	[signature]	Date/Time	5/24/16 0853
Received by:	[signature]	Date/Time	5-24-16 @0855
Relinquished by:		Date/Time	
Received by:		Date/Time	

LAB USE ONLY Sample Receipt Information: 30°C/GPL ... ice, ordering and condition ok.

WHITE, CANARY & PINK — Laboratory GOLDENROD — Originator
(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond **# of Samples:** 14
Workorder No.: 103563 **Tracking No:**
Carrier: HAND

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3
COC is present	True	
COC is filled out in ink and is legible	True	Missing matrix field on COC
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	Missing collection time on Dup-2 sample
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

Completed By: Jassim, Ayssar **Date:** 05/24/2018

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

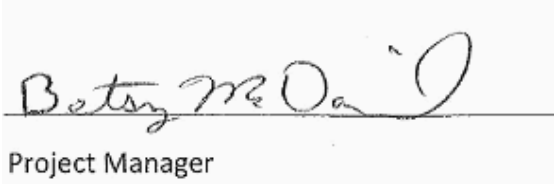
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZG0286**
July 20, 2016
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB-1	AZG0286-01	DI Water	07/12/16 14:00	07/13/16 08:15
FB-2	AZG0286-02	DI Water	07/12/16 14:15	07/13/16 08:15
HGWA-3	AZG0286-03	Ground Water	07/12/16 09:24	07/13/16 08:15
HGWC-14	AZG0286-04	Ground Water	07/12/16 13:55	07/13/16 08:15
HGWC-7	AZG0286-05	Ground Water	07/12/16 10:20	07/13/16 08:15
HGWC-16	AZG0286-06	Ground Water	07/12/16 14:30	07/13/16 08:15
HGWC-13	AZG0286-07	Ground Water	07/12/16 12:20	07/13/16 08:15
HGWC-8	AZG0286-08	Ground Water	07/12/16 10:40	07/13/16 08:15
HGWC-15	AZG0286-09	Ground Water	07/12/16 12:35	07/13/16 08:15
HGWC-10	AZG0286-10	Ground Water	07/12/16 11:21	07/13/16 08:15
Dup-2	AZG0286-11	Ground Water	07/12/16 00:00	07/13/16 08:15
FERB-2	AZG0286-12	DI Water	07/12/16 16:00	07/13/16 08:15
FERB-1	AZG0286-13	DI Water	07/12/16 15:50	07/13/16 08:15
HGWC-9	AZG0286-14	Ground Water	07/12/16 10:05	07/13/16 08:15
Dup-1	AZG0286-15	Ground Water	07/12/16 00:00	07/13/16 08:15
HGWC-11	AZG0286-16	Ground Water	07/12/16 11:35	07/13/16 08:15
HGWC-12	AZG0286-17	Ground Water	07/12/16 12:30	07/13/16 08:15
HGWC-17	AZG0286-18	Ground Water	07/12/16 15:04	07/13/16 08:15
HGWC-18	AZG0286-19	Ground Water	07/12/16 15:21	07/13/16 08:15

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: FB-1
Date/Time Sampled: 7/12/2016 2:00:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0286-01
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J, B-01	1	07/15/16 09:38	07/15/16 13:23	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 13:23	6070333	RLC
Sulfate	0.08	1.0	0.05	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 13:23	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:01	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:35	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: FB-2
Date/Time Sampled: 7/12/2016 2:15:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0286-02
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.01	mg/L	EPA 300.0	J, B-01	1	07/15/16 09:38	07/15/16 13:44	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 13:44	6070333	RLC
Sulfate	0.08	1.0	0.05	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 13:44	6070333	RLC
Metals, Total											
Antimony	0.0008	0.0030	0.0002	mg/L	EPA 6020B	J, B-01	1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Thallium	0.00008	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:49	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWA-3
Date/Time Sampled: 7/12/2016 9:24:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-03
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	249	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	6.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/15/16 09:38	07/15/16 14:05	6070333	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 14:05	6070333	RLC
Sulfate	44	1.0	0.05	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 14:05	6070333	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	J, B-01	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Arsenic	0.0008	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Barium	0.115	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Boron	0.0074	0.100	0.0044	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Calcium	61.5	5.00	0.126	mg/L	EPA 6020B		10	07/14/16 09:00	07/18/16 13:00	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Lead	0.0001	0.0050	0.00008	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Lithium	0.0024	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:51	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-14
Date/Time Sampled: 7/12/2016 1:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-04
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3140	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	620	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/19/16 19:54	6070333	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 15:07	6070333	RLC
Sulfate	1300	50	2.6	mg/L	EPA 300.0		50	07/15/16 09:38	07/20/16 02:06	6070333	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Arsenic	0.0059	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Barium	0.0214	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Beryllium	0.0005	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Boron	16.0	1.00	0.0441	mg/L	EPA 6020B		10	07/14/16 09:00	07/18/16 13:11	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Calcium	528	50.0	1.26	mg/L	EPA 6020B		100	07/14/16 09:00	07/18/16 13:06	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Cobalt	0.0232	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Lead	0.0015	0.0050	0.00008	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Selenium	0.0146	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Thallium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:53	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-7
Date/Time Sampled: 7/12/2016 10:20:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-05
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	410	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	50	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 20:15	6070333	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 15:27	6070333	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 20:15	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Barium	0.0731	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Boron	0.857	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Calcium	88.8	5.00	0.126	mg/L	EPA 6020B		10	07/14/16 09:00	07/18/16 13:17	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Cobalt	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Molybdenum	0.0273	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Lithium	0.0021	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:56	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-16
Date/Time Sampled: 7/12/2016 2:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-06
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	585	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	34	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/15/16 09:38	07/15/16 15:48	6070333	RLC
Fluoride	0.26	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 15:48	6070333	RLC
Sulfate	220	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 20:35	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Barium	0.0886	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Boron	1.62	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Calcium	142	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:23	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Lithium	0.0037	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:58	6070275	CSW

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-13
Date/Time Sampled: 7/12/2016 12:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-07
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	563	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	78	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 20:56	6070333	RLC
Fluoride	0.53	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 16:09	6070333	RLC
Sulfate	210	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 20:56	6070333	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Arsenic	0.297	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Barium	0.0697	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Boron	1.91	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Calcium	101	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:40	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Cobalt	0.0032	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Molybdenum	0.0316	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Thallium	0.0004	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Lithium	0.0366	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:00	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-8
Date/Time Sampled: 7/12/2016 10:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-08
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	704	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	110	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 21:17	6070333	RLC
Fluoride	0.67	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 16:29	6070333	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 21:17	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Barium	0.0830	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Boron	1.43	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Calcium	127	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:46	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Cobalt	0.0019	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Molybdenum	0.455	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Thallium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Lithium	0.0023	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:03	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-15
Date/Time Sampled: 7/12/2016 12:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-09
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1100	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	190	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/19/16 23:00	6070333	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 18:13	6070333	RLC
Sulfate	440	20	1.0	mg/L	EPA 300.0		20	07/15/16 09:38	07/19/16 23:00	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Barium	0.0372	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Boron	1.65	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Cadmium	0.0019	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Calcium	186	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:52	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Cobalt	0.0393	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Molybdenum	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:05	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-10
Date/Time Sampled: 7/12/2016 11:21:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-10
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	661	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	63	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 23:20	6070333	RLC
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 18:33	6070333	RLC
Sulfate	190	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 23:20	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Barium	0.0926	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Boron	0.778	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Calcium	143	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:58	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Molybdenum	0.0013	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:07	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: Dup-2
Date/Time Sampled: 7/12/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-11
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1190	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	240	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/19/16 23:41	6070333	RLC
Fluoride	0.05	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 18:54	6070333	RLC
Sulfate	510	20	1.0	mg/L	EPA 300.0		20	07/15/16 09:38	07/19/16 23:41	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Barium	0.0398	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Boron	1.65	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Cadmium	0.0018	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Calcium	197	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:03	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Cobalt	0.0394	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:10	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: FERB-2
Date/Time Sampled: 7/12/2016 4:00:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0286-12
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.88	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/15/16 09:38	07/15/16 19:15	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 19:15	6070333	RLC
Sulfate	2.0	1.0	0.05	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 19:15	6070333	RLC
Metals, Total											
Antimony	0.0007	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Thallium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:18	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: FERB-1
Date/Time Sampled: 7/12/2016 3:50:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0286-13
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.02	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	07/15/16 09:38	07/15/16 19:35	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 19:35	6070333	RLC
Sulfate	0.11	1.0	0.05	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 19:35	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Barium	0.0013	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Calcium	0.285	0.500	0.0126	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:20	6070275	CSW

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-9
Date/Time Sampled: 7/12/2016 10:05:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-14
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	887	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	160	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/20/16 00:02	6070333	RLC
Fluoride	0.24	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 19:56	6070333	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/20/16 00:02	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Barium	0.130	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Boron	1.56	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Calcium	174	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:09	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Molybdenum	0.0229	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Lithium	0.0040	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:22	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: Dup-1
Date/Time Sampled: 7/12/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-15
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	897	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	71	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/20/16 00:22	6070333	RLC
Fluoride	0.17	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 20:17	6070333	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/20/16 00:22	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Barium	0.130	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Boron	1.58	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Calcium	167	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:15	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Molybdenum	0.0223	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Lithium	0.0041	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:25	6070275	CSW

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-11
Date/Time Sampled: 7/12/2016 11:35:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-16
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	627	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0	B-01	10	07/15/16 09:38	07/20/16 00:43	6070333	RLC
Fluoride	0.44	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 20:37	6070333	RLC
Sulfate	390	10	0.51	mg/L	EPA 300.0		10	07/15/16 09:38	07/20/16 00:43	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Arsenic	0.0015	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Barium	0.0616	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Boron	1.17	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Calcium	124	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:20	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Cobalt	0.0021	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Molybdenum	0.0251	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Selenium	0.0057	0.0100	0.0009	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Thallium	0.00008	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:27	6070275	CSW

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-12
Date/Time Sampled: 7/12/2016 12:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-17
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	909	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0	B-01	10	07/15/16 09:38	07/20/16 01:04	6070333	RLC
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 20:58	6070333	RLC
Sulfate	320	10	0.51	mg/L	EPA 300.0		10	07/15/16 09:38	07/20/16 01:04	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Arsenic	0.0050	0.0050	0.0007	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Barium	0.135	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Boron	1.98	0.100	0.0044	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Calcium	181	25.0	0.628	mg/L	EPA 6020B		50	07/15/16 07:55	07/18/16 17:25	6070320	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Cobalt	0.0018	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Molybdenum	0.0484	0.0100	0.0005	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Thallium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Lithium	0.0113	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/18/16 11:30	07/18/16 16:52	6070347	CSW

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-17
Date/Time Sampled: 7/12/2016 3:04:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-18
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	976	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0	B-01	10	07/15/16 09:38	07/20/16 01:24	6070333	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 21:19	6070333	RLC
Sulfate	460	10	0.51	mg/L	EPA 300.0		10	07/15/16 09:38	07/20/16 01:24	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Barium	0.0221	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Boron	9.58	1.00	0.0441	mg/L	EPA 6020B		10	07/15/16 07:55	07/18/16 17:37	6070320	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Calcium	199	25.0	0.628	mg/L	EPA 6020B		50	07/15/16 07:55	07/18/16 17:31	6070320	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Cobalt	0.0148	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Thallium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/18/16 11:30	07/18/16 17:00	6070347	CSW

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Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286
Client ID: HGWC-18
Date/Time Sampled: 7/12/2016 3:21:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0286-19
Date/Time Received: 7/13/2016 8:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1950	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	300	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/20/16 01:45	6070333	RLC
Fluoride	0.54	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 23:23	6070333	RLC
Sulfate	930	20	1.0	mg/L	EPA 300.0		20	07/15/16 09:38	07/20/16 01:45	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Arsenic	0.0074	0.0050	0.0007	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Barium	0.0346	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Beryllium	0.0032	0.0030	0.00009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Boron	11.9	1.00	0.0441	mg/L	EPA 6020B		10	07/15/16 07:55	07/18/16 17:48	6070320	KLH
Cadmium	0.0022	0.0010	0.0001	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Calcium	328	25.0	0.628	mg/L	EPA 6020B		50	07/15/16 07:55	07/18/16 17:43	6070320	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Cobalt	0.168	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Lead	0.0012	0.0050	0.00008	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Selenium	0.0360	0.0100	0.0009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Thallium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Lithium	0.0141	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/18/16 11:30	07/18/16 17:03	6070347	CSW

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Report No.: AZG0286

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070304 - SM 2540 C											
Blank (6070304-BLK1)						Prepared & Analyzed: 07/14/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6070304-BS1)						Prepared & Analyzed: 07/14/16					
Total Dissolved Solids	384	25	10	mg/L	400.00		96	84-108			
Duplicate (6070304-DUP1)			**Source: AZG0253-04**			Prepared & Analyzed: 07/14/16					
Total Dissolved Solids	155	25	10	mg/L		149			4	10	
Duplicate (6070304-DUP2)			**Source: AZG0286-03**			Prepared & Analyzed: 07/14/16					
Total Dissolved Solids	244	25	10	mg/L		249			2	10	
Batch 6070339 - SM 2540 C											
Blank (6070339-BLK1)						Prepared & Analyzed: 07/15/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6070339-BS1)						Prepared & Analyzed: 07/15/16					
Total Dissolved Solids	387	25	10	mg/L	400.00		97	84-108			
Duplicate (6070339-DUP1)			**Source: AZG0286-06**			Prepared & Analyzed: 07/15/16					
Total Dissolved Solids	599	25	10	mg/L		585			2	10	
Duplicate (6070339-DUP2)			**Source: AZG0286-17**			Prepared & Analyzed: 07/15/16					
Total Dissolved Solids	942	25	10	mg/L		909			4	10	
Batch 6070351 - SM 2540 C											
Blank (6070351-BLK1)						Prepared & Analyzed: 07/18/16					
Total Dissolved Solids	ND	25	10	mg/L							

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Report No.: AZG0286

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070351 - SM 2540 C											
LCS (6070351-BS1)						Prepared & Analyzed: 07/18/16					
Total Dissolved Solids	395	25	10	mg/L	400.00		99	84-108			
Duplicate (6070351-DUP1)			**Source: AZG0286-07RE1**			Prepared & Analyzed: 07/18/16					
Total Dissolved Solids	572	25	10	mg/L		562			2	10	
Duplicate (6070351-DUP2)			**Source: AZG0286-08RE1**			Prepared & Analyzed: 07/18/16					
Total Dissolved Solids	703	25	10	mg/L		686			2	10	
Duplicate (6070351-DUP3)			**Source: AZG0286-10RE1**			Prepared & Analyzed: 07/18/16					
Total Dissolved Solids	624	25	10	mg/L		647			4	10	
Duplicate (6070351-DUP4)			**Source: AZG0365-02**			Prepared & Analyzed: 07/18/16					
Total Dissolved Solids	142	25	10	mg/L		135			5	10	

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Report No.: AZG0286

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070333 - EPA 300.0											
Blank (6070333-BLK1)						Prepared & Analyzed: 07/15/16					
Chloride	0.09	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6070333-BS1)						Prepared & Analyzed: 07/15/16					
Chloride	9.88	0.25	0.01	mg/L	10.010		99	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010		106	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.010		101	90-110			
Matrix Spike (6070333-MS1)		**Source: AZG0286-03**				Prepared & Analyzed: 07/15/16					
Chloride	15.6	0.25	0.01	mg/L	10.010	6.16	94	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.010	0.12	101	90-110			
Sulfate	49.9	1.0	0.05	mg/L	10.010	44.4	55	90-110			QM-05
Matrix Spike (6070333-MS2)		**Source: AZG0286-18**				Prepared & Analyzed: 07/15/16					
Chloride	91.8	0.25	0.01	mg/L	10.010	91.7	0.9	90-110			QM-05
Fluoride	10.5	0.30	0.02	mg/L	10.010	0.09	104	90-110			
Sulfate	286	1.0	0.05	mg/L	10.010	302	NR	90-110			QM-05
Matrix Spike Dup (6070333-MSD1)		**Source: AZG0286-03**				Prepared & Analyzed: 07/15/16					
Chloride	15.9	0.25	0.01	mg/L	10.010	6.16	98	90-110	2	15	
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.12	105	90-110	3	15	
Sulfate	50.2	1.0	0.05	mg/L	10.010	44.4	58	90-110	0.6	15	QM-05

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Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070274 - EPA 3005A											
Blank (6070274-BLK1)						Prepared: 07/14/16 Analyzed: 07/15/16					
Antimony	0.0003	0.0030	0.0002	mg/L							J
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	0.0004	0.0100	0.0003	mg/L							J
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							
LCS (6070274-BS1)						Prepared: 07/14/16 Analyzed: 07/15/16					
Antimony	0.108	0.0030	0.0002	mg/L	0.10000		108	80-120			
Arsenic	0.0994	0.0050	0.0007	mg/L	0.10000		99	80-120			
Barium	0.0986	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.102	0.0030	0.00009	mg/L	0.10000		102	80-120			
Boron	0.997	0.100	0.0044	mg/L	1.0000		100	80-120			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000		100	80-120			
Calcium	1.07	0.500	0.0126	mg/L	1.0000		107	80-120			
Chromium	0.0999	0.0100	0.0004	mg/L	0.10000		100	80-120			
Cobalt	0.0996	0.0100	0.0003	mg/L	0.10000		100	80-120			
Copper	0.100	0.0250	0.0004	mg/L	0.10000		100	80-120			
Lead	0.0973	0.0050	0.00008	mg/L	0.10000		97	80-120			
Molybdenum	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Nickel	0.0965	0.0100	0.0005	mg/L	0.10000		97	80-120			
Selenium	0.100	0.0100	0.0009	mg/L	0.10000		100	80-120			
Silver	0.102	0.0100	0.0002	mg/L	0.10000		102	80-120			
Thallium	0.0989	0.0010	0.00006	mg/L	0.10000		99	80-120			
Vanadium	0.0981	0.0100	0.0016	mg/L	0.10000		98	80-120			
Zinc	0.0989	0.0100	0.0013	mg/L	0.10000		99	80-120			
Lithium	0.0949	0.0500	0.0012	mg/L	0.10000		95	80-120			

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Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070274 - EPA 3005A											
Matrix Spike (6070274-MS1)		**Source: AZG0285-03**			Prepared: 07/14/16 Analyzed: 07/15/16						
Antimony	0.119	0.0030	0.0002	mg/L	0.10000	0.0094	110	75-125			
Arsenic	0.102	0.0050	0.0007	mg/L	0.10000	0.0009	101	75-125			
Barium	0.126	0.0100	0.0003	mg/L	0.10000	0.0246	101	75-125			
Beryllium	0.0972	0.0030	0.00009	mg/L	0.10000	ND	97	75-125			
Boron	0.940	0.100	0.0044	mg/L	1.0000	0.0050	93	75-125			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125			
Calcium	30.0	2.50	0.0628	mg/L	1.0000	29.6	35	75-125			QM-02
Chromium	0.102	0.0100	0.0004	mg/L	0.10000	ND	102	75-125			
Cobalt	0.0969	0.0100	0.0003	mg/L	0.10000	ND	97	75-125			
Copper	0.0960	0.0250	0.0004	mg/L	0.10000	ND	96	75-125			
Lead	0.0968	0.0050	0.00008	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.109	0.0100	0.0005	mg/L	0.10000	0.0011	108	75-125			
Nickel	0.0982	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Selenium	0.0985	0.0100	0.0009	mg/L	0.10000	ND	98	75-125			
Silver	0.101	0.0100	0.0002	mg/L	0.10000	ND	101	75-125			
Thallium	0.0998	0.0010	0.00006	mg/L	0.10000	0.00007	100	75-125			
Vanadium	0.103	0.0100	0.0016	mg/L	0.10000	0.0020	101	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	ND	105	75-125			
Lithium	0.0964	0.0500	0.0012	mg/L	0.10000	ND	96	75-125			
Matrix Spike Dup (6070274-MSD1)		**Source: AZG0285-03**			Prepared: 07/14/16 Analyzed: 07/15/16						
Antimony	0.119	0.0030	0.0002	mg/L	0.10000	0.0094	109	75-125	0.04	20	
Arsenic	0.105	0.0050	0.0007	mg/L	0.10000	0.0009	104	75-125	2	20	
Barium	0.126	0.0100	0.0003	mg/L	0.10000	0.0246	102	75-125	0.3	20	
Beryllium	0.100	0.0030	0.00009	mg/L	0.10000	ND	100	75-125	3	20	
Boron	0.975	0.100	0.0044	mg/L	1.0000	0.0050	97	75-125	4	20	
Cadmium	0.0991	0.0010	0.0001	mg/L	0.10000	ND	99	75-125	2	20	
Calcium	29.8	2.50	0.0628	mg/L	1.0000	29.6	11	75-125	0.8	20	QM-02
Chromium	0.103	0.0100	0.0004	mg/L	0.10000	ND	103	75-125	0.4	20	
Cobalt	0.0958	0.0100	0.0003	mg/L	0.10000	ND	96	75-125	1	20	
Copper	0.0973	0.0250	0.0004	mg/L	0.10000	ND	97	75-125	1	20	
Lead	0.0961	0.0050	0.00008	mg/L	0.10000	ND	96	75-125	0.7	20	
Molybdenum	0.108	0.0100	0.0005	mg/L	0.10000	0.0011	107	75-125	0.9	20	
Nickel	0.0944	0.0100	0.0005	mg/L	0.10000	ND	94	75-125	4	20	
Selenium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125	6	20	
Silver	0.0971	0.0100	0.0002	mg/L	0.10000	ND	97	75-125	4	20	
Thallium	0.0999	0.0010	0.00006	mg/L	0.10000	0.00007	100	75-125	0.09	20	
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	0.0020	99	75-125	1	20	
Zinc	0.101	0.0100	0.0013	mg/L	0.10000	ND	101	75-125	4	20	
Lithium	0.0963	0.0500	0.0012	mg/L	0.10000	ND	96	75-125	0.09	20	

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July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070274 - EPA 3005A											
Post Spike (6070274-PS1)		**Source: AZG0285-03**				Prepared: 07/14/16 Analyzed: 07/15/16					
Antimony	109			ug/L	100.00	9.37	100	80-120			
Arsenic	98.8			ug/L	100.00	0.881	98	80-120			
Barium	124			ug/L	100.00	24.6	99	80-120			
Beryllium	103			ug/L	100.00	0.0104	103	80-120			
Boron	976			ug/L	1000.0	5.04	97	80-120			
Cadmium	100			ug/L	100.00	-0.0070	100	80-120			
Calcium	29500			ug/L	1000.0	29600	NR	80-120			QM-02
Chromium	98.3			ug/L	100.00	0.251	98	80-120			
Cobalt	97.0			ug/L	100.00	0.0362	97	80-120			
Copper	94.8			ug/L	100.00	0.211	95	80-120			
Lead	94.8			ug/L	100.00	0.0103	95	80-120			
Molybdenum	108			ug/L	100.00	1.14	107	80-120			
Nickel	94.4			ug/L	100.00	-0.0435	94	80-120			
Selenium	96.4			ug/L	100.00	-0.385	97	80-120			
Silver	99.2			ug/L	100.00	0.0045	99	80-120			
Thallium	97.9			ug/L	100.00	0.0736	98	80-120			
Vanadium	102			ug/L	100.00	2.04	100	80-120			
Zinc	97.9			ug/L	100.00	0.969	97	80-120			
Lithium	98.4			ug/L	100.00	0.445	98	80-120			
Batch 6070275 - EPA 7470A											
Blank (6070275-BLK1)						Prepared & Analyzed: 07/15/16					
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070275-BS1)						Prepared & Analyzed: 07/15/16					
Mercury	0.00235	0.00050	0.00013	mg/L	2.5000E-3		94	80-120			

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070275 - EPA 7470A											
Matrix Spike (6070275-MS1)		**Source: AZG0286-09**				Prepared & Analyzed: 07/15/16					
Mercury	0.00186	0.00050	0.00013	mg/L	2.5000E-3	ND	75	75-125			
Matrix Spike Dup (6070275-MSD1)		**Source: AZG0286-09**				Prepared & Analyzed: 07/15/16					
Mercury	0.00188	0.00050	0.00013	mg/L	2.5000E-3	ND	75	75-125	1	20	
Post Spike (6070275-PS1)		**Source: AZG0286-09**				Prepared & Analyzed: 07/15/16					
Mercury	1.31			ug/L	1.6667	0.0174	78	80-120			QM-05
Batch 6070320 - EPA 3005A											
Blank (6070320-BLK1)						Prepared: 07/15/16 Analyzed: 07/18/16					
Antimony	ND	0.0030	0.0002	mg/L							
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070320 - EPA 3005A											
LCS (6070320-BS1)						Prepared: 07/15/16 Analyzed: 07/18/16					
Antimony	0.107	0.0030	0.0002	mg/L	0.10000		107	80-120			
Arsenic	0.106	0.0050	0.0007	mg/L	0.10000		106	80-120			
Barium	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Beryllium	0.103	0.0030	0.00009	mg/L	0.10000		103	80-120			
Boron	0.967	0.100	0.0044	mg/L	1.0000		97	80-120			
Cadmium	0.104	0.0010	0.0001	mg/L	0.10000		104	80-120			
Calcium	1.03	0.500	0.0126	mg/L	1.0000		103	80-120			
Chromium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Copper	0.103	0.0250	0.0004	mg/L	0.10000		103	80-120			
Lead	0.0998	0.0050	0.00008	mg/L	0.10000		100	80-120			
Molybdenum	0.110	0.0100	0.0005	mg/L	0.10000		110	80-120			
Nickel	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Selenium	0.101	0.0100	0.0009	mg/L	0.10000		101	80-120			
Silver	0.108	0.0100	0.0002	mg/L	0.10000		108	80-120			
Thallium	0.102	0.0010	0.00006	mg/L	0.10000		102	80-120			
Vanadium	0.107	0.0100	0.0016	mg/L	0.10000		107	80-120			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000		103	80-120			
Lithium	0.0979	0.0500	0.0012	mg/L	0.10000		98	80-120			
Matrix Spike (6070320-MS1)		**Source: AZG0365-03**				Prepared: 07/15/16 Analyzed: 07/18/16					
Antimony	0.105	0.0030	0.0002	mg/L	0.10000	0.0003	105	75-125			
Arsenic	0.100	0.0050	0.0007	mg/L	0.10000	ND	100	75-125			
Barium	0.124	0.0100	0.0003	mg/L	0.10000	0.0255	98	75-125			
Beryllium	0.0954	0.0030	0.00009	mg/L	0.10000	ND	95	75-125			
Boron	0.949	0.100	0.0044	mg/L	1.0000	0.0047	94	75-125			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125			
Calcium	13.2	2.50	0.0628	mg/L	1.0000	12.3	90	75-125			
Chromium	0.106	0.0100	0.0004	mg/L	0.10000	0.0029	103	75-125			
Cobalt	0.0977	0.0100	0.0003	mg/L	0.10000	ND	98	75-125			
Copper	0.0995	0.0250	0.0004	mg/L	0.10000	ND	99	75-125			
Lead	0.0940	0.0050	0.00008	mg/L	0.10000	0.0001	94	75-125			
Molybdenum	0.110	0.0100	0.0005	mg/L	0.10000	0.0017	108	75-125			
Nickel	0.0976	0.0100	0.0005	mg/L	0.10000	0.0007	97	75-125			
Selenium	0.0991	0.0100	0.0009	mg/L	0.10000	ND	99	75-125			
Silver	0.102	0.0100	0.0002	mg/L	0.10000	ND	102	75-125			
Thallium	0.0966	0.0010	0.00006	mg/L	0.10000	0.0002	96	75-125			
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	ND	101	75-125			
Zinc	0.0973	0.0100	0.0013	mg/L	0.10000	0.0031	94	75-125			
Lithium	0.0909	0.0500	0.0012	mg/L	0.10000	ND	91	75-125			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070320 - EPA 3005A											
Matrix Spike Dup (6070320-MSD1)		**Source: AZG0365-03**				Prepared: 07/15/16 Analyzed: 07/18/16					
Antimony	0.102	0.0030	0.0002	mg/L	0.10000	0.0003	102	75-125	3	20	
Arsenic	0.101	0.0050	0.0007	mg/L	0.10000	ND	101	75-125	0.2	20	
Barium	0.122	0.0100	0.0003	mg/L	0.10000	0.0255	97	75-125	1	20	
Beryllium	0.0981	0.0030	0.00009	mg/L	0.10000	ND	98	75-125	3	20	
Boron	0.944	0.100	0.0044	mg/L	1.0000	0.0047	94	75-125	0.5	20	
Cadmium	0.0999	0.0010	0.0001	mg/L	0.10000	ND	100	75-125	0.9	20	
Calcium	12.9	2.50	0.0628	mg/L	1.0000	12.3	59	75-125	2	20	QM-02
Chromium	0.110	0.0100	0.0004	mg/L	0.10000	0.0029	107	75-125	3	20	
Cobalt	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125	3	20	
Copper	0.0993	0.0250	0.0004	mg/L	0.10000	ND	99	75-125	0.1	20	
Lead	0.0964	0.0050	0.00008	mg/L	0.10000	0.0001	96	75-125	2	20	
Molybdenum	0.108	0.0100	0.0005	mg/L	0.10000	0.0017	106	75-125	2	20	
Nickel	0.101	0.0100	0.0005	mg/L	0.10000	0.0007	101	75-125	4	20	
Selenium	0.100	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	1	20	
Silver	0.103	0.0100	0.0002	mg/L	0.10000	ND	103	75-125	1	20	
Thallium	0.0990	0.0010	0.00006	mg/L	0.10000	0.0002	99	75-125	2	20	
Vanadium	0.104	0.0100	0.0016	mg/L	0.10000	ND	104	75-125	3	20	
Zinc	0.115	0.0100	0.0013	mg/L	0.10000	0.0031	112	75-125	17	20	
Lithium	0.0916	0.0500	0.0012	mg/L	0.10000	ND	92	75-125	0.7	20	
Post Spike (6070320-PS1)		**Source: AZG0365-03**				Prepared: 07/15/16 Analyzed: 07/18/16					
Antimony	105			ug/L	100.00	0.256	104	80-120			
Arsenic	101			ug/L	100.00	0.458	101	80-120			
Barium	125			ug/L	100.00	25.5	99	80-120			
Beryllium	95.3			ug/L	100.00	0.0582	95	80-120			
Boron	929			ug/L	1000.0	4.73	92	80-120			
Cadmium	103			ug/L	100.00	0.0426	103	80-120			
Calcium	13200			ug/L	1000.0	12300	93	80-120			
Chromium	109			ug/L	100.00	2.92	106	80-120			
Cobalt	97.5			ug/L	100.00	0.221	97	80-120			
Copper	97.8			ug/L	100.00	0.108	98	80-120			
Lead	95.3			ug/L	100.00	0.101	95	80-120			
Molybdenum	107			ug/L	100.00	1.73	106	80-120			
Nickel	97.6			ug/L	100.00	0.655	97	80-120			
Selenium	99.0			ug/L	100.00	0.403	99	80-120			
Silver	104			ug/L	100.00	0.0019	104	80-120			
Thallium	96.6			ug/L	100.00	0.171	96	80-120			
Vanadium	105			ug/L	100.00	0.730	104	80-120			
Zinc	101			ug/L	100.00	3.06	98	80-120			
Lithium	93.1			ug/L	100.00	0.499	93	80-120			

PACE ANALYTICAL SERVICES, INC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070347 - EPA 7470A											
Blank (6070347-BLK1)						Prepared & Analyzed: 07/18/16					
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070347-BS1)						Prepared & Analyzed: 07/18/16					
Mercury	0.00205	0.00050	0.00013	mg/L	2.5000E-3		82	80-120			
Matrix Spike (6070347-MS1)		**Source: AZG0286-17**				Prepared & Analyzed: 07/18/16					
Mercury	0.00182	0.00050	0.00013	mg/L	2.5000E-3	ND	73	75-125			QM-05
Matrix Spike Dup (6070347-MSD1)		**Source: AZG0286-17**				Prepared & Analyzed: 07/18/16					
Mercury	0.00178	0.00050	0.00013	mg/L	2.5000E-3	ND	71	75-125	2	20	QM-05
Post Spike (6070347-PS1)		**Source: AZG0286-17**				Prepared & Analyzed: 07/18/16					
Mercury	1.22			ug/L	1.6667	-0.0299	75	80-120			QM-05

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

2760

CHAIN OF CUSTODY RECORD

Pace Analytical®
Pace Analytical Services, Inc
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 : FAX (770) 734-4201

PAGE: 1 OF 2

CLIENT NAME: Southern Company Services
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE Bin 10185, Atlanta, GA 30308, 404-506-7239
REPORT TO: Joju Abraham
CC: Heath McCorkle, Maria Padilla
REQUESTED COMPLETION DATE:
PO #:
PROJECT NAME/STATE: Plant Hammond AP GW CCR
PROJECT #:

ANALYSIS REQUESTED: Metals App III + IV; EPA 6020 + 6010/7470; Cl, F, SO4 EPA 300; TDS SM2540C; Ra-226-228 9315 + 9320
Container type: P, P, P
Preservation: 3, 7, 3

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App III + IV	Cl, F, SO4 / TDS	Ra-226/228	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
7/12/2016	14:20	W		✓	FB-1	3	1	1	1	1	
7/12/2016	14:15	W		✓	FB-2	3	1	1	1	2	
7/12/2016	09:24	GW		✓	HGWA-3	3	1	1	1	3	
7/12/2016	13:55	GW		✓	HGWC-14	3	1	1	1	4	
7/12/2016	10:20	GW		✓	HGWC-7	3	1	1	1	5	
7/12/2016	14:30	GW		✓	HGWC-16	3	1	1	1	6	
7/12/2016	12:20	GW		✓	HGWC-13	3	1	1	1	7	
7/12/2016	10:40	GW		✓	HGWC-8	3	1	1	1	8	
7/12/2016	12:35	GW		✓	HGWC-15	3	1	1	1	9	
7/12/2016	11:21	GW		✓	HGWC-10	3	1	1	1	10	
7/12/2016	—	GW		✓	DUP-2	3	1	1	1	11	
7/12/2016	16:20	W		✓	FERB-2	3	1	1	1	12	

SAMPLED BY AND TITLE: Eric Shank, Geologist
DATE/TIME: 7/12/2016 16:45
RELINQUISHED BY: [signature]
DATE/TIME: 7/13/16 03:12
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: M. Rahman
DATE/TIME: 07/13/16 0815
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER
Custody Seal: Intact / Broken — N/A
# of Coolers:
Temperature: 1.2 °C

FOR LAB USE ONLY
LAB #: A2G0286
Entered into LIMS:
Tracking #:

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

COC Revised 2016-05-17.xlsx

CHAIN OF CUSTODY RECORD

Pace Analytical®
Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME: Southern Company Services
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE Bin 10185 Atlanta, GA 30308
REPORT TO: Joju Abraham
CC: Heath Pritchett, Maria Padilla
REQUESTED COMPLETION DATE:
PO #:
PROJECT NAME/STATE: Plant Hammond AP GW CCR
PROJECT #:

ANALYSIS REQUESTED (container type / preservation): P 3 | P 3 | P 5

Analyses: Metals App III + IV, EPA 6020 + EPA 7470 | Cl, F, SO4 EPA 300, TDS SM2540C | Alk - 2320 - B, TOC + 9060

Collection DATE	Collection TIME	MATRIX CODE	COMP	GRAB	SAMPLE IDENTIFICATION	# CONTAINERS	P/3	P/3	P/5	LAB I.D. NUMBER	REMARKS/ADDITIONAL INFORMATION
7/12/2016	15:50	W		✓	FERB-1	3	1	1	1	13	
7/12/2016	10:05	GW		✓	HGWC-9	3	1	1	1	14	
7/12/2016	—	GW		✓	DUP-1	3	1	1	1	15	
7/12/2016	11:35	GW		✓	HGWC-11	3	1	1	1	16	
7/12/2016	12:30	GW		✓	HGWC-12	4	1	1	2	17	
7/12/2016	15:04	GW		✓	HGWC-17	3	1	1	1	18	
7/12/2016	15:21	GW		✓	HGWC-18	3	1	1	1	19	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: [illegible] Geologist — DATE/TIME: 7/12/16 16:45
RELINQUISHED BY: [signature] — DATE/TIME: 7/13/16 08:15
RECEIVED BY: [signature] — DATE/TIME: 07/13/16 0815
RELINQUISHED BY: — DATE/TIME:
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER
Custody Seal: N/A
Temperature: 1°C 1°C

FOR LAB USE ONLY
LAB #: AZG0286
Entered into LIMS: MR
Tracking #:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 7/20/2016 5:17:20PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 07/13/16 08:15

Work Order: AZG0286
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 19 **#Containers:** 58

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZI0077
September 14, 2016
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-7	AZI0077-01	Ground Water	09/01/16 09:20	09/02/16 12:40
HGWC-8	AZI0077-02	Ground Water	09/01/16 08:50	09/02/16 12:40
HGWC-9	AZI0077-03	Ground Water	09/01/16 09:32	09/02/16 12:40
HGWC-10	AZI0077-04	Ground Water	09/01/16 10:18	09/02/16 12:40
HGWC-11	AZI0077-05	Ground Water	09/01/16 10:48	09/02/16 12:40
HGWC-12	AZI0077-06	Ground Water	09/01/16 11:34	09/02/16 12:40
HGWC-13	AZI0077-07	Ground Water	09/01/16 11:20	09/02/16 12:40
HGWC-14	AZI0077-08	Ground Water	09/01/16 12:07	09/02/16 12:40
HGWC-15	AZI0077-09	Ground Water	09/01/16 12:58	09/02/16 12:40
HGWC-16	AZI0077-10	Ground Water	09/01/16 12:50	09/02/16 12:40
HGWC-17	AZI0077-11	Ground Water	09/01/16 14:45	09/02/16 12:40
HGWC-18	AZI0077-12	Ground Water	09/01/16 14:32	09/02/16 12:40
FB-1	AZI0077-13	DI Water	09/01/16 09:21	09/02/16 12:40
FB-2	AZI0077-14	DI Water	09/01/16 12:18	09/02/16 12:40
FERB-1	AZI0077-15	DI Water	09/01/16 14:00	09/02/16 12:40
FERB-2	AZI0077-16	DI Water	09/01/16 15:28	09/02/16 12:40
Dup-1	AZI0077-17	Ground Water	09/01/16 00:00	09/02/16 12:40
Dup-2	AZI0077-18	Ground Water	09/01/16 00:00	09/02/16 12:40

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-7
Date/Time Sampled: 9/1/2016 9:20:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-01
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	484	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	50	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:25	6090177	RLC
Fluoride	0.51	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 13:32	6090177	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:25	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Barium	0.0747	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Boron	0.904	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Calcium	96.3	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 17:38	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Molybdenum	0.0274	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Lithium	0.0025	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/07/16 08:50	09/07/16 17:41	6090124	MTC

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September 14, 2016

Report No.: AZI0077
Client ID: HGWC-8
Date/Time Sampled: 9/1/2016 8:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-02
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	763	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	110	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:46	6090177	RLC
Fluoride	0.94	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 13:54	6090177	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:46	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Barium	0.0829	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Boron	1.91	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:33	6090121	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Calcium	135	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 12:57	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Molybdenum	0.481	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Lithium	0.0029	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/07/16 08:50	09/07/16 17:44	6090124	MTC

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September 14, 2016

Report No.: AZI0077
Client ID: HGWC-9
Date/Time Sampled: 9/1/2016 9:32:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-03
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	956	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	160	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:29	6090177	RLC
Fluoride	0.46	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 14:15	6090177	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:29	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Barium	0.130	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Boron	2.00	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:39	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Calcium	170	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:02	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Molybdenum	0.0239	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Lithium	0.0044	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/07/16 08:50	09/07/16 17:46	6090124	MTC

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September 14, 2016

Report No.: AZI0077
Client ID: HGWC-10
Date/Time Sampled: 9/1/2016 10:18:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-04
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	769	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	77	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:50	6090177	RLC
Fluoride	0.50	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 14:36	6090177	RLC
Sulfate	190	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:50	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Barium	0.0994	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Boron	0.786	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Calcium	156	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:08	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:50	6090109	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-11
Date/Time Sampled: 9/1/2016 10:48:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-05
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	656	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	58	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 19:11	6090177	RLC
Fluoride	0.67	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 16:44	6090177	RLC
Sulfate	240	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 19:11	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Barium	0.0497	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Boron	1.49	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Calcium	107	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:14	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Cobalt	0.0025	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Molybdenum	0.0259	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Selenium	0.0057	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:52	6090109	MTC

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September 14, 2016

Report No.: AZI0077
Client ID: HGWC-12
Date/Time Sampled: 9/1/2016 11:34:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-06
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1480	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	140	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:31	6090177	RLC
Fluoride	0.62	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 17:48	6090177	RLC
Sulfate	300	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:31	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Arsenic	0.0043	0.0050	0.0016	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Barium	0.123	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Boron	2.28	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:45	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Calcium	179	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:19	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Cobalt	0.0016	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Molybdenum	0.0474	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Lithium	0.0118	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:54	6090109	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-13
Date/Time Sampled: 9/1/2016 11:20:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-07
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	702	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:52	6090177	RLC
Fluoride	0.74	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 18:09	6090177	RLC
Sulfate	190	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:52	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Arsenic	0.314	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Barium	0.0700	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Boron	2.30	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:50	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Calcium	120	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:25	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Cobalt	0.0033	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Molybdenum	0.0336	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Lithium	0.0400	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:57	6090109	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-14
Date/Time Sampled: 9/1/2016 12:07:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-08
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3200	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	510	25	1.4	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 20:13	6090177	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 18:30	6090177	RLC
Sulfate	1300	100	5.1	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 20:13	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Arsenic	0.0056	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Barium	0.0208	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Beryllium	0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Boron	12.3	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:56	6090121	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Calcium	586	50.0	3.11	mg/L	EPA 6020B		100	09/07/16 08:35	09/12/16 13:31	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Cobalt	0.0248	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Lead	0.0016	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Selenium	0.0137	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:59	6090109	MTC

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-15
Date/Time Sampled: 9/1/2016 12:58:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-09
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1180	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	200	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 20:33	6090177	RLC
Fluoride	0.22	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 18:51	6090177	RLC
Sulfate	440	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 20:33	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Barium	0.0364	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Boron	1.93	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 14:08	6090121	KLH
Cadmium	0.0017	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Calcium	189	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:37	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Cobalt	0.0450	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Lithium	0.0021	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:06	6090109	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-16
Date/Time Sampled: 9/1/2016 12:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-10
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	625	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	34	0.25	0.01	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 19:12	6090177	RLC
Fluoride	0.42	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 19:12	6090177	RLC
Sulfate	220	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 20:54	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Barium	0.0934	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Boron	1.31	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Calcium	141	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:54	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Lithium	0.0033	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:09	6090109	MTC

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-17
Date/Time Sampled: 9/1/2016 2:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-11
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1060	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	95	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 21:15	6090177	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 19:55	6090177	RLC
Sulfate	430	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 21:15	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Barium	0.0227	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Boron	5.76	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 14:13	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Calcium	213	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 14:00	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Cobalt	0.0151	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Selenium	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:11	6090109	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-18
Date/Time Sampled: 9/1/2016 2:32:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-12
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2000	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	270	25	1.4	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 21:35	6090177	RLC
Fluoride	0.49	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 21:41	6090177	RLC
Sulfate	890	100	5.1	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 21:35	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Arsenic	0.0073	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Barium	0.0336	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Beryllium	0.0034	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Boron	8.80	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 14:19	6090121	KLH
Cadmium	0.0024	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Calcium	379	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 14:05	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Cobalt	0.180	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Lead	0.0014	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Selenium	0.0347	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Lithium	0.0158	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Mercury	0.00006	0.00050	0.000041	mg/L	EPA 7470A	J	1	09/06/16 11:30	09/06/16 17:13	6090109	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: FB-1
Date/Time Sampled: 9/1/2016 9:21:00AM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0077-13
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	12	25	10	mg/L	SM 2540 C	J	1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 22:02	6090177	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 22:02	6090177	RLC
Sulfate	0.15	1.0	0.05	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 22:02	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Boron	0.0423	0.100	0.0064	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Calcium	0.0407	0.500	0.0311	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:16	6090109	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: FB-2
Date/Time Sampled: 9/1/2016 12:18:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0077-14
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	32	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 22:24	6090177	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 22:24	6090177	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 22:24	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Boron	0.0221	0.100	0.0064	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Calcium	0.0317	0.500	0.0311	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:18	6090109	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: FERB-1
Date/Time Sampled: 9/1/2016 2:00:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0077-15
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	29	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 19:50	09/10/16 18:14	6090212	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:14	6090212	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:14	6090212	RLC
Metals, Total											
Antimony	0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Barium	0.0012	0.0100	0.0004	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Boron	0.0105	0.100	0.0064	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Calcium	0.0345	0.500	0.0311	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:21	6090109	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: FERB-2
Date/Time Sampled: 9/1/2016 3:28:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0077-16
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	46	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 19:50	09/10/16 18:34	6090212	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:34	6090212	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:34	6090212	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:23	6090109	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: Dup-1
Date/Time Sampled: 9/1/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-17
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	481	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	50	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 19:50	09/11/16 13:40	6090212	RLC
Fluoride	0.46	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:55	6090212	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 19:50	09/11/16 13:40	6090212	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Barium	0.0759	0.0100	0.0004	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Boron	0.888	0.100	0.0064	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Cadmium	0.0004	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Calcium	95.9	5.00	0.311	mg/L	EPA 6020B		10	09/08/16 10:40	09/12/16 17:32	6090169	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Molybdenum	0.0266	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Lithium	0.0024	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:25	6090109	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: Dup-2
Date/Time Sampled: 9/1/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0077-18
Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3190	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	520	12	0.70	mg/L	EPA 300.0		50	09/08/16 19:50	09/12/16 04:28	6090212	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 19:50	09/10/16 19:16	6090212	RLC
Sulfate	1400	50	2.6	mg/L	EPA 300.0		50	09/08/16 19:50	09/12/16 04:28	6090212	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Arsenic	0.0055	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Barium	0.0213	0.0100	0.0004	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Beryllium	0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Boron	12.4	1.00	0.0642	mg/L	EPA 6020B		10	09/08/16 10:40	09/14/16 11:46	6090169	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Calcium	547	50.0	3.11	mg/L	EPA 6020B		100	09/08/16 10:40	09/12/16 16:18	6090169	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Cobalt	0.0250	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Lead	0.0017	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Selenium	0.0117	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:28	6090109	MTC

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September 14, 2016

Report No.: AZI0077

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090135 - SM 2540 C											
Blank (6090135-BLK1)						Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090135-BS1)						Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	336	25	10	mg/L	400.00		84	84-108			
Duplicate (6090135-DUP1)		**Source: AZI0058-08**				Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	580	25	10	mg/L		539			7	10	
Duplicate (6090135-DUP2)		**Source: AZI0077-04**				Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	691	25	10	mg/L		769			11	10	QR-03
Batch 6090136 - SM 2540 C											
Blank (6090136-BLK1)						Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090136-BS1)						Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	407	25	10	mg/L	400.00		102	84-108			
Duplicate (6090136-DUP1)		**Source: AZI0077-07**				Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	694	25	10	mg/L		702			1	10	
Duplicate (6090136-DUP2)		**Source: AZI0094-01**				Prepared & Analyzed: 09/07/16					
Total Dissolved Solids	228	25	10	mg/L		243			6	10	

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Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090177 - EPA 300.0											
Blank (6090177-BLK1)						Prepared & Analyzed: 09/08/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090177-BS1)						Prepared & Analyzed: 09/08/16					
Chloride	10.3	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.8	0.30	0.02	mg/L	10.010		108	90-110			
Sulfate	10.4	1.0	0.05	mg/L	10.010		103	90-110			
Matrix Spike (6090177-MS1)		**Source: AZI0077-05**				Prepared & Analyzed: 09/08/16					
Chloride	62.4	0.25	0.01	mg/L	10.010	58.3	41	90-110			QM-05
Fluoride	11.5	0.30	0.02	mg/L	10.010	0.67	108	90-110			
Sulfate	185	1.0	0.05	mg/L	10.010	193	NR	90-110			QM-05
Matrix Spike (6090177-MS2)		**Source: AZI0077-10**				Prepared & Analyzed: 09/08/16					
Chloride	41.2	0.25	0.01	mg/L	10.010	34.4	68	90-110			QM-05
Fluoride	11.5	0.30	0.02	mg/L	10.010	0.42	111	90-110			QM-05
Sulfate	175	1.0	0.05	mg/L	10.010	182	NR	90-110			QM-05
Matrix Spike Dup (6090177-MSD1)		**Source: AZI0077-05**				Prepared & Analyzed: 09/08/16					
Chloride	62.6	0.25	0.01	mg/L	10.010	58.3	43	90-110	0.4	15	QM-05
Fluoride	11.7	0.30	0.02	mg/L	10.010	0.67	111	90-110	2	15	QM-05
Sulfate	185	1.0	0.05	mg/L	10.010	193	NR	90-110	0.09	15	QM-05
Batch 6090212 - EPA 300.0											
Blank (6090212-BLK1)						Prepared: 09/08/16 Analyzed: 09/10/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090212 - EPA 300.0											
LCS (6090212-BS1)						Prepared: 09/08/16 Analyzed: 09/10/16					
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010		105	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6090212-MS1)		**Source: AZI0168-02**				Prepared: 09/08/16 Analyzed: 09/10/16					
Chloride	25.2	0.25	0.01	mg/L	10.010	15.8	94	90-110			
Fluoride	11.9	0.30	0.02	mg/L	10.010	0.17	117	90-110			QM-05
Sulfate	147	1.0	0.05	mg/L	10.010	153	NR	90-110			QM-05
Matrix Spike (6090212-MS2)		**Source: AZI0192-04**				Prepared: 09/08/16 Analyzed: 09/11/16					
Chloride	26.4	0.25	0.01	mg/L	10.010	17.3	91	90-110			
Fluoride	12.0	0.30	0.02	mg/L	10.010	0.32	117	90-110			QM-05
Sulfate	177	1.0	0.05	mg/L	10.010	185	NR	90-110			QM-05
Matrix Spike Dup (6090212-MSD1)		**Source: AZI0168-02**				Prepared: 09/08/16 Analyzed: 09/10/16					
Chloride	25.1	0.25	0.01	mg/L	10.010	15.8	94	90-110	0.08	15	
Fluoride	11.8	0.30	0.02	mg/L	10.010	0.17	117	90-110	0.5	15	QM-05
Sulfate	147	1.0	0.05	mg/L	10.010	153	NR	90-110	0.09	15	QM-05

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September 14, 2016

Report No.: AZI0077

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090109 - EPA 7470A											
Blank (6090109-BLK1)						Prepared & Analyzed: 09/06/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6090109-BS1)						Prepared & Analyzed: 09/06/16					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (6090109-MS1)			**Source: AZI0077-04**			Prepared & Analyzed: 09/06/16					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6090109-MSD1)			**Source: AZI0077-04**			Prepared & Analyzed: 09/06/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.1	20	
Post Spike (6090109-PS1)			**Source: AZI0077-04**			Prepared & Analyzed: 09/06/16					
Mercury	1.68			ug/L	1.6667	0.00330	100	80-120			
Batch 6090121 - EPA 3005A											
Blank (6090121-BLK1)						Prepared: 09/07/16 Analyzed: 09/08/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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September 14, 2016

Report No.: AZI0077

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090121 - EPA 3005A											
LCS (6090121-BS1)						Prepared: 09/07/16 Analyzed: 09/08/16					
Antimony	0.109	0.0030	0.0008	mg/L	0.10000		109	80-120			
Arsenic	0.0983	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0965	0.0100	0.0004	mg/L	0.10000		96	80-120			
Beryllium	0.0979	0.0030	0.00008	mg/L	0.10000		98	80-120			
Boron	0.990	0.100	0.0064	mg/L	1.0000		99	80-120			
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	0.942	0.500	0.0311	mg/L	1.0000		94	80-120			
Chromium	0.100	0.0100	0.0009	mg/L	0.10000		100	80-120			
Cobalt	0.0969	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.0966	0.0050	0.0005	mg/L	0.10000		97	80-120			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000		102	80-120			
Nickel	0.0957	0.0050	0.0006	mg/L	0.10000		96	80-120			
Selenium	0.0999	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.0964	0.0050	0.0005	mg/L	0.10000		96	80-120			
Thallium	0.0983	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000		104	80-120			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000		103	80-120			
Lithium	0.0971	0.0500	0.0021	mg/L	0.10000		97	80-120			
Matrix Spike (6090121-MS1)		**Source: AZI0059-01**				Prepared: 09/07/16 Analyzed: 09/08/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	ND	110	75-125			
Arsenic	0.0984	0.0050	0.0016	mg/L	0.10000	ND	98	75-125			
Barium	0.112	0.0100	0.0004	mg/L	0.10000	0.0142	98	75-125			
Beryllium	0.0935	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	0.952	0.100	0.0064	mg/L	1.0000	ND	95	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	4.12	0.500	0.0311	mg/L	1.0000	3.30	82	75-125			
Chromium	0.117	0.0100	0.0009	mg/L	0.10000	0.0147	102	75-125			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Copper	0.0970	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Lead	0.0973	0.0050	0.0001	mg/L	0.10000	0.0001	97	75-125			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125			
Nickel	0.103	0.0050	0.0006	mg/L	0.10000	0.0035	100	75-125			
Selenium	0.0978	0.0100	0.0010	mg/L	0.10000	ND	98	75-125			
Silver	0.0973	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Thallium	0.0984	0.0010	0.0002	mg/L	0.10000	ND	98	75-125			
Vanadium	0.111	0.0100	0.0071	mg/L	0.10000	ND	111	75-125			
Zinc	0.109	0.0100	0.0021	mg/L	0.10000	0.0062	103	75-125			
Lithium	0.0988	0.0500	0.0021	mg/L	0.10000	0.0030	96	75-125			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090121 - EPA 3005A											
Matrix Spike Dup (6090121-MSD1)		**Source: AZI0059-01**			Prepared: 09/07/16 Analyzed: 09/08/16						
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	0.06	20	
Arsenic	0.0992	0.0050	0.0016	mg/L	0.10000	ND	99	75-125	0.8	20	
Barium	0.113	0.0100	0.0004	mg/L	0.10000	0.0142	99	75-125	1	20	
Beryllium	0.0946	0.0030	0.00008	mg/L	0.10000	ND	95	75-125	1	20	
Boron	0.904	0.100	0.0064	mg/L	1.0000	ND	90	75-125	5	20	
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000	ND	104	75-125	3	20	
Calcium	4.13	0.500	0.0311	mg/L	1.0000	3.30	82	75-125	0.2	20	
Chromium	0.110	0.0100	0.0009	mg/L	0.10000	0.0147	95	75-125	6	20	
Cobalt	0.0972	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	4	20	
Copper	0.0961	0.0050	0.0005	mg/L	0.10000	ND	96	75-125	1	20	
Lead	0.0989	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125	2	20	
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125	0.4	20	
Nickel	0.103	0.0050	0.0006	mg/L	0.10000	0.0035	100	75-125	0.4	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	3	20	
Silver	0.0994	0.0050	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Thallium	0.0996	0.0010	0.0002	mg/L	0.10000	ND	100	75-125	1	20	
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000	ND	108	75-125	3	20	
Zinc	0.108	0.0100	0.0021	mg/L	0.10000	0.0062	102	75-125	1	20	
Lithium	0.0985	0.0500	0.0021	mg/L	0.10000	0.0030	96	75-125	0.3	20	
Post Spike (6090121-PS1)		**Source: AZI0059-01**			Prepared: 09/07/16 Analyzed: 09/08/16						
Antimony	95.5			ug/L	100.00	0.627	95	80-120			
Arsenic	100			ug/L	100.00	0.162	100	80-120			
Barium	113			ug/L	100.00	14.2	98	80-120			
Beryllium	102			ug/L	100.00	0.0291	102	80-120			
Boron	956			ug/L	1000.0	5.64	95	80-120			
Cadmium	104			ug/L	100.00	0.0253	103	80-120			
Calcium	4230			ug/L	1000.0	3300	93	80-120			
Chromium	115			ug/L	100.00	14.7	101	80-120			
Cobalt	101			ug/L	100.00	0.235	101	80-120			
Copper	100			ug/L	100.00	0.237	100	80-120			
Lead	101			ug/L	100.00	0.130	101	80-120			
Molybdenum	103			ug/L	100.00	0.0836	102	80-120			
Nickel	103			ug/L	100.00	3.46	100	80-120			
Selenium	103			ug/L	100.00	0.602	103	80-120			
Silver	98.7			ug/L	100.00	0.0071	99	80-120			
Thallium	100			ug/L	100.00	0.0246	100	80-120			
Vanadium	109			ug/L	100.00	4.25	105	80-120			
Zinc	110			ug/L	100.00	6.19	104	80-120			
Lithium	103			ug/L	100.00	2.97	100	80-120			

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September 14, 2016

Report No.: AZI0077

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090124 - EPA 7470A											
Blank (6090124-BLK1)						Prepared & Analyzed: 09/07/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6090124-BS1)						Prepared & Analyzed: 09/07/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6090124-MS1)			**Source: AZI0058-10**			Prepared & Analyzed: 09/07/16					
Mercury	0.00225	0.00050	0.000041	mg/L	2.5000E-3	ND	90	75-125			
Matrix Spike Dup (6090124-MSD1)			**Source: AZI0058-10**			Prepared & Analyzed: 09/07/16					
Mercury	0.00222	0.00050	0.000041	mg/L	2.5000E-3	ND	89	75-125	1	20	
Post Spike (6090124-PS1)			**Source: AZI0058-10**			Prepared & Analyzed: 09/07/16					
Mercury	1.63			ug/L	1.6667	0.0124	97	80-120			
Batch 6090169 - EPA 3005A											
Blank (6090169-BLK1)						Prepared: 09/08/16 Analyzed: 09/09/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090169 - EPA 3005A											
LCS (6090169-BS1)						Prepared: 09/08/16 Analyzed: 09/09/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000		106	80-120			
Arsenic	0.0993	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.0945	0.0100	0.0004	mg/L	0.10000		94	80-120			
Beryllium	0.0976	0.0030	0.00008	mg/L	0.10000		98	80-120			
Boron	1.02	0.100	0.0064	mg/L	1.0000		102	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	0.979	0.500	0.0311	mg/L	1.0000		98	80-120			
Chromium	0.103	0.0100	0.0009	mg/L	0.10000		103	80-120			
Cobalt	0.0986	0.0100	0.0005	mg/L	0.10000		99	80-120			
Copper	0.0990	0.0050	0.0005	mg/L	0.10000		99	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.0997	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0987	0.0050	0.0006	mg/L	0.10000		99	80-120			
Selenium	0.0990	0.0100	0.0010	mg/L	0.10000		99	80-120			
Silver	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.0993	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000		100	80-120			
Lithium	0.0988	0.0500	0.0021	mg/L	0.10000		99	80-120			
Matrix Spike (6090169-MS1)		**Source: AZI0077-17**				Prepared: 09/08/16 Analyzed: 09/09/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.169	0.0100	0.0004	mg/L	0.10000	0.0759	93	75-125			
Beryllium	0.0930	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	1.94	1.00	0.0642	mg/L	1.0000	0.888	105	75-125			
Cadmium	0.0991	0.0010	0.00007	mg/L	0.10000	0.0004	99	75-125			
Calcium	96.8	5.00	0.311	mg/L	1.0000	95.9	82	75-125			
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125			
Cobalt	0.0997	0.0100	0.0005	mg/L	0.10000	ND	100	75-125			
Copper	0.0960	0.0050	0.0005	mg/L	0.10000	ND	96	75-125			
Lead	0.0960	0.0050	0.0001	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.125	0.0100	0.0017	mg/L	0.10000	0.0266	98	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	0.0011	101	75-125			
Selenium	0.0978	0.0100	0.0010	mg/L	0.10000	ND	98	75-125			
Silver	0.0977	0.0050	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0966	0.0010	0.0002	mg/L	0.10000	ND	97	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000	0.0027	98	75-125			
Lithium	0.0941	0.0500	0.0021	mg/L	0.10000	0.0024	92	75-125			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090169 - EPA 3005A											
Matrix Spike Dup (6090169-MSD1)		**Source: AZI0077-17**			Prepared: 09/08/16 Analyzed: 09/09/16						
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	3	20	
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125	0.8	20	
Barium	0.168	0.0100	0.0004	mg/L	0.10000	0.0759	92	75-125	0.7	20	
Beryllium	0.0960	0.0030	0.00008	mg/L	0.10000	ND	96	75-125	3	20	
Boron	1.96	1.00	0.0642	mg/L	1.0000	0.888	107	75-125	0.8	20	
Cadmium	0.0992	0.0010	0.00007	mg/L	0.10000	0.0004	99	75-125	0.09	20	
Calcium	98.6	5.00	0.311	mg/L	1.0000	95.9	263	75-125	2	20	QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125	2	20	
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	0.5	20	
Copper	0.0975	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	2	20	
Lead	0.0973	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	1	20	
Molybdenum	0.126	0.0100	0.0017	mg/L	0.10000	0.0266	100	75-125	1	20	
Nickel	0.100	0.0050	0.0006	mg/L	0.10000	0.0011	99	75-125	2	20	
Selenium	0.0955	0.0100	0.0010	mg/L	0.10000	ND	95	75-125	2	20	
Silver	0.0938	0.0050	0.0005	mg/L	0.10000	ND	94	75-125	4	20	
Thallium	0.0982	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	2	20	
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125	3	20	
Zinc	0.104	0.0100	0.0021	mg/L	0.10000	0.0027	102	75-125	4	20	
Lithium	0.0983	0.0500	0.0021	mg/L	0.10000	0.0024	96	75-125	4	20	
Post Spike (6090169-PS1)		**Source: AZI0077-17**			Prepared: 09/08/16 Analyzed: 09/09/16						
Antimony	101			ug/L	100.00	0.299	101	80-120			
Arsenic	102			ug/L	100.00	0.235	101	80-120			
Barium	175			ug/L	100.00	75.9	99	80-120			
Beryllium	97.5			ug/L	100.00	0.0116	97	80-120			
Boron	1910			ug/L	1000.0	888	102	80-120			
Cadmium	101			ug/L	100.00	0.400	101	80-120			
Calcium	98600			ug/L	1000.0	95900	262	80-120			QM-02
Chromium	101			ug/L	100.00	0.306	101	80-120			
Cobalt	95.3			ug/L	100.00	0.465	95	80-120			
Copper	93.2			ug/L	100.00	0.123	93	80-120			
Lead	94.2			ug/L	100.00	0.0087	94	80-120			
Molybdenum	128			ug/L	100.00	26.6	101	80-120			
Nickel	94.4			ug/L	100.00	1.09	93	80-120			
Selenium	95.4			ug/L	100.00	-0.575	96	80-120			
Silver	97.8			ug/L	100.00	0.0070	98	80-120			
Thallium	95.3			ug/L	100.00	0.0424	95	80-120			
Vanadium	98.9			ug/L	100.00	0.409	99	80-120			
Zinc	101			ug/L	100.00	2.66	98	80-120			
Lithium	101			ug/L	100.00	2.37	98	80-120			

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond AP 1&2

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB #
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
09/01/16	09:20	GW		X	HGWC-7	4		1	1	2							1
09/01/16	08:50	GW		X	HGWC-8	3		1	1	1							2
09/01/16	09:32	GW		X	HGWC-9	3		1	1	1							3
09/01/16	10:18	GW		X	HGWC-10	3		1	1	1							4
09/01/16	10:48	GW		X	HGWC-11	3		1	1	1							5
09/01/16	11:34	GW		X	HGWC-12	3		1	1	1							6
09/01/16	11:20	GW		X	HGWC-13	3		1	1	1							7
09/01/16	12:07	GW		X	HGWC-14	3		1	1	1							8
09/01/16	12:58	GW		X	HGWC-15	3		1	1	1							9
09/01/16	12:50	GW		X	HGWC-16	3		1	1	1							10
09/01/16	14:45	GW		X	HGWC-17	3		1	1	1							11
09/01/16	14:32	GW		X	HGWC-18	4		1	1	2							12

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: ERM - M.R.; M.T.: EMSERVICES - T.W.
DATE/TIME: 09/01/16 16:00

RELINQUISHED BY:
DATE/TIME: 09/02/16 1240

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY / LAB: Malaman
DATE/TIME: 09/02/16 1240

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 1°C Min: 1°C Max

Custody Seal: Intact Broken Not Present N/A
# of Coolers
Cooler ID:

FOR LAB USE ONLY
LAB #: AZI0077
Entered Into LIMS: MR
Tracking #:

CHAIN OF CUSTODY RECORD

Pace Analytical®
Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond AP 1&2
PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB I.D. NUMBER
	CONTAINER TYPE						P	P	P	
	PRESERVATION						3	7	3	
09/01/16	09:21	W		X	FB-1	3	1	1	1	13
09/01/16	12:18	W		X	FB-2	3	1	1	1	14
09/01/16	14:00	W		X	FERB-1	3	1	1	1	15
09/01/16	15:28	W		X	FERB-2	3	1	1	1	16
09/01/16	—	GW		X	DUP-1	3	1	1	1	17
09/01/16	—	GW		X	DUP-2	3	1	1	1	18

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER
PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: ERM - M.R. / M.T.; EH SERVICES - T.W.
DATE/TIME: 09/01/16 16:00
RELINQUISHED BY:
DATE/TIME: 09/02/16 1240

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: M Lattman
DATE/TIME: 09/02/16 1240

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: (Yes) No NA
Ice: (Yes) No NA
Temperature: 1°C Min: 1°C Max
Custody Seal: Intact Broken (N/A) Not Present
# of Coolers
Cooler ID:

FOR LAB USE ONLY
LAB #: AZ10077
Entered Into LIMS: MR
Tracking #:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 9/14/2016 1:46:17PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 09/02/16 12:40

Work Order: AZI0077
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 18 **#Containers:** 56

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

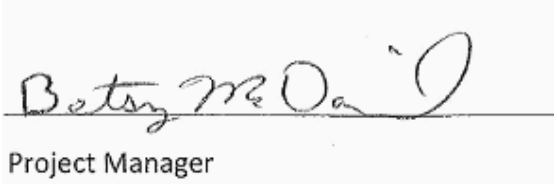
Report Number: **AZJ0621**
October 28, 2016

Project: CCR Event

Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-5	AZJ0621-01	Ground Water	10/20/16 11:07	10/21/16 11:48
HGWA-6	AZJ0621-02	Ground Water	10/20/16 13:08	10/21/16 11:48
HGWC-7	AZJ0621-03	Ground Water	10/20/16 12:30	10/21/16 11:48
HGWC-8	AZJ0621-04	Ground Water	10/20/16 13:55	10/21/16 11:48
HGWC-9	AZJ0621-05	Ground Water	10/20/16 15:50	10/21/16 11:48
Dup-1	AZJ0621-06	Ground Water	10/20/16 00:00	10/21/16 11:48

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621
Client ID: HGWA-5
Date/Time Sampled: 10/20/2016 11:07:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0621-01
Date/Time Received: 10/21/2016 11:48:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	99	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 18:21	6100645	RNB
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/25/16 12:27	10/25/16 18:21	6100645	RNB
Sulfate	19	1.0	0.05	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 18:21	6100645	RNB
Metals, Total											
Antimony	0.0023	0.0030	0.0008	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Barium	0.0539	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Boron	0.0135	0.100	0.0064	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Calcium	26.7	2.50	0.155	mg/L	EPA 6020B		5	10/26/16 09:00	10/27/16 13:32	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Lithium	0.0031	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:36	6100579	MTC

PACE ANALYTICAL SERVICES, INC.

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110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621
Client ID: HGWA-6
Date/Time Sampled: 10/20/2016 1:08:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0621-02
Date/Time Received: 10/21/2016 11:48:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	225	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 19:25	6100645	RNB
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	10/25/16 12:27	10/25/16 19:25	6100645	RNB
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 19:25	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Barium	0.157	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Boron	0.0197	0.100	0.0064	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Calcium	50.7	5.00	0.311	mg/L	EPA 6020B		10	10/26/16 09:00	10/27/16 15:27	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Lithium	0.0105	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:39	6100579	MTC

PACE ANALYTICAL SERVICES, INC.

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110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621
Client ID: HGWC-7
Date/Time Sampled: 10/20/2016 12:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0621-03
Date/Time Received: 10/21/2016 11:48:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	393	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	49	0.25	0.01	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 20:07	6100645	RNB
Fluoride	0.40	0.30	0.02	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 20:07	6100645	RNB
Sulfate	110	4.0	0.20	mg/L	EPA 300.0		4	10/25/16 12:27	10/25/16 19:46	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Barium	0.0720	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Boron	0.936	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Calcium	96.9	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 13:43	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Molybdenum	0.0360	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Lithium	0.0021	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:41	6100579	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621
Client ID: HGWC-8
Date/Time Sampled: 10/20/2016 1:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0621-04
Date/Time Received: 10/21/2016 11:48:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	644	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 22:50	6100645	RNB
Fluoride	0.56	0.30	0.02	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 20:50	6100645	RNB
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 22:50	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Barium	0.0811	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Boron	1.72	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Calcium	134	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 13:49	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Molybdenum	0.472	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Lithium	0.0027	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:43	6100579	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621
Client ID: HGWC-9
Date/Time Sampled: 10/20/2016 3:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0621-05
Date/Time Received: 10/21/2016 11:48:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	642	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:11	6100645	RNB
Fluoride	0.56	0.30	0.02	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 21:33	6100645	RNB
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:11	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Barium	0.0806	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Boron	1.68	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Calcium	133	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 13:55	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Molybdenum	0.477	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Lithium	0.0027	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:46	6100579	MTC

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621
Client ID: Dup-1
Date/Time Sampled: 10/20/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0621-06
Date/Time Received: 10/21/2016 11:48:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	772	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:32	6100645	RNB
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	10/25/16 12:27	10/25/16 23:44	6100645	RNB
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:32	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Barium	0.126	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Boron	1.73	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Calcium	175	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 14:01	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Molybdenum	0.0227	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Lithium	0.0043	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:48	6100579	MTC

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Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100642 - SM 2540 C											
Blank (6100642-BLK1)						Prepared & Analyzed: 10/25/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100642-BS1)						Prepared & Analyzed: 10/25/16					
Total Dissolved Solids	388	25	10	mg/L	400.00		97	84-108			
Duplicate (6100642-DUP1)		**Source: AZJ0621-05**				Prepared & Analyzed: 10/25/16					
Total Dissolved Solids	646	25	10	mg/L		642			0.6	10	
Duplicate (6100642-DUP2)		**Source: AZJ0623-04**				Prepared & Analyzed: 10/25/16					
Total Dissolved Solids	323	25	10	mg/L		305			6	10	

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October 28, 2016

Report No.: AZJ0621

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100645 - EPA 300.0											
Blank (6100645-BLK1)						Prepared & Analyzed: 10/25/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.10	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6100645-BS1)						Prepared & Analyzed: 10/25/16					
Chloride	9.99	1.0	0.01	mg/L	10.010		100	90-110			
Fluoride	10.4	0.10	0.05	mg/L	10.020		104	90-110			
Sulfate	10.2	5.0	0.05	mg/L	10.020		102	90-110			
Matrix Spike (6100645-MS1)		**Source: AZJ0621-01**				Prepared & Analyzed: 10/25/16					
Chloride	10.7	1.0	0.01	mg/L	10.010	2.20	85	90-110			QM-02
Fluoride	8.83	0.10	0.02	mg/L	10.020	0.10	87	90-110			QM-02
Sulfate	26.0	5.0	0.05	mg/L	10.020	19.1	69	90-110			QM-02
Matrix Spike Dup (6100645-MSD1)		**Source: AZJ0621-01**				Prepared & Analyzed: 10/25/16					
Chloride	11.7	1.0	0.01	mg/L	10.010	2.20	95	90-110	8	15	
Fluoride	9.84	0.10	0.02	mg/L	10.020	0.10	97	90-110	11	15	
Sulfate	26.7	5.0	0.05	mg/L	10.020	19.1	77	90-110	3	15	QM-02

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Report No.: AZJ0621

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100579 - EPA 7470A											
Blank (6100579-BLK1)						Prepared & Analyzed: 10/24/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100579-BS1)						Prepared & Analyzed: 10/24/16					
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3		97	80-120			
Matrix Spike (6100579-MS1)		**Source: AZJ0582-01**				Prepared & Analyzed: 10/24/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (6100579-MSD1)		**Source: AZJ0582-01**				Prepared & Analyzed: 10/24/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.6	20	
Post Spike (6100579-PS1)		**Source: AZJ0582-01**				Prepared & Analyzed: 10/24/16					
Mercury	1.80			ug/L	1.6667	-0.0129	109	80-120			
Batch 6100671 - EPA 3005A											
Blank (6100671-BLK1)						Prepared & Analyzed: 10/26/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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October 28, 2016

Report No.: AZJ0621

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
LCS (6100671-BS1)						Prepared & Analyzed: 10/26/16					
Antimony	0.107	0.0030	0.0008	mg/L	0.10000		107	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0971	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.103	0.0030	0.00008	mg/L	0.10000		103	80-120			
Boron	1.05	0.100	0.0064	mg/L	1.0000		105	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	1.05	0.500	0.0311	mg/L	1.0000		105	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.102	0.0050	0.0005	mg/L	0.10000		102	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000		102	80-120			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000		108	80-120			
Lithium	0.107	0.0500	0.0021	mg/L	0.10000		107	80-120			
Matrix Spike (6100671-MS1)		**Source: AZJ0696-04**				Prepared & Analyzed: 10/26/16					
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125			
Barium	0.0982	0.0100	0.0004	mg/L	0.10000	ND	98	75-125			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125			
Boron	1.06	0.100	0.0064	mg/L	1.0000	ND	106	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	1.02	0.500	0.0311	mg/L	1.0000	ND	102	75-125			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125			
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	ND	102	75-125			
Selenium	0.0992	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.102	0.0050	0.0005	mg/L	0.10000	ND	102	75-125			
Thallium	0.0994	0.0010	0.0002	mg/L	0.10000	ND	99	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	ND	106	75-125			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125			

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Attention: Mr. Joju Abraham

October 28, 2016

Report No.: AZJ0621

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
Matrix Spike Dup (6100671-MSD1)		**Source: AZJ0696-04**				Prepared & Analyzed: 10/26/16					
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125	3	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	2	20	
Barium	0.0959	0.0100	0.0004	mg/L	0.10000	ND	96	75-125	2	20	
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125	0.02	20	
Boron	1.04	0.100	0.0064	mg/L	1.0000	ND	104	75-125	2	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	0.5	20	
Calcium	0.998	0.500	0.0311	mg/L	1.0000	ND	100	75-125	2	20	
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	0.6	20	
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	0.9	20	
Copper	0.0985	0.0050	0.0005	mg/L	0.10000	ND	98	75-125	2	20	
Lead	0.0995	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	0.5	20	
Molybdenum	0.0977	0.0100	0.0017	mg/L	0.10000	ND	98	75-125	3	20	
Nickel	0.0994	0.0050	0.0006	mg/L	0.10000	ND	99	75-125	2	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	2	20	
Silver	0.0997	0.0050	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Thallium	0.100	0.0010	0.0002	mg/L	0.10000	ND	100	75-125	1	20	
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125	2	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	1	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	ND	101	75-125	3	20	
Post Spike (6100671-PS1)		**Source: AZJ0696-04**				Prepared & Analyzed: 10/26/16					
Antimony	96.0			ug/L	100.00	0.176	96	80-120			
Arsenic	103			ug/L	100.00	-0.164	104	80-120			
Barium	98.0			ug/L	100.00	-0.0089	98	80-120			
Beryllium	99.2			ug/L	100.00	0.0006	99	80-120			
Boron	1060			ug/L	1000.0	1.09	106	80-120			
Cadmium	103			ug/L	100.00	-0.0453	103	80-120			
Calcium	1050			ug/L	1000.0	10.9	103	80-120			
Chromium	105			ug/L	100.00	-0.0552	105	80-120			
Cobalt	101			ug/L	100.00	0.0039	101	80-120			
Copper	99.3			ug/L	100.00	0.0665	99	80-120			
Lead	99.0			ug/L	100.00	-0.0007	99	80-120			
Molybdenum	105			ug/L	100.00	0.0174	105	80-120			
Nickel	101			ug/L	100.00	0.0775	100	80-120			
Selenium	102			ug/L	100.00	-1.57	103	80-120			
Silver	102			ug/L	100.00	0.0072	102	80-120			
Thallium	99.9			ug/L	100.00	0.0064	100	80-120			
Vanadium	103			ug/L	100.00	-0.163	103	80-120			
Zinc	108			ug/L	100.00	0.823	107	80-120			
Lithium	105			ug/L	100.00	0.0048	105	80-120			

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 28, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS GA 30092
(770) 734-4200 · FAX (770) 734-4201 · www.pacelabs.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: [illegible]
REPORT TO: [illegible]
CC: [illegible]
REQUESTED COMPLETION DATE: [illegible]
PO #: [illegible]
PROJECT NAME/STATE: Plant Hammond – AP 1&2
PROJECT #: CCR

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# OF CONTAINERS	ANALYSES REQUESTED			REMARKS/ADDITIONAL INFORMATION
[illegible]	11:37	GW		x	HGWA-3	3	1	1	1	
[illegible]	[illegible]	GW		x	[illegible]	3	1	1	1	
[illegible]	[illegible]	GW		x	[illegible]	3	1	1	1	
[illegible]	[illegible]	GW		x	[illegible]	3	1	1	1	
[illegible]	[illegible]	GW		x	[illegible]	3	1	1	1	
[illegible]	—	GW		x	DUP-1	3	1	1	1	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: [illegible]

*MATRIX CODE: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: [illegible]
DATE/TIME: [illegible]
RELINQUISHED BY: [illegible]
DATE/TIME: [illegible] 1145
RECEIVED BY: [illegible]
RECEIVED BY LAB: [illegible]
DATE/TIME: [illegible] 1148
SAMPLE SHIPPED VIA: [illegible]

FOR LAB USE ONLY
LAB #: [illegible]

[illegible] COC.xlsx

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 10/28/2016 5:02:01PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/21/16 11:48

Work Order: AZJ0621
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 6 **#Containers:** 18

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

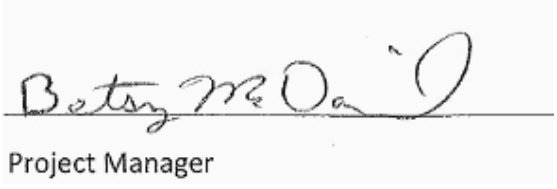
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZJ0696**
November 04, 2016
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-10	AZJ0696-01	Ground Water	10/24/16 13:05	10/25/16 14:10
HGWC-13	AZJ0696-02	Ground Water	10/24/16 14:45	10/25/16 14:10
FB-1	AZJ0696-03	Water	10/24/16 16:30	10/25/16 14:10
FERB-1	AZJ0696-04	Water	10/24/16 16:35	10/25/16 14:10
HGWC-14	AZJ0696-05	Ground Water	10/24/16 16:10	10/25/16 14:10
HGWC-11	AZJ0696-06	Ground Water	10/24/16 13:15	10/25/16 14:10
HGWC-12	AZJ0696-07	Ground Water	10/24/16 14:45	10/25/16 14:10
HGWC-15	AZJ0696-08	Ground Water	10/24/16 16:27	10/25/16 14:10

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: HGWC-10
Date/Time Sampled: 10/24/2016 1:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0696-01
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	643	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	99	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:33	6100701	RNB
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 01:36	6100701	RNB
Sulfate	190	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:33	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Barium	0.101	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Boron	0.831	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Calcium	156	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 14:47	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:40	6100740	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: HGWC-13
Date/Time Sampled: 10/24/2016 2:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0696-02
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	647	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	140	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:54	6100701	RNB
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 02:38	6100701	RNB
Sulfate	180	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:54	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Arsenic	0.334	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Barium	0.0882	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Boron	4.01	1.00	0.0642	mg/L	EPA 6020B		10	10/26/16 09:00	10/27/16 14:53	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Calcium	127	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 14:58	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Cobalt	0.0040	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Molybdenum	0.0352	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Thallium	0.0005	0.0010	0.0002	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Lithium	0.0435	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:42	6100740	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: FB-1
Date/Time Sampled: 10/24/2016 4:30:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZJ0696-03
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	12	0.25	0.01	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 02:58	6100701	RNB
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 02:58	6100701	RNB
Sulfate	14	1.0	0.05	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 02:58	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:45	6100740	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: FERB-1
Date/Time Sampled: 10/24/2016 4:35:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZJ0696-04
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	10/26/16 15:29	11/02/16 21:29	6100701	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	10/26/16 15:29	11/02/16 21:29	6100701	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/26/16 15:29	11/02/16 21:29	6100701	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:47	6100740	MTC

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: HGWC-14
Date/Time Sampled: 10/24/2016 4:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0696-05
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2920	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 13:19	6100701	RNB
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 03:39	6100701	RNB
Sulfate	280	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 13:19	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Arsenic	0.0058	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Barium	0.0208	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Beryllium	0.0005	0.0030	0.0004	mg/L	EPA 6020B	J	5	10/27/16 14:30	11/01/16 13:39	6100710	CSW
Boron	13.7	0.500	0.0321	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:39	6100710	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Calcium	564	50.0	3.11	mg/L	EPA 6020B		100	10/27/16 14:30	11/01/16 17:42	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Cobalt	0.0253	0.0100	0.0005	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Lead	0.0016	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Selenium	0.0135	0.0100	0.0010	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:39	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:49	6100740	MTC

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Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: HGWC-11
Date/Time Sampled: 10/24/2016 1:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0696-06
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	836	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	220	6.2	0.35	mg/L	EPA 300.0		25	10/26/16 15:29	11/01/16 11:35	6100701	RNB
Fluoride	0.26	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 04:00	6100701	RNB
Sulfate	370	25	1.3	mg/L	EPA 300.0		25	10/26/16 15:29	11/01/16 11:35	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Barium	0.0794	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:47	6100710	CSW
Boron	2.54	0.500	0.0321	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:47	6100710	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Calcium	145	25.0	1.55	mg/L	EPA 6020B		50	10/27/16 14:30	11/01/16 17:48	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Cobalt	0.0032	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Molybdenum	0.0293	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Selenium	0.0021	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:47	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:57	6100740	MTC

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Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: HGWC-12
Date/Time Sampled: 10/24/2016 2:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0696-07
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	868	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 11:56	6100701	RNB
Fluoride	0.19	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 04:21	6100701	RNB
Sulfate	270	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 11:56	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Arsenic	0.0049	0.0050	0.0016	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Barium	0.135	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:54	6100710	CSW
Boron	2.75	0.500	0.0321	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:54	6100710	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Calcium	193	25.0	1.55	mg/L	EPA 6020B		50	10/27/16 14:30	11/01/16 17:53	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Cobalt	0.0017	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Molybdenum	0.0470	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Lithium	0.0114	0.0500	0.0103	mg/L	EPA 6020B	J	5	10/27/16 14:30	11/01/16 13:54	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:59	6100740	MTC

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Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696
Client ID: HGWC-15
Date/Time Sampled: 10/24/2016 4:27:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0696-08
Date/Time Received: 10/25/2016 2:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1090	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	200	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 12:16	6100701	RNB
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 04:41	6100701	RNB
Sulfate	420	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 12:16	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Barium	0.0326	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 14:01	6100710	CSW
Boron	1.93	0.100	0.0064	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Cadmium	0.0018	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Calcium	200	25.0	1.55	mg/L	EPA 6020B		50	10/27/16 14:30	11/01/16 17:59	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Cobalt	0.0557	0.0100	0.0005	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Selenium	0.0012	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 14:01	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 13:01	6100740	MTC

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November 04, 2016

Report No.: AZJ0696

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100829 - SM 2540 C											
Blank (6100829-BLK1)						Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100829-BS1)						Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	377	25	10	mg/L	400.00		94	84-108			
Duplicate (6100829-DUP1)			**Source: AZJ0696-02RE1**			Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	674	25	10	mg/L		647			4	10	
Duplicate (6100829-DUP2)			**Source: AZJ0700-01RE1**			Prepared & Analyzed: 10/31/16					
Total Dissolved Solids	141	25	10	mg/L		136			4	10	

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Report No.: AZJ0696

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100701 - EPA 300.0											
Blank (6100701-BLK1)						Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6100701-BS1)						Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	10.9	0.25	0.01	mg/L	10.010		108	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.020		108	90-110			
Sulfate	10.8	1.0	0.05	mg/L	10.020		108	90-110			
Duplicate (6100701-DUP1)			**Source: AZJ0701-03RE1**			Prepared: 10/26/16 Analyzed: 11/02/16					
Chloride	ND	1.0	1.0	mg/L		ND				15	
Fluoride	ND	0.10	0.10	mg/L		ND				15	
Sulfate	ND	5.0	5.0	mg/L		ND				15	
Duplicate (6100701-DUP2)			**Source: AZJ0696-04RE1**			Prepared: 10/26/16 Analyzed: 11/02/16					
Chloride	ND	1.0	1.0	mg/L		ND				15	
Fluoride	ND	0.10	0.10	mg/L		ND				15	
Sulfate	ND	5.0	5.0	mg/L		ND				15	
Matrix Spike (6100701-MS1)			**Source: AZJ0696-01**			Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	84.1	0.25	0.01	mg/L	10.010	83.3	7	90-110			QM-02
Fluoride	8.55	0.30	0.02	mg/L	10.020	0.06	85	90-110			QM-05
Sulfate	147	1.0	0.05	mg/L	10.020	151	NR	90-110			QM-02
Matrix Spike (6100701-MS2)			**Source: AZJ0697-03**			Prepared: 10/26/16 Analyzed: 10/27/16					
Chloride	14.6	0.25	0.01	mg/L	10.010	5.18	94	90-110			
Fluoride	10.0	0.30	0.02	mg/L	10.020	0.13	99	90-110			
Sulfate	196	1.0	0.05	mg/L	10.020	194	18	90-110			QM-02

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Report No.: AZJ0696

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100701 - EPA 300.0											
Matrix Spike Dup (6100701-MSD1)		**Source: AZJ0696-01**			Prepared: 10/26/16 Analyzed: 10/27/16						
Chloride	84.2	0.25	0.01	mg/L	10.010	83.3	9	90-110	0.2	15	QM-02
Fluoride	9.63	0.30	0.02	mg/L	10.020	0.06	96	90-110	12	15	
Sulfate	146	1.0	0.05	mg/L	10.020	151	NR	90-110	0.3	15	QM-02

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
Blank (6100671-BLK1)						Prepared & Analyzed: 10/26/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100671-BS1)						Prepared & Analyzed: 10/26/16					
Antimony	0.107	0.0030	0.0008	mg/L	0.10000		107	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0971	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.103	0.0030	0.00008	mg/L	0.10000		103	80-120			
Boron	1.05	0.100	0.0064	mg/L	1.0000		105	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	1.05	0.500	0.0311	mg/L	1.0000		105	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.102	0.0050	0.0005	mg/L	0.10000		102	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000		102	80-120			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000		108	80-120			
Lithium	0.107	0.0500	0.0021	mg/L	0.10000		107	80-120			

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
Matrix Spike (6100671-MS1)		**Source: AZJ0696-04**				Prepared & Analyzed: 10/26/16					
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125			
Barium	0.0982	0.0100	0.0004	mg/L	0.10000	ND	98	75-125			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125			
Boron	1.06	0.100	0.0064	mg/L	1.0000	ND	106	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	1.02	0.500	0.0311	mg/L	1.0000	ND	102	75-125			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125			
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	ND	102	75-125			
Selenium	0.0992	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.102	0.0050	0.0005	mg/L	0.10000	ND	102	75-125			
Thallium	0.0994	0.0010	0.0002	mg/L	0.10000	ND	99	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	ND	106	75-125			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125			
Matrix Spike Dup (6100671-MSD1)		**Source: AZJ0696-04**				Prepared & Analyzed: 10/26/16					
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125	3	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	2	20	
Barium	0.0959	0.0100	0.0004	mg/L	0.10000	ND	96	75-125	2	20	
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125	0.02	20	
Boron	1.04	0.100	0.0064	mg/L	1.0000	ND	104	75-125	2	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	0.5	20	
Calcium	0.998	0.500	0.0311	mg/L	1.0000	ND	100	75-125	2	20	
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	0.6	20	
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	0.9	20	
Copper	0.0985	0.0050	0.0005	mg/L	0.10000	ND	98	75-125	2	20	
Lead	0.0995	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	0.5	20	
Molybdenum	0.0977	0.0100	0.0017	mg/L	0.10000	ND	98	75-125	3	20	
Nickel	0.0994	0.0050	0.0006	mg/L	0.10000	ND	99	75-125	2	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	2	20	
Silver	0.0997	0.0050	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Thallium	0.100	0.0010	0.0002	mg/L	0.10000	ND	100	75-125	1	20	
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125	2	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	1	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	ND	101	75-125	3	20	

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Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
Post Spike (6100671-PS1)			**Source: AZJ0696-04**			Prepared & Analyzed: 10/26/16					
Antimony	96.0			ug/L	100.00	0.176	96	80-120			
Arsenic	103			ug/L	100.00	-0.164	104	80-120			
Barium	98.0			ug/L	100.00	-0.0089	98	80-120			
Beryllium	99.2			ug/L	100.00	0.0006	99	80-120			
Boron	1060			ug/L	1000.0	1.09	106	80-120			
Cadmium	103			ug/L	100.00	-0.0453	103	80-120			
Calcium	1050			ug/L	1000.0	10.9	103	80-120			
Chromium	105			ug/L	100.00	-0.0552	105	80-120			
Cobalt	101			ug/L	100.00	0.0039	101	80-120			
Copper	99.3			ug/L	100.00	0.0665	99	80-120			
Lead	99.0			ug/L	100.00	-0.0007	99	80-120			
Molybdenum	105			ug/L	100.00	0.0174	105	80-120			
Nickel	101			ug/L	100.00	0.0775	100	80-120			
Selenium	102			ug/L	100.00	-1.57	103	80-120			
Silver	102			ug/L	100.00	0.0072	102	80-120			
Thallium	99.9			ug/L	100.00	0.0064	100	80-120			
Vanadium	103			ug/L	100.00	-0.163	103	80-120			
Zinc	108			ug/L	100.00	0.823	107	80-120			
Lithium	105			ug/L	100.00	0.0048	105	80-120			
Batch 6100710 - EPA 3005A											
Blank (6100710-BLK1)						Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Blank (6100710-BLK1)					Prepared: 10/27/16 Analyzed: 10/29/16						
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100710-BS1)					Prepared: 10/27/16 Analyzed: 10/29/16						
Antimony	0.110	0.0030	0.0008	mg/L	0.10000		110	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.08	0.100	0.0064	mg/L	1.0000		108	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.08	0.500	0.0311	mg/L	1.0000		108	80-120			
Chromium	0.108	0.0100	0.0009	mg/L	0.10000		108	80-120			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Copper	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Lead	0.101	0.0050	0.0001	mg/L	0.10000		101	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.101	0.0050	0.0006	mg/L	0.10000		101	80-120			
Selenium	0.113	0.0100	0.0010	mg/L	0.10000		113	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000		108	80-120			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000		106	80-120			
Lithium	0.108	0.0500	0.0021	mg/L	0.10000		108	80-120			
Matrix Spike (6100710-MS1)		**Source: AZJ0696-05**			Prepared: 10/27/16 Analyzed: 10/29/16						
Antimony	0.113	0.0030	0.0008	mg/L	0.10000	ND	113	75-125			
Arsenic	0.118	0.0050	0.0016	mg/L	0.10000	0.0058	112	75-125			
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0208	105	75-125			
Beryllium	0.0942	0.0150	0.0004	mg/L	0.10000	0.0005	94	75-125			
Boron	15.6	0.500	0.0321	mg/L	1.0000	13.7	199	75-125			QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	0.0002	101	75-125			
Calcium	574	50.0	3.11	mg/L	1.0000	564	953	75-125			QM-02
Chromium	0.109	0.0100	0.0009	mg/L	0.10000	ND	109	75-125			
Cobalt	0.129	0.0100	0.0005	mg/L	0.10000	0.0253	103	75-125			
Copper	0.0950	0.0050	0.0005	mg/L	0.10000	ND	95	75-125			
Lead	0.0922	0.0050	0.0001	mg/L	0.10000	0.0016	91	75-125			
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125			
Nickel	0.105	0.0050	0.0006	mg/L	0.10000	0.0063	98	75-125			
Selenium	0.130	0.0100	0.0010	mg/L	0.10000	0.0135	116	75-125			
Silver	0.0937	0.0100	0.0005	mg/L	0.10000	ND	94	75-125			

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Attention: Mr. Joju Abraham

November 04, 2016

Report No.: AZJ0696

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Matrix Spike (6100710-MS1)		**Source: AZJ0696-05**				Prepared: 10/27/16 Analyzed: 10/29/16					
Thallium	0.0937	0.0010	0.0002	mg/L	0.10000	0.0004	93	75-125			
Vanadium	0.113	0.0100	0.0071	mg/L	0.10000	ND	113	75-125			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000	0.0054	103	75-125			
Lithium	0.105	0.250	0.0103	mg/L	0.10000	ND	105	75-125			J
Matrix Spike Dup (6100710-MSD1)		**Source: AZJ0696-05**				Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	ND	110	75-125	2	20	
Arsenic	0.114	0.0050	0.0016	mg/L	0.10000	0.0058	108	75-125	3	20	
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0208	105	75-125	0.01	20	
Beryllium	0.0949	0.0150	0.0004	mg/L	0.10000	0.0005	94	75-125	0.7	20	
Boron	15.6	0.500	0.0321	mg/L	1.0000	13.7	192	75-125	0.4	20	QM-02
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000	0.0002	100	75-125	1	20	
Calcium	566	50.0	3.11	mg/L	1.0000	564	146	75-125	1	20	QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125	2	20	
Cobalt	0.127	0.0100	0.0005	mg/L	0.10000	0.0253	102	75-125	1	20	
Copper	0.0927	0.0050	0.0005	mg/L	0.10000	ND	93	75-125	2	20	
Lead	0.0898	0.0050	0.0001	mg/L	0.10000	0.0016	88	75-125	3	20	
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0063	98	75-125	0.8	20	
Selenium	0.124	0.0100	0.0010	mg/L	0.10000	0.0135	110	75-125	5	20	
Silver	0.0921	0.0100	0.0005	mg/L	0.10000	ND	92	75-125	2	20	
Thallium	0.0914	0.0010	0.0002	mg/L	0.10000	0.0004	91	75-125	2	20	
Vanadium	0.111	0.0100	0.0071	mg/L	0.10000	ND	111	75-125	1	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0054	99	75-125	4	20	
Lithium	0.102	0.250	0.0103	mg/L	0.10000	ND	102	75-125	2	20	J
Post Spike (6100710-PS1)		**Source: AZJ0696-05**				Prepared: 10/27/16 Analyzed: 10/29/16					
Antimony	109			ug/L	100.00	0.588	108	80-120			
Arsenic	113			ug/L	100.00	5.81	107	80-120			
Barium	124			ug/L	100.00	20.8	103	80-120			
Beryllium	96.2			ug/L	100.00	0.500	96	80-120			
Boron	16000			ug/L	1000.0	13700	233	80-120			QM-02
Cadmium	95.0			ug/L	100.00	0.172	95	80-120			
Calcium	585000			ug/L	1000.0	564000	NR	80-120			QM-02
Chromium	108			ug/L	100.00	0.110	108	80-120			
Cobalt	126			ug/L	100.00	25.3	101	80-120			
Copper	91.0			ug/L	100.00	0.183	91	80-120			
Lead	88.5			ug/L	100.00	1.57	87	80-120			
Molybdenum	109			ug/L	100.00	0.199	109	80-120			
Nickel	104			ug/L	100.00	6.33	98	80-120			

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November 04, 2016

Report No.: AZJ0696

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Post Spike (6100710-PS1)			**Source: AZJ0696-05**			Prepared: 10/27/16 Analyzed: 10/29/16					
Selenium	128			ug/L	100.00	13.5	115	80-120			
Silver	91.0			ug/L	100.00	0.0447	91	80-120			
Thallium	90.1			ug/L	100.00	0.369	90	80-120			
Vanadium	109			ug/L	100.00	-0.296	110	80-120			
Zinc	103			ug/L	100.00	5.40	97	80-120			
Lithium	106			ug/L	100.00	0.650	105	80-120			
Batch 6100740 - EPA 7470A											
Blank (6100740-BLK1)						Prepared & Analyzed: 10/28/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100740-BS1)						Prepared & Analyzed: 10/28/16					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6100740-MS1)			**Source: AZJ0702-01**			Prepared & Analyzed: 10/28/16					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6100740-MSD1)			**Source: AZJ0702-01**			Prepared & Analyzed: 10/28/16					
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	2	20	
Post Spike (6100740-PS1)			**Source: AZJ0702-01**			Prepared & Analyzed: 10/28/16					
Mercury	1.70			ug/L	1.6667	0.00850	101	80-120			

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Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

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Report Notes

The metals for HGWC-15 was pH adjusted by the Lab with HNO3. MMR

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239
REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com
PROJECT NAME/STATE: Plant Hammond - AP 1&2
PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:			P	P	P							
					PRESERVATION			3	7	3							
10/24/16	13:05	GW		X	HGWC-10	3		1	1	1						1	
10/24/16	14:45	GW		X	HGWC-13	3		1	1	1						2	
10/24/16	16:30	W		X	FB-1	3		1	1	1						3	
10/24/16	16:35	W		X	FERB-1	3		1	1	1						4	
10/24/16	16:10	GW		X	HGWC-14	3		1	1	1						5	
10/24/16	13:15	GW		X	HGWC-11	3		1	1	1						6	
10/24/16	14:45	GW		X	HGWC-12	3		1	1	1						7	
10/24/16	16:27	GW		X	HGWC-15	3		1	1	1						8	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: G. Jirak GET, A. Shoredits AS, M. Rogers ##
DATE/TIME: 10/24/2016 17:00
RELINQUISHED BY: [signature]
DATE/TIME: 10/24/16 17:00
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: [signature]
DATE/TIME: 10/25/16 1410
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (circled) CLIENT OTHER FS
pH checked: Yes (circled) No NA
Ice: Yes (circled) No NA
Temperature: 1°C Min 1°C Max
Custody Seal: Intact (circled) Broken Not Present
Cooler ID:

FOR LAB USE ONLY:
LAB #: A270696
Entered into LIMS: MR
Tracking #:

20161024 Hammond COC.xlsx

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 11/4/2016 4:24:56PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/25/16 14:10

Work Order: AZJ0696
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 24

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

The metals for HGWC-15 was pH adjusted by the Lab with HNO3. MMR

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZL0282
December 19, 2016
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AZL0282-01	Water	12/06/16 10:20	12/07/16 12:00
HGWA-2	AZL0282-02	Water	12/06/16 10:20	12/07/16 12:00
HGWA-3	AZL0282-03	Water	12/06/16 11:50	12/07/16 12:00
HGWA-4	AZL0282-04	Water	12/06/16 12:52	12/07/16 12:00
FB-1	AZL0282-05	Water	12/06/16 12:10	12/07/16 12:00
FERB-1	AZL0282-06	Water	12/06/16 12:20	12/07/16 12:00
HGWC-7	AZL0282-07	Water	12/06/16 15:25	12/07/16 12:00
HGWC-8	AZL0282-08	Water	12/06/16 14:08	12/07/16 12:00
HGWC-9	AZL0282-09	Water	12/06/16 15:15	12/07/16 12:00
Dup-1	AZL0282-10	Water	12/06/16 00:00	12/07/16 12:00

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWA-1
Date/Time Sampled: 12/6/2016 10:20:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-01
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	377	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 15:28	6120316	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 15:28	6120316	RLC
Sulfate	59	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:23	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Barium	0.0304	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Boron	0.0211	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Calcium	105	25.0	1.55	mg/L	EPA 6020B		50	12/10/16 15:10	12/14/16 14:38	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:57	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWA-2
Date/Time Sampled: 12/6/2016 10:20:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-02
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	145	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:10	6120316	RLC
Fluoride	0.36	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:10	6120316	RLC
Sulfate	44	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:10	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Barium	0.108	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Beryllium	0.0002	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Boron	0.0326	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Calcium	18.2	2.50	0.155	mg/L	EPA 6020B		5	12/10/16 15:10	12/14/16 14:44	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Cobalt	0.0184	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:00	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWA-3
Date/Time Sampled: 12/6/2016 11:50:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-03
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	285	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	7.2	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:32	6120316	RLC
Fluoride	0.21	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 16:32	6120316	RLC
Sulfate	43	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:32	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Barium	0.127	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Boron	0.0085	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Calcium	74.9	5.00	0.311	mg/L	EPA 6020B		10	12/10/16 15:10	12/14/16 14:50	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Lithium	0.0033	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:07	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWA-4
Date/Time Sampled: 12/6/2016 12:52:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-04
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	356	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 06:40	6120316	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 06:40	6120316	RLC
Sulfate	13	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 06:40	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Barium	0.0334	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Boron	0.0158	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Calcium	80.0	5.00	0.311	mg/L	EPA 6020B		10	12/10/16 15:10	12/14/16 14:56	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Lithium	0.0046	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	12/13/16 09:50	12/13/16 14:09	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: FB-1
Date/Time Sampled: 12/6/2016 12:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-05
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 18:28	6120316	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 18:28	6120316	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 18:28	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	12/13/16 09:50	12/13/16 14:11	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: FERB-1
Date/Time Sampled: 12/6/2016 12:20:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-06
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	75	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 18:48	6120316	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 18:48	6120316	RLC
Sulfate	0.06	1.0	0.05	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 18:48	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Boron	0.0184	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	12/13/16 09:50	12/13/16 14:14	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWC-7
Date/Time Sampled: 12/6/2016 3:25:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-07
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	492	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	51	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:44	6120316	RLC
Fluoride	0.26	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 19:09	6120316	RLC
Sulfate	110	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:44	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Barium	0.0752	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Boron	1.06	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Calcium	104	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:19	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Molybdenum	0.0365	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Lithium	0.0026	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:16	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWC-8
Date/Time Sampled: 12/6/2016 2:08:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-08
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	733	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:06	6120316	RLC
Fluoride	0.76	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 20:52	6120316	RLC
Sulfate	250	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:06	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Barium	0.0845	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Boron	2.06	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Cadmium	0.0017	0.0010	0.00007	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Calcium	142	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:24	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Cobalt	0.0026	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Molybdenum	0.520	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Selenium	0.0024	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Lithium	0.0032	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:18	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: HGWC-9
Date/Time Sampled: 12/6/2016 3:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-09
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	899	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	150	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:28	6120316	RLC
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 21:13	6120316	RLC
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:28	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Barium	0.128	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Boron	2.15	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Calcium	181	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:30	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Molybdenum	0.0236	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Selenium	0.0037	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Lithium	0.0050	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:40	6120353	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282
Client ID: Dup-1
Date/Time Sampled: 12/6/2016 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0282-10
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	929	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:50	6120316	RLC
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 21:34	6120316	RLC
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:50	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Barium	0.127	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Boron	2.13	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Calcium	181	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:36	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Molybdenum	0.0228	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Selenium	0.0036	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Lithium	0.0049	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:42	6120353	MTC

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December 19, 2016

Report No.: AZL0282

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120286 - SM 2540 C											
Blank (6120286-BLK1)						Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120286-BS1)						Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	392	25	10	mg/L	400.00		98	84-108			
Duplicate (6120286-DUP1)		**Source: AZL0281-03**				Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	605	25	10	mg/L		597			1	10	
Duplicate (6120286-DUP2)		**Source: AZL0281-04**				Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Batch 6120287 - SM 2540 C											
Blank (6120287-BLK1)						Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120287-BS1)						Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	412	25	10	mg/L	400.00		103	84-108			
Duplicate (6120287-DUP1)		**Source: AZL0282-08**				Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	739	25	10	mg/L		733			0.8	10	
Duplicate (6120287-DUP2)		**Source: AZL0284-08**				Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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December 19, 2016

Report No.: AZL0282

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120316 - EPA 300.0											
Blank (6120316-BLK1)						Prepared & Analyzed: 12/12/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6120316-BS1)						Prepared & Analyzed: 12/12/16					
Chloride	9.84	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.020		101	90-110			
Sulfate	9.92	1.0	0.05	mg/L	10.020		99	90-110			
Matrix Spike (6120316-MS1)		**Source: AZL0281-01**				Prepared & Analyzed: 12/12/16					
Chloride	10.9	0.25	0.01	mg/L	10.010	1.05	99	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.020	0.11	102	90-110			
Sulfate	14.3	1.0	0.05	mg/L	10.020	4.72	96	90-110			
Matrix Spike (6120316-MS2)		**Source: AZL0282-01**				Prepared: 12/12/16 Analyzed: 12/13/16					
Chloride	15.5	0.25	0.01	mg/L	10.010	5.38	101	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.020	0.11	108	90-110			
Sulfate	62.2	1.0	0.05	mg/L	10.020	58.4	38	90-110			QM-02
Matrix Spike Dup (6120316-MSD1)		**Source: AZL0281-01**				Prepared & Analyzed: 12/12/16					
Chloride	11.0	0.25	0.01	mg/L	10.010	1.05	100	90-110	0.7	15	
Fluoride	10.3	0.30	0.02	mg/L	10.020	0.11	101	90-110	0.3	15	
Sulfate	14.2	1.0	0.05	mg/L	10.020	4.72	95	90-110	0.4	15	

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Report No.: AZL0282

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Blank (6120281-BLK1)						Prepared: 12/10/16 Analyzed: 12/12/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120281-BS1)						Prepared: 12/10/16 Analyzed: 12/12/16					
Antimony	0.0986	0.0030	0.0008	mg/L	0.10000		99	80-120			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000		102	80-120			
Barium	0.0971	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.04	0.0400	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.0986	0.0010	0.00007	mg/L	0.10000		99	80-120			
Calcium	0.954	0.500	0.0311	mg/L	1.0000		95	80-120			
Chromium	0.0987	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.100	0.0250	0.0005	mg/L	0.10000		100	80-120			
Lead	0.0987	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.100	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.102	0.0100	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Silver	0.0987	0.0100	0.0005	mg/L	0.10000		99	80-120			
Thallium	0.0985	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000		102	80-120			
Zinc	0.101	0.0100	0.0021	mg/L	0.10000		101	80-120			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000		102	80-120			

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Matrix Spike (6120281-MS1)		**Source: AZL0230-01**			Prepared: 12/10/16 Analyzed: 12/12/16						
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125			
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	0.0044	104	75-125			
Barium	0.161	0.0100	0.0004	mg/L	0.10000	0.0659	96	75-125			
Beryllium	0.102	0.0030	0.00008	mg/L	0.10000	ND	102	75-125			
Boron	1.54	0.0400	0.0064	mg/L	1.0000	0.515	103	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	57.3	5.00	0.311	mg/L	1.0000	55.4	186	75-125			QM-02
Chromium	0.0997	0.0100	0.0009	mg/L	0.10000	ND	100	75-125			
Cobalt	0.0972	0.0100	0.0005	mg/L	0.10000	ND	97	75-125			
Copper	0.0959	0.0250	0.0005	mg/L	0.10000	0.0007	95	75-125			
Lead	0.0951	0.0050	0.0001	mg/L	0.10000	ND	95	75-125			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000	0.0049	104	75-125			
Nickel	0.0985	0.0100	0.0006	mg/L	0.10000	0.0032	95	75-125			
Selenium	0.0995	0.0100	0.0010	mg/L	0.10000	ND	100	75-125			
Silver	0.0992	0.0100	0.0005	mg/L	0.10000	ND	99	75-125			
Thallium	0.0951	0.0010	0.0002	mg/L	0.10000	ND	95	75-125			
Vanadium	0.100	0.0100	0.0071	mg/L	0.10000	ND	100	75-125			
Zinc	0.0984	0.0100	0.0021	mg/L	0.10000	ND	98	75-125			
Lithium	0.0996	0.0500	0.0021	mg/L	0.10000	ND	100	75-125			
Matrix Spike Dup (6120281-MSD1)		**Source: AZL0230-01**			Prepared: 12/10/16 Analyzed: 12/12/16						
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	6	20	
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	0.0044	104	75-125	0.3	20	
Barium	0.163	0.0100	0.0004	mg/L	0.10000	0.0659	98	75-125	1	20	
Beryllium	0.105	0.0030	0.00008	mg/L	0.10000	ND	105	75-125	3	20	
Boron	1.58	0.0400	0.0064	mg/L	1.0000	0.515	106	75-125	2	20	
Cadmium	0.108	0.0010	0.00007	mg/L	0.10000	ND	108	75-125	8	20	
Calcium	56.6	5.00	0.311	mg/L	1.0000	55.4	121	75-125	1	20	
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125	2	20	
Cobalt	0.0987	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Copper	0.0976	0.0250	0.0005	mg/L	0.10000	0.0007	97	75-125	2	20	
Lead	0.0987	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	4	20	
Molybdenum	0.117	0.0100	0.0017	mg/L	0.10000	0.0049	112	75-125	7	20	
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	0.0032	97	75-125	2	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	1	20	
Silver	0.105	0.0100	0.0005	mg/L	0.10000	ND	105	75-125	6	20	
Thallium	0.0992	0.0010	0.0002	mg/L	0.10000	ND	99	75-125	4	20	
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000	ND	101	75-125	1	20	
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	ND	101	75-125	2	20	
Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125	4	20	

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Post Spike (6120281-PS1)			**Source: AZL0230-01**			Prepared: 12/10/16 Analyzed: 12/12/16					
Antimony	105			ug/L	100.00	0.500	105	80-120			
Arsenic	110			ug/L	100.00	4.43	106	80-120			
Barium	163			ug/L	100.00	65.9	97	80-120			
Beryllium	108			ug/L	100.00	0.0100	108	80-120			
Boron	1600			ug/L	1000.0	515	108	80-120			
Cadmium	106			ug/L	100.00	0.0100	106	80-120			
Calcium	56500			ug/L	1000.0	55400	106	80-120			
Chromium	103			ug/L	100.00	0.510	103	80-120			
Cobalt	101			ug/L	100.00	0.370	100	80-120			
Copper	99.7			ug/L	100.00	0.740	99	80-120			
Lead	99.6			ug/L	100.00	0.0300	100	80-120			
Molybdenum	116			ug/L	100.00	4.93	111	80-120			
Nickel	103			ug/L	100.00	3.25	100	80-120			
Selenium	104			ug/L	100.00	-0.870	104	80-120			
Silver	104			ug/L	100.00	0.00	104	80-120			
Thallium	99.6			ug/L	100.00	0.0400	100	80-120			
Vanadium	103			ug/L	100.00	1.43	101	80-120			
Zinc	103			ug/L	100.00	1.98	101	80-120			
Lithium	106			ug/L	100.00	1.33	105	80-120			
Batch 6120325 - EPA 3005A											
Blank (6120325-BLK1)						Prepared: 12/12/16 Analyzed: 12/13/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							

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December 19, 2016

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120325 - EPA 3005A											
Blank (6120325-BLK1)					Prepared: 12/12/16 Analyzed: 12/13/16						
Zinc	0.0025	0.0100	0.0021	mg/L							J
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120325-BS1)					Prepared: 12/12/16 Analyzed: 12/13/16						
Antimony	0.105	0.0030	0.0008	mg/L	0.10000		105	80-120			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000		102	80-120			
Barium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Beryllium	0.108	0.0030	0.00008	mg/L	0.10000		108	80-120			
Boron	1.10	0.0400	0.0064	mg/L	1.0000		110	80-120			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000		106	80-120			
Calcium	1.00	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.104	0.0250	0.0005	mg/L	0.10000		104	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.106	0.0100	0.0006	mg/L	0.10000		106	80-120			
Selenium	0.104	0.0100	0.0010	mg/L	0.10000		104	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000		106	80-120			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000		105	80-120			
Lithium	0.106	0.0500	0.0021	mg/L	0.10000		106	80-120			
Matrix Spike (6120325-MS1)		**Source: AZL0282-07**			Prepared: 12/12/16 Analyzed: 12/13/16						
Antimony	0.108	0.0030	0.0008	mg/L	0.10000	ND	108	75-125			
Arsenic	0.106	0.0050	0.0016	mg/L	0.10000	ND	106	75-125			
Barium	0.174	0.0100	0.0004	mg/L	0.10000	0.0752	99	75-125			
Beryllium	0.113	0.0030	0.00008	mg/L	0.10000	ND	113	75-125			
Boron	2.19	0.0400	0.0064	mg/L	1.0000	1.06	114	75-125			
Cadmium	0.109	0.0010	0.00007	mg/L	0.10000	0.0002	109	75-125			
Calcium	102	25.0	1.55	mg/L	1.0000	104	NR	75-125			QM-02
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0009	101	75-125			
Copper	0.0998	0.0250	0.0005	mg/L	0.10000	0.0006	99	75-125			
Lead	0.100	0.0050	0.0001	mg/L	0.10000	0.0001	100	75-125			
Molybdenum	0.149	0.0100	0.0017	mg/L	0.10000	0.0365	113	75-125			
Nickel	0.105	0.0100	0.0006	mg/L	0.10000	0.0053	99	75-125			
Selenium	0.107	0.0100	0.0010	mg/L	0.10000	ND	107	75-125			
Silver	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120325 - EPA 3005A											
Matrix Spike (6120325-MS1)		**Source: AZL0282-07**			Prepared: 12/12/16 Analyzed: 12/13/16						
Thallium	0.102	0.0010	0.0002	mg/L	0.10000	ND	102	75-125			
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0032	102	75-125			
Lithium	0.111	0.0500	0.0021	mg/L	0.10000	0.0026	108	75-125			
Matrix Spike Dup (6120325-MSD1)		**Source: AZL0282-07**			Prepared: 12/12/16 Analyzed: 12/13/16						
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	0.5	20	
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000	ND	104	75-125	1	20	
Barium	0.177	0.0100	0.0004	mg/L	0.10000	0.0752	102	75-125	2	20	
Beryllium	0.116	0.0030	0.00008	mg/L	0.10000	ND	116	75-125	3	20	
Boron	2.24	0.0400	0.0064	mg/L	1.0000	1.06	119	75-125	2	20	
Cadmium	0.108	0.0010	0.00007	mg/L	0.10000	0.0002	108	75-125	0.8	20	
Calcium	103	25.0	1.55	mg/L	1.0000	104	NR	75-125	0.5	20	QM-02
Chromium	0.103	0.0100	0.0009	mg/L	0.10000	ND	103	75-125	0.5	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0009	102	75-125	0.8	20	
Copper	0.0996	0.0250	0.0005	mg/L	0.10000	0.0006	99	75-125	0.1	20	
Lead	0.101	0.0050	0.0001	mg/L	0.10000	0.0001	101	75-125	0.8	20	
Molybdenum	0.149	0.0100	0.0017	mg/L	0.10000	0.0365	113	75-125	0.04	20	
Nickel	0.107	0.0100	0.0006	mg/L	0.10000	0.0053	102	75-125	2	20	
Selenium	0.108	0.0100	0.0010	mg/L	0.10000	ND	108	75-125	0.6	20	
Silver	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125	1	20	
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125	1	20	
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125	0.3	20	
Zinc	0.107	0.0100	0.0021	mg/L	0.10000	0.0032	104	75-125	2	20	
Lithium	0.114	0.0500	0.0021	mg/L	0.10000	0.0026	112	75-125	3	20	
Post Spike (6120325-PS1)		**Source: AZL0282-07**			Prepared: 12/12/16 Analyzed: 12/13/16						
Antimony	101			ug/L	100.00	0.150	101	80-120			
Arsenic	101			ug/L	100.00	0.750	100	80-120			
Barium	170			ug/L	100.00	75.2	95	80-120			
Beryllium	110			ug/L	100.00	0.0200	110	80-120			
Boron	2140			ug/L	1000.0	1060	109	80-120			
Cadmium	104			ug/L	100.00	0.190	103	80-120			
Calcium	101000			ug/L	1000.0	104000	NR	80-120			QM-02
Chromium	97.9			ug/L	100.00	-3.87	98	80-120			
Cobalt	96.3			ug/L	100.00	0.910	95	80-120			
Copper	94.1			ug/L	100.00	0.630	93	80-120			
Lead	96.7			ug/L	100.00	0.140	97	80-120			
Molybdenum	144			ug/L	100.00	36.5	107	80-120			
Nickel	100			ug/L	100.00	5.29	95	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120325 - EPA 3005A											
Post Spike (6120325-PS1)			**Source: AZL0282-07**			Prepared: 12/12/16 Analyzed: 12/13/16					
Selenium	102			ug/L	100.00	0.770	101	80-120			
Silver	99.8			ug/L	100.00	0.0100	100	80-120			
Thallium	99.7			ug/L	100.00	0.0400	100	80-120			
Vanadium	106			ug/L	100.00	3.17	102	80-120			
Zinc	100			ug/L	100.00	3.24	97	80-120			
Lithium	109			ug/L	100.00	2.55	107	80-120			
Batch 6120352 - EPA 7470A											
Blank (6120352-BLK1)						Prepared & Analyzed: 12/13/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120352-BS1)						Prepared & Analyzed: 12/13/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6120352-MS1)			**Source: AZL0281-07**			Prepared & Analyzed: 12/13/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6120352-MSD1)			**Source: AZL0281-07**			Prepared & Analyzed: 12/13/16					
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (6120352-PS1)			**Source: AZL0281-07**			Prepared & Analyzed: 12/13/16					
Mercury	1.67			ug/L	1.6667	0.0177	99	80-120			
Batch 6120353 - EPA 7470A											
Blank (6120353-BLK1)						Prepared & Analyzed: 12/13/16					
Mercury	ND	0.00050	0.000041	mg/L							

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December 19, 2016

Report No.: AZL0282

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120353 - EPA 7470A											
LCS (6120353-BS1)						Prepared & Analyzed: 12/13/16					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			
Matrix Spike (6120353-MS1)		**Source: AZL0284-06**				Prepared & Analyzed: 12/13/16					
Mercury	0.00250	0.00050	0.000041	mg/L	2.5000E-3	0.00008	97	75-125			
Matrix Spike Dup (6120353-MSD1)		**Source: AZL0284-06**				Prepared & Analyzed: 12/13/16					
Mercury	0.00244	0.00050	0.000041	mg/L	2.5000E-3	0.00008	94	75-125	2	20	
Post Spike (6120353-PS1)		**Source: AZL0284-06**				Prepared & Analyzed: 12/13/16					
Mercury	1.73			ug/L	1.6667	0.0524	101	80-120			

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December 19, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

Huff - 2016 1206-01
- 2016 1206-02

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 www.pacelabs.com

PAGE 1 OF 1

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: [illegible], Atlanta, GA 30308
REPORT TO: Joju Abraham
CC: [illegible] / Kevin McCorkle
REQUESTED COMPLETION DATE:
PO #: [illegible]
PROJECT NAME/STATE: Plant Hammond - AP 1&2
PROJECT #: GA

ANALYSIS REQUESTED

Collection Date	Collection Time	Matrix Code	Comp	Grab	Sample Identification	# of Containers	[illegible]	[illegible] (P, 3)	[illegible] TDS (P, 7)	Radium 226 & 228 (P, 5)	Lab ID Number
12/06/16	10:20	W		X	HGWA-1	3		1	1	1	1
12/06/16	10:20	W		X	HGWA-2	3		1	1	1	2
12/06/16	11:50	W		X	HGWA-3	4		1	1	2	3
12/06/16	12:40	W		X	HGWA-4	3		1	1	1	4
12/06/16	13:10	W		X	FB-1	3		1	1	1	5
12/06/16	13:30	W		X	FERB-1	3		1	1	1	6
12/06/16	13:35	W		X	HGWC-1	3		1	1	1	7
12/06/16	14:08	W		X	HGWC-4	3		1	1	1	8
12/06/16	15:15	W		X	HGWC-5	3		1	1	1	9
12/06/16	--	W		X	DUP-1	3		1	1	1	10

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCL 4°C; 2 - H_2SO_4 4°C; 3 - HNO_3; 4 - NaOH 4°C; 5 - NaOH/ZnAc 4°C; 6 - $Na_2S_2O_3$ 4°C; 7 - 4°C not frozen

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: [illegible] DATE/TIME: [illegible] 2230
RELINQUISHED BY: [illegible] 12/7 [illegible] DATE/TIME:
RECEIVED BY: DATE/TIME:
RELINQUISHED BY: DATE/TIME:
RECEIVED BY LAB: [illegible] DATE/TIME: 12/7/16 [illegible]
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER
Custody Seal: Intact / Broken / Not Present
Temperature: [illegible]

FOR LAB USE ONLY
LAB #: AZ60282
Tracking #:

2016 12 06 Hammond Huff COCs.xlsx

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 12/8/2016 10:19:23AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/07/16 12:00

Work Order: AZL0282
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 10 **#Containers:** 31

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZL0390
December 23, 2016
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-10	AZL0390-01	Water	12/07/16 10:05	12/08/16 12:15
HGWC-11	AZL0390-02	Water	12/07/16 12:55	12/08/16 12:15
HGWC-12	AZL0390-03	Water	12/07/16 09:40	12/08/16 12:15
HGWC-13	AZL0390-04	Water	12/07/16 10:45	12/08/16 12:15
HGWC-14	AZL0390-05	Water	12/07/16 11:58	12/08/16 12:15
HGWC-15	AZL0390-06	Water	12/07/16 12:50	12/08/16 12:15
HGWC-16	AZL0390-07	Water	12/07/16 14:45	12/08/16 12:15
HGWC-17	AZL0390-08	Water	12/07/16 14:27	12/08/16 12:15
Dup-2	AZL0390-09	Water	12/07/16 00:00	12/08/16 12:15

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2480 Maner Road
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Attention: Mr. Joju Abraham

December 23, 2016

Case Narrative

Total Dissolved Solids (TDS) via Standard Method 2540C (H-02 qualifier):
Due to analyst oversight, sample AZL0390-09 (Dup-2) was analyzed outside the recommended holding time of 7 days.

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-10
Date/Time Sampled: 12/7/2016 10:05:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-01
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	697	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	96	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 17:57	6120686	RLC
Fluoride	0.44	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 16:22	6120686	RLC
Sulfate	200	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 17:57	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Barium	0.107	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Boron	1.01	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Calcium	183	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 15:57	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Cobalt	0.0012	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:27	6120387	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-11
Date/Time Sampled: 12/7/2016 12:55:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-02
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	748	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	180	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:18	6120686	RLC
Fluoride	0.55	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 18:14	6120686	RLC
Sulfate	260	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:18	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Barium	0.100	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Boron	2.96	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Calcium	159	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:03	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Cobalt	0.0030	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Molybdenum	0.0209	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Selenium	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:30	6120387	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-12
Date/Time Sampled: 12/7/2016 9:40:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-03
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	811	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	190	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:38	6120686	RLC
Fluoride	0.73	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 18:58	6120686	RLC
Sulfate	280	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:38	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Arsenic	0.0046	0.0050	0.0016	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Barium	0.130	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Boron	3.35	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Calcium	193	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:09	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Cobalt	0.0021	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Molybdenum	0.0432	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Selenium	0.0011	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Lithium	0.0155	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:32	6120387	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-13
Date/Time Sampled: 12/7/2016 10:45:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-04
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	465	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:59	6120686	RLC
Fluoride	1.0	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 19:21	6120686	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:59	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Arsenic	0.350	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Barium	0.0798	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Boron	3.85	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Calcium	113	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:26	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Cobalt	0.0034	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Molybdenum	0.0383	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Lithium	0.0477	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:34	6120387	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-14
Date/Time Sampled: 12/7/2016 11:58:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-05
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2740	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	510	25	1.4	mg/L	EPA 300.0		100	12/18/16 10:09	12/18/16 19:20	6120686	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 19:43	6120686	RLC
Sulfate	1300	100	5.1	mg/L	EPA 300.0		100	12/18/16 10:09	12/18/16 19:20	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Barium	0.0220	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Beryllium	0.0006	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Boron	16.5	4.00	0.642	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:32	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Calcium	590	250	15.5	mg/L	EPA 6020B		500	12/13/16 07:55	12/22/16 12:09	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Cobalt	0.0269	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Lead	0.0018	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Selenium	0.0100	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:37	6120387	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-15
Date/Time Sampled: 12/7/2016 12:50:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-06
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1040	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	240	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 20:42	6120686	RLC
Fluoride	0.23	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 20:05	6120686	RLC
Sulfate	450	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 20:42	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Barium	0.0301	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Boron	2.23	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Cadmium	0.0018	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Calcium	203	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:38	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Cobalt	0.0536	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Selenium	0.0041	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:39	6120387	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-16
Date/Time Sampled: 12/7/2016 2:45:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-07
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	561	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	38	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 20:28	6120686	RLC
Fluoride	0.23	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 20:28	6120686	RLC
Sulfate	220	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:03	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Barium	0.101	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Boron	1.42	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Calcium	146	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:43	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Lithium	0.0029	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:46	6120387	MTC

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Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: HGWC-17
Date/Time Sampled: 12/7/2016 2:27:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-08
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	866	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	89	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:24	6120686	RLC
Fluoride	0.54	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 20:50	6120686	RLC
Sulfate	410	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:24	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Barium	0.0227	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Boron	5.74	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Calcium	212	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:49	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Cobalt	0.0141	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Selenium	0.0023	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:49	6120387	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390
Client ID: Dup-2
Date/Time Sampled: 12/7/2016 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0390-09
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	576	25	10	mg/L	SM 2540 C	H-02	1	12/15/16 17:29	12/15/16 17:29	6120479	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:44	6120686	RLC
Fluoride	1.1	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 21:12	6120686	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:44	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Arsenic	0.356	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Barium	0.0796	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Boron	3.56	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Calcium	116	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:55	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Cobalt	0.0034	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Molybdenum	0.0380	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Lithium	0.0460	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:51	6120387	MTC

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Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120342 - SM 2540 C											
Blank (6120342-BLK1)						Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120342-BS1)						Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	381	25	10	mg/L	400.00		95	84-108			
Duplicate (6120342-DUP1)		**Source: AZL0383-08**				Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	557	25	10	mg/L		565			1	10	
Duplicate (6120342-DUP2)		**Source: AZL0383-11**				Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Batch 6120343 - SM 2540 C											
Blank (6120343-BLK1)						Prepared & Analyzed: 12/12/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120343-BS1)						Prepared & Analyzed: 12/12/16					
Total Dissolved Solids	364	25	10	mg/L	400.00		91	84-108			
Duplicate (6120343-DUP1)		**Source: AZL0390-07**				Prepared & Analyzed: 12/12/16					
Total Dissolved Solids	536	25	10	mg/L		561			5	10	QR-03
Duplicate (6120343-DUP2)		**Source: AZL0418-03**				Prepared & Analyzed: 12/12/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Batch 6120479 - SM 2540 C											
Blank (6120479-BLK1)						Prepared & Analyzed: 12/15/16					
Total Dissolved Solids	ND	25	10	mg/L							

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Report No.: AZL0390

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120479 - SM 2540 C											
LCS (6120479-BS1)						Prepared & Analyzed: 12/15/16					
Total Dissolved Solids	397	25	10	mg/L	400.00		99	84-108			
Duplicate (6120479-DUP1)			**Source: AZL0390-09**			Prepared & Analyzed: 12/15/16					
Total Dissolved Solids	602	25	10	mg/L		576			4	10	

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Report No.: AZL0390

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120686 - EPA 300.0											
Blank (6120686-BLK1)						Prepared: 12/18/16 Analyzed: 12/20/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6120686-BS1)						Prepared: 12/18/16 Analyzed: 12/20/16					
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.020		104	90-110			
Sulfate	10.5	1.0	0.05	mg/L	10.020		104	90-110			
Matrix Spike (6120686-MS1)			**Source: AZL0387-01RE1**			Prepared: 12/18/16 Analyzed: 12/20/16					
Chloride	12.0	0.25	0.01	mg/L	10.010	2.00	100	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.020	0.24	102	90-110			
Sulfate	22.0	1.0	0.05	mg/L	10.020	13.0	90	90-110			
Matrix Spike (6120686-MS2)			**Source: AZL0390-02RE2**			Prepared: 12/18/16 Analyzed: 12/20/16					
Chloride	125	0.25	0.01	mg/L	10.010	129	NR	90-110			QM-02
Fluoride	11.7	0.30	0.02	mg/L	10.020	0.55	111	90-110			QM-05
Sulfate	186	1.0	0.05	mg/L	10.020	194	NR	90-110			QM-02
Matrix Spike Dup (6120686-MSD1)			**Source: AZL0387-01RE1**			Prepared: 12/18/16 Analyzed: 12/20/16					
Chloride	12.3	0.25	0.01	mg/L	10.010	2.00	102	90-110	2	15	
Fluoride	10.7	0.30	0.02	mg/L	10.020	0.24	105	90-110	3	15	
Sulfate	22.0	1.0	0.05	mg/L	10.020	13.0	90	90-110	0.09	15	

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Report No.: AZL0390

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Blank (6120327-BLK1)						Prepared: 12/13/16 Analyzed: 12/14/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120327-BS1)						Prepared: 12/13/16 Analyzed: 12/14/16					
Antimony	0.102	0.0030	0.0008	mg/L	0.10000		102	80-120			
Arsenic	0.0998	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.0989	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.01	0.0400	0.0064	mg/L	1.0000		101	80-120			
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000		104	80-120			
Calcium	0.968	0.500	0.0311	mg/L	1.0000		97	80-120			
Chromium	0.0986	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0970	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.101	0.0250	0.0005	mg/L	0.10000		101	80-120			
Lead	0.0988	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.0972	0.0100	0.0006	mg/L	0.10000		97	80-120			
Selenium	0.0986	0.0100	0.0010	mg/L	0.10000		99	80-120			
Silver	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Thallium	0.0989	0.0010	0.0002	mg/L	0.10000		99	80-120			
Vanadium	0.0993	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000		100	80-120			
Lithium	0.0991	0.0500	0.0021	mg/L	0.10000		99	80-120			

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Report No.: AZL0390

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Matrix Spike (6120327-MS1)		**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 12/14/16						
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	ND	102	75-125			
Arsenic	0.0936	0.0050	0.0016	mg/L	0.10000	ND	94	75-125			
Barium	0.186	0.0100	0.0004	mg/L	0.10000	0.0868	99	75-125			
Beryllium	0.0993	0.0030	0.00008	mg/L	0.10000	ND	99	75-125			
Boron	1.09	0.0400	0.0064	mg/L	1.0000	0.0758	102	75-125			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000	ND	105	75-125			
Calcium	48.3	25.0	1.55	mg/L	1.0000	45.3	298	75-125			QM-02
Chromium	0.0936	0.0100	0.0009	mg/L	0.10000	ND	94	75-125			
Cobalt	0.0929	0.0100	0.0005	mg/L	0.10000	ND	93	75-125			
Copper	0.0939	0.0250	0.0005	mg/L	0.10000	0.0006	93	75-125			
Lead	0.0995	0.0050	0.0001	mg/L	0.10000	ND	100	75-125			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125			
Nickel	0.0946	0.0100	0.0006	mg/L	0.10000	0.0017	93	75-125			
Selenium	0.0937	0.0100	0.0010	mg/L	0.10000	ND	94	75-125			
Silver	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000	ND	100	75-125			
Vanadium	0.0976	0.0100	0.0071	mg/L	0.10000	ND	98	75-125			
Zinc	0.0971	0.0100	0.0021	mg/L	0.10000	ND	97	75-125			
Lithium	0.111	0.0500	0.0021	mg/L	0.10000	0.0153	95	75-125			
Matrix Spike Dup (6120327-MSD1)		**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 12/14/16						
Antimony	0.101	0.0030	0.0008	mg/L	0.10000	ND	101	75-125	2	20	
Arsenic	0.0947	0.0050	0.0016	mg/L	0.10000	ND	95	75-125	1	20	
Barium	0.183	0.0100	0.0004	mg/L	0.10000	0.0868	97	75-125	1	20	
Beryllium	0.0972	0.0030	0.00008	mg/L	0.10000	ND	97	75-125	2	20	
Boron	1.05	0.0400	0.0064	mg/L	1.0000	0.0758	98	75-125	3	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	4	20	
Calcium	47.7	25.0	1.55	mg/L	1.0000	45.3	242	75-125	1	20	QM-02
Chromium	0.0910	0.0100	0.0009	mg/L	0.10000	ND	91	75-125	3	20	
Cobalt	0.0901	0.0100	0.0005	mg/L	0.10000	ND	90	75-125	3	20	
Copper	0.0922	0.0250	0.0005	mg/L	0.10000	0.0006	92	75-125	2	20	
Lead	0.0961	0.0050	0.0001	mg/L	0.10000	ND	96	75-125	3	20	
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125	2	20	
Nickel	0.0924	0.0100	0.0006	mg/L	0.10000	0.0017	91	75-125	2	20	
Selenium	0.0915	0.0100	0.0010	mg/L	0.10000	ND	92	75-125	2	20	
Silver	0.0993	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Thallium	0.0950	0.0010	0.0002	mg/L	0.10000	ND	95	75-125	5	20	
Vanadium	0.0973	0.0100	0.0071	mg/L	0.10000	ND	97	75-125	0.3	20	
Zinc	0.0942	0.0100	0.0021	mg/L	0.10000	ND	94	75-125	3	20	
Lithium	0.112	0.0500	0.0021	mg/L	0.10000	0.0153	97	75-125	1	20	

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Post Spike (6120327-PS1)			**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 12/14/16					
Antimony	98.8			ug/L	100.00	0.310	98	80-120			
Arsenic	92.5			ug/L	100.00	-0.580	92	80-120			
Barium	178			ug/L	100.00	86.8	92	80-120			
Beryllium	97.2			ug/L	100.00	0.0100	97	80-120			
Boron	1070			ug/L	1000.0	75.8	99	80-120			
Cadmium	102			ug/L	100.00	0.00	102	80-120			
Calcium	46400			ug/L	1000.0	45300	113	80-120			
Chromium	92.3			ug/L	100.00	-2.69	92	80-120			
Cobalt	91.0			ug/L	100.00	0.230	91	80-120			
Copper	92.4			ug/L	100.00	0.580	92	80-120			
Lead	97.1			ug/L	100.00	0.00	97	80-120			
Molybdenum	103			ug/L	100.00	0.130	103	80-120			
Nickel	91.8			ug/L	100.00	1.67	90	80-120			
Selenium	92.1			ug/L	100.00	-0.370	92	80-120			
Silver	99.8			ug/L	100.00	0.00	100	80-120			
Thallium	97.6			ug/L	100.00	0.0100	98	80-120			
Vanadium	97.8			ug/L	100.00	2.96	95	80-120			
Zinc	95.2			ug/L	100.00	1.18	94	80-120			
Lithium	110			ug/L	100.00	15.3	95	80-120			
Batch 6120387 - EPA 7470A											
Blank (6120387-BLK1)						Prepared & Analyzed: 12/14/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120387-BS1)						Prepared & Analyzed: 12/14/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120387 - EPA 7470A											
Duplicate (6120387-DUP1)		**Source: AZL0390-01**				Prepared & Analyzed: 12/14/16					
Mercury	ND	0.00050	0.000041	mg/L		ND				20	
Matrix Spike (6120387-MS1)		**Source: AZL0387-07**				Prepared & Analyzed: 12/14/16					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (6120387-MSD1)		**Source: AZL0387-07**				Prepared & Analyzed: 12/14/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	2	20	
Post Spike (6120387-PS1)		**Source: AZL0387-07**				Prepared & Analyzed: 12/14/16					
Mercury	1.66			ug/L	1.6667	-0.0210	100	80-120			

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Attention: Mr. Joju Abraham

December 23, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

H-02 Sample was prepared and/or analyzed outside of the EPA recommended holding time. See Case Narrative.

Note: Unless otherwise noted, all results are reported on an as received basis.

AP1 #2 - 20161207 - 01

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME:	Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	[illegible], Atlanta, GA [illegible]
REPORT TO:	[illegible]
CC:	[illegible]
REQUESTED COMPLETION DATE:	
PO #:	[illegible]@southernco.com
PROJECT NAME/STATE:	Plant Hammond - AP 1&2
PROJECT #:	CCR

Collection DATE	Collection TIME	MATRIX CODE	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Analysis 1 (P, 5)	Analysis 2 (P, 7)	Analysis 3 (P, 5)	LAB I.D. NUMBER
120716	15:05	W		X	HGWC-10	3	1	1	1	1
120716	13:35	W		X	HGWC-11	3	1	1	1	2
120716	[illegible]	W		X	HGWC-12	[illegible]	1	1	2	3
120716	13:45	W		X	HGWC-13	3	1	1	1	4
120716	11:[illegible]	W		X	HGWC-14	3	1	1	1	5
120716	12:50	W		X	HGWC-15	3	1	1	1	6
120716	14:40	W		X	HGWC-16	3	1	1	1	7
120716	14:37	W		X	HGWC-17	3	1	1	1	8
120716		W		X	DUP-2	3	1	1	1	9

ANALYSIS REQUESTED: [illegible]; Cl, F, SO4 & TDS [illegible]; Radium 226 & 228 [illegible]

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, 4°C; 2 - H_2SO_4, 4°C; 3 - HNO_3; 4 - NaOH, 4°C; 5 - NaOH/ZnAc, 4°C; 6 - $Na_2S_2O_3$, 4°C; 7 - 4°C not frozen

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SO - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION:

SAMPLED BY AND TITLE: [illegible]	DATE/TIME: 12/7/16 2300	RELINQUISHED BY: [illegible] (ERR)	DATE/TIME:
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY: [illegible signature]	DATE/TIME: 12/08/16 1215	CUSTODY SEAL [illegible]	

FOR LAB USE ONLY
LAB #: A260390

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 12/12/2016 10:48:23AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/08/16 12:15

Work Order: AZL0390
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 9 **#Containers:** 28

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAA0862
February 03, 2017
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-7	AAA0862-01	Ground Water	01/25/17 15:13	01/26/17 12:05
HGWC-8	AAA0862-02	Ground Water	01/25/17 14:48	01/26/17 12:05

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862
Client ID: HGWC-7
Date/Time Sampled: 1/25/2017 3:13:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0862-01
Date/Time Received: 1/26/2017 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	461	25	10	mg/L	SM 2540 C		1	01/30/17 16:05	01/30/17 16:05	7010738	JPT
Inorganic Anions											
Chloride	54	1.2	0.06	mg/L	EPA 300.0		5	01/27/17 16:22	02/01/17 08:15	7010718	RLC
Fluoride	0.24	0.30	0.004	mg/L	EPA 300.0	J	1	01/27/17 16:22	01/27/17 21:12	7010718	RLC
Sulfate	110	5.0	0.46	mg/L	EPA 300.0		5	01/27/17 16:22	02/01/17 08:15	7010718	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Barium	0.0747	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:28	7010760	CSW
Boron	0.764	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Calcium	94.5	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:05	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Molybdenum	0.0317	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Lithium	0.0024	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 15:28	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:30	7010766	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862
Client ID: HGWC-8
Date/Time Sampled: 1/25/2017 2:48:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0862-02
Date/Time Received: 1/26/2017 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	744	25	10	mg/L	SM 2540 C		1	01/30/17 16:05	01/30/17 16:05	7010738	JPT
Inorganic Anions											
Chloride	110	2.5	0.13	mg/L	EPA 300.0		10	01/27/17 16:22	02/01/17 08:37	7010718	RLC
Fluoride	1.1	0.30	0.004	mg/L	EPA 300.0		1	01/27/17 16:22	01/27/17 22:14	7010718	RLC
Sulfate	260	10	0.92	mg/L	EPA 300.0		10	01/27/17 16:22	02/01/17 08:37	7010718	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Barium	0.0780	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:46	7010760	CSW
Boron	2.01	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:16	7010760	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Calcium	142	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:16	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Molybdenum	0.478	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Lithium	0.0026	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 15:46	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:33	7010766	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010738 - SM 2540 C											
Blank (7010738-BLK1)						Prepared & Analyzed: 01/30/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7010738-BS1)						Prepared & Analyzed: 01/30/17					
Total Dissolved Solids	406	25	10	mg/L	400.00		102	84-108			
Duplicate (7010738-DUP1)		**Source: AAA0861-02**				Prepared & Analyzed: 01/30/17					
Total Dissolved Solids	131	25	10	mg/L		152			15	10	QR-03

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010718 - EPA 300.0											
Blank (7010718-BLK1)						Prepared & Analyzed: 01/27/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7010718-BS1)						Prepared & Analyzed: 01/27/17					
Chloride	10.4	0.25	0.01	mg/L	10.010		104	90-110			
Fluoride	10.5	0.30	0.004	mg/L	10.020		105	90-110			
Sulfate	10.6	1.0	0.09	mg/L	10.020		106	90-110			
Matrix Spike (7010718-MS1)		**Source: AAA0862-01**				Prepared & Analyzed: 01/27/17					
Chloride	57.0	0.25	0.01	mg/L	10.010	51.6	55	90-110			QM-02
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.24	105	90-110			
Sulfate	100	1.0	0.09	mg/L	10.020	101	NR	90-110			QM-02
Matrix Spike Dup (7010718-MSD1)		**Source: AAA0862-01**				Prepared & Analyzed: 01/27/17					
Chloride	56.5	0.25	0.01	mg/L	10.010	51.6	50	90-110	0.9	15	QM-02
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.24	105	90-110	0.1	15	
Sulfate	101	1.0	0.09	mg/L	10.020	101	NR	90-110	0.4	15	QM-02

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Blank (7010760-BLK1)						Prepared & Analyzed: 01/31/17					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (7010760-BS1)						Prepared & Analyzed: 01/31/17					
Antimony	0.104	0.0030	0.0008	mg/L	0.10000		104	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0974	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.06	0.0400	0.0064	mg/L	1.0000		106	80-120			
Cadmium	0.0997	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.06	0.500	0.0311	mg/L	1.0000		106	80-120			
Chromium	0.102	0.0100	0.0009	mg/L	0.10000		102	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0250	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000		101	80-120			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000		107	80-120			
Lithium	0.0962	0.0500	0.0021	mg/L	0.10000		96	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Matrix Spike (7010760-MS1)		**Source: AAA0909-08**				Prepared & Analyzed: 01/31/17					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125			
Barium	0.209	0.0100	0.0004	mg/L	0.10000	0.105	104	75-125			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000	ND	104	75-125			
Boron	2.78	2.00	0.321	mg/L	1.0000	1.19	159	75-125			QM-02
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	145	25.0	1.55	mg/L	1.0000	139	618	75-125			QM-02
Chromium	0.106	0.0100	0.0009	mg/L	0.10000	ND	106	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	ND	108	75-125			
Nickel	0.0994	0.0100	0.0006	mg/L	0.10000	ND	99	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125			
Silver	0.0976	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000	ND	97	75-125			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0025	102	75-125			
Lithium	0.0978	0.0500	0.0021	mg/L	0.10000	0.0028	95	75-125			
Matrix Spike Dup (7010760-MSD1)		**Source: AAA0909-08**				Prepared & Analyzed: 01/31/17					
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	2	20	
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	ND	108	75-125	1	20	
Barium	0.202	0.0100	0.0004	mg/L	0.10000	0.105	97	75-125	3	20	
Beryllium	0.106	0.0030	0.00008	mg/L	0.10000	ND	106	75-125	2	20	
Boron	2.71	2.00	0.321	mg/L	1.0000	1.19	152	75-125	3	20	QM-02
Cadmium	0.0983	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	3	20	
Calcium	142	25.0	1.55	mg/L	1.0000	139	298	75-125	2	20	QM-02
Chromium	0.0999	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	6	20	
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Copper	0.0945	0.0250	0.0005	mg/L	0.10000	ND	95	75-125	7	20	
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125	0.5	20	
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125	0.6	20	
Nickel	0.0991	0.0100	0.0006	mg/L	0.10000	ND	99	75-125	0.3	20	
Selenium	0.105	0.0100	0.0010	mg/L	0.10000	ND	105	75-125	2	20	
Silver	0.0974	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	0.3	20	
Thallium	0.0973	0.0010	0.0002	mg/L	0.10000	ND	97	75-125	0.1	20	
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000	ND	102	75-125	4	20	
Zinc	0.0996	0.0100	0.0021	mg/L	0.10000	0.0025	97	75-125	5	20	
Lithium	0.100	0.0500	0.0021	mg/L	0.10000	0.0028	97	75-125	2	20	

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 03, 2017

Report No.: AAA0862

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Post Spike (7010760-PS1)			**Source: AAA0909-08**			Prepared & Analyzed: 01/31/17					
Antimony	92.7			ug/L	100.00	0.0220	93	80-120			
Arsenic	107			ug/L	100.00	-0.219	107	80-120			
Barium	196			ug/L	100.00	105	91	80-120			
Beryllium	105			ug/L	100.00	0.0100	105	80-120			
Boron	2660			ug/L	1000.0	1190	148	80-120			QM-02
Cadmium	100			ug/L	100.00	0.0104	100	80-120			
Calcium	143000			ug/L	1000.0	139000	377	80-120			QM-02
Chromium	107			ug/L	100.00	0.148	107	80-120			
Cobalt	102			ug/L	100.00	0.123	102	80-120			
Copper	97.5			ug/L	100.00	0.247	97	80-120			
Lead	94.5			ug/L	100.00	0.122	94	80-120			
Molybdenum	106			ug/L	100.00	0.0875	106	80-120			
Nickel	99.0			ug/L	100.00	0.284	99	80-120			
Selenium	106			ug/L	100.00	0.338	106	80-120			
Silver	93.9			ug/L	100.00	0.0015	94	80-120			
Thallium	93.8			ug/L	100.00	0.0007	94	80-120			
Vanadium	108			ug/L	100.00	-2.17	108	80-120			
Zinc	104			ug/L	100.00	2.53	101	80-120			
Lithium	100			ug/L	100.00	2.80	98	80-120			
Batch 7010766 - EPA 7470A											
Blank (7010766-BLK1)						Prepared & Analyzed: 01/31/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7010766-BS1)						Prepared & Analyzed: 01/31/17					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

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February 03, 2017

Report No.: AAA0862

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010766 - EPA 7470A											
Matrix Spike (7010766-MS1)		**Source: AAA0792-01**				Prepared & Analyzed: 01/31/17					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7010766-MSD1)		**Source: AAA0792-01**				Prepared & Analyzed: 01/31/17					
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (7010766-PS1)		**Source: AAA0792-01**				Prepared & Analyzed: 01/31/17					
Mercury	1.66			ug/L	1.6667	0.0236	98	80-120			

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February 03, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 www.[illegible]

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: [illegible] Inverness Center Parkway [illegible]
Birmingham, AL [illegible]
[illegible]

REPORT TO: [illegible]

CC: [illegible]

REQUESTED COMPLETION DATE:

PO #: [illegible]

PROJECT NAME/STATE: Plant Hammond - AP [illegible]

PROJECT #: CCR

Collection DATE	Collection TIME	MATRIX CODE	COMP	GRAB	SAMPLE IDENTIFICATION	# OF CONTAINERS		[illegible]	[illegible] TDS	[illegible]	REMARKS
[illegible]/17	[illegible]	GW		x	HGWC-[illegible]	4		1	1	2	1
[illegible]/17	[illegible]	GW		x	HGWC-[illegible]	4		1	1	2	2

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCL; 2 - H_2SO_4; 3 - HNO_3; 4 - NaOH; 5 - NaOH/ZnAc; 6 - $Na_2S_2O_3$; 7 - [illegible]

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SO - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION:

SAMPLED BY AND TITLE: [illegible] DATE/TIME: [illegible]

RELINQUISHED BY: [illegible] DATE/TIME: 1/25/17 [illegible]

RECEIVED BY: DATE/TIME:

RELINQUISHED BY: DATE/TIME:

RECEIVED BY LAB: [illegible] DATE/TIME: 2/1/17 1205

SAMPLE SHIPPED VIA: [illegible]

FOR LAB USE ONLY: LAB #: AAA0862

[illegible]

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 1/27/2017 2:08:22PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 01/26/17 12:05

Work Order: AAA0862
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2 **#Containers:** 8

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAA0909
February 07, 2017
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-9	AAA0909-01	Ground Water	01/26/17 09:25	01/27/17 12:25
HGWC-10	AAA0909-02	Ground Water	01/26/17 09:50	01/27/17 12:25
HGWC-11	AAA0909-03	Ground Water	01/26/17 12:15	01/27/17 12:25
HGWC-12	AAA0909-04	Ground Water	01/26/17 09:43	01/27/17 12:25
HGWC-13	AAA0909-05	Ground Water	01/26/17 10:52	01/27/17 12:25
HGWC-14	AAA0909-06	Ground Water	01/26/17 13:15	01/27/17 12:25
HGWC-15	AAA0909-07	Ground Water	01/26/17 14:30	01/27/17 12:25
HGWC-16	AAA0909-08	Ground Water	01/26/17 11:07	01/27/17 12:25
HGWC-17	AAA0909-09	Ground Water	01/26/17 13:20	01/27/17 12:25
HGWC-18	AAA0909-10	Ground Water	01/26/17 15:12	01/27/17 12:25
Dup-1	AAA0909-11	Ground Water	01/26/17 00:00	01/27/17 12:25
Dup-2	AAA0909-12	Ground Water	01/26/17 00:00	01/27/17 12:25
FB-1	AAA0909-13	Water	01/26/17 13:35	01/27/17 12:25
FERB-1	AAA0909-14	Water	01/26/17 13:40	01/27/17 12:25
FB-2	AAA0909-15	Water	01/26/17 14:05	01/27/17 12:25
FERB-2	AAA0909-16	Water	01/26/17 14:10	01/27/17 12:25

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-9
Date/Time Sampled: 1/26/2017 9:25:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-01
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	869	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	170	12	0.65	mg/L	EPA 300.0		50	01/31/17 09:35	02/02/17 08:17	7010769	RLC
Fluoride	0.004	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 12:31	7010769	RLC
Sulfate	270	50	4.6	mg/L	EPA 300.0		50	01/31/17 09:35	02/02/17 08:17	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Barium	0.142	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Boron	1.87	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Calcium	175	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 18:48	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Molybdenum	0.0234	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Lithium	0.0042	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:40	7010766	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-10
Date/Time Sampled: 1/26/2017 9:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-02
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	368	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	7.0	0.25	0.01	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 12:52	7010769	RLC
Fluoride	0.29	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 12:52	7010769	RLC
Sulfate	90	10	0.92	mg/L	EPA 300.0		10	01/31/17 09:35	02/02/17 08:39	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Barium	0.0538	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 13:48	7020013	KLH
Boron	0.108	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Calcium	82.6	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 19:32	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Selenium	0.0041	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:42	7010766	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Project: CCR Event
Client ID: HGWC-11
Lab Number ID: AAA0909-03
Date/Time Sampled: 1/26/2017 12:15:00PM
Date/Time Received: 1/27/2017 12:25:00PM
Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	571	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	90	2.5	0.13	mg/L	EPA 300.0		10	01/31/17 09:35	02/02/17 09:01	7010769	RLC
Fluoride	0.27	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 13:56	7010769	RLC
Sulfate	230	10	0.92	mg/L	EPA 300.0		10	01/31/17 09:35	02/02/17 09:01	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Barium	0.0696	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 13:54	7020013	KLH
Boron	2.23	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Calcium	121	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 19:44	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Cobalt	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Molybdenum	0.0277	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Selenium	0.0062	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:44	7010766	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-12
Date/Time Sampled: 1/26/2017 9:43:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-04
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	846	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	160	5.0	0.26	mg/L	EPA 300.0		20	01/31/17 09:35	02/02/17 09:24	7010769	RLC
Fluoride	0.12	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 14:17	7010769	RLC
Sulfate	260	20	1.8	mg/L	EPA 300.0		20	01/31/17 09:35	02/02/17 09:24	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Barium	0.127	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 14:00	7020013	KLH
Boron	3.07	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Calcium	172	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 19:55	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Cobalt	0.0016	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Molybdenum	0.0484	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Lithium	0.0099	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:47	7010766	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-13
Date/Time Sampled: 1/26/2017 10:52:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-05
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	411	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	70	1.2	0.06	mg/L	EPA 300.0		5	01/31/17 09:35	02/02/17 09:46	7010769	RLC
Fluoride	0.68	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 14:38	7010769	RLC
Sulfate	83	5.0	0.46	mg/L	EPA 300.0		5	01/31/17 09:35	02/02/17 09:46	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Arsenic	0.424	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Barium	0.0738	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 14:05	7020013	KLH
Boron	2.45	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Calcium	77.9	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 20:07	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Cobalt	0.0024	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Molybdenum	0.0410	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Lithium	0.0342	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:49	7010766	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-14
Date/Time Sampled: 1/26/2017 1:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-06
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3080	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	640	25	1.3	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 04:18	7010769	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 14:59	7010769	RLC
Sulfate	1400	100	9.2	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 04:18	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Arsenic	0.0089	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Barium	0.0238	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Beryllium	0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/03/17 14:11	7020013	KLH
Boron	19.2	2.00	0.321	mg/L	EPA 6020B		50	02/01/17 15:35	02/02/17 20:37	7020013	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Calcium	558	50.0	3.11	mg/L	EPA 6020B	B-01	100	02/01/17 15:35	02/03/17 14:17	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Cobalt	0.0294	0.0100	0.0005	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Lead	0.0020	0.0050	0.0001	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Selenium	0.0214	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:37	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-15
Date/Time Sampled: 1/26/2017 2:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-07
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1260	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	260	5.0	0.26	mg/L	EPA 300.0		20	01/31/17 09:35	02/04/17 04:39	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 15:21	7010769	RLC
Sulfate	490	20	1.8	mg/L	EPA 300.0		20	01/31/17 09:35	02/04/17 04:39	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Barium	0.0287	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:53	7010760	CSW
Boron	2.31	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:39	7010760	CSW
Cadmium	0.0013	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Calcium	212	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:39	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Cobalt	0.0550	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:53	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:39	7020032	MTC

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Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-16
Date/Time Sampled: 1/26/2017 11:07:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-08
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	608	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	41	2.5	0.13	mg/L	EPA 300.0		10	01/31/17 09:35	02/04/17 05:01	7010769	RLC
Fluoride	0.02	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 15:42	7010769	RLC
Sulfate	250	10	0.92	mg/L	EPA 300.0		10	01/31/17 09:35	02/04/17 05:01	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Barium	0.105	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:59	7010760	CSW
Boron	1.19	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Calcium	139	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:51	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Lithium	0.0028	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 15:59	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:41	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-17
Date/Time Sampled: 1/26/2017 1:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-09
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1000	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	99	6.2	0.32	mg/L	EPA 300.0		25	01/31/17 09:35	02/04/17 06:48	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 17:28	7010769	RLC
Sulfate	440	25	2.3	mg/L	EPA 300.0		25	01/31/17 09:35	02/04/17 06:48	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Barium	0.0229	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:05	7010760	CSW
Boron	5.78	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:02	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Calcium	198	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:02	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Cobalt	0.0154	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:05	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:44	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: HGWC-18
Date/Time Sampled: 1/26/2017 3:12:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-10
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1950	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	340	25	1.3	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 07:09	7010769	RLC
Fluoride	0.71	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 17:49	7010769	RLC
Sulfate	970	100	9.2	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 07:09	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Arsenic	0.0068	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Barium	0.0293	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Beryllium	0.0034	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:11	7010760	CSW
Boron	9.17	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:14	7010760	CSW
Cadmium	0.0025	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Calcium	394	50.0	3.11	mg/L	EPA 6020B		100	01/31/17 10:00	02/02/17 16:07	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Cobalt	0.195	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Lead	0.0013	0.0050	0.0001	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Selenium	0.0385	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Lithium	0.0136	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 16:11	7010760	CSW
Mercury	0.00008	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/02/17 12:05	02/02/17 16:51	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: Dup-1
Date/Time Sampled: 1/26/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-11
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	362	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	7.6	0.25	0.01	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 18:32	7010769	RLC
Fluoride	0.30	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 18:32	7010769	RLC
Sulfate	89	5.0	0.46	mg/L	EPA 300.0		5	01/31/17 09:35	02/04/17 07:30	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Barium	0.0484	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:18	7010760	CSW
Boron	0.0976	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Calcium	81.8	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:25	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Selenium	0.0029	0.0100	0.0010	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:18	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:53	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: Dup-2
Date/Time Sampled: 1/26/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAA0909-12
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	389	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	71	1.2	0.06	mg/L	EPA 300.0		5	01/31/17 09:35	02/04/17 07:51	7010769	RLC
Fluoride	0.60	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 18:53	7010769	RLC
Sulfate	84	5.0	0.46	mg/L	EPA 300.0		5	01/31/17 09:35	02/04/17 07:51	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Arsenic	0.408	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Barium	0.0701	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:24	7010760	CSW
Boron	3.00	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:48	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Calcium	87.8	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:48	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Molybdenum	0.0423	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Lithium	0.0333	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 16:24	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:56	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: FB-1
Date/Time Sampled: 1/26/2017 1:35:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAA0909-13
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	17	25	10	mg/L	SM 2540 C	J	1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:14	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:14	7010769	RLC
Sulfate	0.12	1.0	0.09	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:14	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:30	7010760	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:30	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:58	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: FERB-1
Date/Time Sampled: 1/26/2017 1:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAA0909-14
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	28	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:35	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:35	7010769	RLC
Sulfate	0.10	1.0	0.09	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:35	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:36	7010760	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Calcium	0.0401	0.500	0.0311	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:36	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 17:00	7020032	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909
Client ID: FB-2
Date/Time Sampled: 1/26/2017 2:05:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAA0909-15
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:56	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:56	7010769	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:56	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:42	7010760	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:42	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 17:03	7020032	MTC

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February 07, 2017

Report No.: AAA0909
Client ID: FERB-2
Date/Time Sampled: 1/26/2017 2:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAA0909-16
Date/Time Received: 1/27/2017 12:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 20:18	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 20:18	7010769	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 20:18	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Barium	0.0005	0.0100	0.0004	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/02/17 16:12	7010760	KLH
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Calcium	0.0351	0.500	0.0311	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/02/17 16:12	7010760	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 17:05	7020032	MTC

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Report No.: AAA0909

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010778 - SM 2540 C											
Blank (7010778-BLK1)						Prepared & Analyzed: 01/31/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7010778-BS1)						Prepared & Analyzed: 01/31/17					
Total Dissolved Solids	407	25	10	mg/L	400.00		102	84-108			
Duplicate (7010778-DUP1)		**Source: AAA0909-04**				Prepared & Analyzed: 01/31/17					
Total Dissolved Solids	884	25	10	mg/L		846			4	10	
Duplicate (7010778-DUP2)		**Source: AAA0909-14**				Prepared & Analyzed: 01/31/17					
Total Dissolved Solids	21	25	10	mg/L		28			29	10	QR-03, J

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Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010769 - EPA 300.0											
Blank (7010769-BLK1)						Prepared & Analyzed: 01/31/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7010769-BS1)						Prepared & Analyzed: 01/31/17					
Chloride	10.4	0.25	0.01	mg/L	10.010		104	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020		104	90-110			
Sulfate	10.3	1.0	0.09	mg/L	10.020		103	90-110			
Matrix Spike (7010769-MS1)		**Source: AAA0909-02**				Prepared & Analyzed: 01/31/17					
Chloride	16.6	0.25	0.01	mg/L	10.010	6.98	96	90-110			
Fluoride	11.1	0.30	0.004	mg/L	10.020	0.29	108	90-110			
Sulfate	82.2	1.0	0.09	mg/L	10.020	80.8	14	90-110			QM-02
Matrix Spike (7010769-MS2)		**Source: AAA0909-10**				Prepared & Analyzed: 01/31/17					
Chloride	147	0.25	0.01	mg/L	10.010	153	NR	90-110			QM-02
Fluoride	14.4	0.30	0.004	mg/L	10.020	0.71	137	90-110			QM-05
Sulfate	413	1.0	0.09	mg/L	10.020	438	NR	90-110			QM-02
Matrix Spike Dup (7010769-MSD1)		**Source: AAA0909-02**				Prepared & Analyzed: 01/31/17					
Chloride	16.7	0.25	0.01	mg/L	10.010	6.98	97	90-110	0.08	15	
Fluoride	11.2	0.30	0.004	mg/L	10.020	0.29	109	90-110	0.3	15	
Sulfate	82.3	1.0	0.09	mg/L	10.020	80.8	15	90-110	0.1	15	QM-02

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Blank (7010760-BLK1)						Prepared & Analyzed: 01/31/17					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (7010760-BS1)						Prepared & Analyzed: 01/31/17					
Antimony	0.104	0.0030	0.0008	mg/L	0.10000		104	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0974	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.06	0.0400	0.0064	mg/L	1.0000		106	80-120			
Cadmium	0.0997	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.06	0.500	0.0311	mg/L	1.0000		106	80-120			
Chromium	0.102	0.0100	0.0009	mg/L	0.10000		102	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0250	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000		101	80-120			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000		107	80-120			
Lithium	0.0962	0.0500	0.0021	mg/L	0.10000		96	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Matrix Spike (7010760-MS1)		**Source: AAA0909-08**				Prepared & Analyzed: 01/31/17					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125			
Barium	0.209	0.0100	0.0004	mg/L	0.10000	0.105	104	75-125			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000	ND	104	75-125			
Boron	2.78	2.00	0.321	mg/L	1.0000	1.19	159	75-125			QM-02
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	145	25.0	1.55	mg/L	1.0000	139	618	75-125			QM-02
Chromium	0.106	0.0100	0.0009	mg/L	0.10000	ND	106	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	ND	108	75-125			
Nickel	0.0994	0.0100	0.0006	mg/L	0.10000	ND	99	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125			
Silver	0.0976	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000	ND	97	75-125			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0025	102	75-125			
Lithium	0.0978	0.0500	0.0021	mg/L	0.10000	0.0028	95	75-125			
Matrix Spike Dup (7010760-MSD1)		**Source: AAA0909-08**				Prepared & Analyzed: 01/31/17					
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	2	20	
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	ND	108	75-125	1	20	
Barium	0.202	0.0100	0.0004	mg/L	0.10000	0.105	97	75-125	3	20	
Beryllium	0.106	0.0030	0.00008	mg/L	0.10000	ND	106	75-125	2	20	
Boron	2.71	2.00	0.321	mg/L	1.0000	1.19	152	75-125	3	20	QM-02
Cadmium	0.0983	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	3	20	
Calcium	142	25.0	1.55	mg/L	1.0000	139	298	75-125	2	20	QM-02
Chromium	0.0999	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	6	20	
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Copper	0.0945	0.0250	0.0005	mg/L	0.10000	ND	95	75-125	7	20	
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125	0.5	20	
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125	0.6	20	
Nickel	0.0991	0.0100	0.0006	mg/L	0.10000	ND	99	75-125	0.3	20	
Selenium	0.105	0.0100	0.0010	mg/L	0.10000	ND	105	75-125	2	20	
Silver	0.0974	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	0.3	20	
Thallium	0.0973	0.0010	0.0002	mg/L	0.10000	ND	97	75-125	0.1	20	
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000	ND	102	75-125	4	20	
Zinc	0.0996	0.0100	0.0021	mg/L	0.10000	0.0025	97	75-125	5	20	
Lithium	0.100	0.0500	0.0021	mg/L	0.10000	0.0028	97	75-125	2	20	

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Post Spike (7010760-PS1)			**Source: AAA0909-08**			Prepared & Analyzed: 01/31/17					
Antimony	92.7			ug/L	100.00	0.0220	93	80-120			
Arsenic	107			ug/L	100.00	-0.219	107	80-120			
Barium	196			ug/L	100.00	105	91	80-120			
Beryllium	105			ug/L	100.00	0.0100	105	80-120			
Boron	2660			ug/L	1000.0	1190	148	80-120			QM-02
Cadmium	100			ug/L	100.00	0.0104	100	80-120			
Calcium	143000			ug/L	1000.0	139000	377	80-120			QM-02
Chromium	107			ug/L	100.00	0.148	107	80-120			
Cobalt	102			ug/L	100.00	0.123	102	80-120			
Copper	97.5			ug/L	100.00	0.247	97	80-120			
Lead	94.5			ug/L	100.00	0.122	94	80-120			
Molybdenum	106			ug/L	100.00	0.0875	106	80-120			
Nickel	99.0			ug/L	100.00	0.284	99	80-120			
Selenium	106			ug/L	100.00	0.338	106	80-120			
Silver	93.9			ug/L	100.00	0.0015	94	80-120			
Thallium	93.8			ug/L	100.00	0.0007	94	80-120			
Vanadium	108			ug/L	100.00	-2.17	108	80-120			
Zinc	104			ug/L	100.00	2.53	101	80-120			
Lithium	100			ug/L	100.00	2.80	98	80-120			
Batch 7010766 - EPA 7470A											
Blank (7010766-BLK1)						Prepared & Analyzed: 01/31/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7010766-BS1)						Prepared & Analyzed: 01/31/17					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010766 - EPA 7470A											
Matrix Spike (7010766-MS1)			**Source: AAA0792-01**			Prepared & Analyzed: 01/31/17					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7010766-MSD1)			**Source: AAA0792-01**			Prepared & Analyzed: 01/31/17					
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (7010766-PS1)			**Source: AAA0792-01**			Prepared & Analyzed: 01/31/17					
Mercury	1.66			ug/L	1.6667	0.0236	98	80-120			
Batch 7020013 - EPA 3005A											
Blank (7020013-BLK1)						Prepared: 02/01/17 Analyzed: 02/02/17					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	0.125	0.500	0.0311	mg/L							J
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	0.0044	0.0100	0.0021	mg/L							J
Lithium	ND	0.0500	0.0021	mg/L							

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020013 - EPA 3005A											
LCS (7020013-BS1)						Prepared: 02/01/17 Analyzed: 02/02/17					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000		110	80-120			
Arsenic	0.107	0.0050	0.0016	mg/L	0.10000		107	80-120			
Barium	0.101	0.0100	0.0004	mg/L	0.10000		101	80-120			
Beryllium	0.106	0.0030	0.00008	mg/L	0.10000		106	80-120			
Boron	1.07	0.0400	0.0064	mg/L	1.0000		107	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	1.12	0.500	0.0311	mg/L	1.0000		112	80-120			
Chromium	0.118	0.0100	0.0009	mg/L	0.10000		118	80-120			
Cobalt	0.109	0.0100	0.0005	mg/L	0.10000		109	80-120			
Copper	0.109	0.0250	0.0005	mg/L	0.10000		109	80-120			
Lead	0.104	0.0050	0.0001	mg/L	0.10000		104	80-120			
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000		106	80-120			
Nickel	0.112	0.0100	0.0006	mg/L	0.10000		112	80-120			
Selenium	0.113	0.0100	0.0010	mg/L	0.10000		113	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.115	0.0100	0.0071	mg/L	0.10000		115	80-120			
Zinc	0.114	0.0100	0.0021	mg/L	0.10000		114	80-120			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000		104	80-120			
Matrix Spike (7020013-MS1)		**Source: AAA0909-01**				Prepared: 02/01/17 Analyzed: 02/02/17					
Antimony	0.115	0.0030	0.0008	mg/L	0.10000	ND	115	75-125			
Arsenic	0.116	0.0050	0.0016	mg/L	0.10000	ND	116	75-125			
Barium	0.255	0.0100	0.0004	mg/L	0.10000	0.142	113	75-125			
Beryllium	0.0906	0.0030	0.00008	mg/L	0.10000	ND	91	75-125			
Boron	2.88	0.0400	0.0064	mg/L	1.0000	1.87	102	75-125			
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000	ND	100	75-125			
Calcium	184	25.0	1.55	mg/L	1.0000	175	853	75-125			QM-02
Chromium	0.117	0.0100	0.0009	mg/L	0.10000	ND	117	75-125			
Cobalt	0.111	0.0100	0.0005	mg/L	0.10000	0.0006	110	75-125			
Copper	0.104	0.0250	0.0005	mg/L	0.10000	ND	104	75-125			
Lead	0.0977	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125			
Molybdenum	0.141	0.0100	0.0017	mg/L	0.10000	0.0234	118	75-125			
Nickel	0.112	0.0100	0.0006	mg/L	0.10000	0.0009	111	75-125			
Selenium	0.112	0.0100	0.0010	mg/L	0.10000	ND	112	75-125			
Silver	0.0985	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0988	0.0010	0.0002	mg/L	0.10000	ND	99	75-125			
Vanadium	0.119	0.0100	0.0071	mg/L	0.10000	ND	119	75-125			
Zinc	0.110	0.0100	0.0021	mg/L	0.10000	0.0055	104	75-125			
Lithium	0.0974	0.0500	0.0021	mg/L	0.10000	0.0042	93	75-125			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020013 - EPA 3005A											
Matrix Spike Dup (7020013-MSD1)		**Source: AAA0909-01**			Prepared: 02/01/17 Analyzed: 02/02/17						
Antimony	0.112	0.0030	0.0008	mg/L	0.10000	ND	112	75-125	3	20	
Arsenic	0.116	0.0050	0.0016	mg/L	0.10000	ND	116	75-125	0.5	20	
Barium	0.242	0.0100	0.0004	mg/L	0.10000	0.142	101	75-125	5	20	
Beryllium	0.0921	0.0030	0.00008	mg/L	0.10000	ND	92	75-125	2	20	
Boron	2.91	0.0400	0.0064	mg/L	1.0000	1.87	104	75-125	0.7	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	1	20	
Calcium	189	25.0	1.55	mg/L	1.0000	175	NR	75-125	3	20	QM-02
Chromium	0.115	0.0100	0.0009	mg/L	0.10000	ND	115	75-125	2	20	
Cobalt	0.110	0.0100	0.0005	mg/L	0.10000	0.0006	109	75-125	1	20	
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125	1	20	
Lead	0.0986	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125	0.9	20	
Molybdenum	0.132	0.0100	0.0017	mg/L	0.10000	0.0234	108	75-125	7	20	
Nickel	0.108	0.0100	0.0006	mg/L	0.10000	0.0009	107	75-125	4	20	
Selenium	0.115	0.0100	0.0010	mg/L	0.10000	ND	115	75-125	2	20	
Silver	0.0962	0.0100	0.0005	mg/L	0.10000	ND	96	75-125	2	20	
Thallium	0.0985	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	0.3	20	
Vanadium	0.116	0.0100	0.0071	mg/L	0.10000	ND	116	75-125	2	20	
Zinc	0.111	0.0100	0.0021	mg/L	0.10000	0.0055	105	75-125	0.7	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	0.0042	97	75-125	4	20	
Post Spike (7020013-PS1)		**Source: AAA0909-01**			Prepared: 02/01/17 Analyzed: 02/02/17						
Antimony	104			ug/L	100.00	0.572	103	80-120			
Arsenic	118			ug/L	100.00	0.952	117	80-120			
Barium	249			ug/L	100.00	142	107	80-120			
Beryllium	89.5			ug/L	100.00	0.0129	89	80-120			
Boron	2800			ug/L	1000.0	1870	93	80-120			
Cadmium	101			ug/L	100.00	0.0242	101	80-120			
Calcium	180000			ug/L	1000.0	175000	432	80-120			QM-02
Chromium	119			ug/L	100.00	0.0861	118	80-120			
Cobalt	109			ug/L	100.00	0.595	108	80-120			
Copper	105			ug/L	100.00	0.484	105	80-120			
Lead	98.5			ug/L	100.00	0.122	98	80-120			
Molybdenum	134			ug/L	100.00	23.4	110	80-120			
Nickel	109			ug/L	100.00	0.947	109	80-120			
Selenium	117			ug/L	100.00	0.426	116	80-120			
Silver	94.8			ug/L	100.00	0.0211	95	80-120			
Thallium	100			ug/L	100.00	0.0533	100	80-120			
Vanadium	121			ug/L	100.00	-0.716	121	80-120			
Zinc	111			ug/L	100.00	5.50	105	80-120			
Lithium	98.7			ug/L	100.00	4.24	94	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 07, 2017

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020032 - EPA 7470A											
Blank (7020032-BLK1)						Prepared & Analyzed: 02/02/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020032-BS1)						Prepared & Analyzed: 02/02/17					
Mercury	0.00252	0.00050	0.000041	mg/L	2.5000E-3		101	80-120			
Matrix Spike (7020032-MS1)		**Source: AAA0909-10**				Prepared & Analyzed: 02/02/17					
Mercury	0.00253	0.00050	0.000041	mg/L	2.5000E-3	0.00008	98	75-125			
Matrix Spike Dup (7020032-MSD1)		**Source: AAA0909-10**				Prepared & Analyzed: 02/02/17					
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3	0.00008	96	75-125	2	20	
Post Spike (7020032-PS1)		**Source: AAA0909-10**				Prepared & Analyzed: 02/02/17					
Mercury	1.67			ug/L	1.6667	0.0534	97	80-120			

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Attention: Mr. Joju Abraham

February 07, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical
Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 42 Inverness Center Parkway BIN B426, Birmingham, AL 35242, 205-992-5417
REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com
PROJECT NAME/STATE: Plant Hammond - AP 1&2
PROJECT #: CCR

ANALYSIS REQUESTED — Container type: P, P, P; Preservation: 3, 7, 3
- Metals Part 257 App. III & IV (EPA 6020/7470)
- Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)
- Radium 226 & 228 (SW846 9315/9320)

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
01/26/17	8:25	GW		x	HGWC-9	4	1	1	2	1	
01/26/17	9:50	GW		x	HGWC-10	4	1	1	2	2	
01/26/17	12:15	GW		x	HGWC-11	6	1	1	4	3	Extra radium volume collected for Lab QA/QC
01/26/17	8:43	GW		x	HGWC-12	6	1	1	4	4	Extra radium volume collected for Lab QA/QC
01/26/17	10:52	GW		x	HGWC-13	4	1	1	2	5	
01/26/17	13:15	GW		x	HGWC-14	4	1	1	2	6	
01/26/17	14:30	GW		x	HGWC-15	4	1	1	2	7	
01/26/17	11:07	GW		x	HGWC-16	4	1	1	2	8	
01/26/17	13:20	GW		x	HGWC-17	4	1	1	2	9	
01/26/17	15:13	GW		x	HGWC-18	4	1	1	2	10	
01/26/17	—	GW		x	DUP-1	4	1	1	2	11	
01/26/17	—	GW		x	DUP-2	4	1	1	2	12	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: M.Thomas, M.Burch, W.Vinge
DATE/TIME: 1/26/2017 / 15:13
RELINQUISHED BY: W. Vinge (GPC)
DATE/TIME: 1/26/17 2100
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: Kaila Hawkins
DATE/TIME: 1/27/17 1225
SAMPLE SHIPPED VIA: UPS FED-EX COURIER CLIENT OTHER
Temp: 2° 2°

FOR LAB USE ONLY
LAB #: AAA0909
Entered into LIMS:
Tracking #:

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 42 Inverness Center Parkway BIN B426, Birmingham, AL 35242, 205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - AP 1&2

PROJECT #: CCR

ANALYSIS REQUESTED

	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (EPA 9315/9320)
Container Type	P	P	P
Preservation	3	7	3

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV	Cl, F, SO4 & TDS	Radium 226 & 228	LAB ID NUMBER
01/26/17	13:35	W		x	FB-1	4	1	1	2	13
01/26/17	13:40	W		x	FERB-1	4	1	1	2	14
01/26/17	14:05	W		x	FB-2	4	1	1	2	15
01/26/17	14:10	W		x	FERB-2	4	1	1	2	16

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION:

SAMPLED BY AND TITLE: M Thompson, M Burch, W Vinga

DATE/TIME: 1/26/2017 / 15:12

RELINQUISHED BY: W Vinga (ECM) — DATE/TIME: 1/27/17 700

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY LAB: [signature]

DATE/TIME: 1/27/17 1125

SAMPLE SHIPPED VIA: UPS FEDEX USPS COURIER CLIENT OTHER

FOR LAB USE ONLY

LAB #: AAA0969

Entered into LIMS:

Tracking #:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 1/30/2017 8:46:08AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 01/27/17 12:25

Work Order: AAA0909
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 16 **#Containers:** 68

Minimum Temp(C): 2.0 **Maximum Temp(C):** 2.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAC0796
April 03, 2017
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AAC0796-01	Ground Water	03/21/17 10:28	03/22/17 12:30
HGWA-2	AAC0796-02	Ground Water	03/21/17 11:00	03/22/17 12:30
HGWA-3	AAC0796-03	Ground Water	03/21/17 12:17	03/22/17 12:30
HGWA-4	AAC0796-04	Ground Water	03/21/17 12:10	03/22/17 12:30
HGWA-5	AAC0796-05	Ground Water	03/21/17 14:05	03/22/17 12:30
HGWA-6	AAC0796-06	Ground Water	03/21/17 15:05	03/22/17 12:30
HGWC-7	AAC0796-07	Ground Water	03/21/17 14:05	03/22/17 12:30
HGWC-8	AAC0796-08	Ground Water	03/21/17 15:20	03/22/17 12:30

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWA-1
Date/Time Sampled: 3/21/2017 10:28:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-01
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	340	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:00	7030810	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 17:00	7030810	RLC
Sulfate	63	5.0	0.46	mg/L	EPA 300.0		5	03/27/17 10:16	03/28/17 12:39	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Barium	0.0275	0.0100	0.0003	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Boron	0.0187	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Calcium	106	25.0	0.522	mg/L	EPA 6020B		50	03/23/17 08:20	03/25/17 00:54	7030669	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 13:57	7030754	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWA-2
Date/Time Sampled: 3/21/2017 11:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-02
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	103	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	5.9	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:21	7030810	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:21	7030810	RLC
Sulfate	46	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:21	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Barium	0.0950	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Boron	0.0349	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Cadmium	0.00007	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Calcium	18.6	5.00	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:09	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Cobalt	0.0251	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Lead	0.00006	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Thallium	0.00003	0.0010	0.00003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Lithium	0.0012	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:00	7030754	MTC

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Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWA-3
Date/Time Sampled: 3/21/2017 12:17:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-03
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	288	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	7.5	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:42	7030810	RLC
Fluoride	0.005	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 17:42	7030810	RLC
Sulfate	45	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:42	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Barium	0.120	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Boron	0.0079	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Calcium	75.7	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:32	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Lead	0.0001	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Lithium	0.0034	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:02	7030754	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWA-4
Date/Time Sampled: 3/21/2017 12:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-04
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	132	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	4.3	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:02	7030810	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:02	7030810	RLC
Sulfate	1.7	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:02	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Barium	0.0175	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Boron	0.0101	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Calcium	34.0	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:43	7030738	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Mercury	0.00016	0.00050	0.000041	mg/L	EPA 7470A	J	1	03/24/17 09:00	03/24/17 14:04	7030754	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWA-5
Date/Time Sampled: 3/21/2017 2:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-05
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	144	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:23	7030810	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 18:23	7030810	RLC
Sulfate	23	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:23	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Barium	0.0453	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Calcium	30.8	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:55	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Lithium	0.0037	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:07	7030754	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWA-6
Date/Time Sampled: 3/21/2017 3:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-06
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	222	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 20:06	7030810	RLC
Fluoride	0.08	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 20:06	7030810	RLC
Sulfate	37	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 20:06	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Barium	0.186	0.0500	0.0013	mg/L	EPA 6020B		5	03/24/17 06:30	03/31/17 13:53	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Boron	0.0166	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Calcium	51.3	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 23:06	7030738	CSW
Chromium	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Molybdenum	0.0002	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Lithium	0.0115	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:09	7030754	MTC

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Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWC-7
Date/Time Sampled: 3/21/2017 2:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-07
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	415	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	46	2.5	0.13	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:21	7030810	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 20:27	7030810	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:21	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Barium	0.0722	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Boron	0.857	0.0400	0.0060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Cadmium	0.0002	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Calcium	109	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 23:18	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Lead	0.00009	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Molybdenum	0.0346	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Lithium	0.0026	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:11	7030754	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796
Client ID: HGWC-8
Date/Time Sampled: 3/21/2017 3:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0796-08
Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	818	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	110	2.5	0.13	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:00	7030810	RLC
Fluoride	0.46	0.30	0.004	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 20:47	7030810	RLC
Sulfate	240	10	0.92	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:00	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Barium	0.0791	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Boron	2.08	0.0400	0.0060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Cadmium	0.0002	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Calcium	148	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 23:40	7030738	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Molybdenum	0.547	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Thallium	0.00009	0.0010	0.00003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:14	7030754	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030771 - SM 2540 C											
Blank (7030771-BLK1)						Prepared & Analyzed: 03/24/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030771-BS1)						Prepared & Analyzed: 03/24/17					
Total Dissolved Solids	399	25	10	mg/L	400.00		100	84-108			
Duplicate (7030771-DUP1)		**Source: AAC0780-02**				Prepared & Analyzed: 03/24/17					
Total Dissolved Solids	254	25	10	mg/L		260			2	10	
Duplicate (7030771-DUP2)		**Source: AAC0796-03**				Prepared & Analyzed: 03/24/17					
Total Dissolved Solids	260	25	10	mg/L		288			10	10	

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Report No.: AAC0796

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030810 - EPA 300.0											
Blank (7030810-BLK1)						Prepared & Analyzed: 03/27/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7030810-BS1)						Prepared & Analyzed: 03/27/17					
Chloride	9.29	0.25	0.01	mg/L	10.010		93	90-110			
Fluoride	9.77	0.30	0.004	mg/L	10.020		98	90-110			
Sulfate	9.50	1.0	0.09	mg/L	10.020		95	90-110			
Matrix Spike (7030810-MS1)		**Source: AAC0796-08**				Prepared & Analyzed: 03/27/17					
Chloride	99.2	0.25	0.01	mg/L	10.010	99.7	NR	90-110			QM-02
Fluoride	11.0	0.30	0.004	mg/L	10.020	0.46	105	90-110			
Sulfate	186	1.0	0.09	mg/L	10.020	192	NR	90-110			QM-02
Matrix Spike (7030810-MS2)		**Source: AAC0832-03**				Prepared: 03/27/17 Analyzed: 03/28/17					
Chloride	17.2	0.25	0.01	mg/L	10.010	7.20	100	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.09	106	90-110			
Sulfate	66.7	1.0	0.09	mg/L	10.020	63.1	36	90-110			QM-02
Matrix Spike Dup (7030810-MSD1)		**Source: AAC0796-08**				Prepared & Analyzed: 03/27/17					
Chloride	99.4	0.25	0.01	mg/L	10.010	99.7	NR	90-110	0.2	15	QM-02
Fluoride	11.0	0.30	0.004	mg/L	10.020	0.46	105	90-110	0.4	15	
Sulfate	186	1.0	0.09	mg/L	10.020	192	NR	90-110	0.2	15	QM-02

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030669 - EPA 3005A											
Blank (7030669-BLK1)						Prepared & Analyzed: 03/23/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.000060	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0002	mg/L							
Lead	ND	0.0050	0.00005	mg/L							
Molybdenum	ND	0.0100	0.0002	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	0.00004	0.0010	0.00003	mg/L							J
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7030669-BS1)						Prepared & Analyzed: 03/23/17					
Antimony	0.114	0.0030	0.0003	mg/L	0.10000		114	80-120			
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000		104	80-120			
Barium	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Beryllium	0.107	0.0030	0.00007	mg/L	0.10000		107	80-120			
Boron	1.15	0.0400	0.0060	mg/L	1.0000		115	80-120			
Cadmium	0.0998	0.0010	0.000060	mg/L	0.10000		100	80-120			
Calcium	1.03	0.500	0.0104	mg/L	1.0000		103	80-120			
Chromium	0.110	0.0100	0.0003	mg/L	0.10000		110	80-120			
Cobalt	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Copper	0.110	0.0250	0.0002	mg/L	0.10000		110	80-120			
Lead	0.102	0.0050	0.00005	mg/L	0.10000		102	80-120			
Molybdenum	0.106	0.0100	0.0002	mg/L	0.10000		106	80-120			
Nickel	0.112	0.0100	0.0003	mg/L	0.10000		112	80-120			
Selenium	0.111	0.0100	0.0014	mg/L	0.10000		111	80-120			
Silver	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Thallium	0.104	0.0010	0.00003	mg/L	0.10000		104	80-120			
Vanadium	0.113	0.0100	0.0014	mg/L	0.10000		113	80-120			
Zinc	0.108	0.0100	0.0013	mg/L	0.10000		108	80-120			
Lithium	0.112	0.0500	0.0011	mg/L	0.10000		112	80-120			

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April 03, 2017

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030669 - EPA 3005A											
Matrix Spike (7030669-MS1)		**Source: AAC0741-02**				Prepared: 03/23/17 Analyzed: 03/24/17					
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	ND	108	75-125			
Arsenic	0.109	0.0050	0.0004	mg/L	0.10000	0.0012	108	75-125			
Barium	0.131	0.0100	0.0003	mg/L	0.10000	0.0330	98	75-125			
Beryllium	0.104	0.0030	0.00007	mg/L	0.10000	ND	104	75-125			
Boron	1.02	0.0400	0.0060	mg/L	1.0000	ND	102	75-125			
Cadmium	0.103	0.0010	0.000060	mg/L	0.10000	ND	103	75-125			
Calcium	32.8	25.0	0.522	mg/L	1.0000	32.0	77	75-125			
Chromium	0.115	0.0100	0.0003	mg/L	0.10000	0.0004	114	75-125			
Cobalt	0.111	0.0100	0.0005	mg/L	0.10000	ND	111	75-125			
Copper	0.109	0.0250	0.0002	mg/L	0.10000	0.0012	108	75-125			
Lead	0.0989	0.0050	0.00005	mg/L	0.10000	0.00007	99	75-125			
Molybdenum	0.104	0.0100	0.0002	mg/L	0.10000	0.0019	102	75-125			
Nickel	0.111	0.0100	0.0003	mg/L	0.10000	ND	111	75-125			
Selenium	0.111	0.0100	0.0014	mg/L	0.10000	ND	111	75-125			
Silver	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125			
Thallium	0.102	0.0010	0.00003	mg/L	0.10000	0.0001	101	75-125			
Vanadium	0.115	0.0100	0.0014	mg/L	0.10000	ND	115	75-125			
Zinc	0.116	0.0100	0.0013	mg/L	0.10000	0.0075	108	75-125			
Lithium	0.108	0.0500	0.0011	mg/L	0.10000	ND	108	75-125			
Matrix Spike Dup (7030669-MSD1)		**Source: AAC0741-02**				Prepared: 03/23/17 Analyzed: 03/24/17					
Antimony	0.111	0.0030	0.0003	mg/L	0.10000	ND	111	75-125	2	20	
Arsenic	0.115	0.0050	0.0004	mg/L	0.10000	0.0012	114	75-125	5	20	
Barium	0.134	0.0100	0.0003	mg/L	0.10000	0.0330	101	75-125	2	20	
Beryllium	0.104	0.0030	0.00007	mg/L	0.10000	ND	104	75-125	0.7	20	
Boron	1.07	0.0400	0.0060	mg/L	1.0000	ND	107	75-125	5	20	
Cadmium	0.109	0.0010	0.000060	mg/L	0.10000	ND	109	75-125	5	20	
Calcium	32.9	25.0	0.522	mg/L	1.0000	32.0	83	75-125	0.2	20	
Chromium	0.117	0.0100	0.0003	mg/L	0.10000	0.0004	116	75-125	2	20	
Cobalt	0.117	0.0100	0.0005	mg/L	0.10000	ND	117	75-125	5	20	
Copper	0.112	0.0250	0.0002	mg/L	0.10000	0.0012	111	75-125	3	20	
Lead	0.0999	0.0050	0.00005	mg/L	0.10000	0.00007	100	75-125	1	20	
Molybdenum	0.108	0.0100	0.0002	mg/L	0.10000	0.0019	106	75-125	4	20	
Nickel	0.116	0.0100	0.0003	mg/L	0.10000	ND	116	75-125	5	20	
Selenium	0.117	0.0100	0.0014	mg/L	0.10000	ND	117	75-125	5	20	
Silver	0.108	0.0100	0.0003	mg/L	0.10000	ND	108	75-125	6	20	
Thallium	0.104	0.0010	0.00003	mg/L	0.10000	0.0001	103	75-125	2	20	
Vanadium	0.115	0.0100	0.0014	mg/L	0.10000	ND	115	75-125	0.3	20	
Zinc	0.115	0.0100	0.0013	mg/L	0.10000	0.0075	108	75-125	0.3	20	
Lithium	0.106	0.0500	0.0011	mg/L	0.10000	ND	106	75-125	2	20	

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April 03, 2017

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030669 - EPA 3005A											
Post Spike (7030669-PS1)			**Source: AAC0741-02**			Prepared: 03/23/17 Analyzed: 03/24/17					
Antimony	104			ug/L	100.00	0.151	104	80-120			
Arsenic	110			ug/L	100.00	1.18	109	80-120			
Barium	133			ug/L	100.00	33.0	100	80-120			
Beryllium	106			ug/L	100.00	0.0034	106	80-120			
Boron	1080			ug/L	1000.0	5.52	108	80-120			
Cadmium	104			ug/L	100.00	0.0167	104	80-120			
Calcium	32900			ug/L	1000.0	32000	84	80-120			
Chromium	113			ug/L	100.00	0.445	113	80-120			
Cobalt	111			ug/L	100.00	0.175	111	80-120			
Copper	110			ug/L	100.00	1.23	109	80-120			
Lead	97.7			ug/L	100.00	0.0685	98	80-120			
Molybdenum	105			ug/L	100.00	1.90	103	80-120			
Nickel	112			ug/L	100.00	0.246	112	80-120			
Selenium	116			ug/L	100.00	0.0886	115	80-120			
Silver	105			ug/L	100.00	0.0117	105	80-120			
Thallium	99.5			ug/L	100.00	0.129	99	80-120			
Vanadium	116			ug/L	100.00	0.724	115	80-120			
Zinc	116			ug/L	100.00	7.48	108	80-120			
Lithium	109			ug/L	100.00	0.514	109	80-120			
Batch 7030738 - EPA 3005A											
Blank (7030738-BLK1)						Prepared: 03/24/17 Analyzed: 03/27/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.000060	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0002	mg/L							
Lead	ND	0.0050	0.00005	mg/L							
Molybdenum	ND	0.0100	0.0002	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00003	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030738 - EPA 3005A											
Blank (7030738-BLK1)					Prepared: 03/24/17 Analyzed: 03/27/17						
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7030738-BS1)					Prepared: 03/24/17 Analyzed: 03/27/17						
Antimony	0.104	0.0030	0.0003	mg/L	0.10000		104	80-120			
Arsenic	0.0980	0.0050	0.0004	mg/L	0.10000		98	80-120			
Barium	0.0966	0.0100	0.0003	mg/L	0.10000		97	80-120			
Beryllium	0.101	0.0030	0.00007	mg/L	0.10000		101	80-120			
Boron	0.985	0.0400	0.0060	mg/L	1.0000		98	80-120			
Cadmium	0.102	0.0010	0.000060	mg/L	0.10000		102	80-120			
Calcium	0.996	0.500	0.0104	mg/L	1.0000		100	80-120			
Chromium	0.107	0.0100	0.0003	mg/L	0.10000		107	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.105	0.0250	0.0002	mg/L	0.10000		105	80-120			
Lead	0.0974	0.0050	0.00005	mg/L	0.10000		97	80-120			
Molybdenum	0.107	0.0100	0.0002	mg/L	0.10000		107	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Silver	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Thallium	0.0985	0.0010	0.00003	mg/L	0.10000		98	80-120			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000		108	80-120			
Zinc	0.101	0.0100	0.0013	mg/L	0.10000		101	80-120			
Lithium	0.110	0.0500	0.0011	mg/L	0.10000		110	80-120			
Matrix Spike (7030738-MS1)		**Source: AAC0796-02**			Prepared: 03/24/17 Analyzed: 03/27/17						
Antimony	0.103	0.0030	0.0003	mg/L	0.10000	ND	103	75-125			
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000	ND	101	75-125			
Barium	0.243	0.0100	0.0003	mg/L	0.10000	0.0950	148	75-125			QM-02
Beryllium	0.101	0.0030	0.00007	mg/L	0.10000	0.0001	101	75-125			
Boron	1.00	0.0400	0.0060	mg/L	1.0000	0.0349	97	75-125			
Cadmium	0.104	0.0010	0.000060	mg/L	0.10000	0.00007	104	75-125			
Calcium	20.1	25.0	0.522	mg/L	1.0000	18.6	157	75-125			QM-02, J
Chromium	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			
Cobalt	0.127	0.0100	0.0005	mg/L	0.10000	0.0251	102	75-125			
Copper	0.0995	0.0250	0.0002	mg/L	0.10000	0.0004	99	75-125			
Lead	0.0937	0.0050	0.00005	mg/L	0.10000	0.00006	94	75-125			
Molybdenum	0.108	0.0100	0.0002	mg/L	0.10000	ND	108	75-125			
Nickel	0.104	0.0100	0.0003	mg/L	0.10000	0.0035	100	75-125			
Selenium	0.102	0.0100	0.0014	mg/L	0.10000	ND	102	75-125			
Silver	0.106	0.0100	0.0003	mg/L	0.10000	ND	106	75-125			

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April 03, 2017

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030738 - EPA 3005A											
Matrix Spike (7030738-MS1)		**Source: AAC0796-02**			Prepared: 03/24/17 Analyzed: 03/27/17						
Thallium	0.0969	0.0010	0.00003	mg/L	0.10000	0.00003	97	75-125			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000	0.0067	96	75-125			
Lithium	0.109	0.0500	0.0011	mg/L	0.10000	0.0012	108	75-125			
Matrix Spike Dup (7030738-MSD1)		**Source: AAC0796-02**			Prepared: 03/24/17 Analyzed: 03/27/17						
Antimony	0.103	0.0030	0.0003	mg/L	0.10000	ND	103	75-125	0.6	20	
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000	ND	101	75-125	0.1	20	
Barium	0.238	0.0100	0.0003	mg/L	0.10000	0.0950	143	75-125	2	20	QM-02
Beryllium	0.104	0.0030	0.00007	mg/L	0.10000	0.0001	104	75-125	3	20	
Boron	0.991	0.0400	0.0060	mg/L	1.0000	0.0349	96	75-125	1	20	
Cadmium	0.104	0.0010	0.000060	mg/L	0.10000	0.00007	104	75-125	0.4	20	
Calcium	19.5	25.0	0.522	mg/L	1.0000	18.6	93	75-125	3	20	J
Chromium	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	1	20	
Cobalt	0.128	0.0100	0.0005	mg/L	0.10000	0.0251	103	75-125	1	20	
Copper	0.103	0.0250	0.0002	mg/L	0.10000	0.0004	102	75-125	3	20	
Lead	0.0967	0.0050	0.00005	mg/L	0.10000	0.00006	97	75-125	3	20	
Molybdenum	0.110	0.0100	0.0002	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0035	104	75-125	4	20	
Selenium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125	1	20	
Silver	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125	3	20	
Thallium	0.100	0.0010	0.00003	mg/L	0.10000	0.00003	100	75-125	3	20	
Vanadium	0.110	0.0100	0.0014	mg/L	0.10000	ND	110	75-125	2	20	
Zinc	0.106	0.0100	0.0013	mg/L	0.10000	0.0067	99	75-125	3	20	
Lithium	0.112	0.0500	0.0011	mg/L	0.10000	0.0012	111	75-125	3	20	
Post Spike (7030738-PS1)		**Source: AAC0796-02**			Prepared: 03/24/17 Analyzed: 03/27/17						
Antimony	105			ug/L	100.00	0.0435	105	80-120			
Arsenic	102			ug/L	100.00	0.288	102	80-120			
Barium	244			ug/L	100.00	95.0	149	80-120			QM-02
Beryllium	98.9			ug/L	100.00	0.102	99	80-120			
Boron	973			ug/L	1000.0	34.9	94	80-120			
Cadmium	109			ug/L	100.00	0.0678	109	80-120			
Calcium	19300			ug/L	1000.0	18600	75	80-120			QM-02
Chromium	110			ug/L	100.00	0.166	109	80-120			
Cobalt	133			ug/L	100.00	25.1	108	80-120			
Copper	103			ug/L	100.00	0.372	103	80-120			
Lead	95.8			ug/L	100.00	0.0583	96	80-120			
Molybdenum	110			ug/L	100.00	0.0712	110	80-120			
Nickel	110			ug/L	100.00	3.52	107	80-120			

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030738 - EPA 3005A											
Post Spike (7030738-PS1)			**Source: AAC0796-02**			Prepared: 03/24/17 Analyzed: 03/27/17					
Selenium	101			ug/L	100.00	-0.0331	101	80-120			
Silver	103			ug/L	100.00	0.0046	103	80-120			
Thallium	97.8			ug/L	100.00	0.0328	98	80-120			
Vanadium	111			ug/L	100.00	-0.185	111	80-120			
Zinc	107			ug/L	100.00	6.73	100	80-120			
Lithium	108			ug/L	100.00	1.18	107	80-120			
Batch 7030754 - EPA 7470A											
Blank (7030754-BLK1)						Prepared & Analyzed: 03/24/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030754-BS1)						Prepared & Analyzed: 03/24/17					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
Matrix Spike (7030754-MS1)			**Source: AAC0770-01**			Prepared & Analyzed: 03/24/17					
Mercury	0.00232	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125			
Matrix Spike Dup (7030754-MSD1)			**Source: AAC0770-01**			Prepared & Analyzed: 03/24/17					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	3	20	
Post Spike (7030754-PS1)			**Source: AAC0770-01**			Prepared & Analyzed: 03/24/17					
Mercury	1.64			ug/L	1.6667	0.00818	98	80-120			

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Attention: Mr. Joju Abraham

April 03, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report Notes

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

Seal IDs: 20170321-01
20170321-02

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 . Fax (770) 734-4201

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239
REPORT TO: Lauren Petty
CC: Mark Pickle, Hugh McCorkle
REQUESTED COMPLETION DATE:
PO #: [illegible]@southernco.com
PROJECT NAME/STATE: Plant Hammond - AP 1&2
PROJECT #: CCR

Collection DATE	Collection TIME	MATRIX CODE	C O M P	G R A B	SAMPLE IDENTIFICATION	# OF CONTAINERS	Metals	Cl, F, SO4, TDS	Radium 226 & 228	LAB ID NUMBER
03/21/17	15:38	W		X	HGWA-1	3	1	1	1	1
03/21/17	11:00	W		X	HGWA-2	3	1	1	1	2
03/21/17	12:17	W		X	HGWA-3	3	1	1	1	3
03/21/17	12:16	W		X	HGWA-4	3	1	1	1	4
03/21/17	14:06	W		X	HGWA-5	3	1	1	1	5
03/21/17	14:06	W		X	HGWA-6	3	1	1	1	6
03/21/17	14:08	W		X	HGWC-7	3	1	1	1	7
03/21/17	15:20	W		X	HGWC-8	3	1	1	1	8

PRESERVATIVE: Metals: [illegible]; Cl, F, SO4, TDS: [illegible]; Radium 226 & 228: [illegible]

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, 4°C; 2 - H2SO4, 4°C; 3 - HNO3; 4 - NaOH, 4°C; 5 - NaOH/ZnAc, 4°C; 6 - Na2S2O3, 4°C; 7 - 4°C not frozen

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION:

SAMPLED BY AND TITLE: [illegible] — DATE/TIME: 3/21/17 1520
RELINQUISHED BY: [illegible] — DATE/TIME: 3/21/17 2030
RECEIVED BY: — DATE/TIME:
RELINQUISHED BY: — DATE/TIME:
RECEIVED BY LAB: [illegible] — DATE/TIME: 03/22/17 1230
SAMPLE SHIPPED VIA: UPS FEDEX USPS COURIER CLIENT OTHER

FOR LAB USE ONLY
LAB #: AAC 0396
Tracking #:

2017 03 21 Hammond COC.xlsx

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 3/23/2017 9:08:24AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 03/22/17 12:30

Work Order: AAC0796
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 32

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	NO
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAC0858
March 31, 2017
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-9	AAC0858-01	Ground Water	03/22/17 09:28	03/23/17 14:30
HGWC-10	AAC0858-02	Ground Water	03/22/17 10:50	03/23/17 14:30
HGWC-11	AAC0858-03	Ground Water	03/22/17 12:25	03/23/17 14:30
HGWC-12	AAC0858-04	Ground Water	03/22/17 10:35	03/23/17 14:30
HGWC-13	AAC0858-05	Ground Water	03/22/17 14:30	03/23/17 14:30
HGWC-16	AAC0858-06	Ground Water	03/22/17 12:10	03/23/17 14:30
HGWC-17	AAC0858-07	Ground Water	03/22/17 14:54	03/23/17 14:30
Dup-1	AAC0858-08	Ground Water	03/22/17 00:00	03/23/17 14:30
Dup-2	AAC0858-09	Ground Water	03/22/17 00:00	03/23/17 14:30

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: HGWC-9
Date/Time Sampled: 3/22/2017 9:28:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-01
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	936	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	160	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 14:40	7030839	RLC
Fluoride	0.28	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/28/17 19:53	7030839	RLC
Sulfate	240	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 14:40	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Arsenic	0.0008	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Barium	0.122	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Boron	1.99	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Cadmium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Calcium	183	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 19:30	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Molybdenum	0.0219	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Lithium	0.0043	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:13	7030756	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: HGWC-10
Date/Time Sampled: 3/22/2017 10:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-02
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	683	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	82	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:01	7030839	RLC
Fluoride	0.34	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 20:14	7030839	RLC
Sulfate	170	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:01	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Barium	0.0962	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Boron	0.788	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Calcium	154	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 19:53	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Molybdenum	0.0013	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:16	7030756	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: HGWC-11
Date/Time Sampled: 3/22/2017 12:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-03
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	597	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	37	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:16	7030839	RLC
Fluoride	0.66	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:16	7030839	RLC
Sulfate	330	20	1.8	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 15:21	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Arsenic	0.0053	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Barium	0.0346	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Beryllium	0.00009	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Boron	0.840	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Calcium	130	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:05	7030796	CSW
Chromium	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Cobalt	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Lead	0.0003	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Molybdenum	0.0110	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Selenium	0.0263	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:19	7030756	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Project: CCR Event
Client ID: HGWC-12
Lab Number ID: AAC0858-04
Date/Time Sampled: 3/22/2017 10:35:00AM
Date/Time Received: 3/23/2017 2:30:00PM
Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	804	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	130	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:42	7030839	RLC
Fluoride	0.44	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:36	7030839	RLC
Sulfate	220	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:42	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Arsenic	0.0019	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Barium	0.112	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Boron	3.04	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Cadmium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Calcium	162	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:16	7030796	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Cobalt	0.0018	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Molybdenum	0.0494	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Thallium	0.0001	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Lithium	0.0098	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:21	7030756	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: HGWC-13
Date/Time Sampled: 3/22/2017 2:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-05
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	427	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	59	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 16:03	7030839	RLC
Fluoride	0.76	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:57	7030839	RLC
Sulfate	100	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 16:03	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Arsenic	0.419	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Barium	0.0755	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Boron	1.99	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Calcium	85.1	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:28	7030796	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Cobalt	0.0026	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Molybdenum	0.0426	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Thallium	0.0004	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Lithium	0.0353	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:23	7030756	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: HGWC-16
Date/Time Sampled: 3/22/2017 12:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-06
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	599	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	41	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 22:18	7030839	RLC
Fluoride	0.30	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 22:18	7030839	RLC
Sulfate	240	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 16:23	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Barium	0.110	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Boron	1.32	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Calcium	150	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:39	7030796	CSW
Chromium	0.0021	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Lithium	0.0025	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:26	7030756	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: HGWC-17
Date/Time Sampled: 3/22/2017 2:54:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-07
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1080	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	100	5.0	0.26	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 16:44	7030839	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/28/17 22:38	7030839	RLC
Sulfate	460	20	1.8	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 16:44	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Barium	0.0248	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Boron	5.52	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Cadmium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Calcium	239	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 21:02	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Cobalt	0.0169	0.0100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Thallium	0.0001	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:28	7030756	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: Dup-1
Date/Time Sampled: 3/22/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-08
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	941	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	140	5.0	0.26	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 18:07	7030839	RLC
Fluoride	0.42	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 22:59	7030839	RLC
Sulfate	230	20	1.8	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 18:07	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Barium	0.128	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Boron	1.97	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Calcium	188	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 21:13	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Molybdenum	0.0227	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Lithium	0.0043	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:30	7030756	MTC

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Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858
Client ID: Dup-2
Date/Time Sampled: 3/22/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0858-09
Date/Time Received: 3/23/2017 2:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	734	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	84	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 18:27	7030839	RLC
Fluoride	0.35	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 01:03	7030839	RLC
Sulfate	170	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 18:27	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Barium	0.0973	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Boron	0.822	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Calcium	155	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 21:25	7030796	CSW
Chromium	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Molybdenum	0.0013	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:33	7030756	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030811 - SM 2540 C											
Blank (7030811-BLK1)						Prepared & Analyzed: 03/27/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030811-BS1)						Prepared & Analyzed: 03/27/17					
Total Dissolved Solids	399	25	10	mg/L	400.00		100	84-108			
Duplicate (7030811-DUP1)		**Source: AAC0828-01**				Prepared & Analyzed: 03/27/17					
Total Dissolved Solids	150	25	10	mg/L		137			9	10	
Duplicate (7030811-DUP2)		**Source: AAC0858-06**				Prepared & Analyzed: 03/27/17					
Total Dissolved Solids	621	25	10	mg/L		599			4	10	

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030839 - EPA 300.0											
Blank (7030839-BLK1)						Prepared & Analyzed: 03/28/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7030839-BS1)						Prepared & Analyzed: 03/28/17					
Chloride	9.99	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.3	0.30	0.004	mg/L	10.020		103	90-110			
Sulfate	10.1	1.0	0.09	mg/L	10.020		101	90-110			
Matrix Spike (7030839-MS1)		**Source: AAC0858-02**				Prepared & Analyzed: 03/28/17					
Chloride	83.2	0.25	0.01	mg/L	10.010	81.8	14	90-110			QM-02
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.34	104	90-110			
Sulfate	145	1.0	0.09	mg/L	10.020	150	NR	90-110			QM-02
Matrix Spike (7030839-MS2)		**Source: AAC0858-08**				Prepared: 03/28/17 Analyzed: 03/29/17					
Chloride	125	0.25	0.01	mg/L	10.010	128	NR	90-110			QM-02
Fluoride	10.9	0.30	0.004	mg/L	10.020	0.42	104	90-110			
Sulfate	181	1.0	0.09	mg/L	10.020	189	NR	90-110			QM-02
Matrix Spike Dup (7030839-MSD1)		**Source: AAC0858-02**				Prepared & Analyzed: 03/28/17					
Chloride	82.8	0.25	0.01	mg/L	10.010	81.8	10	90-110	0.5	15	QM-02
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.34	105	90-110	0.8	15	
Sulfate	145	1.0	0.09	mg/L	10.020	150	NR	90-110	0.04	15	QM-02

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030756 - EPA 7470A											
Blank (7030756-BLK1)						Prepared & Analyzed: 03/24/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030756-BS1)						Prepared & Analyzed: 03/24/17					
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3		97	80-120			
Matrix Spike (7030756-MS1)		**Source: AAC0831-03**				Prepared & Analyzed: 03/24/17					
Mercury	0.00222	0.00050	0.000041	mg/L	2.5000E-3	ND	89	75-125			
Matrix Spike Dup (7030756-MSD1)		**Source: AAC0831-03**				Prepared & Analyzed: 03/24/17					
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	5	20	
Post Spike (7030756-PS1)		**Source: AAC0831-03**				Prepared & Analyzed: 03/24/17					
Mercury	1.68			ug/L	1.6667	0.0112	100	80-120			
Batch 7030796 - EPA 3005A											
Blank (7030796-BLK1)						Prepared: 03/27/17 Analyzed: 03/28/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	0.0003	0.0250	0.0003	mg/L							J
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	0.0014	0.0100	0.0013	mg/L							J
Lithium	ND	0.0500	0.0011	mg/L							

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Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030796 - EPA 3005A											
LCS (7030796-BS1)						Prepared: 03/27/17 Analyzed: 03/28/17					
Antimony	0.102	0.0030	0.0003	mg/L	0.10000		102	80-120			
Arsenic	0.0993	0.0050	0.0004	mg/L	0.10000		99	80-120			
Barium	0.0993	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.103	0.0030	0.00007	mg/L	0.10000		103	80-120			
Boron	1.00	0.0400	0.0060	mg/L	1.0000		100	80-120			
Cadmium	0.103	0.0010	0.00006	mg/L	0.10000		103	80-120			
Calcium	1.00	0.500	0.0104	mg/L	1.0000		100	80-120			
Chromium	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.104	0.0250	0.0003	mg/L	0.10000		104	80-120			
Lead	0.0994	0.0050	0.00007	mg/L	0.10000		99	80-120			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000		102	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.101	0.0100	0.0014	mg/L	0.10000		101	80-120			
Silver	0.0993	0.0100	0.0003	mg/L	0.10000		99	80-120			
Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
Vanadium	0.0967	0.0100	0.0014	mg/L	0.10000		97	80-120			
Zinc	0.101	0.0100	0.0013	mg/L	0.10000		101	80-120			
Lithium	0.102	0.0500	0.0011	mg/L	0.10000		102	80-120			
Matrix Spike (7030796-MS1)		**Source: AAC0858-01**				Prepared: 03/27/17 Analyzed: 03/28/17					
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	ND	106	75-125			
Arsenic	0.106	0.0050	0.0004	mg/L	0.10000	0.0008	106	75-125			
Barium	0.290	0.0100	0.0003	mg/L	0.10000	0.122	168	75-125			QM-02
Beryllium	0.0915	0.0030	0.00007	mg/L	0.10000	ND	91	75-125			
Boron	2.79	0.0400	0.0060	mg/L	1.0000	1.99	80	75-125			
Cadmium	0.0987	0.0010	0.00006	mg/L	0.10000	0.00007	99	75-125			
Calcium	185	25.0	0.522	mg/L	1.0000	183	185	75-125			QM-02
Chromium	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0005	101	75-125			
Copper	0.0976	0.0250	0.0003	mg/L	0.10000	ND	98	75-125			
Lead	0.0960	0.0050	0.00007	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.129	0.0100	0.0006	mg/L	0.10000	0.0219	107	75-125			
Nickel	0.101	0.0100	0.0003	mg/L	0.10000	0.0008	100	75-125			
Selenium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125			
Silver	0.0958	0.0100	0.0003	mg/L	0.10000	ND	96	75-125			
Thallium	0.0999	0.0010	0.00005	mg/L	0.10000	ND	100	75-125			
Vanadium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125			
Zinc	0.0979	0.0100	0.0013	mg/L	0.10000	ND	98	75-125			
Lithium	0.0984	0.0500	0.0011	mg/L	0.10000	0.0043	94	75-125			

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030796 - EPA 3005A											
Matrix Spike Dup (7030796-MSD1)		**Source: AAC0858-01**			Prepared: 03/27/17 Analyzed: 03/28/17						
Antimony	0.103	0.0030	0.0003	mg/L	0.10000	ND	103	75-125	4	20	
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000	0.0008	103	75-125	2	20	
Barium	0.290	0.0100	0.0003	mg/L	0.10000	0.122	168	75-125	0.002	20	QM-02
Beryllium	0.0968	0.0030	0.00007	mg/L	0.10000	ND	97	75-125	6	20	
Boron	2.89	0.0400	0.0060	mg/L	1.0000	1.99	90	75-125	3	20	
Cadmium	0.102	0.0010	0.00006	mg/L	0.10000	0.00007	102	75-125	3	20	
Calcium	185	25.0	0.522	mg/L	1.0000	183	164	75-125	0.1	20	QM-02
Chromium	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	2	20	
Cobalt	0.107	0.0100	0.0005	mg/L	0.10000	0.0005	106	75-125	5	20	
Copper	0.101	0.0250	0.0003	mg/L	0.10000	ND	101	75-125	3	20	
Lead	0.0950	0.0050	0.00007	mg/L	0.10000	ND	95	75-125	1	20	
Molybdenum	0.131	0.0100	0.0006	mg/L	0.10000	0.0219	109	75-125	1	20	
Nickel	0.104	0.0100	0.0003	mg/L	0.10000	0.0008	103	75-125	3	20	
Selenium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125	1	20	
Silver	0.0939	0.0100	0.0003	mg/L	0.10000	ND	94	75-125	2	20	
Thallium	0.0987	0.0010	0.00005	mg/L	0.10000	ND	99	75-125	1	20	
Vanadium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125	3	20	
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	ND	105	75-125	7	20	
Lithium	0.0993	0.0500	0.0011	mg/L	0.10000	0.0043	95	75-125	0.9	20	
Post Spike (7030796-PS1)		**Source: AAC0858-01**			Prepared: 03/27/17 Analyzed: 03/28/17						
Antimony	101			ug/L	100.00	0.118	101	80-120			
Arsenic	106			ug/L	100.00	0.759	105	80-120			
Barium	288			ug/L	100.00	122	167	80-120			QM-02
Beryllium	90.9			ug/L	100.00	0.0019	91	80-120			
Boron	2820			ug/L	1000.0	1990	82	80-120			
Cadmium	102			ug/L	100.00	0.0663	102	80-120			
Calcium	180000			ug/L	1000.0	183000	NR	80-120			QM-02
Chromium	109			ug/L	100.00	0.212	109	80-120			
Cobalt	104			ug/L	100.00	0.542	103	80-120			
Copper	98.6			ug/L	100.00	0.225	98	80-120			
Lead	95.8			ug/L	100.00	0.0463	96	80-120			
Molybdenum	128			ug/L	100.00	21.9	106	80-120			
Nickel	102			ug/L	100.00	0.829	101	80-120			
Selenium	108			ug/L	100.00	0.530	107	80-120			
Silver	94.0			ug/L	100.00	0.0035	94	80-120			
Thallium	99.4			ug/L	100.00	0.0423	99	80-120			
Vanadium	106			ug/L	100.00	0.223	105	80-120			
Zinc	98.9			ug/L	100.00	1.11	98	80-120			
Lithium	97.5			ug/L	100.00	4.32	93	80-120			

PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

March 31, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report Notes

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 FAX (770) 734-4201

PAGE: 1 OF 1

CLIENT NAME: Georgia Power	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd NE BIN 10185, Atlanta, GA 30308, 404-506-7239	
REPORT TO: Lauren Petty	CC: Mara Padilla, Heath McCarter
REQUESTED COMPLETION DATE:	PO #: [illegible]@southernco.com
PROJECT NAME/STATE: Plant Hammond - AP 1&2	
PROJECT #: CCR	

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App III/IV (EPA 6010/6020)	Cl, F, SO4, TDS (EPA 300 & SM 2540C)	Radium 226 & 228 (Standard Methods)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE		P	P	P		
					PRESERVATION		3	7	3		
03/22/17	8:30	W		X	HGWC-8	3	1	1	1	1	
03/22/17	10:00	W		X	HGWC-9	3	1	1	1	2	
03/22/17	12:35	W		X	HGWC-11	3	1	1	1	3	
03/22/17	10:35	W		X	HGWC-12	4	1	1	2	4	Extra radium volume collected for Lab QA/QC
03/22/17	14:35	W		X	HGWC-13	4	1	1	2	5	Extra radium volume collected for Lab QA/QC
03/22/17	12:40	W		X	HGWC-16	3	1	1	1	6	
03/22/17	11:50	W		X	HGWC-17	3	1	1	1	7	
03/22/17	-	W		X	DUP-1	3	1	1	1	8	
03/22/17	-	W		X	DUP-2	3	1	1	1	9	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCL, 4°C; 2 - H_2SO_4, 4°C; 3 - HNO_3; 4 - NaOH, 4°C; 5 - NaOH/ZnAc, 4°C; 6 - $Na_2S_2O_3$, 4°C; 7 - 4°C, not preserved

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLER NAME AND SIGNATURE: [illegible] T. Thomas — DATE/TIME: 3/22/17 16:00
RELINQUISHED BY: [illegible] (GPC) — DATE/TIME: 3/22/17 [illegible]
RECEIVED BY: — DATE/TIME:
RELINQUISHED BY: — DATE/TIME:
RECEIVED BY LAB: [illegible] — DATE/TIME: 03/24/17 14:30
SAMPLE SHIPPED VIA: [illegible] COURIER / CLIENT / OTHER
TEMP: [illegible] — Custody Seal: [illegible]
FOR LAB USE ONLY: LAB #: AAC 0858

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 3/27/2017 11:04:42AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 03/23/17 14:30

Work Order: AAC0858
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 9 **#Containers:** 40

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	NO
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAE0812
June 02, 2017
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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Attention: Mr. Joju Abraham

June 02, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-4	AAE0812-01	Water	05/23/17 09:40	05/24/17 13:05
HGWA-5	AAE0812-02	Water	05/23/17 09:52	05/24/17 13:05
HGWA-6	AAE0812-03	Water	05/23/17 10:55	05/24/17 13:05
HGWC-7	AAE0812-04	Water	05/23/17 11:00	05/24/17 13:05
HGWC-8	AAE0812-05	Water	05/23/17 12:25	05/24/17 13:05
HGWC-9	AAE0812-06	Water	05/23/17 13:55	05/24/17 13:05
Dup-1	AAE0812-07	Water	05/23/17 00:00	05/24/17 13:05
FB-1	AAE0812-08	Water	05/23/17 12:40	05/24/17 13:05

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Attention: Mr. Joju Abraham

June 02, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.

PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Project: CCR Event
Client ID: HGWA-4
Lab Number ID: AAE0812-01
Date/Time Sampled: 5/23/2017 9:40:00AM
Date/Time Received: 5/24/2017 1:05:00PM
Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	183	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 14:59	7050892	SLH
Fluoride	0.01	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 14:59	7050892	SLH
Sulfate	1.5	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 14:59	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Barium	0.0227	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Boron	0.0159	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Calcium	43.0	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:19	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	05/30/17 11:45	05/30/17 15:26	7050855	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Client ID: HGWA-5
Date/Time Sampled: 5/23/2017 9:52:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0812-02
Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	134	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 16:42	7050892	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 16:42	7050892	SLH
Sulfate	21	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 16:42	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Barium	0.0496	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Boron	0.0095	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Calcium	24.2	5.00	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:25	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Lithium	0.0033	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:29	7050855	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Client ID: HGWA-6
Date/Time Sampled: 5/23/2017 10:55:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0812-03
Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	231	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 17:03	7050892	SLH
Fluoride	0.006	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 17:03	7050892	SLH
Sulfate	38	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 17:03	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Barium	0.187	0.0500	0.0013	mg/L	EPA 6020B		5	05/24/17 17:50	06/01/17 12:06	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Boron	0.0167	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Calcium	49.1	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:30	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Lead	0.0003	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Lithium	0.0110	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:36	7050855	MTC

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2480 Maner Road
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Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Project: CCR Event
Client ID: HGWC-7
Lab Number ID: AAE0812-04
Date/Time Sampled: 5/23/2017 11:00:00AM
Date/Time Received: 5/24/2017 1:05:00PM
Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	450	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	49	2.5	0.13	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:28	7050892	SLH
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 17:44	7050892	SLH
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:28	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Barium	0.0794	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Boron	0.910	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Calcium	93.3	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:56	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Lead	0.00008	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Molybdenum	0.0336	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Lithium	0.0026	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:38	7050855	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Client ID: HGWC-8
Date/Time Sampled: 5/23/2017 12:25:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0812-05
Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	765	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	130	2.5	0.13	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:48	7050892	SLH
Fluoride	0.65	0.30	0.004	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 18:05	7050892	SLH
Sulfate	270	10	0.92	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:48	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Barium	0.0846	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Boron	2.32	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Cadmium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Calcium	140	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 18:02	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Molybdenum	0.482	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Thallium	0.00008	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:41	7050855	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Client ID: HGWC-9
Date/Time Sampled: 5/23/2017 1:55:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0812-06
Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	939	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	150	5.0	0.26	mg/L	EPA 300.0		20	05/27/17 11:47	05/31/17 21:09	7050892	SLH
Fluoride	0.29	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 18:26	7050892	SLH
Sulfate	240	20	1.8	mg/L	EPA 300.0		20	05/27/17 11:47	05/31/17 21:09	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Barium	0.127	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Boron	2.29	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Calcium	181	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 18:08	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Molybdenum	0.0242	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Lithium	0.0048	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:43	7050855	MTC

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Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Client ID: Dup-1
Date/Time Sampled: 5/23/2017 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0812-07
Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	451	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	50	2.5	0.13	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 21:30	7050892	SLH
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 18:46	7050892	SLH
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 21:30	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Barium	0.0787	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Boron	0.966	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Calcium	98.5	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 18:13	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Molybdenum	0.0342	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Lithium	0.0027	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:45	7050855	MTC

PACE ANALYTICAL SERVICES, LLC.

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110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812
Client ID: FB-1
Date/Time Sampled: 5/23/2017 12:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0812-08
Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	18	25	10	mg/L	SM 2540 C	J	1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 19:07	7050892	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 19:07	7050892	SLH
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 19:07	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Boron	0.0158	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Calcium	0.0219	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:48	7050855	MTC

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Report No.: AAE0812

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050870 - SM 2540 C											
Blank (7050870-BLK1)						Prepared & Analyzed: 05/26/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050870-BS1)						Prepared & Analyzed: 05/26/17					
Total Dissolved Solids	399	25	10	mg/L	400.00		100	84-108			
Duplicate (7050870-DUP1)		**Source: AAE0812-02**				Prepared & Analyzed: 05/26/17					
Total Dissolved Solids	168	25	10	mg/L		134			23	10	QR-03
Duplicate (7050870-DUP2)		**Source: AAE0826-03**				Prepared & Analyzed: 05/26/17					
Total Dissolved Solids	75	25	10	mg/L		27			94	10	QR-03

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Report No.: AAE0812

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050892 - EPA 300.0											
Blank (7050892-BLK1)						Prepared: 05/27/17 Analyzed: 05/30/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7050892-BS1)						Prepared: 05/27/17 Analyzed: 05/30/17					
Chloride	10.8	0.25	0.01	mg/L	10.020		108	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020		106	90-110			
Sulfate	11.0	1.0	0.09	mg/L	10.050		109	90-110			
Matrix Spike (7050892-MS1)		**Source: AAE0811-06**				Prepared: 05/27/17 Analyzed: 05/30/17					
Chloride	15.8	0.25	0.01	mg/L	10.020	5.70	101	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.15	102	90-110			
Sulfate	224	1.0	0.09	mg/L	10.050	235	NR	90-110			QM-02
Matrix Spike (7050892-MS2)		**Source: AAE0812-03**				Prepared: 05/27/17 Analyzed: 05/30/17					
Chloride	11.6	0.25	0.01	mg/L	10.020	1.21	104	90-110			
Fluoride	10.1	0.30	0.004	mg/L	10.020	0.006	101	90-110			
Sulfate	44.2	1.0	0.09	mg/L	10.050	37.5	66	90-110			QM-02
Matrix Spike Dup (7050892-MSD1)		**Source: AAE0811-06**				Prepared: 05/27/17 Analyzed: 05/30/17					
Chloride	15.8	0.25	0.01	mg/L	10.020	5.70	101	90-110	0.2	15	
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.15	102	90-110	0.1	15	
Sulfate	224	1.0	0.09	mg/L	10.050	235	NR	90-110	0.07	15	QM-02

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050802 - EPA 3005A											
Blank (7050802-BLK1)						Prepared: 05/24/17 Analyzed: 05/26/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	0.0019	0.0100	0.0013	mg/L							J
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050802-BS1)						Prepared: 05/24/17 Analyzed: 05/26/17					
Antimony	0.108	0.0030	0.0003	mg/L	0.10000		108	80-120			
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Barium	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Beryllium	0.112	0.0030	0.00007	mg/L	0.10000		112	80-120			
Boron	1.09	0.0400	0.0060	mg/L	1.0000		109	80-120			
Cadmium	0.113	0.0010	0.00006	mg/L	0.10000		113	80-120			
Calcium	1.07	0.500	0.0104	mg/L	1.0000		107	80-120			
Chromium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Copper	0.106	0.0250	0.0003	mg/L	0.10000		106	80-120			
Lead	0.104	0.0050	0.00007	mg/L	0.10000		104	80-120			
Molybdenum	0.111	0.0100	0.0006	mg/L	0.10000		111	80-120			
Nickel	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Selenium	0.103	0.0100	0.0014	mg/L	0.10000		103	80-120			
Silver	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Thallium	0.105	0.0010	0.00005	mg/L	0.10000		105	80-120			
Vanadium	0.109	0.0100	0.0014	mg/L	0.10000		109	80-120			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000		105	80-120			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000		113	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050802 - EPA 3005A											
Matrix Spike (7050802-MS1)		**Source: AAE0770-01**			Prepared: 05/24/17 Analyzed: 05/26/17						
Antimony	0.118	0.0030	0.0003	mg/L	0.10000	0.0097	109	75-125			
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000	ND	104	75-125			
Barium	0.139	0.0100	0.0003	mg/L	0.10000	0.0376	101	75-125			
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000	ND	108	75-125			
Boron	1.07	0.0400	0.0060	mg/L	1.0000	0.0084	106	75-125			
Cadmium	0.109	0.0010	0.00006	mg/L	0.10000	ND	109	75-125			
Calcium	58.2	25.0	0.522	mg/L	1.0000	58.7	NR	75-125			QM-02
Chromium	0.105	0.0100	0.0003	mg/L	0.10000	0.0007	104	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0010	103	75-125			
Copper	0.103	0.0250	0.0003	mg/L	0.10000	0.0018	101	75-125			
Lead	0.101	0.0050	0.00007	mg/L	0.10000	0.00008	101	75-125			
Molybdenum	0.113	0.0100	0.0006	mg/L	0.10000	0.0027	111	75-125			
Nickel	0.117	0.0100	0.0003	mg/L	0.10000	0.0133	104	75-125			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000	ND	105	75-125			
Silver	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	0.0003	103	75-125			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Zinc	0.144	0.0100	0.0013	mg/L	0.10000	0.0420	102	75-125			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000	0.0026	110	75-125			
Matrix Spike Dup (7050802-MSD1)		**Source: AAE0770-01**			Prepared: 05/24/17 Analyzed: 05/26/17						
Antimony	0.119	0.0030	0.0003	mg/L	0.10000	0.0097	109	75-125	0.6	20	
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	ND	107	75-125	2	20	
Barium	0.140	0.0100	0.0003	mg/L	0.10000	0.0376	102	75-125	0.5	20	
Beryllium	0.105	0.0030	0.00007	mg/L	0.10000	ND	105	75-125	3	20	
Boron	1.08	0.0400	0.0060	mg/L	1.0000	0.0084	107	75-125	1	20	
Cadmium	0.108	0.0010	0.00006	mg/L	0.10000	ND	108	75-125	0.6	20	
Calcium	58.6	25.0	0.522	mg/L	1.0000	58.7	NR	75-125	0.7	20	QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	0.0007	107	75-125	2	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	0.0010	103	75-125	0.3	20	
Copper	0.104	0.0250	0.0003	mg/L	0.10000	0.0018	102	75-125	1	20	
Lead	0.0991	0.0050	0.00007	mg/L	0.10000	0.00008	99	75-125	2	20	
Molybdenum	0.113	0.0100	0.0006	mg/L	0.10000	0.0027	111	75-125	0.05	20	
Nickel	0.118	0.0100	0.0003	mg/L	0.10000	0.0133	104	75-125	0.5	20	
Selenium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125	2	20	
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	1	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	0.0003	101	75-125	2	20	
Vanadium	0.112	0.0100	0.0014	mg/L	0.10000	ND	112	75-125	4	20	
Zinc	0.144	0.0100	0.0013	mg/L	0.10000	0.0420	102	75-125	0.5	20	
Lithium	0.109	0.0500	0.0011	mg/L	0.10000	0.0026	107	75-125	3	20	

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050802 - EPA 3005A											
Post Spike (7050802-PS1)			**Source: AAE0770-01**			Prepared: 05/24/17 Analyzed: 05/26/17					
Antimony	118			ug/L	100.00	9.73	108	80-120			
Arsenic	107			ug/L	100.00	0.214	107	80-120			
Barium	140			ug/L	100.00	37.6	102	80-120			
Beryllium	106			ug/L	100.00	0.0088	106	80-120			
Boron	1080			ug/L	1000.0	8.35	108	80-120			
Cadmium	109			ug/L	100.00	0.0285	109	80-120			
Calcium	59900			ug/L	1000.0	58700	118	80-120			
Chromium	106			ug/L	100.00	0.661	105	80-120			
Cobalt	105			ug/L	100.00	1.02	104	80-120			
Copper	102			ug/L	100.00	1.80	100	80-120			
Lead	101			ug/L	100.00	0.0818	101	80-120			
Molybdenum	114			ug/L	100.00	2.71	112	80-120			
Nickel	117			ug/L	100.00	13.3	104	80-120			
Selenium	107			ug/L	100.00	0.739	106	80-120			
Silver	104			ug/L	100.00	0.285	104	80-120			
Thallium	102			ug/L	100.00	0.298	101	80-120			
Vanadium	111			ug/L	100.00	0.909	110	80-120			
Zinc	146			ug/L	100.00	42.0	104	80-120			
Lithium	110			ug/L	100.00	2.63	107	80-120			
Batch 7050803 - EPA 3005A											
Blank (7050803-BLK1)						Prepared: 05/24/17 Analyzed: 05/26/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	0.0126	0.500	0.0104	mg/L							J
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	0.0003	0.0250	0.0003	mg/L							J
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050803 - EPA 3005A											
Blank (7050803-BLK1)					Prepared: 05/24/17 Analyzed: 05/26/17						
Zinc	0.0017	0.0100	0.0013	mg/L							J
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050803-BS1)					Prepared: 05/24/17 Analyzed: 05/26/17						
Antimony	0.108	0.0030	0.0003	mg/L	0.10000		108	80-120			
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Barium	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000		108	80-120			
Boron	1.08	0.0400	0.0060	mg/L	1.0000		108	80-120			
Cadmium	0.107	0.0010	0.00006	mg/L	0.10000		107	80-120			
Calcium	1.05	0.500	0.0104	mg/L	1.0000		105	80-120			
Chromium	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Cobalt	0.0992	0.0100	0.0005	mg/L	0.10000		99	80-120			
Copper	0.101	0.0250	0.0003	mg/L	0.10000		101	80-120			
Lead	0.0993	0.0050	0.00007	mg/L	0.10000		99	80-120			
Molybdenum	0.107	0.0100	0.0006	mg/L	0.10000		107	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Silver	0.107	0.0100	0.0003	mg/L	0.10000		107	80-120			
Thallium	0.100	0.0010	0.00005	mg/L	0.10000		100	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.104	0.0100	0.0013	mg/L	0.10000		104	80-120			
Lithium	0.110	0.0500	0.0011	mg/L	0.10000		110	80-120			
Matrix Spike (7050803-MS1)		**Source: AAE0826-01**			Prepared: 05/24/17 Analyzed: 05/26/17						
Antimony	0.110	0.0030	0.0003	mg/L	0.10000	ND	110	75-125			
Arsenic	0.109	0.0050	0.0004	mg/L	0.10000	0.0006	109	75-125			
Barium	0.125	0.0100	0.0003	mg/L	0.10000	0.0217	103	75-125			
Beryllium	0.109	0.0030	0.00007	mg/L	0.10000	ND	109	75-125			
Boron	1.07	0.0400	0.0060	mg/L	1.0000	0.0133	106	75-125			
Cadmium	0.111	0.0010	0.00006	mg/L	0.10000	ND	111	75-125			
Calcium	62.8	25.0	0.522	mg/L	1.0000	64.0	NR	75-125			
Chromium	0.108	0.0100	0.0003	mg/L	0.10000	0.0011	107	75-125			
Cobalt	0.107	0.0100	0.0005	mg/L	0.10000	ND	107	75-125			
Copper	0.105	0.0250	0.0003	mg/L	0.10000	0.0003	104	75-125			
Lead	0.102	0.0050	0.00007	mg/L	0.10000	0.0001	102	75-125			
Molybdenum	0.115	0.0100	0.0006	mg/L	0.10000	0.0020	113	75-125			
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0009	106	75-125			
Selenium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Silver	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050803 - EPA 3005A											
Matrix Spike (7050803-MS1)		**Source: AAE0826-01**				Prepared: 05/24/17 Analyzed: 05/26/17					
Thallium	0.104	0.0010	0.00005	mg/L	0.10000	0.0001	104	75-125			
Vanadium	0.112	0.0100	0.0014	mg/L	0.10000	ND	112	75-125			
Zinc	0.107	0.0100	0.0013	mg/L	0.10000	0.0029	104	75-125			
Lithium	0.105	0.0500	0.0011	mg/L	0.10000	ND	105	75-125			
Matrix Spike Dup (7050803-MSD1)		**Source: AAE0826-01**				Prepared: 05/24/17 Analyzed: 05/26/17					
Antimony	0.109	0.0030	0.0003	mg/L	0.10000	ND	109	75-125	0.6	20	
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000	0.0006	104	75-125	5	20	
Barium	0.124	0.0100	0.0003	mg/L	0.10000	0.0217	102	75-125	0.6	20	
Beryllium	0.106	0.0030	0.00007	mg/L	0.10000	ND	106	75-125	3	20	
Boron	1.07	0.0400	0.0060	mg/L	1.0000	0.0133	106	75-125	0.09	20	
Cadmium	0.105	0.0010	0.00006	mg/L	0.10000	ND	105	75-125	5	20	
Calcium	63.4	25.0	0.522	mg/L	1.0000	64.0	NR	75-125	0.9	20	QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	0.0011	106	75-125	0.5	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	ND	105	75-125	2	20	
Copper	0.102	0.0250	0.0003	mg/L	0.10000	0.0003	101	75-125	3	20	
Lead	0.100	0.0050	0.00007	mg/L	0.10000	0.0001	100	75-125	2	20	
Molybdenum	0.112	0.0100	0.0006	mg/L	0.10000	0.0020	110	75-125	2	20	
Nickel	0.105	0.0100	0.0003	mg/L	0.10000	0.0009	104	75-125	2	20	
Selenium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125	2	20	
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	0.4	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	0.0001	101	75-125	3	20	
Vanadium	0.111	0.0100	0.0014	mg/L	0.10000	ND	111	75-125	0.9	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	0.0029	101	75-125	3	20	
Lithium	0.107	0.0500	0.0011	mg/L	0.10000	ND	107	75-125	2	20	
Post Spike (7050803-PS1)		**Source: AAE0826-01**				Prepared: 05/24/17 Analyzed: 05/26/17					
Antimony	108			ug/L	100.00	0.289	108	80-120			
Arsenic	105			ug/L	100.00	0.554	105	80-120			
Barium	123			ug/L	100.00	21.7	101	80-120			
Beryllium	107			ug/L	100.00	0.0052	107	80-120			
Boron	1050			ug/L	1000.0	13.3	104	80-120			
Cadmium	106			ug/L	100.00	-0.105	106	80-120			
Calcium	62800			ug/L	1000.0	64000	NR	80-120			QM-02
Chromium	106			ug/L	100.00	1.13	105	80-120			
Cobalt	101			ug/L	100.00	0.155	101	80-120			
Copper	100			ug/L	100.00	0.276	100	80-120			
Lead	97.8			ug/L	100.00	0.140	98	80-120			
Molybdenum	111			ug/L	100.00	1.99	109	80-120			
Nickel	101			ug/L	100.00	0.915	100	80-120			

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050803 - EPA 3005A											
Post Spike (7050803-PS1)			**Source: AAE0826-01**			Prepared: 05/24/17 Analyzed: 05/26/17					
Selenium	103			ug/L	100.00	0.641	103	80-120			
Silver	103			ug/L	100.00	0.0043	103	80-120			
Thallium	100			ug/L	100.00	0.141	100	80-120			
Vanadium	108			ug/L	100.00	0.793	108	80-120			
Zinc	102			ug/L	100.00	2.92	99	80-120			
Lithium	105			ug/L	100.00	0.587	104	80-120			
Batch 7050855 - EPA 7470A											
Blank (7050855-BLK1)						Prepared & Analyzed: 05/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050855-BS1)						Prepared & Analyzed: 05/30/17					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7050855-MS1)			**Source: AAE0811-07**			Prepared & Analyzed: 05/30/17					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7050855-MSD1)			**Source: AAE0811-07**			Prepared & Analyzed: 05/30/17					
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	0.8	20	
Post Spike (7050855-PS1)			**Source: AAE0811-07**			Prepared & Analyzed: 05/30/17					
Mercury	1.67			ug/L	1.6667	-0.00219	100	80-120			

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Attention: Mr. Joju Abraham

June 02, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME: [illegible]
REPORT TO: [illegible]
CC: [illegible]
REQUESTED COMPLETION DATE: [illegible]
PO #: [illegible]
PROJECT NAME/STATE: [illegible]
PROJECT #: [illegible]

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE	COMP	GRAB	SAMPLE IDENTIFICATION	Number of Containers	[illegible]	[illegible]	[illegible]	Lab ID	Remarks
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	1	
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	2	
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	3	
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	4	
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	5	
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	6	[illegible]
[illegible]	—	W		[illegible]	[illegible]	4	1	1	2	7	
[illegible]	[illegible]	W		[illegible]	[illegible]	4	1	1	2	8	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: [illegible]

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: [illegible]
DATE/TIME: [illegible]
RELINQUISHED BY: [illegible]
DATE/TIME: [illegible] 2100
RECEIVED BY: [illegible]
DATE/TIME: [illegible] 1315

FOR LAB USE ONLY
LAB #: [illegible]

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 5/25/2017 9:47:13AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 05/24/17 13:05

Work Order: AAE0812
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 34

Minimum Temp(C): 1.3 **Maximum Temp(C):** 1.3 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAE0858
June 05, 2017
Project: CCR Event
Project #:Plant Hammond

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-10	AAE0858-01	Water	05/24/17 09:55	05/25/17 12:40
HGWC-11	AAE0858-02	Water	05/24/17 11:25	05/25/17 12:40
HGWC-12	AAE0858-03	Water	05/24/17 12:35	05/25/17 12:40
HGWC-13	AAE0858-04	Water	05/24/17 11:30	05/25/17 12:40
HGWC-14	AAE0858-05	Water	05/24/17 14:50	05/25/17 12:40
HGWC-15	AAE0858-06	Water	05/24/17 13:02	05/25/17 12:40
HGWC-16	AAE0858-07	Water	05/24/17 14:40	05/25/17 12:40
Dup-2	AAE0858-08	Water	05/24/17 00:00	05/25/17 12:40
FERB-1	AAE0858-09	Water	05/24/17 14:50	05/25/17 12:40
FB-2	AAE0858-10	Water	05/24/17 15:10	05/25/17 12:40
FERB-2	AAE0858-11	Water	05/24/17 15:15	05/25/17 12:40

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: HGWC-10
Date/Time Sampled: 5/24/2017 9:55:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-01
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	696	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	81	2.5	0.13	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:13	7050979	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	05/31/17 15:00	06/01/17 01:58	7050979	RLC
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:13	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Barium	0.0996	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Boron	0.814	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Calcium	171	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 22:43	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Molybdenum	0.0014	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:29	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: HGWC-11
Date/Time Sampled: 5/24/2017 11:25:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-02
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	566	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	69	2.5	0.13	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:34	7050979	RLC
Fluoride	0.35	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 02:19	7050979	RLC
Sulfate	230	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:34	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Barium	0.0437	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Boron	2.29	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Calcium	117	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:05	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Molybdenum	0.0373	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Selenium	0.0038	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Thallium	0.00008	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:32	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: HGWC-12
Date/Time Sampled: 5/24/2017 12:35:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-03
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	803	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	120	2.5	0.13	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:54	7050979	RLC
Fluoride	0.34	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 02:39	7050979	RLC
Sulfate	210	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:54	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Arsenic	0.0022	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Barium	0.106	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Boron	2.95	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Cadmium	0.00009	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Calcium	158	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:17	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Cobalt	0.0015	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Molybdenum	0.0470	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Thallium	0.00009	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Lithium	0.0105	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:34	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Project: CCR Event
Client ID: HGWC-13
Lab Number ID: AAE0858-04
Date/Time Sampled: 5/24/2017 11:30:00AM
Date/Time Received: 5/25/2017 12:40:00PM
Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	377	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	50	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 04:23	7050979	RLC
Fluoride	0.54	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 04:23	7050979	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 21:15	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Arsenic	0.393	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Barium	0.0627	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Boron	1.74	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Calcium	77.1	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:28	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Cobalt	0.0022	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Molybdenum	0.0400	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Thallium	0.0003	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Lithium	0.0317	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	05/30/17 14:15	05/30/17 17:37	7050856	MTC

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Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: HGWC-14
Date/Time Sampled: 5/24/2017 2:50:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-05
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3140	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	510	25	1.3	mg/L	EPA 300.0		100	05/31/17 15:00	06/01/17 21:36	7050979	RLC
Fluoride	0.32	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 04:44	7050979	RLC
Sulfate	1400	100	9.2	mg/L	EPA 300.0		100	05/31/17 15:00	06/01/17 21:36	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Arsenic	0.0048	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Barium	0.0228	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Beryllium	0.0005	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Boron	25.8	2.00	0.302	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:40	7050846	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Calcium	617	250	5.22	mg/L	EPA 6020B		500	05/25/17 17:00	05/31/17 14:48	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Cobalt	0.0279	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Lead	0.0016	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Selenium	0.0083	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Thallium	0.0003	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:39	7050856	MTC

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2480 Maner Road
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Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: HGWC-15
Date/Time Sampled: 5/24/2017 1:02:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-06
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1320	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	240	5.0	0.26	mg/L	EPA 300.0		20	05/31/17 15:00	06/01/17 21:56	7050979	RLC
Fluoride	0.31	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:06	7050979	RLC
Sulfate	500	20	1.8	mg/L	EPA 300.0		20	05/31/17 15:00	06/01/17 21:56	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Barium	0.0283	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Boron	2.26	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Cadmium	0.0041	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Calcium	265	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:51	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Cobalt	0.0446	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:46	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: HGWC-16
Date/Time Sampled: 5/24/2017 2:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-07
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	598	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	44	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:27	7050979	RLC
Fluoride	0.46	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:27	7050979	RLC
Sulfate	230	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 22:17	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Barium	0.106	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Boron	1.67	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Calcium	153	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/31/17 00:14	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:48	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: Dup-2
Date/Time Sampled: 5/24/2017 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-08
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	366	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	50	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:48	7050979	RLC
Fluoride	0.51	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:48	7050979	RLC
Sulfate	120	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 22:38	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Arsenic	0.350	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Barium	0.0647	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Boron	1.87	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Calcium	80.7	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/31/17 00:25	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Molybdenum	0.0417	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Thallium	0.0004	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Lithium	0.0335	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:51	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: FERB-1
Date/Time Sampled: 5/24/2017 2:50:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-09
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:09	7050979	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:09	7050979	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:09	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Boron	0.0091	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Calcium	0.0639	0.500	0.0104	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:53	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: FB-2
Date/Time Sampled: 5/24/2017 3:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-10
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	0.14	0.25	0.01	mg/L	EPA 300.0	J	1	05/31/17 15:00	06/01/17 06:31	7050979	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:31	7050979	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:31	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Boron	0.0063	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Calcium	ND	0.500	0.0104	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:56	7050856	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858
Client ID: FERB-2
Date/Time Sampled: 5/24/2017 3:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0858-11
Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:52	7050979	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:52	7050979	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:52	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Barium	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Calcium	0.0153	0.500	0.0104	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:58	7050856	MTC

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June 05, 2017

Report No.: AAE0858

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050912 - SM 2540 C											
Blank (7050912-BLK1)						Prepared & Analyzed: 05/30/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050912-BS1)						Prepared & Analyzed: 05/30/17					
Total Dissolved Solids	384	25	10	mg/L	400.00		96	84-108			
Duplicate (7050912-DUP1)		**Source: AAE0857-04**				Prepared & Analyzed: 05/30/17					
Total Dissolved Solids	185	25	10	mg/L		184			0.5	10	
Duplicate (7050912-DUP2)		**Source: AAE0858-10**				Prepared & Analyzed: 05/30/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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Report No.: AAE0858

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050979 - EPA 300.0											
Blank (7050979-BLK1)						Prepared & Analyzed: 05/31/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7050979-BS1)						Prepared & Analyzed: 05/31/17					
Chloride	10.2	0.25	0.01	mg/L	10.020		101	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020		101	90-110			
Sulfate	10.3	1.0	0.09	mg/L	10.050		103	90-110			
Matrix Spike (7050979-MS1)		**Source: AAE0857-03**				Prepared: 05/31/17 Analyzed: 06/01/17					
Chloride	12.9	0.25	0.01	mg/L	10.020	2.91	100	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020	0.009	102	90-110			
Sulfate	115	1.0	0.09	mg/L	10.050	118	NR	90-110			QM-02
Matrix Spike (7050979-MS2)		**Source: AAE0894-01**				Prepared: 05/31/17 Analyzed: 06/01/17					
Chloride	99.6	0.25	0.01	mg/L	10.020	99.9	NR	90-110			QM-02
Fluoride	11.2	0.30	0.004	mg/L	10.020	0.42	107	90-110			
Sulfate	275	1.0	0.09	mg/L	10.050	290	NR	90-110			QM-02
Matrix Spike Dup (7050979-MSD1)		**Source: AAE0857-03**				Prepared: 05/31/17 Analyzed: 06/01/17					
Chloride	13.0	0.25	0.01	mg/L	10.020	2.91	100	90-110	0.2	15	
Fluoride	10.3	0.30	0.004	mg/L	10.020	0.009	102	90-110	0.2	15	
Sulfate	115	1.0	0.09	mg/L	10.050	118	NR	90-110	0.02	15	QM-02

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Report No.: AAE0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050846 - EPA 3005A											
Blank (7050846-BLK1)						Prepared: 05/25/17 Analyzed: 05/30/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050846-BS1)						Prepared: 05/25/17 Analyzed: 05/30/17					
Antimony	0.105	0.0030	0.0003	mg/L	0.10000		105	80-120			
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000		101	80-120			
Barium	0.0985	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.106	0.0030	0.00007	mg/L	0.10000		106	80-120			
Boron	1.06	0.0400	0.0060	mg/L	1.0000		106	80-120			
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000		104	80-120			
Calcium	0.960	0.500	0.0104	mg/L	1.0000		96	80-120			
Chromium	0.0979	0.0100	0.0003	mg/L	0.10000		98	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0250	0.0003	mg/L	0.10000		101	80-120			
Lead	0.0957	0.0050	0.00007	mg/L	0.10000		96	80-120			
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000		105	80-120			
Nickel	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Selenium	0.100	0.0100	0.0014	mg/L	0.10000		100	80-120			
Silver	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Thallium	0.0984	0.0010	0.00005	mg/L	0.10000		98	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.102	0.0100	0.0013	mg/L	0.10000		102	80-120			
Lithium	0.103	0.0500	0.0011	mg/L	0.10000		103	80-120			

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June 05, 2017

Report No.: AAE0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050846 - EPA 3005A											
Matrix Spike (7050846-MS1)		**Source: AAE0857-01**			Prepared: 05/25/17 Analyzed: 05/30/17						
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	ND	106	75-125			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000	ND	102	75-125			
Barium	0.122	0.0100	0.0003	mg/L	0.10000	0.0256	97	75-125			
Beryllium	0.0993	0.0030	0.00007	mg/L	0.10000	ND	99	75-125			
Boron	1.03	0.0400	0.0060	mg/L	1.0000	0.0094	102	75-125			
Cadmium	0.107	0.0010	0.00006	mg/L	0.10000	ND	107	75-125			
Calcium	35.9	25.0	0.522	mg/L	1.0000	34.8	115	75-125			
Chromium	0.101	0.0100	0.0003	mg/L	0.10000	0.0004	101	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.101	0.0250	0.0003	mg/L	0.10000	0.0005	100	75-125			
Lead	0.0959	0.0050	0.00007	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.104	0.0100	0.0006	mg/L	0.10000	ND	104	75-125			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000	0.0007	102	75-125			
Selenium	0.102	0.0100	0.0014	mg/L	0.10000	ND	102	75-125			
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125			
Thallium	0.0989	0.0010	0.00005	mg/L	0.10000	ND	99	75-125			
Vanadium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	0.0046	101	75-125			
Lithium	0.0972	0.0500	0.0011	mg/L	0.10000	0.0017	95	75-125			
Matrix Spike Dup (7050846-MSD1)		**Source: AAE0857-01**			Prepared: 05/25/17 Analyzed: 05/30/17						
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	ND	108	75-125	1	20	
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000	ND	103	75-125	2	20	
Barium	0.125	0.0100	0.0003	mg/L	0.10000	0.0256	99	75-125	2	20	
Beryllium	0.100	0.0030	0.00007	mg/L	0.10000	ND	100	75-125	0.9	20	
Boron	1.02	0.0400	0.0060	mg/L	1.0000	0.0094	101	75-125	1	20	
Cadmium	0.109	0.0010	0.00006	mg/L	0.10000	ND	109	75-125	1	20	
Calcium	36.1	25.0	0.522	mg/L	1.0000	34.8	138	75-125	0.6	20	QM-02
Chromium	0.0997	0.0100	0.0003	mg/L	0.10000	0.0004	99	75-125	1	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	1	20	
Copper	0.101	0.0250	0.0003	mg/L	0.10000	0.0005	100	75-125	0.01	20	
Lead	0.0993	0.0050	0.00007	mg/L	0.10000	ND	99	75-125	4	20	
Molybdenum	0.106	0.0100	0.0006	mg/L	0.10000	ND	106	75-125	2	20	
Nickel	0.103	0.0100	0.0003	mg/L	0.10000	0.0007	102	75-125	0.05	20	
Selenium	0.100	0.0100	0.0014	mg/L	0.10000	ND	100	75-125	2	20	
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	0.06	20	
Thallium	0.100	0.0010	0.00005	mg/L	0.10000	ND	100	75-125	1	20	
Vanadium	0.105	0.0100	0.0014	mg/L	0.10000	ND	105	75-125	1	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	0.0046	100	75-125	1	20	
Lithium	0.0983	0.0500	0.0011	mg/L	0.10000	0.0017	97	75-125	1	20	

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June 05, 2017

Report No.: AAE0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050846 - EPA 3005A											
Post Spike (7050846-PS1)			**Source: AAE0857-01**			Prepared: 05/25/17 Analyzed: 05/30/17					
Antimony	106			ug/L	100.00	0.0902	106	80-120			
Arsenic	104			ug/L	100.00	-0.639	104	80-120			
Barium	125			ug/L	100.00	25.6	99	80-120			
Beryllium	103			ug/L	100.00	0.0021	103	80-120			
Boron	1010			ug/L	1000.0	9.35	100	80-120			
Cadmium	106			ug/L	100.00	0.0211	106	80-120			
Calcium	34200			ug/L	1000.0	34800	NR	80-120			QM-02
Chromium	101			ug/L	100.00	0.355	101	80-120			
Cobalt	101			ug/L	100.00	0.0042	101	80-120			
Copper	101			ug/L	100.00	0.503	100	80-120			
Lead	99.4			ug/L	100.00	0.0321	99	80-120			
Molybdenum	107			ug/L	100.00	0.0486	107	80-120			
Nickel	104			ug/L	100.00	0.670	103	80-120			
Selenium	102			ug/L	100.00	-0.0971	102	80-120			
Silver	103			ug/L	100.00	0.0014	103	80-120			
Thallium	100			ug/L	100.00	0.0034	100	80-120			
Vanadium	108			ug/L	100.00	-0.251	108	80-120			
Zinc	106			ug/L	100.00	4.58	101	80-120			
Lithium	101			ug/L	100.00	1.75	99	80-120			
Batch 7050856 - EPA 7470A											
Blank (7050856-BLK1)						Prepared & Analyzed: 05/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050856-BS1)						Prepared & Analyzed: 05/30/17					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

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Report No.: AAE0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050856 - EPA 7470A											
Matrix Spike (7050856-MS1)			**Source: AAE0858-01**			Prepared & Analyzed: 05/30/17					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (7050856-MSD1)			**Source: AAE0858-01**			Prepared & Analyzed: 05/30/17					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	0.6	20	
Post Spike (7050856-PS1)			**Source: AAE0858-01**			Prepared & Analyzed: 05/30/17					
Mercury	1.64			ug/L	1.6667	0.00915	98	80-120			

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June 05, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: labucrim@southernco.com

PROJECT NAME/STATE: Plant Hammond - AP 1&2

PROJECT #: CCR

ANALYSIS REQUESTED:
- Metals Part 257 App. III & IV (EPA 6020/7470) — Container type P, Preservation 3
- Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C) — Container type P, Preservation 7
- Radium 226 & 228 (SW-846 9315/9320) — Container type P, Preservation 3

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals	Cl, F, SO4, TDS	Radium 226 & 228	LAB ID NUMBER
05/24/17	8:55	W		x	HGWC-10	4	1	1	2	1
05/24/17	11:25	W		x	HGWC-11	4	1	1	2	2
05/24/17	12:38	W		x	HGWC-12	4	1	1	2	3
05/24/17	11:38	W		x	HGWC-13	4	1	1	2	4
05/24/17	14:52	W		x	HGWC-14	4	1	1	2	5
05/24/17	13:02	W		x	HGWC-15	4	1	1	2	6
05/24/17	14:48	W		x	HGWC-16	4	1	1	2	7
05/24/17	--	W		x	DUP-2	4	1	1	2	8
05/24/17	14:50	W		x	FERB-1	4	1	1	2	9
05/24/17	15:10	W		x	FB-2	4	1	1	2	10
05/24/17	15:15	W		x	FERB-2	4	1	1	2	11

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SO - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION:

SAMPLED BY AND TITLE: Myles Rogers, Markeevious Thomas, Will Viliga
DATE/TIME: 5/24/2017 - 1500

RELINQUISHED BY: Will Viliga (ERM) 1800
DATE/TIME: 5/24/17

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: Christie Hale
DATE/TIME: 5/25/17 1040

FOR LAB USE ONLY
LAB #: AAE0558
Shipped Into LAB:
Tracking #:

20170524 AP 1&2 COC.xlsx

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 5/26/2017 4:35:07PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 05/25/17 12:40

Work Order: AAE0858
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 11 **#Containers:** 44

Minimum Temp(C): 2.9 **Maximum Temp(C):** 2.9 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 27, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP
Pace Project No.: 263576

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Lauren Petty, Southern Company Services, Inc.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP
Pace Project No.: 263576

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP
Pace Project No.: 263576

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263576001	**HGWA-3**	Water	04/03/18 10:00	04/04/18 16:10
263576002	**HGWA-3**	Water	04/03/18 10:00	04/04/18 16:10
263576003	**HGWC-7**	Water	04/03/18 11:30	04/04/18 16:10
263576004	**HGWC-7**	Water	04/03/18 11:30	04/04/18 16:10
263576005	**HGWC-8**	Water	04/03/18 12:35	04/04/18 16:10
263576006	**HGWC-8**	Water	04/03/18 12:35	04/04/18 16:10
263576007	**HGWC-9**	Water	04/03/18 14:35	04/04/18 16:10
263576008	**HGWC-9**	Water	04/03/18 14:35	04/04/18 16:10
263576009	**HGWC-15**	Water	04/03/18 16:10	04/04/18 16:10
263576010	**HGWC-15**	Water	04/03/18 16:10	04/04/18 16:10
263576011	**FD-01**	Water	04/03/18 00:00	04/04/18 16:10
263576012	**FD-01**	Water	04/03/18 00:00	04/04/18 16:10

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP
Pace Project No.: 263576

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263576001	**HGWA-3**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263576002	**HGWA-3**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263576003	**HGWC-7**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263576004	**HGWC-7**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263576005	**HGWC-8**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263576006	**HGWC-8**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263576007	**HGWC-9**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263576008	**HGWC-9**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263576009	**HGWC-15**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263576010	**HGWC-15**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263576011	**FD-01**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263576012	**FD-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWA-3 **Lab ID: 263576001** Collected: 04/03/18 10:00 Received: 04/04/18 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 15:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 15:13	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 15:13	7440-39-3	M1
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 15:13	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 15:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 15:13	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 15:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 15:13	7439-92-1	
Lithium	**0.0030J**	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 15:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 15:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 15:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 15:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 14:32	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/06/18 09:24	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-7 **Lab ID: 263576003** Collected: 04/03/18 11:30 Received: 04/04/18 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 15:36	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 15:36	7440-38-2	
Barium	**0.075**	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 15:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 15:36	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 15:36	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 15:36	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 15:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 15:36	7439-92-1	
Lithium	**0.0023J**	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 15:36	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 15:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 15:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 15:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 14:41	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 02:26	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-8 **Lab ID: 263576005** Collected: 04/03/18 12:35 Received: 04/04/18 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 15:42	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 15:42	7440-38-2	
Barium	**0.065**	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 15:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 15:42	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 15:42	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 15:42	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 15:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 15:42	7439-92-1	
Lithium	**0.0025J**	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 15:42	7439-93-2	
Molybdenum	**0.44**	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 15:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 15:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 15:42	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 14:43	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.39**	mg/L	0.30	0.029	1		04/11/18 03:27	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-9 **Lab ID: 263576007** Collected: 04/03/18 14:35 Received: 04/04/18 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 15:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 15:48	7440-38-2	
Barium	**0.10**	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 15:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 15:48	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 15:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 15:48	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 15:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 15:48	7439-92-1	
Lithium	**0.0043J**	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 15:48	7439-93-2	
Molybdenum	**0.025**	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 15:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 15:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 15:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 14:46	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 03:48	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-15 **Lab ID: 263576009** Collected: 04/03/18 16:10 Received: 04/04/18 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 15:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 15:53	7440-38-2	
Barium	**0.019**	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 15:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 15:53	7440-41-7	
Cadmium	**0.0022**	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 15:53	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 15:53	7440-47-3	
Cobalt	**0.032**	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 15:53	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 15:53	7439-92-1	
Lithium	**0.0026J**	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 15:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 15:53	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 15:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 15:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 14:48	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 04:09	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: FD-01 **Lab ID: 263576011** Collected: 04/03/18 00:00 Received: 04/04/18 16:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 16:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 16:11	7440-38-2	
Barium	**0.021**	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 16:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 16:11	7440-41-7	
Cadmium	**0.0024**	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 16:11	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 16:11	7440-47-3	
Cobalt	**0.037**	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 16:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 16:11	7439-92-1	
Lithium	**0.0026J**	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 16:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 16:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 16:11	7782-49-2	
Thallium	**0.00016J**	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 16:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 14:55	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 04:29	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263576

QC Batch: 3949 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 263576001, 263576003, 263576005, 263576007, 263576009, 263576011

METHOD BLANK: 19999 Matrix: Water
Associated Lab Samples: 263576001, 263576003, 263576005, 263576007, 263576009, 263576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/09/18 14:27	

LABORATORY CONTROL SAMPLE: 20000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20001 20002

Parameter	Units	263576001 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	.0025	.0025	0.0024	0.0024	95	95	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263576

QC Batch: 3854 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 263576001, 263576003, 263576005, 263576007, 263576009, 263576011

METHOD BLANK: 19572 Matrix: Water
Associated Lab Samples: 263576001, 263576003, 263576005, 263576007, 263576009, 263576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/09/18 15:02	
Arsenic	mg/L	ND	0.0050	0.00057	04/09/18 15:02	
Barium	mg/L	ND	0.010	0.00078	04/09/18 15:02	
Beryllium	mg/L	ND	0.0030	0.000050	04/09/18 15:02	
Cadmium	mg/L	ND	0.0010	0.000093	04/09/18 15:02	
Chromium	mg/L	ND	0.010	0.0016	04/09/18 15:02	
Cobalt	mg/L	ND	0.010	0.00052	04/09/18 15:02	
Lead	mg/L	ND	0.0050	0.00027	04/09/18 15:02	
Lithium	mg/L	ND	0.050	0.00097	04/09/18 15:02	
Molybdenum	mg/L	ND	0.010	0.0019	04/09/18 15:02	
Selenium	mg/L	ND	0.010	0.0014	04/09/18 15:02	
Thallium	mg/L	ND	0.0010	0.00014	04/09/18 15:02	

LABORATORY CONTROL SAMPLE: 19573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	102	80-120	
Arsenic	mg/L	.1	0.097	97	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.11	105	80-120	
Cadmium	mg/L	.1	0.10	101	80-120	
Chromium	mg/L	.1	0.11	107	80-120	
Cobalt	mg/L	.1	0.10	103	80-120	
Lead	mg/L	.1	0.10	101	80-120	
Lithium	mg/L	.1	0.11	109	80-120	
Molybdenum	mg/L	.1	0.10	100	80-120	
Selenium	mg/L	.1	0.10	100	80-120	
Thallium	mg/L	.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19574 19575

Parameter	Units	263576001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	.1	.1	0.10	0.10	102	102	75-125	1	20	
Arsenic	mg/L	ND	.1	.1	0.10	0.099	103	99	75-125	4	20	
Barium	mg/L	0.11	.1	.1	0.15	0.15	38	35	75-125	2	20	M1
Beryllium	mg/L	ND	.1	.1	0.099	0.095	99	95	75-125	4	20	
Cadmium	mg/L	ND	.1	.1	0.10	0.10	102	101	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263576

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19574 19575

Parameter	Units	263576001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	.1	.1	0.11	0.10	108	101	75-125	6	20	
Cobalt	mg/L	ND	.1	.1	0.11	0.10	105	101	75-125	5	20	
Lead	mg/L	ND	.1	.1	0.098	0.097	98	96	75-125	2	20	
Lithium	mg/L	0.0030J	.1	.1	0.10	0.10	100	98	75-125	1	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	105	100	75-125	5	20	
Selenium	mg/L	ND	.1	.1	0.10	0.098	105	97	75-125	7	20	
Thallium	mg/L	ND	.1	.1	0.099	0.097	99	97	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263576

QC Batch: 3816 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263576001

METHOD BLANK: 19351 Matrix: Water
Associated Lab Samples: 263576001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/06/18 02:53	

LABORATORY CONTROL SAMPLE: 19352

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	10.3	103	90-110	

MATRIX SPIKE SAMPLE: 19355

Parameter	Units	263366001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	89.6	10	8.1	-815	90-110	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20112 20113

Parameter	Units	263518001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	1.2	10	10	10.0	10.2	88	89	90-110	1	15	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263576

QC Batch: 4034 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263576003, 263576005, 263576007, 263576009, 263576011

METHOD BLANK: 20201 Matrix: Water
Associated Lab Samples: 263576003, 263576005, 263576007, 263576009, 263576011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/11/18 01:03	

LABORATORY CONTROL SAMPLE: 20202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20203 20204

Parameter	Units	263576003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.9	10	99	99	90-110	0	15	

MATRIX SPIKE SAMPLE: 20205

Parameter	Units	263576005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.39	10	10.8	104	90-110	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWA-3 **Lab ID: 263576002** Collected: 04/03/18 10:00 Received: 04/04/18 16:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.305 ± 0.110 (0.125) C:87% T:NA**	pCi/L	04/18/18 19:06	13982-63-3	
Radium-228	EPA 9320	**0.379 ± 0.313 (0.615) C:80% T:78%**	pCi/L	04/20/18 11:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.684 ± 0.423 (0.740)**	pCi/L	04/25/18 11:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-7 **Lab ID: 263576004** Collected: 04/03/18 11:30 Received: 04/04/18 16:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.293 ± 0.105 (0.110) C:90% T:NA**	pCi/L	04/18/18 19:06	13982-63-3	
Radium-228	EPA 9320	**0.245 ± 0.305 (0.643) C:78% T:80%**	pCi/L	04/20/18 11:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.538 ± 0.410 (0.753)**	pCi/L	04/25/18 11:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-8 **Lab ID: 263576006** Collected: 04/03/18 12:35 Received: 04/04/18 16:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.311 ± 0.114 (0.140) C:86% T:NA**	pCi/L	04/18/18 19:07	13982-63-3	
Radium-228	EPA 9320	**-0.0646 ± 0.370 (0.872) C:73% T:82%**	pCi/L	04/20/18 11:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.311 ± 0.484 (1.01)**	pCi/L	04/25/18 11:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-9 **Lab ID: 263576008** Collected: 04/03/18 14:35 Received: 04/04/18 16:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.276 ± 0.125 (0.199) C:92% T:NA**	pCi/L	04/18/18 19:07	13982-63-3	
Radium-228	EPA 9320	**0.456 ± 0.372 (0.741) C:75% T:85%**	pCi/L	04/20/18 11:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.732 ± 0.497 (0.940)**	pCi/L	04/25/18 11:39	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: HGWC-15 **Lab ID: 263576010** Collected: 04/03/18 16:10 Received: 04/04/18 16:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.208 ± 0.105 (0.169) C:94% T:NA**	pCi/L	04/18/18 19:07	13982-63-3	
Radium-228	EPA 9320	**0.176 ± 0.309 (0.676) C:78% T:84%**	pCi/L	04/20/18 15:14	15262-20-1	
Total Radium	Total Radium Calculation	**0.384 ± 0.414 (0.845)**	pCi/L	04/25/18 11:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

Sample: FD-01 **Lab ID: 263576012** Collected: 04/03/18 00:00 Received: 04/04/18 16:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.275 ± 0.129 (0.144) C:91% T:NA**	pCi/L	04/19/18 08:39	13982-63-3	
Radium-228	EPA 9320	**0.102 ± 0.304 (0.686) C:78% T:78%**	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	**0.377 ± 0.433 (0.830)**	pCi/L	04/25/18 11:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

QC Batch: 294196 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 263576002, 263576004, 263576006, 263576008, 263576010, 263576012

METHOD BLANK: 1440643 Matrix: Water
Associated Lab Samples: 263576002, 263576004, 263576006, 263576008, 263576010, 263576012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0447 ± 0.264 (0.636) C:75% T:85%	pCi/L	04/20/18 11:37	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263576

QC Batch: 294194 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 263576002, 263576004, 263576006, 263576008, 263576010, 263576012

METHOD BLANK: 1440635 Matrix: Water
Associated Lab Samples: 263576002, 263576004, 263576006, 263576008, 263576010, 263576012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.260 ± 0.105 (0.126) C:91% T:NA	pCi/L	04/18/18 19:04	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Hammond AP
Pace Project No.: 263576

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.

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP
Pace Project No.: 263576

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263576001	**HGWA-3**	EPA 3005A	3854	EPA 6020B	3993
263576003	**HGWC-7**	EPA 3005A	3854	EPA 6020B	3993
263576005	**HGWC-8**	EPA 3005A	3854	EPA 6020B	3993
263576007	**HGWC-9**	EPA 3005A	3854	EPA 6020B	3993
263576009	**HGWC-15**	EPA 3005A	3854	EPA 6020B	3993
263576011	**FD-01**	EPA 3005A	3854	EPA 6020B	3993
263576001	**HGWA-3**	EPA 7470A	3949	EPA 7470A	3989
263576003	**HGWC-7**	EPA 7470A	3949	EPA 7470A	3989
263576005	**HGWC-8**	EPA 7470A	3949	EPA 7470A	3989
263576007	**HGWC-9**	EPA 7470A	3949	EPA 7470A	3989
263576009	**HGWC-15**	EPA 7470A	3949	EPA 7470A	3989
263576011	**FD-01**	EPA 7470A	3949	EPA 7470A	3989
263576002	**HGWA-3**	EPA 9315	294194		
263576004	**HGWC-7**	EPA 9315	294194		
263576006	**HGWC-8**	EPA 9315	294194		
263576008	**HGWC-9**	EPA 9315	294194		
263576010	**HGWC-15**	EPA 9315	294194		
263576012	**FD-01**	EPA 9315	294194		
263576002	**HGWA-3**	EPA 9320	294196		
263576004	**HGWC-7**	EPA 9320	294196		
263576006	**HGWC-8**	EPA 9320	294196		
263576008	**HGWC-9**	EPA 9320	294196		
263576010	**HGWC-15**	EPA 9320	294196		
263576012	**FD-01**	EPA 9320	294196		
263576002	**HGWA-3**	Total Radium Calculation	295909		
263576004	**HGWC-7**	Total Radium Calculation	295909		
263576006	**HGWC-8**	Total Radium Calculation	295909		
263576008	**HGWC-9**	Total Radium Calculation	295909		
263576010	**HGWC-15**	Total Radium Calculation	295909		
263576012	**FD-01**	Total Radium Calculation	295909		
263576001	**HGWA-3**	EPA 300.0	3816		
263576003	**HGWC-7**	EPA 300.0	4034		
263576005	**HGWC-8**	EPA 300.0	4034		
263576007	**HGWC-9**	EPA 300.0	4034		
263576009	**HGWC-15**	EPA 300.0	4034		
263576011	**FD-01**	EPA 300.0	4034		

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

Report To: Geosyntec Consultants
TAT: 5 day

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED START DATE	START TIME	END DATE	END TIME	# OF CONTAINERS							Residual Chlorine (Y/N)
1	HGWA-3	WT	G	[illegible]	0910	[illegible]	1020	4	1	3	Y	Y	Y		N
2	HGWC-7	WT	G	[illegible]	1115	[illegible]	1120	4	1	3	Y	Y	Y		N
3	HGWC-8	WT	G	[illegible]	1210	[illegible]	1235	4	1	3	Y	Y	Y		N
4	HGWC-9	WT	G	[illegible]	1417	[illegible]	1435	4	1	3	Y	Y	Y		N
5	HGWC-15	WT	G	[illegible]	1400	[illegible]	1410	4	1	3	Y	Y	Y		N
6	FD-01	WT	G	[illegible]	—	[illegible]	—	4	1	3	Y	Y	Y		N

ADDITIONAL COMMENTS: * 5 day TAT Req. App IV metals and chloride

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
[illegible signature]	[illegible]	1200	[illegible signature]	[illegible]	1700	
[illegible signature]	[illegible]	1650	[illegible signature]	[illegible]	[illegible]	
[illegible signature]	[illegible]	1130	[illegible signature]	[illegible]	1131	
			[illegible signature]	[illegible]	1610	0.3 Y Y Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Nicholas Mantis
SIGNATURE of SAMPLER: [signature]
DATE Signed: 04/03/18

WO# : 263576

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 263576

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals Intact: ☐ Yes ☐ No

PM: BH Due Date: 04/11/16

CLIENT: GAPower-CCR

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: B3 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.7 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 04/05/16

Comments:

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

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 30, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP
Pace Project No.: 263653

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Lauren Petty, Southern Company Services, Inc.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP
Pace Project No.: 263653

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP
Pace Project No.: 263653

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263653001	**HGWC-14**	Water	04/04/18 09:48	04/05/18 14:30
263653002	**HGWC-14**	Water	04/04/18 09:48	04/05/18 14:30
263653003	**HGWC-13**	Water	04/04/18 11:15	04/05/18 14:30
263653004	**HGWC-13**	Water	04/04/18 11:15	04/05/18 14:30
263653005	**FD-02**	Water	04/04/18 00:00	04/05/18 14:30
263653006	**FD-02**	Water	04/04/18 00:00	04/05/18 14:30

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP
Pace Project No.: 263653

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263653001	**HGWC-14**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263653002	**HGWC-14**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263653003	**HGWC-13**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263653004	**HGWC-13**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263653005	**FD-02**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263653006	**FD-02**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263653

Sample: HGWC-14 **Lab ID: 263653001** Collected: 04/04/18 09:48 Received: 04/05/18 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 19:11	7440-36-0	
Arsenic	**0.0052**	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 19:11	7440-38-2	
Barium	**0.021**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 19:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 19:11	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 19:11	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 19:11	7440-47-3	
Cobalt	**0.025**	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 19:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 19:11	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 19:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 19:11	7439-98-7	
Selenium	**0.012**	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 19:11	7782-49-2	
Thallium	**0.00028J**	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 19:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:49	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/12/18 06:39	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263653

Sample: HGWC-13 **Lab ID: 263653003** Collected: 04/04/18 11:15 Received: 04/05/18 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 19:16	7440-36-0	
Arsenic	**0.49**	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 19:16	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 19:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 19:16	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 19:16	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 19:16	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 19:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 19:16	7439-92-1	
Lithium	**0.031J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 19:16	7439-93-2	
Molybdenum	**0.027**	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 19:16	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 19:16	7782-49-2	
Thallium	**0.00032J**	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 19:16	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:51	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.65**	mg/L	0.30	0.029	1		04/12/18 07:46	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 263653

Sample: FD-02 **Lab ID: 263653005** Collected: 04/04/18 00:00 Received: 04/05/18 14:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 19:22	7440-36-0	
Arsenic	**0.46**	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 19:22	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 19:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 19:22	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 19:22	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 19:22	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 19:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 19:22	7439-92-1	
Lithium	**0.033J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 19:22	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 19:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 19:22	7782-49-2	
Thallium	**0.00036J**	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 19:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:54	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.45**	mg/L	0.30	0.029	1		04/12/18 08:08	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263653

QC Batch: 4044 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 263653001, 263653003, 263653005

METHOD BLANK: 20252 Matrix: Water
Associated Lab Samples: 263653001, 263653003, 263653005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/10/18 14:59	

LABORATORY CONTROL SAMPLE: 20253

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20254 20255

Parameter	Units	263498001 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	.0025	.0025	0.0023	0.0025	89	95	75-125	6	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263653

QC Batch: 3855 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 263653001, 263653003, 263653005

METHOD BLANK: 19576 Matrix: Water
Associated Lab Samples: 263653001, 263653003, 263653005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/10/18 16:07	
Arsenic	mg/L	ND	0.0050	0.00057	04/10/18 16:07	
Barium	mg/L	ND	0.010	0.00078	04/10/18 16:07	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/18 16:07	
Cadmium	mg/L	ND	0.0010	0.000093	04/10/18 16:07	
Chromium	mg/L	ND	0.010	0.0016	04/10/18 16:07	
Cobalt	mg/L	ND	0.010	0.00052	04/10/18 16:07	
Lead	mg/L	ND	0.0050	0.00027	04/10/18 16:07	
Lithium	mg/L	ND	0.050	0.00097	04/10/18 16:07	
Molybdenum	mg/L	ND	0.010	0.0019	04/10/18 16:07	
Selenium	mg/L	ND	0.010	0.0014	04/10/18 16:07	
Thallium	mg/L	ND	0.0010	0.00014	04/10/18 16:07	

LABORATORY CONTROL SAMPLE: 19577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.099	99	80-120	
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.11	106	80-120	
Cadmium	mg/L	.1	0.098	98	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	102	80-120	
Lead	mg/L	.1	0.099	99	80-120	
Lithium	mg/L	.1	0.11	107	80-120	
Molybdenum	mg/L	.1	0.098	98	80-120	
Selenium	mg/L	.1	0.096	96	80-120	
Thallium	mg/L	.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19578 19579

Parameter	Units	263585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	4	20	
Arsenic	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	5	20	
Barium	mg/L	0.022	.1	.1	0.12	0.13	98	103	75-125	4	20	
Beryllium	mg/L	ND	.1	.1	0.10	0.11	103	112	75-125	8	20	
Cadmium	mg/L	ND	.1	.1	0.098	0.11	98	107	75-125	8	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263653

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19578 19579

Parameter	Units	263585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	.1	.1	0.10	0.11	104	110	75-125	6	20	
Cobalt	mg/L	ND	.1	.1	0.11	0.11	103	107	75-125	4	20	
Lead	mg/L	ND	.1	.1	0.10	0.11	101	105	75-125	4	20	
Lithium	mg/L	0.0045J	.1	.1	0.10	0.11	100	107	75-125	7	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.11	100	106	75-125	5	20	
Selenium	mg/L	ND	.1	.1	0.10	0.11	101	107	75-125	6	20	
Thallium	mg/L	ND	.1	.1	0.10	0.11	100	105	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 263653

QC Batch: 4189 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263653001, 263653003, 263653005

METHOD BLANK: 20899 Matrix: Water
Associated Lab Samples: 263653001, 263653003, 263653005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/12/18 05:12	

LABORATORY CONTROL SAMPLE: 20900

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20901 20902

Parameter	Units	263653001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.4	9.4	93	94	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263653

Sample: HGWC-14 **Lab ID: 263653002** Collected: 04/04/18 09:48 Received: 04/05/18 14:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.365 ± 0.196 (0.284) C:94% T:NA**	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	**1.35 ± 0.485 (0.648) C:77% T:72%**	pCi/L	04/25/18 14:33	15262-20-1	
Total Radium	Total Radium Calculation	**1.72 ± 0.681 (0.932)**	pCi/L	04/26/18 13:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263653

Sample: HGWC-13 **Lab ID: 263653004** Collected: 04/04/18 11:15 Received: 04/05/18 14:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.497 ± 0.229 (0.273) C:81% T:NA**	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	**0.385 ± 0.332 (0.660) C:79% T:74%**	pCi/L	04/25/18 14:33	15262-20-1	
Total Radium	Total Radium Calculation	**0.882 ± 0.561 (0.933)**	pCi/L	04/26/18 13:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263653

Sample: FD-02 **Lab ID: 263653006** Collected: 04/04/18 00:00 Received: 04/05/18 14:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.578 ± 0.246 (0.285) C:86% T:NA**	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	**0.145 ± 0.307 (0.679) C:77% T:83%**	pCi/L	04/25/18 14:33	15262-20-1	
Total Radium	Total Radium Calculation	**0.723 ± 0.553 (0.964)**	pCi/L	04/26/18 13:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 263653

QC Batch: 294195 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 263653002, 263653004, 263653006

METHOD BLANK: 1440640 Matrix: Water
Associated Lab Samples: 263653002, 263653004, 263653006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.202 ± 0.146 (0.231) C:87% T:NA	pCi/L	04/19/18 08:37	

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: Plant Hammond AP
Pace Project No.: 263653

QC Batch: 294198 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 263653002, 263653004, 263653006

METHOD BLANK: 1440645 Matrix: Water
Associated Lab Samples: 263653002, 263653004, 263653006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0414 ± 0.317 (0.731) C:80% T:78%	pCi/L	04/25/18 11:24	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALIFIERS

Project: Plant Hammond AP
Pace Project No.: 263653

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.

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-PA	Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP
Pace Project No.: 263653

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263653001	**HGWC-14**	EPA 3005A	3855	EPA 6020B	4097
263653003	**HGWC-13**	EPA 3005A	3855	EPA 6020B	4097
263653005	**FD-02**	EPA 3005A	3855	EPA 6020B	4097
263653001	**HGWC-14**	EPA 7470A	4044	EPA 7470A	4091
263653003	**HGWC-13**	EPA 7470A	4044	EPA 7470A	4091
263653005	**FD-02**	EPA 7470A	4044	EPA 7470A	4091
263653002	**HGWC-14**	EPA 9315	294195		
263653004	**HGWC-13**	EPA 9315	294195		
263653006	**FD-02**	EPA 9315	294195		
263653002	**HGWC-14**	EPA 9320	294198		
263653004	**HGWC-13**	EPA 9320	294198		
263653006	**FD-02**	EPA 9320	294198		
263653002	**HGWC-14**	Total Radium Calculation	296141		
263653004	**HGWC-13**	Total Radium Calculation	296141		
263653006	**FD-02**	Total Radium Calculation	296141		
263653001	**HGWC-14**	EPA 300.0	4189		
263653003	**HGWC-13**	EPA 300.0	4189		
263653005	**FD-02**	EPA 300.0	4189		

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

Page: 1 Of 1

ITEM #	SAMPLE ID			COLLECTED START		COLLECTED END				Preservatives				Y/N				Residual Chlorine (Y/N)
1	HGWC-14		6						4	1	3			Y	Y	Y		
2	HGWC-13		6						4	1	3			Y	Y	Y		
3	FD-02		6		—		—		4	1	3			Y	Y	Y		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Sabry Gas Rpt App III	[illegible]		13:00	[illegible]			
metals and fluoride	[illegible]			[illegible]			
				[illegible]			2.5 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible] DATE Signed: 4-4-2018

WO#: 263653

263653

Pace Analytical

Sample Condition Upon Receipt

Client Name: Ga Power

Project #

WO# : 263653

PM: BM Due Date: 04/12/18

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

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

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: 93

Type of Ice: (Wet) Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.3

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 4/4/18 [illegible]

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

June 29, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Lab ID	Sample ID	Matrix	Date Collected	Date Received
265795001	**FD-01**	Water	06/05/18 00:00	06/06/18 10:45
265795002	**HGWC-13**	Water	06/05/18 15:45	06/06/18 10:45
265795003	**HGWC-18**	Water	06/05/18 17:58	06/06/18 10:45

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
265795001	**FD-01**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
265795002	**HGWC-13**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
265795003	**HGWC-18**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Sample: FD-01 **Lab ID: 265795001** Collected: 06/05/18 00:00 Received: 06/06/18 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.41**	mg/L	0.0050	0.00057	1	06/13/18 09:18	06/18/18 19:05	7440-38-2	
Barium	**0.13**	mg/L	0.010	0.00078	1	06/13/18 09:18	06/18/18 19:05	7440-39-3	
Boron	**1.4**	mg/L	0.040	0.0039	1	06/13/18 09:18	06/18/18 19:05	7440-42-8	
Calcium	**117**	mg/L	25.0	0.69	50	06/13/18 09:18	06/20/18 13:37	7440-70-2	
Cobalt	**0.0022J**	mg/L	0.010	0.00052	1	06/13/18 09:18	06/18/18 19:05	7440-48-4	
Lithium	**0.033J**	mg/L	0.050	0.00097	1	06/13/18 09:18	06/18/18 19:05	7439-93-2	
Molybdenum	**0.027**	mg/L	0.010	0.0019	1	06/13/18 09:18	06/18/18 19:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	06/13/18 09:18	06/18/18 19:05	7782-49-2	
Thallium	**0.00035J**	mg/L	0.0010	0.00014	1	06/13/18 09:18	06/18/18 19:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**540**	mg/L	25.0	10.0	1		06/08/18 16:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**75.6**	mg/L	1.2	0.12	5		06/22/18 00:12	16887-00-6	
Fluoride	**0.49**	mg/L	0.30	0.029	1		06/12/18 20:28	16984-48-8	
Sulfate	**188**	mg/L	5.0	0.085	5		06/22/18 00:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Sample: HGWC-13 **Lab ID: 265795002** Collected: 06/05/18 15:45 Received: 06/06/18 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.38**	mg/L	0.0050	0.00057	1	06/13/18 09:18	06/18/18 19:17	7440-38-2	
Barium	**0.13**	mg/L	0.010	0.00078	1	06/13/18 09:18	06/18/18 19:17	7440-39-3	
Boron	**1.3**	mg/L	0.040	0.0039	1	06/13/18 09:18	06/18/18 19:17	7440-42-8	
Calcium	**110**	mg/L	25.0	0.69	50	06/13/18 09:18	06/20/18 13:43	7440-70-2	
Cobalt	**0.0023J**	mg/L	0.010	0.00052	1	06/13/18 09:18	06/18/18 19:17	7440-48-4	
Lithium	**0.031J**	mg/L	0.050	0.00097	1	06/13/18 09:18	06/18/18 19:17	7439-93-2	
Molybdenum	**0.027**	mg/L	0.010	0.0019	1	06/13/18 09:18	06/18/18 19:17	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	06/13/18 09:18	06/18/18 19:17	7782-49-2	
Thallium	**0.00035J**	mg/L	0.0010	0.00014	1	06/13/18 09:18	06/18/18 19:17	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**528**	mg/L	25.0	10.0	1		06/08/18 16:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**72.3**	mg/L	1.2	0.12	5		06/22/18 01:55	16887-00-6	
Fluoride	**0.47**	mg/L	0.30	0.029	1		06/12/18 20:49	16984-48-8	
Sulfate	**187**	mg/L	5.0	0.085	5		06/22/18 01:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Sample: HGWC-18 **Lab ID: 265795003** Collected: 06/05/18 17:58 Received: 06/06/18 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.0080**	mg/L	0.0050	0.00057	1	06/13/18 09:18	06/18/18 19:28	7440-38-2	
Barium	**0.030**	mg/L	0.010	0.00078	1	06/13/18 09:18	06/18/18 19:28	7440-39-3	
Boron	**8.4**	mg/L	0.040	0.0039	1	06/13/18 09:18	06/18/18 19:28	7440-42-8	
Cadmium	**0.0022**	mg/L	0.0010	0.000093	1	06/13/18 09:18	06/18/18 19:28	7440-43-9	
Calcium	**425**	mg/L	250	6.9	500	06/13/18 09:18	06/20/18 13:49	7440-70-2	
Cobalt	**0.19**	mg/L	0.010	0.00052	1	06/13/18 09:18	06/18/18 19:28	7440-48-4	
Lithium	**0.013J**	mg/L	0.050	0.00097	1	06/13/18 09:18	06/18/18 19:28	7439-93-2	
Selenium	**0.038**	mg/L	0.010	0.0014	1	06/13/18 09:18	06/18/18 19:28	7782-49-2	
Thallium	**0.00016J**	mg/L	0.0010	0.00014	1	06/13/18 09:18	06/18/18 19:28	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1880**	mg/L	25.0	10.0	1		06/08/18 16:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**261**	mg/L	12.5	1.2	50		06/22/18 02:16	16887-00-6	
Fluoride	**0.66**	mg/L	0.30	0.029	1		06/12/18 21:10	16984-48-8	
Sulfate	**962**	mg/L	50.0	0.85	50		06/22/18 02:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

QC Batch: 7923 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 265795001, 265795002, 265795003

METHOD BLANK: 36780 Matrix: Water
Associated Lab Samples: 265795001, 265795002, 265795003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	06/18/18 16:50	
Barium	mg/L	ND	0.010	0.00078	06/18/18 16:50	
Boron	mg/L	ND	0.040	0.0039	06/18/18 16:50	
Cadmium	mg/L	ND	0.0010	0.000093	06/18/18 16:50	
Calcium	mg/L	ND	0.50	0.014	06/18/18 16:50	
Cobalt	mg/L	ND	0.010	0.00052	06/18/18 16:50	
Lithium	mg/L	ND	0.050	0.00097	06/18/18 16:50	
Molybdenum	mg/L	ND	0.010	0.0019	06/18/18 16:50	
Selenium	mg/L	ND	0.010	0.0014	06/18/18 16:50	
Thallium	mg/L	ND	0.0010	0.00014	06/18/18 16:50	

LABORATORY CONTROL SAMPLE: 36781

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	104	80-120	
Barium	mg/L	.1	0.10	100	80-120	
Boron	mg/L	1	1.1	110	80-120	
Cadmium	mg/L	.1	0.10	103	80-120	
Calcium	mg/L	1	1.0	104	80-120	
Cobalt	mg/L	.1	0.10	104	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Molybdenum	mg/L	.1	0.10	100	80-120	
Selenium	mg/L	.1	0.10	100	80-120	
Thallium	mg/L	.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 36825 36826

Parameter	Units	265792001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.00088J	.1	.1	0.10	0.10	102	99	75-125	3	20	
Barium	mg/L	0.11	.1	.1	0.23	0.22	113	111	75-125	1	20	
Boron	mg/L	0.036J	1	1	1.1	1.1	108	102	75-125	6	20	
Cadmium	mg/L	0.00014J	.1	.1	0.10	0.099	101	99	75-125	2	20	
Calcium	mg/L	19.1	1	1	19.4	19.3	37	30	75-125	0	20	M6
Cobalt	mg/L	0.025	.1	.1	0.13	0.12	101	97	75-125	3	20	
Lithium	mg/L	0.0016J	.1	.1	0.11	0.099	103	98	75-125	6	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	101	100	75-125	1	20	
Selenium	mg/L	ND	.1	.1	0.10	0.10	101	99	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		36825			36826							
Parameter	Units	265792001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

QC Batch: 7599 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 265795001, 265795002, 265795003

LABORATORY CONTROL SAMPLE: 35647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	405	101	84-108	

SAMPLE DUPLICATE: 35648

Parameter	Units	265789026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	62.0	65.0	5	10	

SAMPLE DUPLICATE: 35649

Parameter	Units	265791003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	723	714	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

QC Batch: 7772 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 265795001, 265795002, 265795003

METHOD BLANK: 36164 Matrix: Water
Associated Lab Samples: 265795001, 265795002, 265795003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	06/12/18 13:24	
Fluoride	mg/L	ND	0.30	0.029	06/12/18 13:24	
Sulfate	mg/L	ND	1.0	0.017	06/12/18 13:24	

LABORATORY CONTROL SAMPLE: 36165

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 36166 36167

Parameter	Units	265790001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.6	10	10	12.7	12.8	101	101	90-110	0	15	
Fluoride	mg/L	0.032J	10	10	10.1	10.1	100	100	90-110	0	15	
Sulfate	mg/L	1.4	10	10	11.3	11.5	99	101	90-110	2	15	

MATRIX SPIKE SAMPLE: 36168

Parameter	Units	265790002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5.3	10	15.5	103	90-110	
Fluoride	mg/L	ND	10	10.4	104	90-110	
Sulfate	mg/L	0.73J	10	11.0	102	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Sample: FD-01 **Lab ID: 265795001** Collected: 06/05/18 00:00 Received: 06/06/18 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.349 ± 0.231 (0.349) C:92% T:NA**	pCi/L	06/14/18 08:33	13982-63-3	
Radium-228	EPA 9320	**0.762 ± 0.462 (0.852) C:67% T:83%**	pCi/L	06/27/18 15:07	15262-20-1	
Total Radium	Total Radium Calculation	**1.11 ± 0.693 (1.20)**	pCi/L	06/28/18 14:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Sample: HGWC-13 **Lab ID: 265795002** Collected: 06/05/18 15:45 Received: 06/06/18 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.544 ± 0.283 (0.372) C:90% T:NA**	pCi/L	06/14/18 08:33	13982-63-3	
Radium-228	EPA 9320	**0.555 ± 0.449 (0.896) C:71% T:81%**	pCi/L	06/27/18 15:07	15262-20-1	
Total Radium	Total Radium Calculation	**1.10 ± 0.732 (1.27)**	pCi/L	06/28/18 14:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Sample: HGWC-18 **Lab ID: 265795003** Collected: 06/05/18 17:58 Received: 06/06/18 10:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.39 ± 0.447 (0.368) C:94% T:NA**	pCi/L	06/14/18 08:33	13982-63-3	
Radium-228	EPA 9320	**0.519 ± 0.458 (0.922) C:75% T:69%**	pCi/L	06/27/18 15:07	15262-20-1	
Total Radium	Total Radium Calculation	**1.91 ± 0.905 (1.29)**	pCi/L	06/28/18 14:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

QC Batch: 301897 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 265795001, 265795002, 265795003

METHOD BLANK: 1477324 Matrix: Water
Associated Lab Samples: 265795001, 265795002, 265795003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.201 ± 0.377 (0.827) C:68% T:84%	pCi/L	06/27/18 15:05	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

QC Batch: 301690 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 265795001, 265795002, 265795003

METHOD BLANK: 1476536 Matrix: Water
Associated Lab Samples: 265795001, 265795002, 265795003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.252 ± 0.215 (0.375) C:88% T:NA	pCi/L	06/14/18 08:33	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP 1&2, 3&4
Pace Project No.: 265795

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
265795001	**FD-01**	EPA 3005A	7923	EPA 6020B	8195
265795002	**HGWC-13**	EPA 3005A	7923	EPA 6020B	8195
265795003	**HGWC-18**	EPA 3005A	7923	EPA 6020B	8195
265795001	**FD-01**	EPA 9315	301690		
265795002	**HGWC-13**	EPA 9315	301690		
265795003	**HGWC-18**	EPA 9315	301690		
265795001	**FD-01**	EPA 9320	301897		
265795002	**HGWC-13**	EPA 9320	301897		
265795003	**HGWC-18**	EPA 9320	301897		
265795001	**FD-01**	Total Radium Calculation	304047		
265795002	**HGWC-13**	Total Radium Calculation	304047		
265795003	**HGWC-18**	Total Radium Calculation	304047		
265795001	**FD-01**	SM 2540C	7599		
265795002	**HGWC-13**	SM 2540C	7599		
265795003	**HGWC-18**	SM 2540C	7599		
265795001	**FD-01**	EPA 300.0	7772		
265795002	**HGWC-13**	EPA 300.0	7772		
265795003	**HGWC-18**	EPA 300.0	7772		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 Of 1

Section A – Required Client Information | Section B – Required Project Information | Section C – Invoice Information

Requested Due Date: STANDARD TAT

Project Name: Hammond AP

State / Location: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	START DATE	START TIME	END DATE	END TIME	# OF CONTAINERS	Unpreserved	HNO3	Metals App III	Radium 226/228	TDS by 2540C	Chloride Fluoride Sulfate	[illegible]	[illegible]	Calcium (total)	Molybdenum (total)	Residual Chlorine (Y/N)
1	FD-01	W	G	6/5/18	/	6/5/18	/	5	2	3	Y	Y	Y	Y	Y	Y		Y	N
2	HGWC-13	W	G	6/5/18	15:30	6/5/18	15:35	5	2	3	Y	Y	Y	Y	Y	Y		Y	N
3	HGWC-18	W	G	6/5/18	17:45	6/5/18	17:50	5	2	3	Y	Y	Y	Y	Y	Y	Y		N

Last Item ID: 06052018

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Dan Gross	06/05/18	19:00	Martin Montano	06/05/18	19:00
Martin Montano	6/5/18	21:05	[illegible]	6/5/18	21:05
[illegible]	6/6/18	9:35	Zach Taylor	6/6/18	9:55
Zach Taylor	6/6/18	11:45	[illegible]	6/6/18	11:45

SAMPLE CONDITIONS: Y Y Y Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dan Gross
SIGNATURE of SAMPLER: [illegible]
DATE Signed: 06/05/2018

WO#: 265795

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO# : 265795

PM: BR Due Date: 07/05/18

CLIENT: GRPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Proj. Due Date:
Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: IR#082 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.6 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 6/6/18 CM

Comments:

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

Client Notification/ Resolution:

Person Contacted: Date/Time: Field Data Required? Y / N

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

July 09, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP
Pace Project No.: 265860

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on June 07, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond AP
Pace Project No.: 265860

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Hammond AP
Pace Project No.: 265860

Lab ID	Sample ID	Matrix	Date Collected	Date Received
265860001	**HGWC-8**	Water	06/06/18 09:58	06/07/18 11:30
265860002	**HGWC-9**	Water	06/06/18 11:33	06/07/18 11:30
265860003	**HGWC-12**	Water	06/06/18 13:51	06/07/18 11:30
265860004	**HGWC-14**	Water	06/06/18 15:42	06/07/18 11:30
265860005	**HGWC-17**	Water	06/06/18 17:38	06/07/18 11:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP
Pace Project No.: 265860

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
265860001	**HGWC-8**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA
265860002	**HGWC-9**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA
265860003	**HGWC-12**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA
265860004	**HGWC-14**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA
265860005	**HGWC-17**	EPA 6020B	CSW	9	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA

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ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-8 **Lab ID: 265860001** Collected: 06/06/18 09:58 Received: 06/07/18 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/19/18 17:44	06/20/18 21:38	7440-38-2	
Barium	**0.063**	mg/L	0.010	0.00078	1	06/19/18 17:44	06/20/18 21:38	7440-39-3	
Boron	**2.6**	mg/L	0.040	0.0039	1	06/19/18 17:44	06/20/18 21:38	7440-42-8	
Calcium	**127**	mg/L	25.0	0.69	50	06/19/18 17:44	06/22/18 22:45	7440-70-2	
Cobalt	**0.0017J**	mg/L	0.010	0.00052	1	06/19/18 17:44	06/20/18 21:38	7440-48-4	
Lithium	**0.0023J**	mg/L	0.050	0.00097	1	06/19/18 17:44	06/20/18 21:38	7439-93-2	
Molybdenum	**0.49**	mg/L	0.010	0.0019	1	06/19/18 17:44	06/20/18 21:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	06/19/18 17:44	06/20/18 21:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	06/19/18 17:44	06/20/18 21:38	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**611**	mg/L	25.0	10.0	1		06/11/18 18:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**44.8**	mg/L	0.25	0.024	1		06/14/18 21:04	16887-00-6	
Fluoride	**0.46**	mg/L	0.30	0.029	1		06/14/18 21:04	16984-48-8	
Sulfate	**190**	mg/L	5.0	0.085	5		06/26/18 11:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-9 **Lab ID: 265860002** Collected: 06/06/18 11:33 Received: 06/07/18 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/19/18 17:44	06/20/18 21:50	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00078	1	06/19/18 17:44	06/20/18 21:50	7440-39-3	
Boron	**2.3**	mg/L	0.040	0.0039	1	06/19/18 17:44	06/20/18 21:50	7440-42-8	
Calcium	**184**	mg/L	25.0	0.69	50	06/19/18 17:44	06/22/18 22:51	7440-70-2	
Cobalt	**0.00056J**	mg/L	0.010	0.00052	1	06/19/18 17:44	06/20/18 21:50	7440-48-4	
Lithium	**0.0043J**	mg/L	0.050	0.00097	1	06/19/18 17:44	06/20/18 21:50	7439-93-2	
Molybdenum	**0.027**	mg/L	0.010	0.0019	1	06/19/18 17:44	06/20/18 21:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	06/19/18 17:44	06/20/18 21:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	06/19/18 17:44	06/20/18 21:50	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**810**	mg/L	25.0	10.0	1		06/11/18 18:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**138**	mg/L	1.2	0.12	5		06/26/18 11:54	16887-00-6	
Fluoride	**0.12J**	mg/L	0.30	0.029	1		06/14/18 22:56	16984-48-8	
Sulfate	**214**	mg/L	5.0	0.085	5		06/26/18 11:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-12 **Lab ID: 265860003** Collected: 06/06/18 13:51 Received: 06/07/18 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.0048J**	mg/L	0.0050	0.00057	1	06/19/18 17:44	06/20/18 22:01	7440-38-2	
Barium	**0.090**	mg/L	0.010	0.00078	1	06/19/18 17:44	06/20/18 22:01	7440-39-3	
Boron	**2.5**	mg/L	0.040	0.0039	1	06/19/18 17:44	06/20/18 22:01	7440-42-8	
Calcium	**136**	mg/L	25.0	0.69	50	06/19/18 17:44	06/22/18 22:56	7440-70-2	
Cobalt	**0.0012J**	mg/L	0.010	0.00052	1	06/19/18 17:44	06/20/18 22:01	7440-48-4	
Lithium	**0.0095J**	mg/L	0.050	0.00097	1	06/19/18 17:44	06/20/18 22:01	7439-93-2	
Molybdenum	**0.054**	mg/L	0.010	0.0019	1	06/19/18 17:44	06/20/18 22:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	06/19/18 17:44	06/20/18 22:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	06/19/18 17:44	06/20/18 22:01	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**535**	mg/L	25.0	10.0	1		06/11/18 18:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**46.4**	mg/L	0.25	0.024	1		06/14/18 23:18	16887-00-6	
Fluoride	**0.21J**	mg/L	0.30	0.029	1		06/14/18 23:18	16984-48-8	
Sulfate	**162**	mg/L	5.0	0.085	5		06/26/18 12:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-14 **Lab ID: 265860004** Collected: 06/06/18 15:42 Received: 06/07/18 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.0059**	mg/L	0.0050	0.00057	1	06/19/18 17:44	06/20/18 22:12	7440-38-2	
Barium	**0.022**	mg/L	0.010	0.00078	1	06/19/18 17:44	06/20/18 22:12	7440-39-3	
Boron	**16.7**	mg/L	0.40	0.039	10	06/19/18 17:44	06/20/18 22:18	7440-42-8	
Cadmium	**0.00012J**	mg/L	0.0010	0.000093	1	06/19/18 17:44	06/20/18 22:12	7440-43-9	
Calcium	**606**	mg/L	250	6.9	500	06/19/18 17:44	06/22/18 23:02	7440-70-2	
Cobalt	**0.027**	mg/L	0.010	0.00052	1	06/19/18 17:44	06/20/18 22:12	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/19/18 17:44	06/20/18 22:12	7439-93-2	
Selenium	**0.014**	mg/L	0.010	0.0014	1	06/19/18 17:44	06/20/18 22:12	7782-49-2	
Thallium	**0.00029J**	mg/L	0.0010	0.00014	1	06/19/18 17:44	06/20/18 22:12	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**2620**	mg/L	25.0	10.0	1		06/11/18 18:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**357**	mg/L	5.0	0.48	20		06/26/18 14:01	16887-00-6	
Fluoride	**0.25J**	mg/L	0.30	0.029	1		06/15/18 00:03	16984-48-8	
Sulfate	**1520**	mg/L	50.0	0.85	50		07/06/18 14:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-17 **Lab ID: 265860005** Collected: 06/06/18 17:38 Received: 06/07/18 11:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.00097J**	mg/L	0.0050	0.00057	1	06/19/18 17:44	06/20/18 22:35	7440-38-2	
Barium	**0.028**	mg/L	0.010	0.00078	1	06/19/18 17:44	06/20/18 22:35	7440-39-3	
Boron	**6.3**	mg/L	0.040	0.0039	1	06/19/18 17:44	06/20/18 22:35	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	06/19/18 17:44	06/20/18 22:35	7440-43-9	
Calcium	**299**	mg/L	25.0	0.69	50	06/19/18 17:44	06/22/18 23:08	7440-70-2	
Cobalt	**0.018**	mg/L	0.010	0.00052	1	06/19/18 17:44	06/20/18 22:35	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/19/18 17:44	06/20/18 22:35	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	06/19/18 17:44	06/20/18 22:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	06/19/18 17:44	06/20/18 22:35	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1180**	mg/L	25.0	10.0	1		06/11/18 18:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**166**	mg/L	2.5	0.24	10		06/26/18 14:23	16887-00-6	
Fluoride	**0.23J**	mg/L	0.30	0.029	1		06/15/18 00:25	16984-48-8	
Sulfate	**520**	mg/L	20.0	0.34	20		07/06/18 02:32	14808-79-8	H5

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 265860

QC Batch: 8297 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

METHOD BLANK: 38325 Matrix: Water
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	06/20/18 18:11	
Barium	mg/L	ND	0.010	0.00078	06/20/18 18:11	
Boron	mg/L	ND	0.040	0.0039	06/20/18 18:11	
Cadmium	mg/L	ND	0.0010	0.000093	06/20/18 18:11	
Calcium	mg/L	ND	0.50	0.014	06/20/18 18:11	
Cobalt	mg/L	ND	0.010	0.00052	06/20/18 18:11	
Lithium	mg/L	ND	0.050	0.00097	06/20/18 18:11	
Molybdenum	mg/L	ND	0.010	0.0019	06/20/18 18:11	
Selenium	mg/L	ND	0.010	0.0014	06/20/18 18:11	
Thallium	mg/L	ND	0.0010	0.00014	06/20/18 18:11	

LABORATORY CONTROL SAMPLE: 38326

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	100	80-120	
Barium	mg/L	.1	0.099	99	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	.1	0.10	100	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Cobalt	mg/L	.1	0.10	105	80-120	
Lithium	mg/L	.1	0.10	101	80-120	
Molybdenum	mg/L	.1	0.10	101	80-120	
Selenium	mg/L	.1	0.10	102	80-120	
Thallium	mg/L	.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 38482 38483

Parameter	Units	265859002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	.1	.1	0.10	0.10	103	105	75-125	2	20	
Barium	mg/L	0.068	.1	.1	0.17	0.17	106	104	75-125	1	20	
Boron	mg/L	1.4	1	1	2.3	2.3	97	91	75-125	3	20	
Cadmium	mg/L	ND	.1	.1	0.099	0.098	99	98	75-125	1	20	
Calcium	mg/L	81.0	1	1	82.7	80.6	168	-43	75-125	3	20	M6
Cobalt	mg/L	0.00056J	.1	.1	0.096	0.098	96	98	75-125	2	20	
Lithium	mg/L	0.0041J	.1	.1	0.097	0.098	93	94	75-125	1	20	
Molybdenum	mg/L	ND	.1	.1	0.099	0.099	99	99	75-125	1	20	
Selenium	mg/L	ND	.1	.1	0.10	0.10	104	101	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 265860

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 38482 38483

Parameter	Units	265859002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	mg/L	ND	.1	.1	0.092	0.091	92	91	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 265860

QC Batch: 7692 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

LABORATORY CONTROL SAMPLE: 35952

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	84-108	

SAMPLE DUPLICATE: 35953

Parameter	Units	265796001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	152	150	1	10	

SAMPLE DUPLICATE: 35954

Parameter	Units	265820001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	60.0	63.0	5	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Hammond AP
Pace Project No.: 265860

QC Batch: 7994 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

METHOD BLANK: 36997 Matrix: Water
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	06/14/18 16:54	
Fluoride	mg/L	ND	0.30	0.029	06/14/18 16:54	
Sulfate	mg/L	ND	1.0	0.017	06/14/18 16:54	

LABORATORY CONTROL SAMPLE: 36998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 36999 37000

Parameter	Units	265797001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.3	10	10	15.9	15.9	96	96	90-110	0	15	
Fluoride	mg/L	ND	10	10	10.1	10.1	101	101	90-110	0	15	
Sulfate	mg/L	46.6	10	10	52.3	52.3	57	57	90-110	0	15	E

MATRIX SPIKE SAMPLE: 37001

Parameter	Units	265797002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.5	10	14.4	98	90-110	
Fluoride	mg/L	0.097J	10	10.2	101	90-110	
Sulfate	mg/L	4.9	10	17.4	125	90-110	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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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-8 **Lab ID: 265860001** Collected: 06/06/18 09:58 Received: 06/07/18 11:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.107 ± 0.232 (0.542) C:88% T:NA**	pCi/L	06/28/18 09:46	13982-63-3	
Radium-228	EPA 9320	**0.789 ± 0.465 (0.845) C:70% T:79%**	pCi/L	07/02/18 17:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.896 ± 0.697 (1.39)**	pCi/L	07/05/18 14:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-9 **Lab ID: 265860002** Collected: 06/06/18 11:33 Received: 06/07/18 11:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.133 ± 0.184 (0.383) C:73% T:NA**	pCi/L	06/28/18 09:46	13982-63-3	
Radium-228	EPA 9320	**0.680 ± 0.553 (1.11) C:71% T:77%**	pCi/L	07/02/18 17:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.813 ± 0.737 (1.49)**	pCi/L	07/05/18 14:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-12 **Lab ID: 265860003** Collected: 06/06/18 13:51 Received: 06/07/18 11:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.424 ± 0.269 (0.429) C:89% T:NA**	pCi/L	06/28/18 09:46	13982-63-3	
Radium-228	EPA 9320	**-0.158 ± 0.355 (0.864) C:72% T:83%**	pCi/L	07/02/18 17:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.424 ± 0.624 (1.29)**	pCi/L	07/05/18 19:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-14 **Lab ID: 265860004** Collected: 06/06/18 15:42 Received: 06/07/18 11:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.499 ± 0.338 (0.563) C:67% T:NA**	pCi/L	06/28/18 09:46	13982-63-3	
Radium-228	EPA 9320	**0.810 ± 0.515 (0.978) C:72% T:78%**	pCi/L	07/02/18 17:26	15262-20-1	
Total Radium	Total Radium Calculation	**1.31 ± 0.853 (1.54)**	pCi/L	07/05/18 19:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

Sample: HGWC-17 **Lab ID: 265860005** Collected: 06/06/18 17:38 Received: 06/07/18 11:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.218 ± 0.204 (0.373) C:87% T:NA**	pCi/L	06/28/18 09:46	13982-63-3	
Radium-228	EPA 9320	**0.554 ± 0.418 (0.815) C:69% T:84%**	pCi/L	07/02/18 17:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.772 ± 0.622 (1.19)**	pCi/L	07/05/18 19:51	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

QC Batch: 302916 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

METHOD BLANK: 1482110 Matrix: Water
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.166 ± 0.207 (0.428) C:81% T:NA	pCi/L	06/28/18 08:14	

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

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP
Pace Project No.: 265860

QC Batch: 302388 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

METHOD BLANK: 1479692 Matrix: Water
Associated Lab Samples: 265860001, 265860002, 265860003, 265860004, 265860005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	1.11 ± 0.508 (0.850) C:78% T:75%	pCi/L	07/02/18 17:21	1A

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: Plant Hammond AP
Pace Project No.: 265860

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.

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.

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1A	Ra-228 detected in Method Blank above the associated MDC. Sample results are reportable without qualification if their activity is below the RL of 1.0 pCi/L.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H5	Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP
Pace Project No.: 265860

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
265860001	**HGWC-8**	EPA 3005A	8297	EPA 6020B	8415
265860002	**HGWC-9**	EPA 3005A	8297	EPA 6020B	8415
265860003	**HGWC-12**	EPA 3005A	8297	EPA 6020B	8415
265860004	**HGWC-14**	EPA 3005A	8297	EPA 6020B	8415
265860005	**HGWC-17**	EPA 3005A	8297	EPA 6020B	8415
265860001	**HGWC-8**	EPA 9315	302916		
265860002	**HGWC-9**	EPA 9315	302916		
265860003	**HGWC-12**	EPA 9315	302916		
265860004	**HGWC-14**	EPA 9315	302916		
265860005	**HGWC-17**	EPA 9315	302916		
265860001	**HGWC-8**	EPA 9320	302388		
265860002	**HGWC-9**	EPA 9320	302388		
265860003	**HGWC-12**	EPA 9320	302388		
265860004	**HGWC-14**	EPA 9320	302388		
265860005	**HGWC-17**	EPA 9320	302388		
265860001	**HGWC-8**	Total Radium Calculation	304778		
265860002	**HGWC-9**	Total Radium Calculation	304778		
265860003	**HGWC-12**	Total Radium Calculation	304780		
265860004	**HGWC-14**	Total Radium Calculation	304780		
265860005	**HGWC-17**	Total Radium Calculation	304780		
265860001	**HGWC-8**	SM 2540C	7692		
265860002	**HGWC-9**	SM 2540C	7692		
265860003	**HGWC-12**	SM 2540C	7692		
265860004	**HGWC-14**	SM 2540C	7692		
265860005	**HGWC-17**	SM 2540C	7692		
265860001	**HGWC-8**	EPA 300.0	7994		
265860002	**HGWC-9**	EPA 300.0	7994		
265860003	**HGWC-12**	EPA 300.0	7994		
265860004	**HGWC-14**	EPA 300.0	7994		
265860005	**HGWC-17**	EPA 300.0	7994		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	# OF CONTAINERS	Analyses Test Y/N
1	HGWC-8		G					5	Y Y Y Y Y Y Y N
2	HGWC-9		G					5	Y Y Y Y Y Y Y N
3	HGWC-12		G					5	Y Y Y Y Y Y Y N
4	HGWC-14		G					5	Y Y Y Y Y Y Y N
5	HGWC-17		G					5	Y Y Y Y Y Y Y N

WO#: 265860

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Nardos Tilahun	6/6/18	1320	Martin Madison	6/6/18	1320
Martin Madison	6/6/18	2010	[illegible]	6/6/18	2010
[illegible]	6/7/18	1006	[illegible]	6/7/18	1006

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nardos Tilahun

SIGNATURE of SAMPLER: [signature] DATE Signed: 6/6/18

Pace Analytical

Sample Condition Upon Receipt

Client Name: GTA Power Project # ______

WO#: 265860

PM: BA Due Date: 07/06/18

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ______

Tracking #: ______

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other ______

Thermometer Used: 83 Type of Ice: (Wet) Blue None

Cooler Temperature: 4.2 Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 6/7/18 [illegible]

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

Client Notification/ Resolution:

Person Contacted: ______ Date/Time: ______ Field Data Required? Y / N

Comments/ Resolution: ______

Project Manager Review: ______ Date: ______

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 10, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2610027001	**HGWA-5**	Water	10/02/18 10:17	10/03/18 13:00
2610027002	**HGWC-8**	Water	10/02/18 12:35	10/03/18 13:00
2610027003	**FD-01**	Water	10/02/18 00:00	10/03/18 13:00
2610027004	**HGWC-7**	Water	10/02/18 15:28	10/03/18 13:00
2610027005	**HGWC-9**	Water	10/02/18 16:57	10/03/18 13:00

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2610027001	**HGWA-5**	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
2610027002	**HGWC-8**	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
2610027003	**FD-01**	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
2610027004	**HGWC-7**	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
2610027005	**HGWC-9**	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Sample: HGWA-5 **Lab ID: 2610027001** Collected: 10/02/18 10:17 Received: 10/03/18 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.00064J**	mg/L	0.0050	0.00057	1	10/05/18 13:39	10/08/18 18:41	7440-38-2	
Barium	**0.047**	mg/L	0.010	0.00078	1	10/05/18 13:39	10/08/18 18:41	7440-39-3	
Boron	**0.0081J**	mg/L	0.040	0.0039	1	10/05/18 13:39	10/08/18 18:41	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/05/18 13:39	10/08/18 18:41	7440-43-9	
Calcium	**28.9**	mg/L	25.0	0.69	50	10/05/18 13:39	10/08/18 18:46	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/05/18 13:39	10/08/18 18:41	7440-48-4	
Lithium	**0.0035J**	mg/L	0.050	0.00097	1	10/05/18 13:39	10/08/18 18:41	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	10/05/18 13:39	10/08/18 18:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/05/18 13:39	10/08/18 18:41	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**146**	mg/L	25.0	10.0	1		10/04/18 15:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**2.4**	mg/L	0.25	0.024	1		10/05/18 02:42	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/05/18 02:42	16984-48-8	
Sulfate	**20.3**	mg/L	1.0	0.017	1		10/05/18 02:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Sample: HGWC-8 **Lab ID: 2610027002** Collected: 10/02/18 12:35 Received: 10/03/18 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/05/18 13:39	10/08/18 18:52	7440-38-2	
Barium	**0.061**	mg/L	0.010	0.00078	1	10/05/18 13:39	10/08/18 18:52	7440-39-3	
Boron	**2.7**	mg/L	2.0	0.20	50	10/05/18 13:39	10/08/18 18:58	7440-42-8	
Calcium	**118**	mg/L	25.0	0.69	50	10/05/18 13:39	10/08/18 18:58	7440-70-2	
Cobalt	**0.0016J**	mg/L	0.010	0.00052	1	10/05/18 13:39	10/08/18 18:52	7440-48-4	
Lithium	**0.0025J**	mg/L	0.050	0.00097	1	10/05/18 13:39	10/08/18 18:52	7439-93-2	
Molybdenum	**0.47**	mg/L	0.010	0.0019	1	10/05/18 13:39	10/08/18 18:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	10/05/18 13:39	10/08/18 18:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/05/18 13:39	10/08/18 18:52	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**597**	mg/L	25.0	10.0	1		10/04/18 15:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**89.4**	mg/L	2.5	0.24	10		10/05/18 09:00	16887-00-6	
Fluoride	**0.51**	mg/L	0.30	0.029	1		10/05/18 03:02	16984-48-8	
Sulfate	**193**	mg/L	10.0	0.17	10		10/05/18 09:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Sample: FD-01 **Lab ID: 2610027003** Collected: 10/02/18 00:00 Received: 10/03/18 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/05/18 13:39	10/08/18 19:04	7440-38-2	
Barium	**0.063**	mg/L	0.010	0.00078	1	10/05/18 13:39	10/08/18 19:04	7440-39-3	
Boron	**2.9**	mg/L	2.0	0.20	50	10/05/18 13:39	10/08/18 19:09	7440-42-8	
Calcium	**123**	mg/L	25.0	0.69	50	10/05/18 13:39	10/08/18 19:09	7440-70-2	
Cobalt	**0.0016J**	mg/L	0.010	0.00052	1	10/05/18 13:39	10/08/18 19:04	7440-48-4	
Lithium	**0.0025J**	mg/L	0.050	0.00097	1	10/05/18 13:39	10/08/18 19:04	7439-93-2	
Molybdenum	**0.49**	mg/L	0.010	0.0019	1	10/05/18 13:39	10/08/18 19:04	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	10/05/18 13:39	10/08/18 19:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/05/18 13:39	10/08/18 19:04	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**597**	mg/L	25.0	10.0	1		10/04/18 15:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**86.1**	mg/L	2.5	0.24	10		10/05/18 09:21	16887-00-6	
Fluoride	**0.50**	mg/L	0.30	0.029	1		10/05/18 03:44	16984-48-8	
Sulfate	**186**	mg/L	10.0	0.17	10		10/05/18 09:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Sample: HGWC-7 **Lab ID: 2610027004** Collected: 10/02/18 15:28 Received: 10/03/18 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.0019J**	mg/L	0.0050	0.00057	1	10/05/18 13:39	10/08/18 19:15	7440-38-2	
Barium	**0.078**	mg/L	0.010	0.00078	1	10/05/18 13:39	10/08/18 19:15	7440-39-3	
Boron	**0.98**	mg/L	0.040	0.0039	1	10/05/18 13:39	10/08/18 19:15	7440-42-8	
Calcium	**108**	mg/L	25.0	0.69	50	10/05/18 13:39	10/08/18 19:21	7440-70-2	
Cobalt	**0.00091J**	mg/L	0.010	0.00052	1	10/05/18 13:39	10/08/18 19:15	7440-48-4	
Lithium	**0.0030J**	mg/L	0.050	0.00097	1	10/05/18 13:39	10/08/18 19:15	7439-93-2	
Molybdenum	**0.039**	mg/L	0.010	0.0019	1	10/05/18 13:39	10/08/18 19:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	10/05/18 13:39	10/08/18 19:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/05/18 13:39	10/08/18 19:15	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**426**	mg/L	25.0	10.0	1		10/04/18 15:27		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**52.6**	mg/L	2.5	0.24	10		10/05/18 09:42	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/05/18 04:04	16984-48-8	
Sulfate	**120**	mg/L	10.0	0.17	10		10/05/18 09:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Sample: HGWC-9 **Lab ID: 2610027005** Collected: 10/02/18 16:57 Received: 10/03/18 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/05/18 13:39	10/08/18 19:38	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00078	1	10/05/18 13:39	10/08/18 19:38	7440-39-3	
Boron	**2.5**	mg/L	2.0	0.20	50	10/05/18 13:39	10/08/18 19:44	7440-42-8	
Calcium	**173**	mg/L	25.0	0.69	50	10/05/18 13:39	10/08/18 19:44	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/05/18 13:39	10/08/18 19:38	7440-48-4	
Lithium	**0.0040J**	mg/L	0.050	0.00097	1	10/05/18 13:39	10/08/18 19:38	7439-93-2	
Molybdenum	**0.028**	mg/L	0.010	0.0019	1	10/05/18 13:39	10/08/18 19:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	10/05/18 13:39	10/08/18 19:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/05/18 13:39	10/08/18 19:38	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**693**	mg/L	25.0	10.0	1		10/08/18 17:34		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**142**	mg/L	2.5	0.24	10		10/05/18 10:03	16887-00-6	
Fluoride	**0.031J**	mg/L	0.30	0.029	1		10/05/18 04:25	16984-48-8	
Sulfate	**218**	mg/L	10.0	0.17	10		10/05/18 10:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

QC Batch: 14855 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2610027001, 2610027002, 2610027003, 2610027004, 2610027005

METHOD BLANK: 66522 Matrix: Water
Associated Lab Samples: 2610027001, 2610027002, 2610027003, 2610027004, 2610027005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	10/08/18 18:29	
Barium	mg/L	ND	0.010	0.00078	10/08/18 18:29	
Boron	mg/L	ND	0.040	0.0039	10/08/18 18:29	
Cadmium	mg/L	ND	0.0010	0.000093	10/08/18 18:29	
Calcium	mg/L	ND	0.50	0.014	10/08/18 18:29	
Cobalt	mg/L	ND	0.010	0.00052	10/08/18 18:29	
Lithium	mg/L	ND	0.050	0.00097	10/08/18 18:29	
Molybdenum	mg/L	ND	0.010	0.0019	10/08/18 18:29	
Selenium	mg/L	ND	0.010	0.0014	10/08/18 18:29	
Thallium	mg/L	ND	0.0010	0.00014	10/08/18 18:29	

LABORATORY CONTROL SAMPLE: 66523

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	103	80-120	
Barium	mg/L	.1	0.10	102	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	.1	0.10	102	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Cobalt	mg/L	.1	0.097	97	80-120	
Lithium	mg/L	.1	0.11	110	80-120	
Molybdenum	mg/L	.1	0.10	103	80-120	
Selenium	mg/L	.1	0.10	102	80-120	
Thallium	mg/L	.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66524 66525

Parameter	Units	2610033001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0014J	.1	.1	0.11	0.10	104	102	75-125	2	20	
Barium	mg/L	0.089	.1	.1	0.19	0.18	102	94	75-125	4	20	
Boron	mg/L	0.43	1	1	1.3	1.3	89	90	75-125	0	20	
Cadmium	mg/L	ND	.1	.1	0.10	0.10	101	100	75-125	1	20	
Calcium	mg/L	42.5	1	1	41.5	42.3	-94	-14	75-125	2	20	M6
Cobalt	mg/L	0.00081J	.1	.1	0.099	0.096	98	95	75-125	3	20	
Lithium	mg/L	0.0013J	.1	.1	0.095	0.096	93	95	75-125	2	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.10	106	101	75-125	5	20	
Selenium	mg/L	ND	.1	.1	0.10	0.099	100	99	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66524 66525

Parameter	Units	2610033001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	mg/L	ND	.1	.1	0.10	0.096	101	96	75-125	5	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

QC Batch: 14793 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2610027001, 2610027002, 2610027003, 2610027004

LABORATORY CONTROL SAMPLE: 66016

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	415	104	84-108	

SAMPLE DUPLICATE: 66017

Parameter	Units	2610023001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	60.0	56.0	7	10	

SAMPLE DUPLICATE: 66018

Parameter	Units	2610023020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

QC Batch: 14909
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2610027005

LABORATORY CONTROL SAMPLE: 66853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 66854

Parameter	Units	2610027005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	693	699	1	10	

SAMPLE DUPLICATE: 66855

Parameter	Units	2610112002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	328	330	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

QC Batch: 14765 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2610027001, 2610027002, 2610027003, 2610027004, 2610027005

METHOD BLANK: 65945 Matrix: Water
Associated Lab Samples: 2610027001, 2610027002, 2610027003, 2610027004, 2610027005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.078J	0.25	0.024	10/04/18 21:11	
Fluoride	mg/L	ND	0.30	0.029	10/04/18 21:11	
Sulfate	mg/L	ND	1.0	0.017	10/04/18 21:11	

LABORATORY CONTROL SAMPLE: 65946

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.4	104	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 65947 65948

Parameter	Units	269951001 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	10	10	12.4	12.4	102	101	90-110	0	15	
Fluoride	mg/L	ND	10	10	10.4	10.3	104	103	90-110	0	15	
Sulfate	mg/L	1.0	10	10	11.3	11.1	102	100	90-110	2	15	

MATRIX SPIKE SAMPLE: 65949

Parameter	Units	269951002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5.6	10	15.5	99	90-110	
Fluoride	mg/L	ND	10	10.4	104	90-110	
Sulfate	mg/L	0.52J	10	10.7	101	90-110	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP 1&2
Pace Project No.: 2610027

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610027001	**HGWA-5**	EPA 3005A	14855	EPA 6020B	14882
2610027002	**HGWC-8**	EPA 3005A	14855	EPA 6020B	14882
2610027003	**FD-01**	EPA 3005A	14855	EPA 6020B	14882
2610027004	**HGWC-7**	EPA 3005A	14855	EPA 6020B	14882
2610027005	**HGWC-9**	EPA 3005A	14855	EPA 6020B	14882
2610027001	**HGWA-5**	SM 2540C	14793		
2610027002	**HGWC-8**	SM 2540C	14793		
2610027003	**FD-01**	SM 2540C	14793		
2610027004	**HGWC-7**	SM 2540C	14793		
2610027005	**HGWC-9**	SM 2540C	14909		
2610027001	**HGWA-5**	EPA 300.0	14765		
2610027002	**HGWC-8**	EPA 300.0	14765		
2610027003	**FD-01**	EPA 300.0	14765		
2610027004	**HGWC-7**	EPA 300.0	14765		
2610027005	**HGWC-9**	EPA 300.0	14765		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 Of 1

Section A Required Client Information: Company: Georgia Power – Coal Combustion Residuals; Address: 2480 Maner Road, Atlanta, GA 30339; Requested Due Date: Standard TAT

Section B Required Project Information: Report To: [illegible]; Project Name: Hammond AP 1 & 2; Project #: [illegible]

Section C Invoice Information: Pace Profile #: [illegible]

Regulatory Agency: [illegible]

State / Location: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	START DATE	START TIME	END DATE	END TIME	# OF CONTAINERS	Unpreserved	HNO3	Metals	Metals	TDS, Chloride, Fluoride, Sulfate	Radium 226/228	Residual Chlorine (Y/N)
											N	N	N		
1	HGWA-5	WT	G	[illegible]	[illegible]	[illegible]	1013	4	1	3		Y	Y	Y	N
2	HGWC-8	WT	G	[illegible]	1125	[illegible]	1135	4	1	3	Y		Y	Y	N
3	FD-01	WT	G	[illegible]	—	[illegible]	—	4	1	3	Y		Y	Y	N
4	HGWC-7	WT	G	[illegible]	1518	[illegible]	1528	4	1	3	Y		Y	Y	N
5	HGWC-9	WT	G	[illegible]	1647	[illegible]	1657	4	1	3	Y		Y	Y	N

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Noelia Muskus	[illegible]	1515	Nardos Tilahun	10/2/18	1515
Nardos Tilahun	10/3/18	2030	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	Mike Nguyen / Pace	10/3/18	1000
			[illegible]	10/03/18	1300

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Noelia Muskus

SIGNATURE of SAMPLER: Noelia Muskus DATE Signed: 10/02/18

WO#: 2610027

2610027

Sample Condition Upon Receipt

Pace Analytical

Client Name: GRPower Project #

WO#: 2610027

PM: BM Due Date: 10/18/18

CLIENT: GRPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: 33 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4°c Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/05/18 mp

Comments:

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 15, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
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CERTIFICATIONS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2610213001	**HGWC-13**	Water	10/05/18 12:00	10/08/18 11:00

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2610213001	**HGWC-13**	EPA 6020B	CSW	9
		SM 2540C	JPT	1
		EPA 300.0	RLC	3

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

Sample: HGWC-13 **Lab ID: 2610213001** Collected: 10/05/18 12:00 Received: 10/08/18 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	**0.34**	mg/L	0.0050	0.00057	1	10/10/18 13:15	10/12/18 21:35	7440-38-2	
Barium	**0.076**	mg/L	0.010	0.00078	1	10/10/18 13:15	10/12/18 21:35	7440-39-3	
Boron	**1.6**	mg/L	0.040	0.0039	1	10/10/18 13:15	10/12/18 21:35	7440-42-8	
Calcium	**73.6**	mg/L	25.0	0.69	50	10/10/18 13:15	10/12/18 21:41	7440-70-2	
Cobalt	**0.0015J**	mg/L	0.010	0.00052	1	10/10/18 13:15	10/12/18 21:35	7440-48-4	
Lithium	**0.027J**	mg/L	0.050	0.00097	1	10/10/18 13:15	10/12/18 21:35	7439-93-2	
Molybdenum	**0.033**	mg/L	0.010	0.0019	1	10/10/18 13:15	10/12/18 21:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	10/10/18 13:15	10/12/18 21:35	7782-49-2	
Thallium	**0.00025J**	mg/L	0.0010	0.00014	1	10/10/18 13:15	10/12/18 21:35	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**322**	mg/L	25.0	10.0	1		10/09/18 16:57		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**32.3**	mg/L	0.25	0.024	1		10/11/18 11:30	16887-00-6	
Fluoride	**0.77**	mg/L	0.30	0.029	1		10/11/18 11:30	16984-48-8	
Sulfate	**78.3**	mg/L	10.0	0.17	10		10/11/18 11:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

QC Batch: 15129
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Associated Lab Samples: 2610213001

METHOD BLANK: 67679
Matrix: Water
Associated Lab Samples: 2610213001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	10/12/18 19:18	
Barium	mg/L	ND	0.010	0.00078	10/12/18 19:18	
Boron	mg/L	ND	0.040	0.0039	10/12/18 19:18	
Calcium	mg/L	ND	0.50	0.014	10/12/18 19:18	
Cobalt	mg/L	ND	0.010	0.00052	10/12/18 19:18	
Lithium	mg/L	ND	0.050	0.00097	10/12/18 19:18	
Molybdenum	mg/L	ND	0.010	0.0019	10/12/18 19:18	
Selenium	mg/L	ND	0.010	0.0014	10/12/18 19:18	
Thallium	mg/L	ND	0.0010	0.00014	10/12/18 19:18	

LABORATORY CONTROL SAMPLE: 67680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	100	80-120	
Barium	mg/L	.1	0.096	96	80-120	
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Cobalt	mg/L	.1	0.097	97	80-120	
Lithium	mg/L	.1	0.099	99	80-120	
Molybdenum	mg/L	.1	0.096	96	80-120	
Selenium	mg/L	.1	0.098	98	80-120	
Thallium	mg/L	.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 67681 67682

Parameter	Units	2610208001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	.1	.1	0.11	0.11	106	105	75-125	1	20	
Barium	mg/L	0.081	.1	.1	0.18	0.17	95	91	75-125	2	20	
Boron	mg/L	0.15	1	1	1.2	1.2	106	106	75-125	0	20	
Calcium	mg/L	39.6	1	1	41.8	41.2	229	168	75-125	1	20	M6
Cobalt	mg/L	ND	.1	.1	0.11	0.10	105	103	75-125	2	20	
Lithium	mg/L	0.016J	.1	.1	0.12	0.12	106	102	75-125	3	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	106	107	75-125	1	20	
Selenium	mg/L	ND	.1	.1	0.11	0.11	106	105	75-125	1	20	
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

QC Batch: 15066
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2610213001

LABORATORY CONTROL SAMPLE: 67393

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	84-108	

SAMPLE DUPLICATE: 67394

Parameter	Units	2610166001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10200	10100	1	10	

SAMPLE DUPLICATE: 67395

Parameter	Units	2610210001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	813	828	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

QC Batch: 15085
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2610213001

METHOD BLANK: 67500 Matrix: Water
Associated Lab Samples: 2610213001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	10/11/18 06:47	
Fluoride	mg/L	ND	0.30	0.029	10/11/18 06:47	
Sulfate	mg/L	ND	1.0	0.017	10/11/18 06:47	

LABORATORY CONTROL SAMPLE: 67501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.5	105	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 67502 67503

Parameter	Units	2610208001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.5	10	10	12.0	12.0	105	105	90-110	0	15	
Fluoride	mg/L	0.21J	10	10	10.3	10.3	101	101	90-110	0	15	
Sulfate	mg/L	10.6	10	10	20.5	20.5	99	99	90-110	0	15	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond AP 1&2
Pace Project No.: 2610213

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610213001	**HGWC-13**	EPA 3005A	15129	EPA 6020B	15152
2610213001	**HGWC-13**	SM 2540C	15066		
2610213001	**HGWC-13**	EPA 300.0	15085		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 01

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company	Georgia Power - Coal Combustion Residuals	Report To	[illegible]	Attention	[illegible]
Address	[illegible]	Copy To	[illegible]	Company Name	
	Atlanta, GA [illegible]			Address	
Email	[illegible]	Purchase Order #	[illegible]	Pace Quote	
Phone	[illegible]	Project Name	[illegible] AP 1 & 2	Pace Project Manager	[illegible]
Requested Due Date	Standard TAT	Project #		Pace Profile #	[illegible]

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals *	Metals **	Metals ***	TDS Chloride Fluoride Sulfate	Radium 226/228	Residual Chlorine (Y/N)	
																			N	N		N	N		
1	HGWC-13	W	G	10/5/18	1150	10/5/18	1200		4	1		3								X		X	X		1
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

(Unused rows struck through with a diagonal line, annotated "RM 10/5/18".)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals list: [illegible]	Rich Murray	10/5/18	1915	Martin [illegible]	10/5/18	1915				
** Metals list: [illegible]	[illegible]	10/6/18	0945	Mike Nguyen / Pace	10/6/18	0945				
*** Metals list: [illegible]				[illegible]	10/8/18	1100	2.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Rich Murray

SIGNATURE of SAMPLER: [signature] DATE Signed: 10/5/18

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

WO#: 2610213

2610213

Sample Condition Upon Receipt

Face Analytical

Client Name: GA Power

WO#: 2610213

Due Date: 10/15/18

PM: SM

CLIENT: GPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Face ☐ Other

Tracking #:

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

Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: 082

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

Cooler Temperature: 2.5 °C

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 10/8/18 CH

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

March 20, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2616042

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on March 13, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2616042

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2616042

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616042001	**MW-28D**	Water	03/12/19 17:25	03/13/19 14:00
2616042002	**HGWC-8**	Water	03/12/19 16:27	03/13/19 14:00
2616042003	**MW-29**	Water	03/12/19 18:23	03/13/19 14:00

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2616042

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616042001	**MW-28D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616042002	**HGWC-8**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616042003	**MW-29**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616042

Sample: MW-28D **Lab ID: 2616042001** Collected: 03/12/19 17:25 Received: 03/13/19 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/15/19 12:41	03/18/19 18:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/15/19 12:41	03/18/19 18:54	7440-38-2	
Barium	**0.82**	mg/L	0.010	0.00078	1	03/15/19 12:41	03/18/19 18:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/15/19 12:41	03/18/19 18:54	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/15/19 12:41	03/18/19 18:54	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/15/19 12:41	03/18/19 18:54	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/15/19 12:41	03/18/19 18:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/15/19 12:41	03/18/19 18:54	7439-92-1	
Lithium	**0.011J**	mg/L	0.050	0.00097	1	03/15/19 12:41	03/18/19 18:54	7439-93-2	
Molybdenum	**0.013**	mg/L	0.010	0.0019	1	03/15/19 12:41	03/18/19 18:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/15/19 12:41	03/18/19 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/15/19 12:41	03/18/19 18:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/15/19 12:12	03/15/19 14:56	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.24J**	mg/L	0.30	0.029	1		03/19/19 00:09	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616042

Sample: HGWC-8 **Lab ID: 2616042002** Collected: 03/12/19 16:27 Received: 03/13/19 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/15/19 12:41	03/18/19 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/15/19 12:41	03/18/19 19:00	7440-38-2	
Barium	**0.062**	mg/L	0.010	0.00078	1	03/15/19 12:41	03/18/19 19:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/15/19 12:41	03/18/19 19:00	7440-41-7	
Cadmium	**0.00020J**	mg/L	0.0010	0.000093	1	03/15/19 12:41	03/18/19 19:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/15/19 12:41	03/18/19 19:00	7440-47-3	
Cobalt	**0.0020J**	mg/L	0.010	0.00052	1	03/15/19 12:41	03/18/19 19:00	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/15/19 12:41	03/18/19 19:00	7439-92-1	
Lithium	**0.0025J**	mg/L	0.050	0.00097	1	03/15/19 12:41	03/18/19 19:00	7439-93-2	
Molybdenum	**0.50**	mg/L	0.010	0.0019	1	03/15/19 12:41	03/18/19 19:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/15/19 12:41	03/18/19 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/15/19 12:41	03/18/19 19:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/15/19 12:12	03/15/19 15:13	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.58**	mg/L	0.30	0.029	1		03/19/19 00:32	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616042

Sample: MW-29 **Lab ID: 2616042003** Collected: 03/12/19 18:23 Received: 03/13/19 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/15/19 12:41	03/18/19 19:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/15/19 12:41	03/18/19 19:06	7440-38-2	
Barium	**0.089**	mg/L	0.010	0.00078	1	03/15/19 12:41	03/18/19 19:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/15/19 12:41	03/18/19 19:06	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/15/19 12:41	03/18/19 19:06	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/15/19 12:41	03/18/19 19:06	7440-47-3	
Cobalt	**0.00057J**	mg/L	0.010	0.00052	1	03/15/19 12:41	03/18/19 19:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/15/19 12:41	03/18/19 19:06	7439-92-1	
Lithium	**0.0024J**	mg/L	0.050	0.00097	1	03/15/19 12:41	03/18/19 19:06	7439-93-2	
Molybdenum	**0.0038J**	mg/L	0.010	0.0019	1	03/15/19 12:41	03/18/19 19:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/15/19 12:41	03/18/19 19:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/15/19 12:41	03/18/19 19:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/15/19 12:12	03/15/19 15:15	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.070J**	mg/L	0.30	0.029	1		03/19/19 00:55	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616042

QC Batch: 24399 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2616042001, 2616042002, 2616042003

METHOD BLANK: 109482 Matrix: Water
Associated Lab Samples: 2616042001, 2616042002, 2616042003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	03/15/19 14:51	

LABORATORY CONTROL SAMPLE: 109483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0029	117	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109484 109485

Parameter	Units	2616042001 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	0.0026	0.0025	105	101	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616042

QC Batch: 24384 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616042001, 2616042002, 2616042003

METHOD BLANK: 109374 Matrix: Water
Associated Lab Samples: 2616042001, 2616042002, 2616042003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/18/19 17:34	
Arsenic	mg/L	0.00071J	0.0050	0.00057	03/18/19 17:34	
Barium	mg/L	ND	0.010	0.00078	03/18/19 17:34	
Beryllium	mg/L	ND	0.0030	0.000050	03/18/19 17:34	
Cadmium	mg/L	ND	0.0010	0.000093	03/18/19 17:34	
Chromium	mg/L	ND	0.010	0.0016	03/18/19 17:34	
Cobalt	mg/L	ND	0.010	0.00052	03/18/19 17:34	
Lead	mg/L	ND	0.0050	0.00027	03/18/19 17:34	
Lithium	mg/L	ND	0.050	0.00097	03/18/19 17:34	
Molybdenum	mg/L	ND	0.010	0.0019	03/18/19 17:34	
Selenium	mg/L	ND	0.010	0.0014	03/18/19 17:34	
Thallium	mg/L	ND	0.0010	0.00014	03/18/19 17:34	

LABORATORY CONTROL SAMPLE: 109375

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.10	104	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.11	108	80-120	
Cadmium	mg/L	0.1	0.11	105	80-120	
Chromium	mg/L	0.1	0.11	107	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.11	107	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.10	105	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109376 109377

Parameter	Units	2616039003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	106	107	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20	
Barium	mg/L	0.20	0.1	0.1	0.29	0.30	95	103	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616042

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109376 109377

Parameter	Units	2616039003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	1	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	0.10	0.096	101	95	75-125	5	20	
Lithium	mg/L	0.011J	0.1	0.1	0.11	0.10	97	91	75-125	5	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	103	104	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	106	102	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616042

QC Batch: 24522 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616042001, 2616042002, 2616042003

METHOD BLANK: 110051 Matrix: Water
Associated Lab Samples: 2616042001, 2616042002, 2616042003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/18/19 21:29	

LABORATORY CONTROL SAMPLE: 110052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 110053 110054

Parameter	Units	2616039001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.035J	10	10	10.2	10.3	102	102	90-110	0	15	

MATRIX SPIKE SAMPLE: 110055

Parameter	Units	2616039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.079J	10	10.3	103	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2616042

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.

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.

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

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

TNI - The NELAC Institute.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2616042

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616042001	**MW-28D**	EPA 3005A	24384	EPA 6020B	24419
2616042002	**HGWC-8**	EPA 3005A	24384	EPA 6020B	24419
2616042003	**MW-29**	EPA 3005A	24384	EPA 6020B	24419
2616042001	**MW-28D**	EPA 7470A	24399	EPA 7470A	24404
2616042002	**HGWC-8**	EPA 7470A	24399	EPA 7470A	24404
2616042003	**MW-29**	EPA 7470A	24399	EPA 7470A	24404
2616042001	**MW-28D**	EPA 300.0	24522		
2616042002	**HGWC-8**	EPA 300.0	24522		
2616042003	**MW-29**	EPA 300.0	24522		

CHAIN-OF-CUSTODY / Analytical Request Document

1 of 3

SAMPLE ID

MW-28D

WO#: 2616042

CHAIN-OF-CUSTODY / Analytical Request Document

WO# 2616042

CHAIN-OF-CUSTODY / Analytical Request Document

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

3 of 3

SAMPLE ID

MW-29

WO#: 2616042

Page 16 of 17

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2616042

PM: [illegible] Due Date: [illegible]

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: 8.3 Type of Ice: Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.5 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/13/17 [initials]

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

March 21, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2616120

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2616120

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2616120

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616120001	**MW-7**	Water	03/13/19 17:46	03/14/19 12:45
2616120002	**MW-26D**	Water	03/13/19 13:36	03/14/19 12:45
2616120003	**HGWC-9**	Water	03/13/19 11:46	03/14/19 12:45
2616120004	**MW-27D**	Water	03/13/19 09:24	03/14/19 12:45
2616120005	**MW-6**	Water	03/13/19 11:06	03/14/19 12:45
2616120006	**HGWC-10**	Water	03/13/19 12:10	03/14/19 12:45
2616120007	**MW-24D**	Water	03/13/19 14:48	03/14/19 12:45
2616120008	**HGWC-13**	Water	03/13/19 15:40	03/14/19 12:45
2616120009	**FD-1**	Water	03/13/19 00:00	03/14/19 12:45
2616120010	**MW-20**	Water	03/13/19 10:53	03/14/19 12:45
2616120011	**MW-5**	Water	03/13/19 12:33	03/14/19 12:45
2616120012	**HGWC-7**	Water	03/13/19 16:03	03/14/19 12:45
2616120013	**HGWC-11**	Water	03/13/19 17:34	03/14/19 12:45

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2616120

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616120001	**MW-7**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120002	**MW-26D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120003	**HGWC-9**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120004	**MW-27D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120005	**MW-6**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120006	**HGWC-10**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120007	**MW-24D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120008	**HGWC-13**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120009	**FD-1**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120010	**MW-20**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120011	**MW-5**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120012	**HGWC-7**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2616120013	**HGWC-11**	EPA 6020B	CSW	12

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SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2616120

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-7 **Lab ID: 2616120001** Collected: 03/13/19 17:46 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00086J**	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 14:32	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 14:32	7440-38-2	
Barium	**0.063**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 14:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 14:32	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 14:32	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 14:32	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 14:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 14:32	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 14:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 14:32	7439-98-7	
Selenium	**0.0016J**	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 14:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 14:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 14:44	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.069J**	mg/L	0.30	0.029	1		03/19/19 01:18	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-26D **Lab ID: 2616120002** Collected: 03/13/19 13:36 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 14:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 14:38	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 14:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 14:38	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 14:38	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 14:38	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 14:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 14:38	7439-92-1	
Lithium	**0.0033J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 14:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 14:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 14:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 14:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/20/19 09:33	03/20/19 13:26	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.052J**	mg/L	0.30	0.029	1		03/19/19 01:40	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: HGWC-9 **Lab ID: 2616120003** Collected: 03/13/19 11:46 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 14:44	7440-36-0	
Arsenic	**0.00075J**	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 14:44	7440-38-2	
Barium	**0.10**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 14:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 14:44	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 14:44	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 14:44	7440-47-3	
Cobalt	**0.00065J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 14:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 14:44	7439-92-1	
Lithium	**0.0040J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 14:44	7439-93-2	
Molybdenum	**0.028**	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 14:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 14:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 14:44	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 14:53	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.14J**	mg/L	0.30	0.029	1		03/19/19 03:35	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-27D **Lab ID: 2616120004** Collected: 03/13/19 09:24 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 14:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 14:49	7440-38-2	
Barium	**1.5**	mg/L	0.10	0.0078	10	03/18/19 13:34	03/21/19 13:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 14:49	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 14:49	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 14:49	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 14:49	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 14:49	7439-92-1	
Lithium	**0.0097J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 14:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 14:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 14:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 14:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 14:55	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.28J**	mg/L	0.30	0.029	1		03/19/19 03:58	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-6 **Lab ID: 2616120005** Collected: 03/13/19 11:06 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 14:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 14:55	7440-38-2	
Barium	**0.10**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 14:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 14:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 14:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 14:55	7440-47-3	
Cobalt	**0.00055J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 14:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 14:55	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 14:55	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 14:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 14:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 14:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 14:58	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.19J**	mg/L	0.30	0.029	1		03/19/19 04:43	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: HGWC-10 **Lab ID: 2616120006** Collected: 03/13/19 12:10 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 15:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 15:01	7440-38-2	
Barium	**0.044**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 15:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 15:01	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 15:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 15:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 15:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 15:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 15:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 15:01	7439-98-7	
Selenium	**0.0015J**	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 15:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 15:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:00	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.17J**	mg/L	0.30	0.029	1		03/19/19 05:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-24D **Lab ID: 2616120007** Collected: 03/13/19 14:48 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 15:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 15:07	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 15:07	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 15:07	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 15:07	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 15:07	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 15:07	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 15:07	7439-92-1	
Lithium	**0.0029J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 15:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 15:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 15:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 15:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:07	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.074J**	mg/L	0.30	0.029	1		03/19/19 05:29	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: HGWC-13 **Lab ID: 2616120008** Collected: 03/13/19 15:40 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 15:12	7440-36-0	
Arsenic	**0.42**	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 15:12	7440-38-2	
Barium	**0.10**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 15:12	7440-39-3	
Beryllium	**0.000062J**	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 15:12	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 15:12	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 15:12	7440-47-3	
Cobalt	**0.0022J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 15:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 15:12	7439-92-1	
Lithium	**0.029J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 15:12	7439-93-2	
Molybdenum	**0.033**	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 15:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 15:12	7782-49-2	
Thallium	**0.00039J**	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 15:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:10	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.78**	mg/L	0.30	0.029	1		03/19/19 05:52	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: FD-1 **Lab ID: 2616120009** Collected: 03/13/19 00:00 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00088J**	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 15:50	7440-36-0	B
Arsenic	**0.42**	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 15:50	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 15:50	7440-39-3	
Beryllium	**0.000089J**	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 15:50	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 15:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 15:50	7440-47-3	
Cobalt	**0.0023J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 15:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 15:50	7439-92-1	
Lithium	**0.029J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 15:50	7439-93-2	
Molybdenum	**0.033**	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 15:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 15:50	7782-49-2	
Thallium	**0.00043J**	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 15:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:12	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.81**	mg/L	0.30	0.029	1		03/19/19 06:15	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-20 **Lab ID: 2616120010** Collected: 03/13/19 10:53 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 15:55	7440-36-0	
Arsenic	**0.0023J**	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 15:55	7440-38-2	
Barium	**0.087**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 15:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 15:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 15:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 15:55	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 15:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 15:55	7439-92-1	
Lithium	**0.0016J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 15:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 15:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 15:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 15:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:14	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.072J**	mg/L	0.30	0.029	1		03/19/19 06:38	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: MW-5 **Lab ID: 2616120011** Collected: 03/13/19 12:33 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 16:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 16:01	7440-38-2	
Barium	**0.056**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 16:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 16:01	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 16:01	7440-43-9	
Chromium	**0.0030J**	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 16:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 16:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 16:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 16:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 16:01	7439-98-7	
Selenium	**0.0033J**	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 16:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 16:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:17	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.10J**	mg/L	0.30	0.029	1		03/19/19 07:01	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: HGWC-7 **Lab ID: 2616120012** Collected: 03/13/19 16:03 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 16:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 16:07	7440-38-2	
Barium	**0.083**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 16:07	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 16:07	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 16:07	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 16:07	7440-47-3	
Cobalt	**0.00067J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 16:07	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 16:07	7439-92-1	
Lithium	**0.0024J**	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 16:07	7439-93-2	
Molybdenum	**0.040**	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 16:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 16:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 16:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:19	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.12J**	mg/L	0.30	0.029	1		03/19/19 08:55	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616120

Sample: HGWC-11 **Lab ID: 2616120013** Collected: 03/13/19 17:34 Received: 03/14/19 12:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	03/18/19 13:34	03/20/19 16:13	7440-36-0	
Arsenic	**0.0024J**	mg/L	0.0050	0.00057	1	03/18/19 13:34	03/20/19 16:13	7440-38-2	
Barium	**0.024**	mg/L	0.010	0.00078	1	03/18/19 13:34	03/20/19 16:13	7440-39-3	
Beryllium	**0.00010J**	mg/L	0.0030	0.000050	1	03/18/19 13:34	03/20/19 16:13	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/18/19 13:34	03/20/19 16:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/18/19 13:34	03/20/19 16:13	7440-47-3	
Cobalt	**0.00098J**	mg/L	0.010	0.00052	1	03/18/19 13:34	03/20/19 16:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/18/19 13:34	03/20/19 16:13	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/18/19 13:34	03/20/19 16:13	7439-93-2	
Molybdenum	**0.012**	mg/L	0.010	0.0019	1	03/18/19 13:34	03/20/19 16:13	7439-98-7	
Selenium	**0.023**	mg/L	0.010	0.0014	1	03/18/19 13:34	03/20/19 16:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/18/19 13:34	03/20/19 16:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/18/19 10:52	03/19/19 15:21	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.51**	mg/L	0.30	0.029	1		03/19/19 09:18	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616120

QC Batch: 24464 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2616120001, 2616120003, 2616120004, 2616120005, 2616120006, 2616120007, 2616120008, 2616120009, 2616120010, 2616120011, 2616120012, 2616120013

METHOD BLANK: 109864 Matrix: Water
Associated Lab Samples: 2616120001, 2616120003, 2616120004, 2616120005, 2616120006, 2616120007, 2616120008, 2616120009, 2616120010, 2616120011, 2616120012, 2616120013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	03/19/19 14:39	

LABORATORY CONTROL SAMPLE: 109865

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109866 109867

Parameter	Units	2616120001 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	0.0025	0.0025	101	102	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616120

QC Batch: 24639 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2616120002

METHOD BLANK: 110677 Matrix: Water
Associated Lab Samples: 2616120002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	03/20/19 13:07	

LABORATORY CONTROL SAMPLE: 110678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 110679 110680

Parameter	Units	2616179001 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	0.0025	0.0025	99	99	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616120

QC Batch: 24489 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616120001, 2616120002, 2616120003, 2616120004, 2616120005, 2616120006, 2616120007, 2616120008, 2616120009, 2616120010, 2616120011, 2616120012, 2616120013

METHOD BLANK: 109939 Matrix: Water
Associated Lab Samples: 2616120001, 2616120002, 2616120003, 2616120004, 2616120005, 2616120006, 2616120007, 2616120008, 2616120009, 2616120010, 2616120011, 2616120012, 2616120013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.0014J	0.0030	0.00078	03/20/19 14:21	
Arsenic	mg/L	ND	0.0050	0.00057	03/20/19 14:21	
Barium	mg/L	ND	0.010	0.00078	03/20/19 14:21	
Beryllium	mg/L	ND	0.0030	0.000050	03/20/19 14:21	
Cadmium	mg/L	ND	0.0010	0.000093	03/20/19 14:21	
Chromium	mg/L	ND	0.010	0.0016	03/20/19 14:21	
Cobalt	mg/L	ND	0.010	0.00052	03/20/19 14:21	
Lead	mg/L	ND	0.0050	0.00027	03/20/19 14:21	
Lithium	mg/L	ND	0.050	0.00097	03/20/19 14:21	
Molybdenum	mg/L	ND	0.010	0.0019	03/20/19 14:21	
Selenium	mg/L	ND	0.010	0.0014	03/20/19 14:21	
Thallium	mg/L	ND	0.0010	0.00014	03/20/19 14:21	

LABORATORY CONTROL SAMPLE: 109940

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.098	98	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	104	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109941 109942

Parameter	Units	2616120008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	105	105	75-125	0	20	
Arsenic	mg/L	0.42	0.1	0.1	0.51	0.53	99	113	75-125	3	20	
Barium	mg/L	0.10	0.1	0.1	0.18	0.18	76	75	75-125	1	20	
Beryllium	mg/L	0.000062J	0.1	0.1	0.094	0.095	94	95	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 109941 109942

Parameter	Units	2616120008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20	
Cobalt	mg/L	0.0022J	0.1	0.1	0.098	0.099	96	96	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.093	0.096	93	96	75-125	3	20	
Lithium	mg/L	0.029J	0.1	0.1	0.12	0.12	92	94	75-125	2	20	
Molybdenum	mg/L	0.033	0.1	0.1	0.13	0.13	96	99	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.099	0.10	99	104	75-125	6	20	
Thallium	mg/L	0.00039J	0.1	0.1	0.095	0.096	94	96	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616120

QC Batch: 24522 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616120001, 2616120002, 2616120003, 2616120004, 2616120005, 2616120006, 2616120007, 2616120008, 2616120009, 2616120010, 2616120011, 2616120012, 2616120013

METHOD BLANK: 110051 Matrix: Water
Associated Lab Samples: 2616120001, 2616120002, 2616120003, 2616120004, 2616120005, 2616120006, 2616120007, 2616120008, 2616120009, 2616120010, 2616120011, 2616120012, 2616120013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/18/19 21:29	

LABORATORY CONTROL SAMPLE: 110052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 110053 110054

Parameter	Units	2616039001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.035J	10	10	10.2	10.3	102	102	90-110	0	15	

MATRIX SPIKE SAMPLE: 110055

Parameter	Units	2616039002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.079J	10	10.3	103	90-110	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2616120

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2616120

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616120001	**MW-7**	EPA 3005A	24489	EPA 6020B	24530
2616120002	**MW-26D**	EPA 3005A	24489	EPA 6020B	24530
2616120003	**HGWC-9**	EPA 3005A	24489	EPA 6020B	24530
2616120004	**MW-27D**	EPA 3005A	24489	EPA 6020B	24530
2616120005	**MW-6**	EPA 3005A	24489	EPA 6020B	24530
2616120006	**HGWC-10**	EPA 3005A	24489	EPA 6020B	24530
2616120007	**MW-24D**	EPA 3005A	24489	EPA 6020B	24530
2616120008	**HGWC-13**	EPA 3005A	24489	EPA 6020B	24530
2616120009	**FD-1**	EPA 3005A	24489	EPA 6020B	24530
2616120010	**MW-20**	EPA 3005A	24489	EPA 6020B	24530
2616120011	**MW-5**	EPA 3005A	24489	EPA 6020B	24530
2616120012	**HGWC-7**	EPA 3005A	24489	EPA 6020B	24530
2616120013	**HGWC-11**	EPA 3005A	24489	EPA 6020B	24530
2616120001	**MW-7**	EPA 7470A	24464	EPA 7470A	24540
2616120002	**MW-26D**	EPA 7470A	24639	EPA 7470A	24703
2616120003	**HGWC-9**	EPA 7470A	24464	EPA 7470A	24540
2616120004	**MW-27D**	EPA 7470A	24464	EPA 7470A	24540
2616120005	**MW-6**	EPA 7470A	24464	EPA 7470A	24540
2616120006	**HGWC-10**	EPA 7470A	24464	EPA 7470A	24540
2616120007	**MW-24D**	EPA 7470A	24464	EPA 7470A	24540
2616120008	**HGWC-13**	EPA 7470A	24464	EPA 7470A	24540
2616120009	**FD-1**	EPA 7470A	24464	EPA 7470A	24540
2616120010	**MW-20**	EPA 7470A	24464	EPA 7470A	24540
2616120011	**MW-5**	EPA 7470A	24464	EPA 7470A	24540
2616120012	**HGWC-7**	EPA 7470A	24464	EPA 7470A	24540
2616120013	**HGWC-11**	EPA 7470A	24464	EPA 7470A	24540
2616120001	**MW-7**	EPA 300.0	24522		
2616120002	**MW-26D**	EPA 300.0	24522		
2616120003	**HGWC-9**	EPA 300.0	24522		
2616120004	**MW-27D**	EPA 300.0	24522		
2616120005	**MW-6**	EPA 300.0	24522		
2616120006	**HGWC-10**	EPA 300.0	24522		
2616120007	**MW-24D**	EPA 300.0	24522		
2616120008	**HGWC-13**	EPA 300.0	24522		
2616120009	**FD-1**	EPA 300.0	24522		
2616120010	**MW-20**	EPA 300.0	24522		
2616120011	**MW-5**	EPA 300.0	24522		
2616120012	**HGWC-7**	EPA 300.0	24522		
2616120013	**HGWC-11**	EPA 300.0	24522		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

SAMPLE ID

WO#: 2616120

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

Section A – Required Client Information | Section B – Required Project Information | Section C – Invoice Information

#	SAMPLE ID			Collected Date	Time	Date	Time								
1	UW-23D	✓		3/14		3/14				3	Y	Y	Y		
2	MW-6	✓		3/14		3/14				3		Y	Y		
3	UWC-1D	✓		3/15		3/14				3	Y	Y	Y		
4	UW-24D	✓		3/14		3/14				3	Y	Y	Y		
5	UWC-13	✓		3/14		3/14				3	Y	Y	Y		
6	FD-1	✓		3/14	—	3/15	—			3					

03/13/19

WO#: 2616120

Due Date: 03/21/19

CLIENT:

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time	Sample Conditions
[illegible]		1027	[illegible]			
[illegible]	3/13/19		[illegible]	3/13/19	2015	
[illegible]	3/14/19	1035	[illegible]			
			[illegible]			Y Y X

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed: [illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

Page: 3 of 3

Item #	SAMPLE ID
1	MW-7P
2	MW-5
3	HGWC-7
4	HGWC-11

WO#: 2616120

Due Date: 03/21/19

CLIENT: GAPower-CCR

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2616120

PM: BM   Due Date: 03/21/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used: 8.5   Type of Ice: Wet Blue None

Cooler Temperature: 2.1   Biological Tissue is Frozen: yes no

Temp should be above freezing to 6°C

☐ Samples on ice, cooling process has begun

Date and Initials of person examining contents: 3/14/19 [initials]

Comments:

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

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

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______   Date: ______

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

F-ALLC003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2616997

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2616997

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2616997

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616997001	**HGWC-9**	Water	04/03/19 10:05	04/04/19 11:00
2616997002	**MW-26D**	Water	04/03/19 11:38	04/04/19 11:00
2616997003	**MW-19**	Water	04/03/19 14:50	04/04/19 11:00
2616997004	**MW-5**	Water	04/03/19 13:12	04/04/19 11:00
2616997005	**HGWC-8**	Water	04/03/19 11:24	04/04/19 11:00
2616997006	**HGWC-10**	Water	04/03/19 13:38	04/04/19 11:00
2616997007	**MW-6**	Water	04/03/19 15:10	04/04/19 11:00
2616997008	**MW-7**	Water	04/03/19 10:45	04/04/19 11:00
2616997009	**HGWC-11**	Water	04/03/19 12:40	04/04/19 11:00
2616997010	**HGWC-12**	Water	04/03/19 14:20	04/04/19 11:00
2616997011	**MW-25D**	Water	04/03/19 16:15	04/04/19 11:00

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SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2616997

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616997001	**HGWC-9**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997002	**MW-26D**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997003	**MW-19**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997004	**MW-5**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997005	**HGWC-8**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997006	**HGWC-10**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997007	**MW-6**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997008	**MW-7**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997009	**HGWC-11**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997010	**HGWC-12**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616997011	**MW-25D**	EPA 6020B	CSW	13
		SM 2540C	RLC	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: HGWC-9 **Lab ID: 2616997001** Collected: 04/03/19 10:05 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/05/19 15:23	04/09/19 22:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 15:23	04/09/19 22:09	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00078	1	04/05/19 15:23	04/09/19 22:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 15:23	04/09/19 22:09	7440-41-7	
Boron	**2.3**	mg/L	2.0	0.20	50	04/05/19 15:23	04/09/19 22:14	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 15:23	04/09/19 22:09	7440-43-9	
Calcium	**164**	mg/L	25.0	0.69	50	04/05/19 15:23	04/09/19 22:14	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 15:23	04/09/19 22:09	7440-47-3	
Cobalt	**0.00069J**	mg/L	0.010	0.00052	1	04/05/19 15:23	04/09/19 22:09	7440-48-4	
Lithium	**0.0040J**	mg/L	0.050	0.00097	1	04/05/19 15:23	04/09/19 22:09	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.0019	1	04/05/19 15:23	04/09/19 22:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 15:23	04/09/19 22:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/05/19 15:23	04/09/19 22:09	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**673**	mg/L	25.0	10.0	1		04/10/19 16:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**130**	mg/L	2.5	0.24	10		04/05/19 20:32	16887-00-6	M1
Fluoride	**0.14J**	mg/L	0.30	0.029	1		04/05/19 14:08	16984-48-8	
Sulfate	**214**	mg/L	10.0	0.17	10		04/05/19 20:32	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: MW-26D **Lab ID: 2616997002** Collected: 04/03/19 11:38 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/05/19 15:23	04/09/19 22:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 15:23	04/09/19 22:20	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00078	1	04/05/19 15:23	04/09/19 22:20	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 15:23	04/09/19 22:20	7440-41-7	
Boron	**1.5**	mg/L	0.040	0.0039	1	04/05/19 15:23	04/09/19 22:20	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 15:23	04/09/19 22:20	7440-43-9	
Calcium	**122**	mg/L	25.0	0.69	50	04/05/19 15:23	04/09/19 22:26	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 15:23	04/09/19 22:20	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 15:23	04/09/19 22:20	7440-48-4	
Lithium	**0.0034J**	mg/L	0.050	0.00097	1	04/05/19 15:23	04/09/19 22:20	7439-93-2	
Molybdenum	**0.0083J**	mg/L	0.010	0.0019	1	04/05/19 15:23	04/09/19 22:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 15:23	04/09/19 22:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/05/19 15:23	04/09/19 22:20	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**493**	mg/L	25.0	10.0	1		04/10/19 16:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**90.6**	mg/L	2.5	0.24	10		04/11/19 13:12	16887-00-6	
Fluoride	**0.044J**	mg/L	0.30	0.029	1		04/05/19 15:12	16984-48-8	
Sulfate	**131**	mg/L	10.0	0.17	10		04/11/19 13:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: MW-19 **Lab ID: 2616997003** Collected: 04/03/19 14:50 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/05/19 15:23	04/09/19 22:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 15:23	04/09/19 22:43	7440-38-2	
Barium	**0.050**	mg/L	0.010	0.00078	1	04/05/19 15:23	04/09/19 22:43	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 15:23	04/09/19 22:43	7440-41-7	
Boron	**0.63**	mg/L	0.040	0.0039	1	04/05/19 15:23	04/09/19 22:43	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 15:23	04/09/19 22:43	7440-43-9	
Calcium	**74.9**	mg/L	25.0	0.69	50	04/05/19 15:23	04/09/19 22:49	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 15:23	04/09/19 22:43	7440-47-3	
Cobalt	**0.036**	mg/L	0.010	0.00052	1	04/05/19 15:23	04/09/19 22:43	7440-48-4	
Lithium	**0.0061J**	mg/L	0.050	0.00097	1	04/05/19 15:23	04/09/19 22:43	7439-93-2	
Molybdenum	**0.040**	mg/L	0.010	0.0019	1	04/05/19 15:23	04/09/19 22:43	7439-98-7	
Selenium	**0.0070J**	mg/L	0.010	0.0014	1	04/05/19 15:23	04/09/19 22:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/05/19 15:23	04/09/19 22:43	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**310**	mg/L	25.0	10.0	1		04/10/19 16:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**19.5**	mg/L	0.25	0.024	1		04/05/19 15:34	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.029	1		04/05/19 15:34	16984-48-8	
Sulfate	**105**	mg/L	10.0	0.17	10		04/11/19 13:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: MW-5 **Lab ID: 2616997004** Collected: 04/03/19 13:12 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/05/19 15:23	04/09/19 22:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 15:23	04/09/19 22:55	7440-38-2	
Barium	**0.049**	mg/L	0.010	0.00078	1	04/05/19 15:23	04/09/19 22:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 15:23	04/09/19 22:55	7440-41-7	
Boron	**0.030J**	mg/L	0.040	0.0039	1	04/05/19 15:23	04/09/19 22:55	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 15:23	04/09/19 22:55	7440-43-9	
Calcium	**82.0**	mg/L	25.0	0.69	50	04/05/19 15:23	04/09/19 23:00	7440-70-2	
Chromium	**0.0030J**	mg/L	0.010	0.0016	1	04/05/19 15:23	04/09/19 22:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 15:23	04/09/19 22:55	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 15:23	04/09/19 22:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 15:23	04/09/19 22:55	7439-98-7	
Selenium	**0.0027J**	mg/L	0.010	0.0014	1	04/05/19 15:23	04/09/19 22:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/05/19 15:23	04/09/19 22:55	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**396**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**1.8**	mg/L	0.25	0.024	1		04/05/19 15:55	16887-00-6	
Fluoride	**0.049J**	mg/L	0.30	0.029	1		04/05/19 15:55	16984-48-8	
Sulfate	**218**	mg/L	10.0	0.17	10		04/11/19 13:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: HGWC-8 **Lab ID: 2616997005** Collected: 04/03/19 11:24 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/05/19 15:23	04/09/19 23:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 15:23	04/09/19 23:06	7440-38-2	
Barium	**0.066**	mg/L	0.010	0.00078	1	04/05/19 15:23	04/09/19 23:06	7440-39-3	
Beryllium	**0.000074J**	mg/L	0.0030	0.000050	1	04/05/19 15:23	04/09/19 23:06	7440-41-7	
Boron	**2.8**	mg/L	2.0	0.20	50	04/05/19 15:23	04/09/19 23:12	7440-42-8	
Cadmium	**0.00032J**	mg/L	0.0010	0.000093	1	04/05/19 15:23	04/09/19 23:06	7440-43-9	
Calcium	**125**	mg/L	25.0	0.69	50	04/05/19 15:23	04/09/19 23:12	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 15:23	04/09/19 23:06	7440-47-3	
Cobalt	**0.0019J**	mg/L	0.010	0.00052	1	04/05/19 15:23	04/09/19 23:06	7440-48-4	
Lithium	**0.0025J**	mg/L	0.050	0.00097	1	04/05/19 15:23	04/09/19 23:06	7439-93-2	
Molybdenum	**0.50**	mg/L	0.010	0.0019	1	04/05/19 15:23	04/09/19 23:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 15:23	04/09/19 23:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/05/19 15:23	04/09/19 23:06	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**543**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**91.6**	mg/L	2.5	0.24	10		04/05/19 20:53	16887-00-6	
Fluoride	**0.63**	mg/L	0.30	0.029	1		04/05/19 16:16	16984-48-8	
Sulfate	**194**	mg/L	10.0	0.17	10		04/05/19 20:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: HGWC-10 **Lab ID: 2616997006** Collected: 04/03/19 13:38 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/05/19 15:23	04/09/19 23:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 15:23	04/09/19 23:17	7440-38-2	
Barium	**0.076**	mg/L	0.010	0.00078	1	04/05/19 15:23	04/09/19 23:17	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 15:23	04/09/19 23:17	7440-41-7	
Boron	**0.66**	mg/L	0.040	0.0039	1	04/05/19 15:23	04/09/19 23:17	7440-42-8	
Cadmium	**0.00010J**	mg/L	0.0010	0.000093	1	04/05/19 15:23	04/09/19 23:17	7440-43-9	
Calcium	**137**	mg/L	25.0	0.69	50	04/05/19 15:23	04/09/19 23:23	7440-70-2	
Chromium	**0.020**	mg/L	0.010	0.0016	1	04/05/19 15:23	04/09/19 23:17	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 15:23	04/09/19 23:17	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 15:23	04/09/19 23:17	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.0019	1	04/05/19 15:23	04/09/19 23:17	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 15:23	04/09/19 23:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/05/19 15:23	04/09/19 23:17	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**525**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**49.3**	mg/L	0.25	0.024	1		04/05/19 16:37	16887-00-6	
Fluoride	**0.082J**	mg/L	0.30	0.029	1		04/05/19 16:37	16984-48-8	
Sulfate	**159**	mg/L	10.0	0.17	10		04/05/19 21:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: MW-6 **Lab ID: 2616997007** Collected: 04/03/19 15:10 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/08/19 11:33	04/10/19 01:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:33	04/10/19 01:00	7440-38-2	
Barium	**0.090**	mg/L	0.010	0.00078	1	04/08/19 11:33	04/10/19 01:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:33	04/10/19 01:00	7440-41-7	
Boron	**0.67**	mg/L	0.040	0.0039	1	04/08/19 11:33	04/10/19 01:00	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:33	04/10/19 01:00	7440-43-9	
Calcium	**178**	mg/L	25.0	0.69	50	04/08/19 11:33	04/10/19 10:12	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/08/19 11:33	04/10/19 01:00	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:33	04/10/19 01:00	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:33	04/10/19 01:00	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.0019	1	04/08/19 11:33	04/10/19 01:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:33	04/10/19 01:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:33	04/10/19 01:00	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**437**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**60.9**	mg/L	2.5	0.24	10		04/11/19 14:20	16887-00-6	
Fluoride	**0.15J**	mg/L	0.30	0.029	1		04/05/19 16:59	16984-48-8	
Sulfate	**228**	mg/L	10.0	0.17	10		04/11/19 14:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: MW-7 **Lab ID: 2616997008** Collected: 04/03/19 10:45 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/08/19 11:33	04/10/19 01:23	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:33	04/10/19 01:23	7440-38-2	
Barium	**0.058**	mg/L	0.010	0.00078	1	04/08/19 11:33	04/10/19 01:23	7440-39-3	
Beryllium	**0.000051J**	mg/L	0.0030	0.000050	1	04/08/19 11:33	04/10/19 01:23	7440-41-7	
Boron	**0.094**	mg/L	0.040	0.0039	1	04/08/19 11:33	04/10/19 01:23	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:33	04/10/19 01:23	7440-43-9	
Calcium	**50.2**	mg/L	25.0	0.69	50	04/08/19 11:33	04/10/19 10:29	7440-70-2	
Chromium	**0.0023J**	mg/L	0.010	0.0016	1	04/08/19 11:33	04/10/19 01:23	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:33	04/10/19 01:23	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:33	04/10/19 01:23	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/08/19 11:33	04/10/19 01:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:33	04/10/19 01:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:33	04/10/19 01:23	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**213**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.6**	mg/L	0.25	0.024	1		04/05/19 17:20	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 17:20	16984-48-8	
Sulfate	**75.3**	mg/L	10.0	0.17	10		04/11/19 13:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: HGWC-11 **Lab ID: 2616997009** Collected: 04/03/19 12:40 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/08/19 11:33	04/10/19 01:29	7440-36-0	
Arsenic	**0.00094J**	mg/L	0.0050	0.00057	1	04/08/19 11:33	04/10/19 01:29	7440-38-2	
Barium	**0.023**	mg/L	0.010	0.00078	1	04/08/19 11:33	04/10/19 01:29	7440-39-3	
Beryllium	**0.00017J**	mg/L	0.0030	0.000050	1	04/08/19 11:33	04/10/19 01:29	7440-41-7	
Boron	**0.23**	mg/L	0.040	0.0039	1	04/08/19 11:33	04/10/19 01:29	7440-42-8	
Cadmium	**0.000096J**	mg/L	0.0010	0.000093	1	04/08/19 11:33	04/10/19 01:29	7440-43-9	
Calcium	**112**	mg/L	25.0	0.69	50	04/08/19 11:33	04/10/19 10:35	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/08/19 11:33	04/10/19 01:29	7440-47-3	
Cobalt	**0.0018J**	mg/L	0.010	0.00052	1	04/08/19 11:33	04/10/19 01:29	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:33	04/10/19 01:29	7439-93-2	
Molybdenum	**0.010**	mg/L	0.010	0.0019	1	04/08/19 11:33	04/10/19 01:29	7439-98-7	
Selenium	**0.016**	mg/L	0.010	0.0014	1	04/08/19 11:33	04/10/19 01:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:33	04/10/19 01:29	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**483**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.6**	mg/L	0.25	0.024	1		04/05/19 19:07	16887-00-6	
Fluoride	**0.43**	mg/L	0.30	0.029	1		04/05/19 19:07	16984-48-8	
Sulfate	**298**	mg/L	10.0	0.17	10		04/11/19 14:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: HGWC-12 **Lab ID: 2616997010** Collected: 04/03/19 14:20 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/08/19 11:33	04/10/19 01:35	7440-36-0	
Arsenic	**0.0022J**	mg/L	0.0050	0.00057	1	04/08/19 11:33	04/10/19 01:35	7440-38-2	
Barium	**0.077**	mg/L	0.010	0.00078	1	04/08/19 11:33	04/10/19 01:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:33	04/10/19 01:35	7440-41-7	
Boron	**1.8**	mg/L	0.040	0.0039	1	04/08/19 11:33	04/10/19 01:35	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:33	04/10/19 01:35	7440-43-9	
Calcium	**114**	mg/L	25.0	0.69	50	04/08/19 11:33	04/10/19 10:40	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/08/19 11:33	04/10/19 01:35	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.010	0.00052	1	04/08/19 11:33	04/10/19 01:35	7440-48-4	
Lithium	**0.0066J**	mg/L	0.050	0.00097	1	04/08/19 11:33	04/10/19 01:35	7439-93-2	
Molybdenum	**0.049**	mg/L	0.010	0.0019	1	04/08/19 11:33	04/10/19 01:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:33	04/10/19 01:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:33	04/10/19 01:35	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**462**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**62.8**	mg/L	1.2	0.12	5		04/05/19 21:57	16887-00-6	
Fluoride	**0.30J**	mg/L	0.30	0.029	1		04/05/19 19:28	16984-48-8	
Sulfate	**176**	mg/L	5.0	0.085	5		04/05/19 21:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2616997

Sample: MW-25D **Lab ID: 2616997011** Collected: 04/03/19 16:15 Received: 04/04/19 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/08/19 11:33	04/10/19 01:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:33	04/10/19 01:41	7440-38-2	
Barium	**0.38**	mg/L	0.010	0.00078	1	04/08/19 11:33	04/10/19 01:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:33	04/10/19 01:41	7440-41-7	
Boron	**0.37**	mg/L	0.040	0.0039	1	04/08/19 11:33	04/10/19 01:41	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:33	04/10/19 01:41	7440-43-9	
Calcium	**25.4**	mg/L	25.0	0.69	50	04/08/19 11:33	04/10/19 10:46	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/08/19 11:33	04/10/19 01:41	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:33	04/10/19 01:41	7440-48-4	
Lithium	**0.047J**	mg/L	0.050	0.00097	1	04/08/19 11:33	04/10/19 01:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/08/19 11:33	04/10/19 01:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:33	04/10/19 01:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:33	04/10/19 01:41	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**15.0J**	mg/L	25.0	10.0	1		04/10/19 16:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**32.0**	mg/L	0.25	0.024	1		04/05/19 20:11	16887-00-6	
Fluoride	**1.6**	mg/L	0.30	0.029	1		04/05/19 20:11	16984-48-8	
Sulfate	**53.0**	mg/L	10.0	0.17	10		04/11/19 15:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616997

QC Batch: 25906 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616997001, 2616997002, 2616997003, 2616997004, 2616997005, 2616997006

METHOD BLANK: 116817 Matrix: Water
Associated Lab Samples: 2616997001, 2616997002, 2616997003, 2616997004, 2616997005, 2616997006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/09/19 18:14	
Arsenic	mg/L	ND	0.0050	0.00057	04/09/19 18:14	
Barium	mg/L	ND	0.010	0.00078	04/09/19 18:14	
Beryllium	mg/L	ND	0.0030	0.000050	04/09/19 18:14	
Boron	mg/L	ND	0.040	0.0039	04/09/19 18:14	
Cadmium	mg/L	ND	0.0010	0.000093	04/09/19 18:14	
Calcium	mg/L	ND	0.50	0.014	04/09/19 18:14	
Chromium	mg/L	ND	0.010	0.0016	04/09/19 18:14	
Cobalt	mg/L	ND	0.010	0.00052	04/09/19 18:14	
Lithium	mg/L	ND	0.050	0.00097	04/09/19 18:14	
Molybdenum	mg/L	ND	0.010	0.0019	04/09/19 18:14	
Selenium	mg/L	ND	0.010	0.0014	04/09/19 18:14	
Thallium	mg/L	ND	0.0010	0.00014	04/09/19 18:14	

LABORATORY CONTROL SAMPLE: 116818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.94	94	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	0.97	97	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.096	96	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116819 116820

Parameter	Units	2616933004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	108	105	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Barium	mg/L	0.072	0.1	0.1	0.18	0.18	109	105	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616997

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116819 116820

Parameter	Units	2616933004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.092	0.092	92	92	75-125	1	20	
Boron	mg/L	0.99	1	1	1.9	2.0	92	96	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20	
Calcium	mg/L	101	1	1	140	115	3930	1380	75-125	20	20	M6
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	105	103	75-125	2	20	
Cobalt	mg/L	0.00069J	0.1	0.1	0.10	0.10	102	100	75-125	2	20	
Lithium	mg/L	0.0020J	0.1	0.1	0.094	0.095	91	93	75-125	2	20	
Molybdenum	mg/L	0.041	0.1	0.1	0.15	0.15	112	110	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	97	95	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616997

QC Batch: 25997 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616997007, 2616997008, 2616997009, 2616997010, 2616997011

METHOD BLANK: 117367 Matrix: Water
Associated Lab Samples: 2616997007, 2616997008, 2616997009, 2616997010, 2616997011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/09/19 23:46	
Arsenic	mg/L	ND	0.0050	0.00057	04/09/19 23:46	
Barium	mg/L	ND	0.010	0.00078	04/09/19 23:46	
Beryllium	mg/L	ND	0.0030	0.000050	04/09/19 23:46	
Boron	mg/L	ND	0.040	0.0039	04/09/19 23:46	
Cadmium	mg/L	ND	0.0010	0.000093	04/09/19 23:46	
Calcium	mg/L	ND	0.50	0.014	04/09/19 23:46	
Chromium	mg/L	ND	0.010	0.0016	04/09/19 23:46	
Cobalt	mg/L	ND	0.010	0.00052	04/09/19 23:46	
Lithium	mg/L	ND	0.050	0.00097	04/09/19 23:46	
Molybdenum	mg/L	ND	0.010	0.0019	04/09/19 23:46	
Selenium	mg/L	ND	0.010	0.0014	04/09/19 23:46	
Thallium	mg/L	ND	0.0010	0.00014	04/09/19 23:46	

LABORATORY CONTROL SAMPLE: 117368

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.094	94	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.094	94	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117369 117370

Parameter	Units	2616997007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	
Barium	mg/L	0.090	0.1	0.1	0.18	0.18	90	93	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616997

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117369 117370

Parameter	Units	2616997007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.090	0.088	90	88	75-125	2	20	
Boron	mg/L	0.67	1	1	1.5	1.5	85	86	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	
Calcium	mg/L	178	1	1	173	179	-513	1	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.096	0.097	95	97	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.090	0.091	90	90	75-125	0	20	
Molybdenum	mg/L	0.0021J	0.1	0.1	0.10	0.11	103	104	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.10	97	100	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616997

QC Batch: 26129 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2616997001, 2616997002, 2616997003, 2616997004, 2616997005, 2616997006, 2616997007, 2616997008, 2616997009, 2616997010, 2616997011

LABORATORY CONTROL SAMPLE: 117954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 118270

Parameter	Units	2616972001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	290	303	4	10	

SAMPLE DUPLICATE: 118610

Parameter	Units	2616992002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	369	359	3	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2616997

QC Batch: 25883 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616997001, 2616997002, 2616997003, 2616997004, 2616997005, 2616997006, 2616997007, 2616997008, 2616997009, 2616997010, 2616997011

METHOD BLANK: 116739 Matrix: Water
Associated Lab Samples: 2616997001, 2616997002, 2616997003, 2616997004, 2616997005, 2616997006, 2616997007, 2616997008, 2616997009, 2616997010, 2616997011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.057J	0.25	0.024	04/05/19 13:26	
Fluoride	mg/L	ND	0.30	0.029	04/05/19 13:26	
Sulfate	mg/L	0.026J	1.0	0.017	04/05/19 13:26	

LABORATORY CONTROL SAMPLE: 116740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116741 116742

Parameter	Units	2616997001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	130	10	10	111	111	-190	-190	90-110	0	15	E,M1
Fluoride	mg/L	0.14J	10	10	10.4	10.2	103	100	90-110	2	15	
Sulfate	mg/L	214	10	10	165	165	-494	-494	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 116743

Parameter	Units	2616997002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	90.6	10	90.3	-2	90-110	E
Fluoride	mg/L	0.044J	10	9.2	92	90-110	
Sulfate	mg/L	131	10	122	-98	90-110	E

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2616997

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2616997

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616997001	**HGWC-9**	EPA 3005A	25906	EPA 6020B	25928
2616997002	**MW-26D**	EPA 3005A	25906	EPA 6020B	25928
2616997003	**MW-19**	EPA 3005A	25906	EPA 6020B	25928
2616997004	**MW-5**	EPA 3005A	25906	EPA 6020B	25928
2616997005	**HGWC-8**	EPA 3005A	25906	EPA 6020B	25928
2616997006	**HGWC-10**	EPA 3005A	25906	EPA 6020B	25928
2616997007	**MW-6**	EPA 3005A	25997	EPA 6020B	26011
2616997008	**MW-7**	EPA 3005A	25997	EPA 6020B	26011
2616997009	**HGWC-11**	EPA 3005A	25997	EPA 6020B	26011
2616997010	**HGWC-12**	EPA 3005A	25997	EPA 6020B	26011
2616997011	**MW-25D**	EPA 3005A	25997	EPA 6020B	26011
2616997001	**HGWC-9**	SM 2540C	26129		
2616997002	**MW-26D**	SM 2540C	26129		
2616997003	**MW-19**	SM 2540C	26129		
2616997004	**MW-5**	SM 2540C	26129		
2616997005	**HGWC-8**	SM 2540C	26129		
2616997006	**HGWC-10**	SM 2540C	26129		
2616997007	**MW-6**	SM 2540C	26129		
2616997008	**MW-7**	SM 2540C	26129		
2616997009	**HGWC-11**	SM 2540C	26129		
2616997010	**HGWC-12**	SM 2540C	26129		
2616997011	**MW-25D**	SM 2540C	26129		
2616997001	**HGWC-9**	EPA 300.0	25883		
2616997002	**MW-26D**	EPA 300.0	25883		
2616997003	**MW-19**	EPA 300.0	25883		
2616997004	**MW-5**	EPA 300.0	25883		
2616997005	**HGWC-8**	EPA 300.0	25883		
2616997006	**HGWC-10**	EPA 300.0	25883		
2616997007	**MW-6**	EPA 300.0	25883		
2616997008	**MW-7**	EPA 300.0	25883		
2616997009	**HGWC-11**	EPA 300.0	25883		
2616997010	**HGWC-12**	EPA 300.0	25883		
2616997011	**MW-25D**	EPA 300.0	25883		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 3

Requested Due Date: Standard TAT

SAMPLE ID

Sample ID	Matrix	Sample Type	Start Date	Start Time	End Date	End Time	# of Containers				Analyses
HGWC-4	WT	G	[illegible]	[illegible]	[illegible]	1005	[illegible]	5	2	3	Y — Y Y
MW-260	WT	G	[illegible]	1156	[illegible]	11:31	[illegible]	5	2	2	Y — Y Y
MW-11	WT	G	[illegible]	[illegible]	[illegible]	11:50	[illegible]	5	2	3	Y — Y Y
MW-5	WT	G	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	2	3	Y — Y Y

CM 04/03/19

WO#: 2616997

2616997

App III (3) Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lithium, Molybdenum, Selenium, Thallium

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Grant Walker / [illegible]	[illegible]	1010	[illegible] / Geosyntec	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
			[illegible]	[illegible]	1100

Sample conditions: 3.5 Y Y Y

PRINT Name of SAMPLER: Grant Walker

SIGNATURE of SAMPLER: [signature] DATE Signed: [illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

SAMPLE ID

HGWC-8

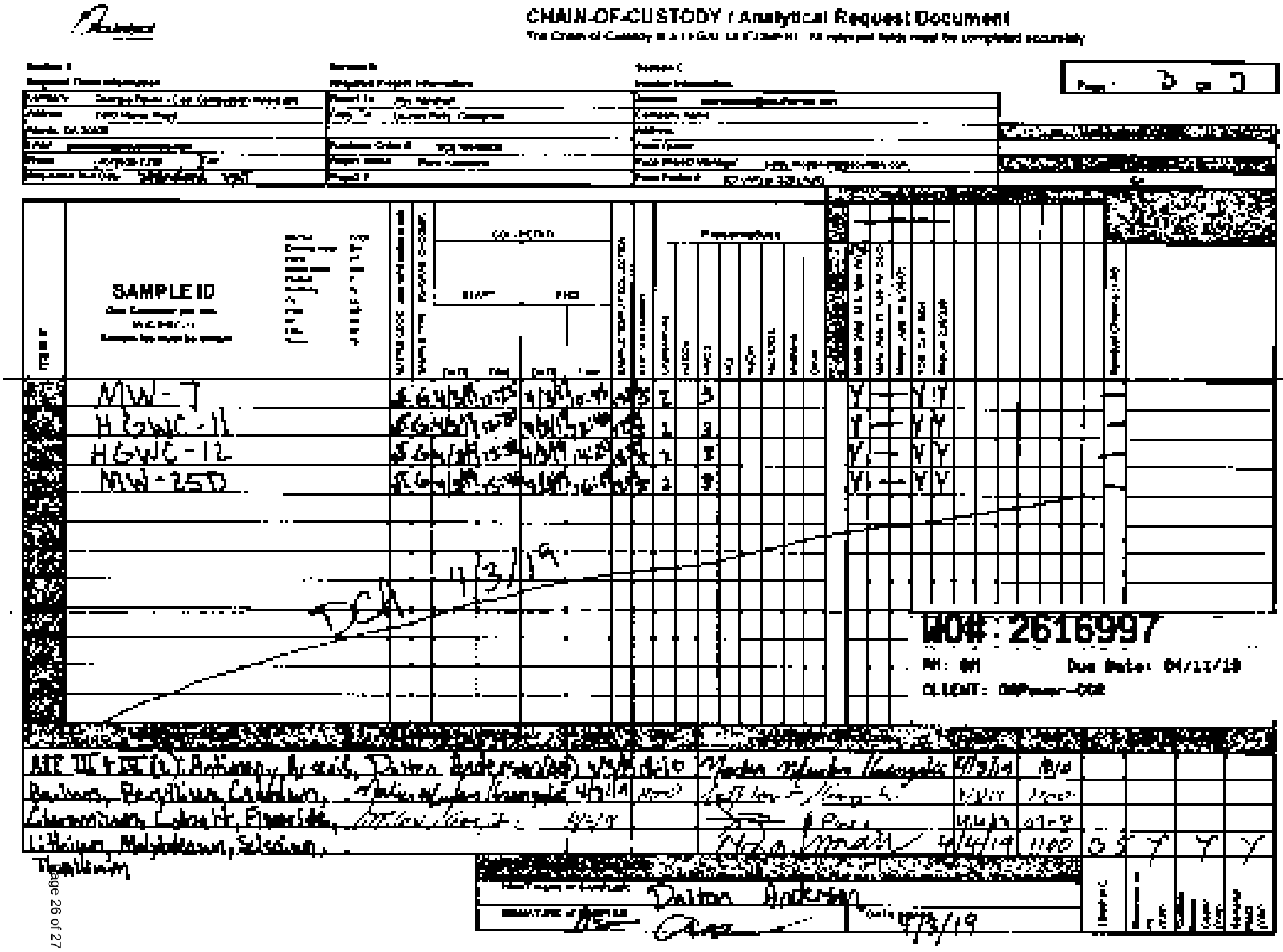
HGWC-10

MW-6

WO#: 2616997

Due Date: 4/13/10

Page 25 of 27



CHAIN-OF-CUSTODY / Analytical Request Document

SAMPLE ID

MW-1
HGWC-11
HGWC-12
MW-25D

WO#: 2616997

Due Date: 04/11/19

CLIENT:

Dalton Anderson

4/13/19

Pace Analytical

Sample Condition Upon Receipt

Client Name: GA Power

Project #

WO#: 2616997

PM: [illegible] Due Date: 04/11/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #:

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Thermometer Used: 83

Type of Ice: Wet Blue None

Cooler Temperature: 3.5

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

☐ Samples on ice, cooling process has begun

Date and Initials of person examining contents: 4/5/19 [initials]

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

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

F-ALLC003rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

May 01, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2617146

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on April 08, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the one issued on 4/15/2019. The report has been revised to correct metals units per consultant request. No other changes have been made to this report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2617146

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2617146

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617146001	**HGWC-13**	Water	04/05/19 16:03	04/08/19 15:30

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2617146

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617146001	**HGWC-13**	EPA 6020B	JMW1	13	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2617146

Sample: HGWC-13 **Lab ID: 2617146001** Collected: 04/05/19 16:03 Received: 04/08/19 15:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Antimony	**0.00021J**	mg/L	0.0030	0.00011	1	04/10/19 19:59	04/12/19 09:34	7440-36-0	
Arsenic	**0.36**	mg/L	0.0050	0.000060	1	04/10/19 19:59	04/12/19 09:34	7440-38-2	
Barium	**0.079**	mg/L	0.010	0.000060	1	04/10/19 19:59	04/12/19 09:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/10/19 19:59	04/12/19 09:34	7440-41-7	
Boron	**0.86J**	mg/L	2.0	0.051	20	04/10/19 19:59	04/11/19 23:20	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/10/19 19:59	04/12/19 09:34	7440-43-9	
Calcium	**77.1**	mg/L	10.0	0.41	20	04/10/19 19:59	04/11/19 23:20	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/10/19 19:59	04/12/19 09:34	7440-47-3	
Cobalt	**0.0017J**	mg/L	0.010	0.000050	1	04/10/19 19:59	04/12/19 09:34	7440-48-4	
Lithium	**0.023J**	mg/L	0.050	0.00042	1	04/10/19 19:59	04/12/19 09:34	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.00010	1	04/10/19 19:59	04/12/19 09:34	7439-98-7	
Selenium	**0.00018J**	mg/L	0.010	0.000080	1	04/10/19 19:59	04/12/19 09:34	7782-49-2	
Thallium	**0.00034J**	mg/L	0.0010	0.000060	1	04/10/19 19:59	04/12/19 09:34	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**331**	mg/L	25.0	10.0	1		04/11/19 20:53		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**36.4**	mg/L	0.25	0.024	1		04/10/19 09:10	16887-00-6	
Fluoride	**0.83**	mg/L	0.30	0.029	1		04/10/19 09:10	16984-48-8	
Sulfate	**105**	mg/L	10.0	0.17	10		04/10/19 13:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2617146

QC Batch: 468622
QC Batch Method: EPA 3010A
Associated Lab Samples: 2617146001

Analysis Method: EPA 6020B
Analysis Description: 6020 MET

METHOD BLANK: 2545263 Matrix: Water
Associated Lab Samples: 2617146001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00011	04/11/19 20:42	
Arsenic	mg/L	ND	0.0050	0.000060	04/11/19 20:42	
Barium	mg/L	ND	0.010	0.000060	04/11/19 20:42	
Beryllium	mg/L	ND	0.0030	0.000050	04/11/19 20:42	
Boron	mg/L	ND	0.10	0.0026	04/11/19 20:42	
Cadmium	mg/L	ND	0.0010	0.000070	04/11/19 20:42	
Calcium	mg/L	ND	0.50	0.021	04/11/19 20:42	
Chromium	mg/L	ND	0.010	0.00042	04/11/19 20:42	
Cobalt	mg/L	ND	0.010	0.000050	04/11/19 20:42	
Lithium	mg/L	ND	0.050	0.00042	04/11/19 20:42	
Molybdenum	mg/L	ND	0.010	0.00010	04/11/19 20:42	
Selenium	mg/L	ND	0.010	0.000080	04/11/19 20:42	
Thallium	mg/L	ND	0.0010	0.000060	04/11/19 20:42	

LABORATORY CONTROL SAMPLE: 2545264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.01	0.0099	99	80-120	
Barium	mg/L	0.05	0.049	99	80-120	
Beryllium	mg/L	0.01	0.010	104	80-120	
Boron	mg/L	0.05	0.052J	104	80-120	
Cadmium	mg/L	0.01	0.010	102	80-120	
Calcium	mg/L	0.62	0.64	102	80-120	
Chromium	mg/L	0.05	0.051	102	80-120	
Cobalt	mg/L	0.01	0.010	102	80-120	
Lithium	mg/L	0.05	0.050	100	80-120	
Molybdenum	mg/L	0.05	0.051	102	80-120	
Selenium	mg/L	0.05	0.051	101	80-120	
Thallium	mg/L	0.01	0.010	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2545265 2545266

Parameter	Units	2617144001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L		0.1	0.1	0.099	0.099	99	99	75-125	0	20	
Arsenic	mg/L		0.01	0.01	0.0091J	0.0089J	91	89	75-125	2	20	
Barium	mg/L		0.05	0.05	0.085	0.085	85	85	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2617146

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2545265 2545266

Parameter	Units	2617144001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L		0.01	0.01	0.0086	0.0089	86	89	75-125	4	20	
Boron	mg/L	1010J ug/L	0.05	0.05	1.0J	1.0J	67	48	75-125	1	20	M6
Cadmium	mg/L		0.01	0.01	0.011	0.011	99	99	75-125	0	20	
Calcium	mg/L	70000 ug/L	0.62	0.62	71.3	74.8	207	759	75-125	5	20	M6
Chromium	mg/L		0.05	0.05	0.048	0.048	96	95	75-125	1	20	
Cobalt	mg/L		0.01	0.01	0.015	0.015	97	96	75-125	1	20	
Lithium	mg/L		0.05	0.05	0.043J	0.044J	82	85	75-125	3	20	
Molybdenum	mg/L		0.05	0.05	0.050	0.049	99	99	75-125	1	20	
Selenium	mg/L		0.05	0.05	0.044	0.044	89	88	75-125	1	20	
Thallium	mg/L		0.01	0.01	0.0096	0.0096	96	96	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2617146

QC Batch: 26252
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617146001

LABORATORY CONTROL SAMPLE: 118510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 118512

Parameter	Units	2617150003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2310	2380	3	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2617146

QC Batch: 26064 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617146001

METHOD BLANK: 117680 Matrix: Water
Associated Lab Samples: 2617146001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	04/10/19 01:27	
Fluoride	mg/L	ND	0.30	0.029	04/10/19 01:27	
Sulfate	mg/L	ND	1.0	0.017	04/10/19 01:27	

LABORATORY CONTROL SAMPLE: 117681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117682 117683

Parameter	Units	2617086001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.2	10	10	14.3	14.3	101	101	90-110	0	15	
Fluoride	mg/L	0.047J	10	10	10.4	10.4	103	103	90-110	0	15	
Sulfate	mg/L	10.8	10	10	19.6	19.6	89	88	90-110	0	15	M1

MATRIX SPIKE SAMPLE: 117684

Parameter	Units	2617086002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.6	10	10.7	91	90-110	
Fluoride	mg/L	ND	10	9.2	92	90-110	
Sulfate	mg/L	5.2	10	13.7	85	90-110	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2617146

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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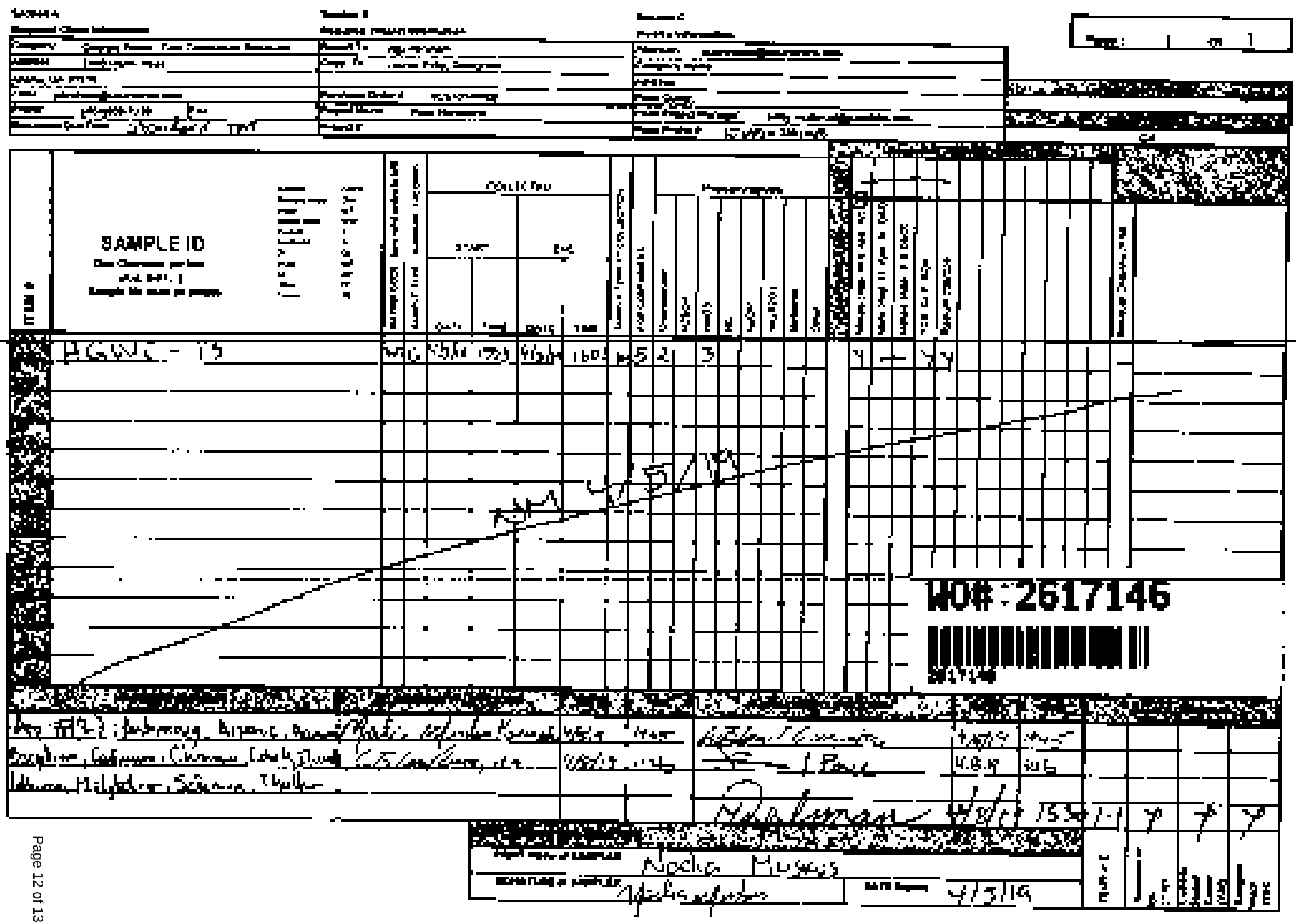
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2617146

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617146001	**HGWC-13**	EPA 3010A	468622	EPA 6020B	468673
2617146001	**HGWC-13**	SM 2540C	26252		
2617146001	**HGWC-13**	EPA 300.0	26064		

CHAIN-OF-CUSTODY / Analytical Request Document



Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power | Project #

WO#: 2617146

PM: BM Due Date: 04/15/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace Other

Tracking #

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other

Thermometer Used: 85 Type of Ice: Wet Blue None

Cooler Temperature: 1.1 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

☐ Samples on ice, cooling process has begun

Date and Initials of person examining contents: 4/11/19 MK

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 11, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 2623567

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 2623567

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 2623567

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623567001	**HGWC-8**	Water	09/24/19 15:50	09/25/19 14:03
2623567002	**MW-30d**	Water	09/24/19 16:40	09/25/19 14:03
2623567003	**MW-29**	Water	09/24/19 15:22	09/25/19 14:03

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 2623567

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623567001	**HGWC-8**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623567002	**MW-30d**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623567003	**MW-29**	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623567

Sample: HGWC-8 **Lab ID: 2623567001** Collected: 09/24/19 15:50 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/28/19 14:58	10/02/19 18:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/28/19 14:58	10/02/19 18:43	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00049	1	09/28/19 14:58	10/02/19 18:43	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/28/19 14:58	10/02/19 18:43	7440-41-7	
Boron	**2.8**	mg/L	2.0	0.25	50	09/28/19 14:58	10/02/19 18:48	7440-42-8	M1
Cadmium	**0.00020J**	mg/L	0.0025	0.00011	1	09/28/19 14:58	10/02/19 18:43	7440-43-9	
Calcium	**113**	mg/L	5.0	0.55	50	09/28/19 14:58	10/02/19 18:48	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.00039	1	09/28/19 14:58	10/02/19 18:43	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00030	1	09/28/19 14:58	10/02/19 18:43	7440-48-4	
Lithium	**0.0024J**	mg/L	0.030	0.00078	1	09/28/19 14:58	10/02/19 18:43	7439-93-2	
Molybdenum	**0.54**	mg/L	0.50	0.047	50	09/28/19 14:58	10/02/19 18:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/28/19 14:58	10/02/19 18:43	7782-49-2	
Thallium	**0.00011J**	mg/L	0.0010	0.000052	1	09/28/19 14:58	10/02/19 18:43	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**457**	mg/L	10.0	10.0	1		10/01/19 16:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**60.2**	mg/L	1.0	0.60	1		10/01/19 19:31	16887-00-6	
Fluoride	**0.49**	mg/L	0.30	0.050	1		10/01/19 19:31	16984-48-8	
Sulfate	**133**	mg/L	3.0	1.5	3		10/02/19 07:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623567

Sample: MW-30d **Lab ID: 2623567002** Collected: 09/24/19 16:40 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00046J**	mg/L	0.0030	0.00027	1	09/28/19 14:58	10/02/19 19:34	7440-36-0	
Arsenic	**0.0026J**	mg/L	0.0050	0.00035	1	09/28/19 14:58	10/02/19 19:34	7440-38-2	
Barium	**0.054**	mg/L	0.010	0.00049	1	09/28/19 14:58	10/02/19 19:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/28/19 14:58	10/02/19 19:34	7440-41-7	
Boron	**0.69**	mg/L	0.040	0.0049	1	09/28/19 14:58	10/02/19 19:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/28/19 14:58	10/02/19 19:34	7440-43-9	
Calcium	**34.2**	mg/L	5.0	0.55	50	09/28/19 14:58	10/02/19 19:40	7440-70-2	
Chromium	**0.00041J**	mg/L	0.010	0.00039	1	09/28/19 14:58	10/02/19 19:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/28/19 14:58	10/02/19 19:34	7440-48-4	
Lithium	**0.16**	mg/L	0.030	0.00078	1	09/28/19 14:58	10/02/19 19:34	7439-93-2	
Molybdenum	**0.036**	mg/L	0.010	0.00095	1	09/28/19 14:58	10/02/19 19:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/28/19 14:58	10/02/19 19:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/28/19 14:58	10/02/19 19:34	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1970**	mg/L	10.0	10.0	1		10/01/19 16:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**99.2**	mg/L	17.0	10.2	17		10/02/19 08:09	16887-00-6	
Fluoride	**5.7**	mg/L	5.1	0.85	17		10/02/19 08:09	16984-48-8	
Sulfate	**756**	mg/L	17.0	8.5	17		10/02/19 08:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Hammond
Pace Project No.: 2623567

Sample: MW-29 **Lab ID: 2623567003** Collected: 09/24/19 15:22 Received: 09/25/19 14:03 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/30/19 12:43	10/01/19 18:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	09/30/19 12:43	10/01/19 18:41	7440-38-2	
Barium	**0.081**	mg/L	0.010	0.00049	1	09/30/19 12:43	10/01/19 18:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 12:43	10/01/19 18:41	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0049	1	09/30/19 12:43	10/01/19 18:41	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 12:43	10/01/19 18:41	7440-43-9	
Calcium	**140**	mg/L	5.0	0.55	50	09/30/19 12:43	10/01/19 18:47	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	09/30/19 12:43	10/01/19 18:41	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00030	1	09/30/19 12:43	10/01/19 18:41	7440-48-4	
Lithium	**0.0022J**	mg/L	0.030	0.00078	1	09/30/19 12:43	10/01/19 18:41	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.00095	1	09/30/19 12:43	10/01/19 18:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 12:43	10/01/19 18:41	7782-49-2	
Thallium	**0.000064J**	mg/L	0.0010	0.000052	1	09/30/19 12:43	10/01/19 18:41	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**603**	mg/L	10.0	10.0	1		10/01/19 16:38		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**83.8**	mg/L	10.0	0.24	10		10/01/19 04:32	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.029	1		09/30/19 20:15	16984-48-8	
Sulfate	**154**	mg/L	10.0	0.17	10		10/01/19 04:32	14808-79-8	M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36136 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623567001, 2623567002

METHOD BLANK: 163251 Matrix: Water
Associated Lab Samples: 2623567001, 2623567002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/02/19 18:26	
Arsenic	mg/L	ND	0.0050	0.00035	10/02/19 18:26	
Barium	mg/L	ND	0.010	0.00049	10/02/19 18:26	
Beryllium	mg/L	ND	0.0030	0.000074	10/02/19 18:26	
Boron	mg/L	ND	0.040	0.0049	10/02/19 18:26	
Cadmium	mg/L	ND	0.0025	0.00011	10/02/19 18:26	
Calcium	mg/L	ND	0.10	0.011	10/02/19 18:26	
Chromium	mg/L	ND	0.010	0.00039	10/02/19 18:26	
Cobalt	mg/L	ND	0.0050	0.00030	10/02/19 18:26	
Lithium	mg/L	ND	0.030	0.00078	10/02/19 18:26	
Molybdenum	mg/L	ND	0.010	0.00095	10/02/19 18:26	
Selenium	mg/L	ND	0.010	0.0013	10/02/19 18:26	
Thallium	mg/L	ND	0.0010	0.000052	10/02/19 18:26	

LABORATORY CONTROL SAMPLE: 163252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163253 163254

Parameter	Units	2623567001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	2	20	
Barium	mg/L	0.053	0.1	0.1	0.16	0.16	107	108	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163253 163254

Parameter	Units	2623567001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20	
Boron	mg/L	2.8	1	1	3.8	4.2	101	139	75-125	10	20	
Cadmium	mg/L	0.00020J	0.1	0.1	0.10	0.098	102	98	75-125	4	20	
Calcium	mg/L	113	1	1	105	114	-820	112	75-125	9	20	M6
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20	
Cobalt	mg/L	0.0015J	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Lithium	mg/L	0.0024J	0.1	0.1	0.10	0.10	98	98	75-125	0	20	
Molybdenum	mg/L	0.54	0.1	0.1	0.63	0.64	85	93	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20	
Thallium	mg/L	0.00011J	0.1	0.1	0.099	0.098	99	98	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36170
QC Batch Method: EPA 3005A
Associated Lab Samples: 2623567003

Analysis Method: EPA 6020B
Analysis Description: 6020B MET

METHOD BLANK: 163336 Matrix: Water
Associated Lab Samples: 2623567003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/01/19 18:14	
Arsenic	mg/L	ND	0.0050	0.00035	10/01/19 18:14	
Barium	mg/L	ND	0.010	0.00049	10/01/19 18:14	
Beryllium	mg/L	ND	0.0030	0.000074	10/01/19 18:14	
Boron	mg/L	ND	0.040	0.0049	10/01/19 18:14	
Cadmium	mg/L	ND	0.0025	0.00011	10/01/19 18:14	
Calcium	mg/L	ND	0.10	0.011	10/01/19 18:14	
Chromium	mg/L	ND	0.010	0.00039	10/01/19 18:14	
Cobalt	mg/L	ND	0.0050	0.00030	10/01/19 18:14	
Lithium	mg/L	ND	0.030	0.00078	10/01/19 18:14	
Molybdenum	mg/L	ND	0.010	0.00095	10/01/19 18:14	
Selenium	mg/L	ND	0.010	0.0013	10/01/19 18:14	
Thallium	mg/L	ND	0.0010	0.000052	10/01/19 18:14	

LABORATORY CONTROL SAMPLE: 163337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	109	106	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163338 163339

Parameter	Units	2623623007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000084J	0.1	0.1	0.10	0.093	102	93	75-125	9	20	
Boron	mg/L	0.0072J	1	1	1.0	0.95	100	94	75-125	6	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	2	20	
Calcium	mg/L	1.1	1	1	2.1	2.1	97	94	75-125	1	20	
Chromium	mg/L	0.00076J	0.1	0.1	0.10	0.10	101	101	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	
Lithium	mg/L	0.0029J	0.1	0.1	0.10	0.097	102	94	75-125	7	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	108	104	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36262 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623567001, 2623567002, 2623567003

LABORATORY CONTROL SAMPLE: 163778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	357	89	84-108	

SAMPLE DUPLICATE: 163780

Parameter	Units	2623620001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	139	5	10	

SAMPLE DUPLICATE: 163844

Parameter	Units	2623559001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	124	7	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 36185
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623567003

METHOD BLANK: 163390
Matrix: Water
Associated Lab Samples: 2623567003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.033J	1.0	0.024	09/30/19 18:32	
Fluoride	mg/L	ND	0.30	0.029	09/30/19 18:32	
Sulfate	mg/L	ND	1.0	0.017	09/30/19 18:32	

LABORATORY CONTROL SAMPLE: 163391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.7	107	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163392 163393

Parameter	Units	2623317001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.0	20	20	61.9	61.6	79	78	90-110	0	15	M1
Fluoride	mg/L	0.94	20	20	21.7	22.3	104	107	90-110	3	15	

MATRIX SPIKE SAMPLE: 163394

Parameter	Units	2623567003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	83.8	100	181	97	90-110	
Fluoride	mg/L	0.18J	100	101	101	90-110	
Sulfate	mg/L	154	100	242	88	90-110	M6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond
Pace Project No.: 2623567

QC Batch: 500861
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623567001, 2623567002

METHOD BLANK: 2694298 Matrix: Water
Associated Lab Samples: 2623567001, 2623567002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/01/19 16:22	
Fluoride	mg/L	ND	0.10	0.050	10/01/19 16:22	
Sulfate	mg/L	ND	1.0	0.50	10/01/19 16:22	

LABORATORY CONTROL SAMPLE: 2694299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.2	98	90-110	
Fluoride	mg/L	2.5	2.3	92	90-110	
Sulfate	mg/L	50	50.4	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2694300 2694301

Parameter	Units	2623559001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.7	50	50	53.7	53.7	104	104	90-110	0	10	
Fluoride	mg/L	0.058J	2.5	2.5	2.5	2.5	98	99	90-110	1	10	
Sulfate	mg/L	20.7	50	50	72.4	72.6	103	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2694302 2694303

Parameter	Units	2623584001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	89.4	50	50	132	133	86	87	90-110	1	10	M1
Fluoride	mg/L	0.42	2.5	2.5	4.2	4.3	152	153	90-110	1	10	M1
Sulfate	mg/L	142	50	50	177	180	69	74	90-110	2	10	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 2623567

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond
Pace Project No.: 2623567

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623567001	**HGWC-8**	EPA 3005A	36136	EPA 6020B	36312
2623567002	**MW-30d**	EPA 3005A	36136	EPA 6020B	36312
2623567003	**MW-29**	EPA 3005A	36170	EPA 6020B	36202
2623567001	**HGWC-8**	SM 2540C	36262		
2623567002	**MW-30d**	SM 2540C	36262		
2623567003	**MW-29**	SM 2540C	36262		
2623567001	**HGWC-8**	EPA 300.0 Rev 2.1 1993	500861		
2623567002	**MW-30d**	EPA 300.0 Rev 2.1 1993	500861		
2623567003	**MW-29**	EPA 300.0	36185		

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

Page: 1 of 3

Requested Due Date: Standard TAT

Project #: [illegible]

SAMPLE ID	Start Date	Start Time	End Date	End Time	Preservatives	Analyses
HGWC-6	[illegible]	1450	[illegible]	[illegible]	[illegible]	Y Y Y Y Y Y Y

NM 09/24/19

WO# : 2623567

Relinquished by / Affiliation	Date	Time	Accepted by / Affiliation	Date	Time
Noelia Muskus / [illegible]	9/24/19	2010	[illegible]	[illegible]	[illegible]
[illegible]	9/25/19	1403	M Kallman	9/25/19	1415

Sampler Name and Signature

Print Name of Sampler: Noelia Muskus

Signature of Sampler: Noelia Muskus

Date Signed: 09/24/19

Temp: 0.5 | Y | Y | Y

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

SAMPLE ID

ITEM #	SAMPLE ID			COLLECTED										
	MW-36A	WG		9/4/19	14:17	9/4/19	14:18		4	1	3	Y	Y	Y

WO# : 2623567

PM: NH Due Date: 10/02/19

CLIENT: GAPower-CCR

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Georgia	9/4/19	1810	[illegible] Weather / Georgia	9/4/19	1810
[illegible] / Georgia	9/4/19	[illegible]	[illegible]	9/5/19	[illegible]
[illegible]	9/5/19	1003	[illegible]	9/5/19	1003

PRINT Name of SAMPLER: Dan Grotts

SIGNATURE of SAMPLER: [signature] DATE Signed: 9-24-2019

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

Section A
Required Client Information

Section B
Required Project Information

Section C
Invoice Information

SAMPLE ID

WO#: 2623567

PM: AM Due Date: 10/02/19

CLIENT: GAPower-CCR

Sample Condition Upon Receipt

Pace Analytical

Client Name: *GA Power*

Project #

WO#: 2623567

PM: [illegible] Due Date: 10/02/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other

Tracking #: ____________

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other ____________

Thermometer Used: *85* Type of Ice: ☑ Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: *1.3* Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: *9/25/19 [illegible]*

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

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

Person Contacted: ____________ Date/Time: ____________

Comments/ Resolution: *There was no sample rec'd for MW-29. There was 1 extra sample labeled BGWC-7 present but was not listed on COC. The client was notified and the lab was instructed to log in that sample as MW-29.*

Project Manager Review: ____________ Date: ____________

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

F-ALL-C-003-rev.3, 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 13, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond GW6581
Pace Project No.: 2623712

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623712001	**HGWC-13**	Water	09/26/19 13:50	09/27/19 13:15
2623712002	**MW-24D**	Water	09/26/19 16:50	09/27/19 13:15
2623712003	**MW-27D**	Water	09/26/19 10:11	09/27/19 13:15
2623712004	**MW-6**	Water	09/26/19 12:29	09/27/19 13:15
2623712005	**MW-7**	Water	09/26/19 15:22	09/27/19 13:15
2623712006	**MW-28D**	Water	09/26/19 14:50	09/27/19 13:15
2623712007	**MW-28D (Filtered)**	Water	09/26/19 14:50	09/27/19 13:15
2623712008	**MW-26D**	Water	09/26/19 19:19	09/27/19 13:15

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623712001	**HGWC-13**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712002	**MW-24D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712003	**MW-27D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712004	**MW-6**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712005	**MW-7**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712006	**MW-28D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712007	**MW-28D (Filtered)**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623712008	**MW-26D**	EPA 6020B	CSW	13
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: HGWC-13 **Lab ID: 2623712001** Collected: 09/26/19 13:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 20:56	7440-36-0	
Arsenic	**0.44**	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 20:56	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 20:56	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 20:56	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 20:56	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 20:56	7440-43-9	
Calcium	**195**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:02	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 20:56	7440-47-3	
Cobalt	**0.0042J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 20:56	7440-48-4	
Lithium	**0.035**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 20:56	7439-93-2	
Molybdenum	**0.026**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 20:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 20:56	7782-49-2	
Thallium	**0.00039J**	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 20:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1010**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**109**	mg/L	10.0	0.24	10		10/02/19 22:10	16887-00-6	
Fluoride	**0.64**	mg/L	0.30	0.029	1		10/02/19 13:25	16984-48-8	
Sulfate	**444**	mg/L	10.0	0.17	10		10/02/19 22:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-24D **Lab ID: 2623712002** Collected: 09/26/19 16:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:19	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:19	7440-41-7	
Boron	**0.49**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:19	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:19	7440-43-9	
Calcium	**83.1**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:24	7440-70-2	
Chromium	**0.00042J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:19	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:19	7440-48-4	
Lithium	**0.0030J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:19	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**360**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**39.7**	mg/L	1.0	0.024	1		10/02/19 13:47	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.029	1		10/02/19 13:47	16984-48-8	
Sulfate	**91.0**	mg/L	10.0	0.17	10		10/02/19 22:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-27D **Lab ID: 2623712003** Collected: 09/26/19 10:11 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00030J**	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:30	7440-38-2	
Barium	**0.95**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:30	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:30	7440-41-7	
Boron	**0.14**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:30	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:30	7440-43-9	
Calcium	**32.1**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:36	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:30	7440-48-4	
Lithium	**0.0055J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:30	7439-93-2	
Molybdenum	**0.0042J**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**265**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**31.8**	mg/L	1.0	0.024	1		10/02/19 14:31	16887-00-6	
Fluoride	**0.42**	mg/L	0.30	0.029	1		10/02/19 14:31	16984-48-8	
Sulfate	**15.6**	mg/L	1.0	0.017	1		10/02/19 14:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-6 **Lab ID: 2623712004** Collected: 09/26/19 12:29 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:42	7440-38-2	
Barium	**0.089**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:42	7440-41-7	
Boron	**0.93**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:42	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:42	7440-43-9	
Calcium	**189**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:47	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:42	7440-47-3	
Cobalt	**0.00036J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:42	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:42	7439-93-2	
Molybdenum	**0.0026J**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**735**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**64.9**	mg/L	10.0	0.24	10		10/02/19 23:17	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.029	1		10/02/19 14:52	16984-48-8	
Sulfate	**225**	mg/L	10.0	0.17	10		10/02/19 23:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-7 **Lab ID: 2623712005** Collected: 09/26/19 15:22 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 21:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 21:53	7440-38-2	
Barium	**0.066**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 21:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 21:53	7440-41-7	
Boron	**0.26**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 21:53	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 21:53	7440-43-9	
Calcium	**83.9**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 21:59	7440-70-2	
Chromium	**0.0013J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 21:53	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 21:53	7440-48-4	
Lithium	ND	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 21:53	7439-93-2	
Molybdenum	**0.0033J**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 21:53	7439-98-7	
Selenium	**0.0014J**	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 21:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 21:53	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**383**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**15.6**	mg/L	1.0	0.024	1		10/02/19 15:14	16887-00-6	
Fluoride	**0.17J**	mg/L	0.30	0.029	1		10/02/19 15:14	16984-48-8	
Sulfate	**129**	mg/L	10.0	0.17	10		10/02/19 23:40	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-28D **Lab ID: 2623712006** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 22:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 22:05	7440-38-2	
Barium	**0.15**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 22:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 22:05	7440-41-7	
Boron	**0.60**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 22:05	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 22:05	7440-43-9	
Calcium	**84.0**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 22:10	7440-70-2	
Chromium	**0.00081J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 22:05	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 22:05	7440-48-4	
Lithium	**0.0055J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 22:05	7439-93-2	
Molybdenum	**0.017**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 22:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 22:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 22:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**418**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.5**	mg/L	1.0	0.024	1		10/02/19 15:36	16887-00-6	
Fluoride	**0.22J**	mg/L	0.30	0.029	1		10/02/19 15:36	16984-48-8	
Sulfate	**96.2**	mg/L	10.0	0.17	10		10/03/19 01:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-28D (Filtered) **Lab ID: 2623712007** Collected: 09/26/19 14:50 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS, Dissolved	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony, Dissolved	ND	mg/L	0.0030	0.00027	1	10/03/19 17:15	10/04/19 16:20	7440-36-0	
Arsenic, Dissolved	ND	mg/L	0.0050	0.00035	1	10/03/19 17:15	10/04/19 16:20	7440-38-2	
Barium, Dissolved	**0.15**	mg/L	0.010	0.00049	1	10/03/19 17:15	10/04/19 16:20	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.0030	0.000074	1	10/03/19 17:15	10/04/19 16:20	7440-41-7	
Boron, Dissolved	**0.56**	mg/L	0.040	0.0049	1	10/03/19 17:15	10/04/19 16:20	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0025	0.00011	1	10/03/19 17:15	10/04/19 16:20	7440-43-9	
Calcium, Dissolved	**80.6**	mg/L	5.0	0.55	50	10/03/19 17:15	10/04/19 16:25	7440-70-2	M6
Chromium, Dissolved	**0.00048J**	mg/L	0.010	0.00039	1	10/03/19 17:15	10/04/19 16:20	7440-47-3	
Cobalt, Dissolved	ND	mg/L	0.0050	0.00030	1	10/03/19 17:15	10/04/19 16:20	7440-48-4	
Lithium, Dissolved	**0.0047J**	mg/L	0.030	0.00078	1	10/03/19 17:15	10/04/19 16:20	7439-93-2	
Molybdenum, Dissolved	**0.016**	mg/L	0.010	0.00095	1	10/03/19 17:15	10/04/19 16:20	7439-98-7	
Selenium, Dissolved	ND	mg/L	0.010	0.0013	1	10/03/19 17:15	10/04/19 16:20	7782-49-2	
Thallium, Dissolved	ND	mg/L	0.0010	0.000052	1	10/03/19 17:15	10/04/19 16:20	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**414**	mg/L	10.0	10.0	1		10/03/19 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**43.2**	mg/L	1.0	0.024	1		10/02/19 15:58	16887-00-6	
Fluoride	**0.23J**	mg/L	0.30	0.029	1		10/02/19 15:58	16984-48-8	
Sulfate	**97.3**	mg/L	10.0	0.17	10		10/03/19 01:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Sample: MW-26D **Lab ID: 2623712008** Collected: 09/26/19 19:19 Received: 09/27/19 13:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/01/19 12:00	10/03/19 22:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/01/19 12:00	10/03/19 22:27	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00049	1	10/01/19 12:00	10/03/19 22:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/01/19 12:00	10/03/19 22:27	7440-41-7	
Boron	**2.0**	mg/L	0.040	0.0049	1	10/01/19 12:00	10/03/19 22:27	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/01/19 12:00	10/03/19 22:27	7440-43-9	
Calcium	**158**	mg/L	5.0	0.55	50	10/01/19 12:00	10/03/19 22:33	7440-70-2	
Chromium	**0.00076J**	mg/L	0.010	0.00039	1	10/01/19 12:00	10/03/19 22:27	7440-47-3	
Cobalt	**0.00053J**	mg/L	0.0050	0.00030	1	10/01/19 12:00	10/03/19 22:27	7440-48-4	
Lithium	**0.0041J**	mg/L	0.030	0.00078	1	10/01/19 12:00	10/03/19 22:27	7439-93-2	
Molybdenum	**0.017**	mg/L	0.010	0.00095	1	10/01/19 12:00	10/03/19 22:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/01/19 12:00	10/03/19 22:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/01/19 12:00	10/03/19 22:27	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**643**	mg/L	10.0	10.0	1		10/03/19 16:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**118**	mg/L	10.0	0.24	10		10/03/19 02:17	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.029	1		10/02/19 16:20	16984-48-8	
Sulfate	**189**	mg/L	10.0	0.17	10		10/03/19 02:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36236 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712008

METHOD BLANK: 163651 Matrix: Water
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/03/19 19:06	
Arsenic	mg/L	ND	0.0050	0.00035	10/03/19 19:06	
Barium	mg/L	ND	0.010	0.00049	10/03/19 19:06	
Beryllium	mg/L	ND	0.0030	0.000074	10/03/19 19:06	
Boron	mg/L	ND	0.040	0.0049	10/03/19 19:06	
Cadmium	mg/L	ND	0.0025	0.00011	10/03/19 19:06	
Calcium	mg/L	ND	0.10	0.011	10/03/19 19:06	
Chromium	mg/L	ND	0.010	0.00039	10/03/19 19:06	
Cobalt	mg/L	ND	0.0050	0.00030	10/03/19 19:06	
Lithium	mg/L	ND	0.030	0.00078	10/03/19 19:06	
Molybdenum	mg/L	ND	0.010	0.00095	10/03/19 19:06	
Selenium	mg/L	ND	0.010	0.0013	10/03/19 19:06	
Thallium	mg/L	ND	0.0010	0.000052	10/03/19 19:06	

LABORATORY CONTROL SAMPLE: 163652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.11	107	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.11	105	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163653 163654

Parameter	Units	2623702001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00029J	0.1	0.1	0.11	0.11	105	106	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	105	75-125	2	20	
Barium	mg/L	0.018	0.1	0.1	0.13	0.13	107	108	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163653 163654

Parameter	Units	2623702001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000077J	0.1	0.1	0.11	0.10	108	102	75-125	6	20	
Boron	mg/L	0.58	1	1	1.6	1.6	106	100	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	104	107	75-125	3	20	
Calcium	mg/L	3.7	1	1	4.9	5.0	118	130	75-125	2	20	M1
Chromium	mg/L	0.00073J	0.1	0.1	0.10	0.11	103	107	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	104	107	75-125	3	20	
Lithium	mg/L	0.0017J	0.1	0.1	0.11	0.10	108	103	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	107	109	75-125	2	20	
Selenium	mg/L	0.018	0.1	0.1	0.12	0.12	100	103	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	104	104	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36449
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET Dissolved
Associated Lab Samples: 2623712007

METHOD BLANK: 164644
Matrix: Water
Associated Lab Samples: 2623712007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.0030	0.00027	10/04/19 16:08	
Arsenic, Dissolved	mg/L	ND	0.0050	0.00035	10/04/19 16:08	
Barium, Dissolved	mg/L	ND	0.010	0.00049	10/04/19 16:08	
Beryllium, Dissolved	mg/L	ND	0.0030	0.000074	10/04/19 16:08	
Boron, Dissolved	mg/L	ND	0.040	0.0049	10/04/19 16:08	
Cadmium, Dissolved	mg/L	ND	0.0025	0.00011	10/04/19 16:08	
Calcium, Dissolved	mg/L	ND	0.10	0.011	10/04/19 16:08	
Chromium, Dissolved	mg/L	ND	0.010	0.00039	10/04/19 16:08	
Cobalt, Dissolved	mg/L	ND	0.0050	0.00030	10/04/19 16:08	
Lithium, Dissolved	mg/L	ND	0.030	0.00078	10/04/19 16:08	
Molybdenum, Dissolved	mg/L	ND	0.010	0.00095	10/04/19 16:08	
Selenium, Dissolved	mg/L	ND	0.010	0.0013	10/04/19 16:08	
Thallium, Dissolved	mg/L	ND	0.0010	0.000052	10/04/19 16:08	

LABORATORY CONTROL SAMPLE: 164645

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.1	0.10	102	80-120	
Arsenic, Dissolved	mg/L	0.1	0.099	99	80-120	
Barium, Dissolved	mg/L	0.1	0.10	101	80-120	
Beryllium, Dissolved	mg/L	0.1	0.099	99	80-120	
Boron, Dissolved	mg/L	1	0.98	98	80-120	
Cadmium, Dissolved	mg/L	0.1	0.10	100	80-120	
Calcium, Dissolved	mg/L	1	0.97	97	80-120	
Chromium, Dissolved	mg/L	0.1	0.098	98	80-120	
Cobalt, Dissolved	mg/L	0.1	0.097	97	80-120	
Lithium, Dissolved	mg/L	0.1	0.098	98	80-120	
Molybdenum, Dissolved	mg/L	0.1	0.10	101	80-120	
Selenium, Dissolved	mg/L	0.1	0.10	100	80-120	
Thallium, Dissolved	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164646 164647

Parameter	Units	2623712007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony, Dissolved	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	2	20	
Arsenic, Dissolved	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Barium, Dissolved	mg/L	0.15	0.1	0.1	0.25	0.25	100	100	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164646 164647

Parameter	Units	2623712007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium, Dissolved	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	2	20	
Boron, Dissolved	mg/L	0.56	1	1	1.6	1.5	100	97	75-125	2	20	
Cadmium, Dissolved	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	
Calcium, Dissolved	mg/L	80.6	1	1	83.6	81.4	293	74	75-125	3	20	M6
Chromium, Dissolved	mg/L	0.00048J	0.1	0.1	0.099	0.096	98	96	75-125	2	20	
Cobalt, Dissolved	mg/L	ND	0.1	0.1	0.096	0.094	96	94	75-125	3	20	
Lithium, Dissolved	mg/L	0.0047J	0.1	0.1	0.099	0.098	94	94	75-125	1	20	
Molybdenum, Dissolved	mg/L	0.016	0.1	0.1	0.11	0.12	98	100	75-125	1	20	
Selenium, Dissolved	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Thallium, Dissolved	mg/L	ND	0.1	0.1	0.095	0.092	95	92	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36437 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712007, 2623712008

LABORATORY CONTROL SAMPLE: 164569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 164570

Parameter	Units	2623700006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	225	219	3	10	

SAMPLE DUPLICATE: 164571

Parameter	Units	2623710002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1450	1330	9	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Hammond GW6581
Pace Project No.: 2623712

QC Batch: 36286 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712007, 2623712008

METHOD BLANK: 163856 Matrix: Water
Associated Lab Samples: 2623712001, 2623712002, 2623712003, 2623712004, 2623712005, 2623712006, 2623712007, 2623712008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.031J	1.0	0.024	10/02/19 07:36	
Fluoride	mg/L	ND	0.30	0.029	10/02/19 07:36	
Sulfate	mg/L	0.053J	1.0	0.017	10/02/19 07:36	

LABORATORY CONTROL SAMPLE: 163857

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.7	107	90-110	
Fluoride	mg/L	10	10.9	109	90-110	
Sulfate	mg/L	10	10.6	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163858 163859

Parameter	Units	2623702001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.7	10	10	11.0	11.7	93	100	90-110	6	15	
Fluoride	mg/L	0.12J	10	10	9.5	10.3	94	102	90-110	8	15	
Sulfate	mg/L	30.3	10	10	36.7	37.2	64	69	90-110	1	15	M1

MATRIX SPIKE SAMPLE: 163860

Parameter	Units	2623702002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.5	10	16.5	100	90-110	
Fluoride	mg/L	0.098J	10	10.7	106	90-110	
Sulfate	mg/L	0.23J	10	10.7	104	90-110	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Hammond GW6581
Pace Project No.: 2623712

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

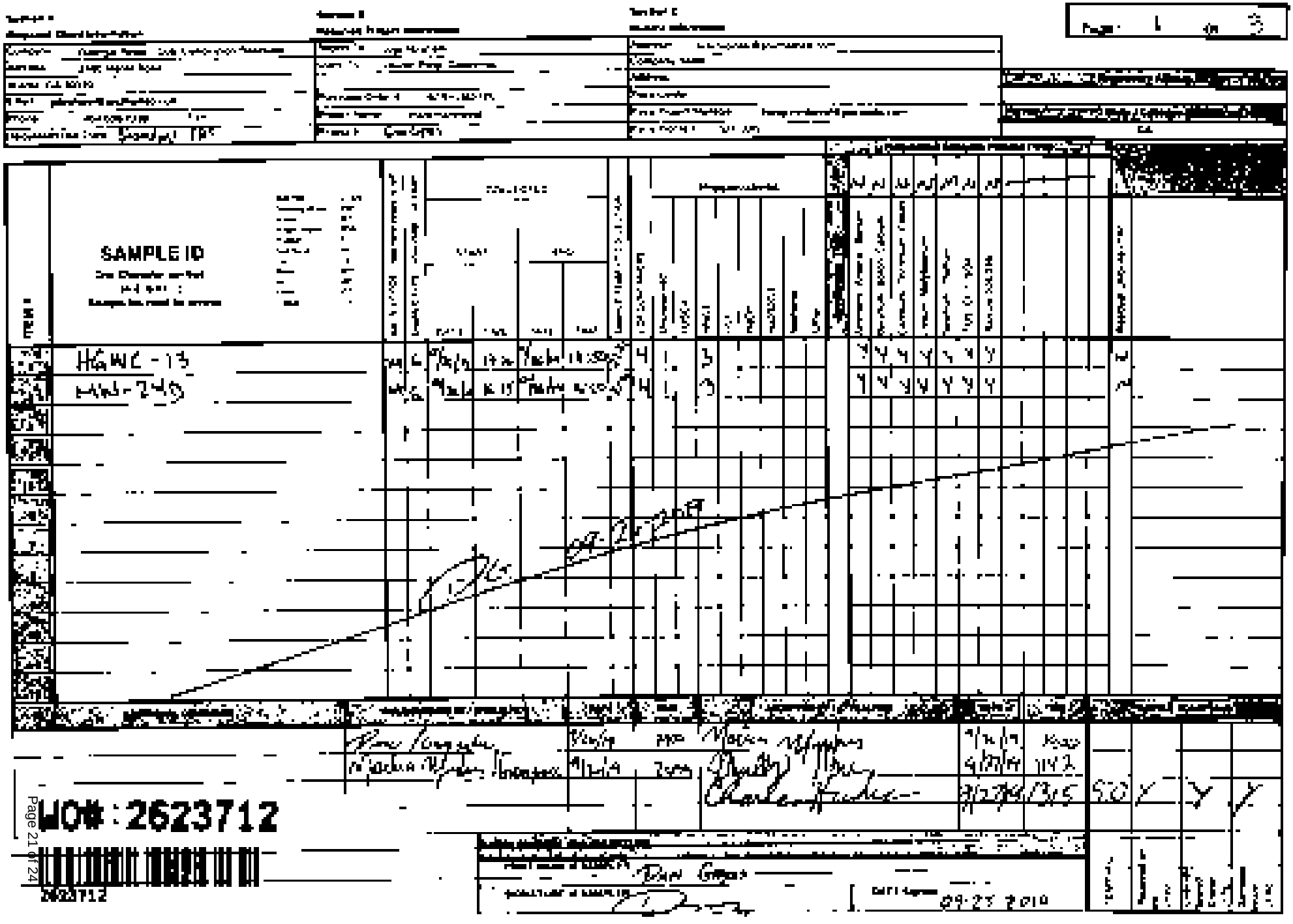
Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond GW6581
Pace Project No.: 2623712

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623712001	**HGWC-13**	EPA 3005A	36236	EPA 6020B	36255
2623712002	**MW-24D**	EPA 3005A	36236	EPA 6020B	36255
2623712003	**MW-27D**	EPA 3005A	36236	EPA 6020B	36255
2623712004	**MW-6**	EPA 3005A	36236	EPA 6020B	36255
2623712005	**MW-7**	EPA 3005A	36236	EPA 6020B	36255
2623712006	**MW-28D**	EPA 3005A	36236	EPA 6020B	36255
2623712008	**MW-26D**	EPA 3005A	36236	EPA 6020B	36255
2623712007	**MW-28D (Filtered)**	EPA 3005A	36449	EPA 6020B	36458
2623712001	**HGWC-13**	SM 2540C	36437		
2623712002	**MW-24D**	SM 2540C	36437		
2623712003	**MW-27D**	SM 2540C	36437		
2623712004	**MW-6**	SM 2540C	36437		
2623712005	**MW-7**	SM 2540C	36437		
2623712006	**MW-28D**	SM 2540C	36437		
2623712007	**MW-28D (Filtered)**	SM 2540C	36437		
2623712008	**MW-26D**	SM 2540C	36437		
2623712001	**HGWC-13**	EPA 300.0	36286		
2623712002	**MW-24D**	EPA 300.0	36286		
2623712003	**MW-27D**	EPA 300.0	36286		
2623712004	**MW-6**	EPA 300.0	36286		
2623712005	**MW-7**	EPA 300.0	36286		
2623712006	**MW-28D**	EPA 300.0	36286		
2623712007	**MW-28D (Filtered)**	EPA 300.0	36286		
2623712008	**MW-26D**	EPA 300.0	36286		

CHAIN-OF-CUSTODY / Analytical Request Document



WO#: 2623712

2623712

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 3

#	SAMPLE ID																	
1	MW-270	Y	Y	Y	Y	Y	Y	Y	N
2	MW-6	Y	Y	Y	Y	Y	Y	Y	N
3	MW-7	Y	Y	Y	Y	Y	Y	Y	N

AM 09/26/19

9/26/19

WO#: 2623712

Due Date: [illegible]

Sampler name: Noelia Muskus

Date Signed: 9/26/19

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 3 of 3

ITEM #	SAMPLE ID				
1	MW-26D	[illegible]	[illegible]	[illegible]	[illegible]
2	MW-26D (FILTERED)	[illegible]	[illegible]	[illegible]	[illegible]
3	MW-26D	[illegible]	[illegible]	[illegible]	[illegible]

WO#: 2623712

CLIENT: [illegible]

Sample Condition Upon Receipt

Pace Analytical

Client Name: L.A. Power

WO#: 2623712

Due Date: 10/04/10

PM: BA

CLIENT

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

Tracking #

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: 214

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

Cooler Temperature: 5.0 C

Biological Tissue is Present: ☐ Yes ☐ No

Date and Initials of person examining contents: 9/27/10 BA

Temp should be above freezing to 6°C

Comments

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

Client Notification/Resolution: ____ Field Data Required? Y / N

Person Contacted: ____ Date/Time: ____

Comments/Resolution: ____

Project Manager Review: ____ Date: ____

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

March 23, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory between March 03, 2020 and March 05, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

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

Enclosures

cc: Kristen Jurinko
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2629703001	**MW-20**	Water	03/02/20 16:19	03/03/20 12:20
2629703002	**FB-01**	Water	03/02/20 17:10	03/03/20 12:20
2629703003	**MW-29**	Water	03/02/20 17:35	03/03/20 12:20
2629703004	**MW-5**	Water	03/02/20 16:21	03/03/20 12:20
2629714001	**HGWA-1**	Water	03/02/20 11:39	03/03/20 12:20
2629714002	**HGWA-2**	Water	03/02/20 11:10	03/03/20 12:20
2629714003	**HGWA-3**	Water	03/02/20 13:15	03/03/20 12:20
2629703008	**MW-6**	Water	03/03/20 10:12	03/04/20 10:05
2629703009	**MW-7**	Water	03/03/20 13:10	03/04/20 10:05
2629703010	**HGWC-10**	Water	03/03/20 13:20	03/04/20 10:05
2629703011	**HGWC-11**	Water	03/03/20 13:30	03/04/20 10:05
2629703012	**HGWC-12**	Water	03/03/20 14:15	03/04/20 10:05
2629703013	**MW-25D**	Water	03/03/20 15:15	03/04/20 10:05
2629703014	**HGWC-8**	Water	03/03/20 16:46	03/04/20 10:05
2629703015	**MW-30D**	Water	03/04/20 14:15	03/05/20 12:00
2629703016	**HGWC-7**	Water	03/04/20 11:50	03/05/20 12:00
2629703017	**MW-28D**	Water	03/04/20 10:05	03/05/20 12:00
2629703018	**MW-24D**	Water	03/04/20 12:27	03/05/20 12:00
2629703019	**FD-02**	Water	03/04/20 12:00	03/05/20 12:00
2629703020	**HGWC-13**	Water	03/04/20 13:25	03/05/20 12:00
2629703021	**MW-19**	Water	03/04/20 17:55	03/05/20 12:00
2629703022	**HGWC-9**	Water	03/04/20 10:26	03/05/20 12:00
2629703023	**MW-26D**	Water	03/04/20 13:41	03/05/20 12:00
2629703024	**MW-27D**	Water	03/04/20 16:27	03/05/20 12:00

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SAMPLE ANALYTE COUNT

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2629703001	**MW-20**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703002	**FB-01**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703003	**MW-29**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703004	**MW-5**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629714001	**HGWA-1**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629714002	**HGWA-2**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629714003	**HGWA-3**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703008	**MW-6**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703009	**MW-7**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703010	**HGWC-10**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703011	**HGWC-11**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703012	**HGWC-12**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703013	**MW-25D**	EPA 6020B	CSW	12	PASI-GA

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SAMPLE ANALYTE COUNT

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703014	**HGWC-8**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703015	**MW-30D**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703016	**HGWC-7**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703017	**MW-28D**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703018	**MW-24D**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703019	**FD-02**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703020	**HGWC-13**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703021	**MW-19**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703022	**HGWC-9**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703023	**MW-26D**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2629703024	**MW-27D**	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

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SUMMARY OF DETECTION

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2629703001	**MW-20**					
	Field pH	6.98	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.00038J	mg/L	0.0050	03/10/20 19:33	
EPA 6020B	Barium	0.099	mg/L	0.010	03/10/20 19:33	
EPA 6020B	Chromium	0.00071J	mg/L	0.010	03/10/20 19:33	
EPA 6020B	Lead	0.00017J	mg/L	0.0050	03/10/20 19:33	
EPA 6020B	Lithium	0.00082J	mg/L	0.030	03/10/20 19:33	
2629703003	**MW-29**					
	Field pH	7.13	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.088	mg/L	0.010	03/10/20 19:56	
EPA 6020B	Cobalt	0.00067J	mg/L	0.0050	03/10/20 19:56	
EPA 6020B	Lead	0.000090J	mg/L	0.0050	03/10/20 19:56	
EPA 6020B	Lithium	0.0025J	mg/L	0.030	03/10/20 19:56	
EPA 6020B	Molybdenum	0.0025J	mg/L	0.010	03/10/20 19:56	
2629703004	**MW-5**					
	Field pH	6.12	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.049	mg/L	0.010	03/10/20 20:01	
EPA 6020B	Chromium	0.0042J	mg/L	0.010	03/10/20 20:01	
EPA 6020B	Lead	0.000047J	mg/L	0.0050	03/10/20 20:01	
EPA 6020B	Selenium	0.0041J	mg/L	0.010	03/10/20 20:01	
EPA 300.0 Rev 2.1 1993	Fluoride	0.065J	mg/L	0.30	03/10/20 14:25	
2629714001	**HGWA-1**					
	Field pH	7.10	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.034	mg/L	0.010	03/10/20 20:07	
EPA 6020B	Lead	0.000048J	mg/L	0.0050	03/10/20 20:07	
EPA 6020B	Lithium	0.0012J	mg/L	0.030	03/10/20 20:07	
EPA 300.0 Rev 2.1 1993	Fluoride	0.076J	mg/L	0.30	03/10/20 15:07	
2629714002	**HGWA-2**					
	Field pH	5.43	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.00043J	mg/L	0.0050	03/10/20 20:13	
EPA 6020B	Barium	0.11	mg/L	0.010	03/10/20 20:13	
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	03/10/20 20:13	
EPA 6020B	Chromium	0.00041J	mg/L	0.010	03/10/20 20:13	
EPA 6020B	Cobalt	0.019	mg/L	0.0050	03/10/20 20:13	
EPA 6020B	Lead	0.000095J	mg/L	0.0050	03/10/20 20:13	
EPA 6020B	Lithium	0.0017J	mg/L	0.030	03/10/20 20:13	
2629714003	**HGWA-3**					
	Field pH	7.12	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.00040J	mg/L	0.0050	03/10/20 20:18	
EPA 6020B	Barium	0.14	mg/L	0.010	03/10/20 20:18	
EPA 6020B	Lithium	0.0037J	mg/L	0.030	03/10/20 20:18	
2629703008	**MW-6**					
	Field pH	6.78	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.090	mg/L	0.010	03/11/20 16:05	
EPA 6020B	Chromium	0.00044J	mg/L	0.010	03/11/20 16:05	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2629703008	**MW-6**					
EPA 6020B	Cobalt	0.00094J	mg/L	0.0050	03/11/20 16:05	
EPA 6020B	Lead	0.00013J	mg/L	0.0050	03/11/20 16:05	
EPA 6020B	Molybdenum	0.0022J	mg/L	0.010	03/11/20 16:05	
EPA 6020B	Thallium	0.000082J	mg/L	0.0010	03/11/20 16:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.062J	mg/L	0.30	03/11/20 01:44	
2629703009	**MW-7**					
	Field pH	6.10	Std. Units		03/16/20 16:27	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	03/11/20 16:28	
EPA 6020B	Barium	0.043	mg/L	0.010	03/11/20 16:28	
EPA 6020B	Chromium	0.0015J	mg/L	0.010	03/11/20 16:28	
EPA 6020B	Lead	0.000062J	mg/L	0.0050	03/11/20 16:28	
2629703010	**HGWC-10**					
	Field pH	6.67	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.048	mg/L	0.010	03/11/20 16:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11J	mg/L	0.30	03/11/20 02:13	
2629703011	**HGWC-11**					
	Field pH	5.95	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.0022J	mg/L	0.0050	03/11/20 16:40	
EPA 6020B	Barium	0.022	mg/L	0.010	03/11/20 16:40	
EPA 6020B	Beryllium	0.00012J	mg/L	0.0030	03/11/20 16:40	
EPA 6020B	Chromium	0.00061J	mg/L	0.010	03/11/20 16:40	
EPA 6020B	Cobalt	0.00087J	mg/L	0.0050	03/11/20 16:40	
EPA 6020B	Lead	0.00021J	mg/L	0.0050	03/11/20 16:40	
EPA 6020B	Molybdenum	0.011	mg/L	0.010	03/11/20 16:40	
EPA 6020B	Selenium	0.016	mg/L	0.010	03/12/20 16:52	
EPA 300.0 Rev 2.1 1993	Fluoride	0.24J	mg/L	0.30	03/11/20 02:57	
2629703012	**HGWC-12**					
	Field pH	6.95	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.0023J	mg/L	0.0050	03/11/20 16:45	
EPA 6020B	Barium	0.092	mg/L	0.010	03/11/20 16:45	
EPA 6020B	Cadmium	0.00015J	mg/L	0.0025	03/11/20 16:45	
EPA 6020B	Cobalt	0.0013J	mg/L	0.0050	03/11/20 16:45	
EPA 6020B	Lead	0.000056J	mg/L	0.0050	03/11/20 16:45	
EPA 6020B	Lithium	0.0063J	mg/L	0.030	03/11/20 16:45	
EPA 6020B	Molybdenum	0.045	mg/L	0.010	03/11/20 16:45	
EPA 6020B	Thallium	0.000066J	mg/L	0.0010	03/11/20 16:45	
EPA 300.0 Rev 2.1 1993	Fluoride	0.21J	mg/L	0.30	03/11/20 03:12	
2629703013	**MW-25D**					
	Field pH	7.59	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.0010J	mg/L	0.0050	03/11/20 17:13	
EPA 6020B	Barium	0.42	mg/L	0.010	03/11/20 17:13	
EPA 6020B	Lithium	0.050	mg/L	0.030	03/11/20 17:13	
EPA 300.0 Rev 2.1 1993	Fluoride	1.4	mg/L	0.30	03/10/20 16:40	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2629703014	**HGWC-8**					
	Field pH	7.06	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.052	mg/L	0.010	03/11/20 17:18	
EPA 6020B	Cadmium	0.00017J	mg/L	0.0025	03/11/20 17:18	
EPA 6020B	Chromium	0.00070J	mg/L	0.010	03/11/20 17:18	
EPA 6020B	Cobalt	0.0020J	mg/L	0.0050	03/11/20 17:18	
EPA 6020B	Lead	0.00013J	mg/L	0.0050	03/11/20 17:18	
EPA 6020B	Lithium	0.0028J	mg/L	0.030	03/11/20 17:18	
EPA 6020B	Molybdenum	0.44	mg/L	0.010	03/11/20 17:18	
EPA 6020B	Thallium	0.000061J	mg/L	0.0010	03/11/20 17:18	
EPA 300.0 Rev 2.1 1993	Fluoride	0.45	mg/L	0.30	03/10/20 17:22	
2629703015	**MW-30D**					
	Field pH	8.12	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.0021J	mg/L	0.0050	03/11/20 21:23	
EPA 6020B	Barium	0.065	mg/L	0.010	03/11/20 21:23	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	03/11/20 21:23	B
EPA 6020B	Lead	0.00041J	mg/L	0.0050	03/11/20 21:23	
EPA 6020B	Lithium	0.18	mg/L	0.030	03/11/20 21:23	
EPA 6020B	Molybdenum	0.021	mg/L	0.010	03/11/20 21:23	
EPA 300.0 Rev 2.1 1993	Fluoride	9.4	mg/L	1.2	03/11/20 07:50	
2629703016	**HGWC-7**					
	Field pH	7.17	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.068	mg/L	0.010	03/11/20 21:28	
EPA 6020B	Beryllium	0.000077J	mg/L	0.0030	03/11/20 21:28	
EPA 6020B	Chromium	0.0016J	mg/L	0.010	03/11/20 21:28	B
EPA 6020B	Cobalt	0.0011J	mg/L	0.0050	03/11/20 21:28	
EPA 6020B	Lead	0.00051J	mg/L	0.0050	03/11/20 21:28	
EPA 6020B	Lithium	0.0034J	mg/L	0.030	03/11/20 21:28	
EPA 6020B	Molybdenum	0.045	mg/L	0.010	03/11/20 21:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.30	03/10/20 17:50	
2629703017	**MW-28D**					
	Field pH	7.55	Std. Units		03/16/20 16:27	
EPA 6020B	Barium	0.77	mg/L	0.010	03/12/20 20:06	M1
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	03/12/20 20:06	
EPA 6020B	Chromium	0.0027J	mg/L	0.010	03/12/20 20:06	
EPA 6020B	Cobalt	0.00093J	mg/L	0.0050	03/12/20 20:06	
EPA 6020B	Lead	0.0010J	mg/L	0.0050	03/12/20 20:06	
EPA 6020B	Lithium	0.015J	mg/L	0.030	03/12/20 20:06	
EPA 6020B	Molybdenum	0.0090J	mg/L	0.010	03/12/20 20:06	
EPA 6020B	Thallium	0.000092J	mg/L	0.0010	03/12/20 20:06	
EPA 300.0 Rev 2.1 1993	Fluoride	0.26J	mg/L	0.30	03/10/20 18:04	
2629703018	**MW-24D**					
	Field pH	7.47	Std. Units		03/16/20 16:27	
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	03/12/20 20:28	B
EPA 6020B	Barium	0.081	mg/L	0.010	03/12/20 20:28	
EPA 6020B	Cobalt	0.00056J	mg/L	0.0050	03/12/20 20:28	

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SUMMARY OF DETECTION

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Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2629703018	**MW-24D**					
EPA 6020B	Lead	0.00019J	mg/L	0.0050	03/12/20 20:28	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	03/12/20 20:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.30	03/10/20 18:18	
2629703019	**FD-02**					
EPA 6020B	Antimony	0.00084J	mg/L	0.0030	03/12/20 20:34	B
EPA 6020B	Arsenic	0.49	mg/L	0.0050	03/12/20 20:34	
EPA 6020B	Barium	0.096	mg/L	0.010	03/12/20 20:34	
EPA 6020B	Beryllium	0.000086J	mg/L	0.0030	03/12/20 20:34	
EPA 6020B	Chromium	0.00045J	mg/L	0.010	03/12/20 20:34	
EPA 6020B	Cobalt	0.0063	mg/L	0.0050	03/12/20 20:34	
EPA 6020B	Lead	0.00012J	mg/L	0.0050	03/12/20 20:34	
EPA 6020B	Lithium	0.039	mg/L	0.030	03/12/20 20:34	
EPA 6020B	Molybdenum	0.029	mg/L	0.010	03/12/20 20:34	
EPA 6020B	Thallium	0.00053J	mg/L	0.0010	03/12/20 20:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.37	mg/L	0.30	03/10/20 19:14	
2629703020	**HGWC-13**					
	Field pH	7.16	Std. Units		03/16/20 16:27	
EPA 6020B	Antimony	0.00061J	mg/L	0.0030	03/12/20 20:40	B
EPA 6020B	Arsenic	0.52	mg/L	0.0050	03/12/20 20:40	
EPA 6020B	Barium	0.10	mg/L	0.010	03/12/20 20:40	
EPA 6020B	Beryllium	0.000093J	mg/L	0.0030	03/12/20 20:40	
EPA 6020B	Cobalt	0.0066	mg/L	0.0050	03/12/20 20:40	
EPA 6020B	Lead	0.00014J	mg/L	0.0050	03/12/20 20:40	
EPA 6020B	Lithium	0.041	mg/L	0.030	03/12/20 20:40	
EPA 6020B	Molybdenum	0.030	mg/L	0.010	03/12/20 20:40	
EPA 6020B	Thallium	0.00056J	mg/L	0.0010	03/12/20 20:40	
EPA 300.0 Rev 2.1 1993	Fluoride	0.37	mg/L	0.30	03/10/20 19:28	
2629703021	**MW-19**					
	Field pH	6.29	Std. Units		03/16/20 16:27	
EPA 6020B	Arsenic	0.00045J	mg/L	0.0050	03/12/20 20:46	
EPA 6020B	Barium	0.069	mg/L	0.010	03/12/20 20:46	
EPA 6020B	Cadmium	0.00026J	mg/L	0.0025	03/12/20 20:46	
EPA 6020B	Chromium	0.00066J	mg/L	0.010	03/12/20 20:46	
EPA 6020B	Cobalt	0.048	mg/L	0.0050	03/12/20 20:46	
EPA 6020B	Lead	0.00011J	mg/L	0.0050	03/12/20 20:46	
EPA 6020B	Lithium	0.010J	mg/L	0.030	03/12/20 20:46	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	03/12/20 20:46	
EPA 6020B	Selenium	0.0044J	mg/L	0.010	03/12/20 20:46	
EPA 6020B	Thallium	0.00026J	mg/L	0.0010	03/12/20 20:46	
EPA 300.0 Rev 2.1 1993	Fluoride	0.096J	mg/L	0.30	03/10/20 19:42	
2629703022	**HGWC-9**					
	Field pH	6.97	Std. Units		03/16/20 16:27	
EPA 6020B	Antimony	0.00032J	mg/L	0.0030	03/12/20 21:03	B
EPA 6020B	Barium	0.11	mg/L	0.010	03/12/20 21:03	
EPA 6020B	Cobalt	0.00053J	mg/L	0.0050	03/12/20 21:03	

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SUMMARY OF DETECTION

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2629703022	**HGWC-9**					
EPA 6020B	Lead	0.000084J	mg/L	0.0050	03/12/20 21:03	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	03/12/20 21:03	
EPA 6020B	Molybdenum	0.031	mg/L	0.010	03/12/20 21:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.080J	mg/L	0.30	03/10/20 19:56	
2629703023	**MW-26D**					
	Field pH	7.14	Std. Units		03/16/20 16:27	
EPA 6020B	Antimony	0.0020J	mg/L	0.0030	03/12/20 21:09	B
EPA 6020B	Arsenic	0.00060J	mg/L	0.0050	03/12/20 21:09	
EPA 6020B	Barium	0.17	mg/L	0.010	03/12/20 21:09	
EPA 6020B	Chromium	0.0028J	mg/L	0.010	03/12/20 21:09	
EPA 6020B	Lithium	0.030J	mg/L	0.030	03/12/20 21:09	
EPA 6020B	Molybdenum	0.0074J	mg/L	0.010	03/12/20 21:09	
EPA 300.0 Rev 2.1 1993	Fluoride	0.052J	mg/L	0.30	03/10/20 20:10	
2629703024	**MW-27D**					
	Field pH	8.33	Std. Units		03/16/20 16:27	
EPA 6020B	Antimony	0.00037J	mg/L	0.0030	03/12/20 21:14	B
EPA 6020B	Arsenic	0.00069J	mg/L	0.0050	03/12/20 21:14	
EPA 6020B	Barium	0.95	mg/L	0.010	03/12/20 21:14	
EPA 6020B	Cobalt	0.00045J	mg/L	0.0050	03/12/20 21:14	
EPA 6020B	Lithium	0.0047J	mg/L	0.030	03/12/20 21:14	
EPA 6020B	Molybdenum	0.0058J	mg/L	0.010	03/12/20 21:14	
EPA 300.0 Rev 2.1 1993	Fluoride	0.25J	mg/L	0.30	03/10/20 20:52	

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-20 **Lab ID: 2629703001** Collected: 03/02/20 16:19 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.98**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 19:33	7440-36-0	
Arsenic	**0.00038J**	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 19:33	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 19:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 19:33	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 19:33	7440-43-9	
Chromium	**0.00071J**	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 19:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 19:33	7440-48-4	
Lead	**0.00017J**	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 19:33	7439-92-1	
Lithium	**0.00082J**	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 19:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 19:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 19:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/04/20 15:00	03/05/20 15:57	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 13:43	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: FB-01 **Lab ID: 2629703002** Collected: 03/02/20 17:10 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 19:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 19:38	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 19:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 19:38	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 19:38	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 19:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 19:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 19:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 19:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 19:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 19:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 19:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/04/20 15:00	03/05/20 15:59	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 13:57	16984-48-8	

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-29 **Lab ID: 2629703003** Collected: 03/02/20 17:35 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.13**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 19:56	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 19:56	7440-38-2	
Barium	**0.088**	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 19:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 19:56	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 19:56	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 19:56	7440-47-3	
Cobalt	**0.00067J**	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 19:56	7440-48-4	
Lead	**0.000090J**	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 19:56	7439-92-1	
Lithium	**0.0025J**	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 19:56	7439-93-2	
Molybdenum	**0.0025J**	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 19:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 19:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 19:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/04/20 15:00	03/05/20 16:02	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 14:11	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-5 **Lab ID: 2629703004** Collected: 03/02/20 16:21 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.12**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 20:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 20:01	7440-38-2	
Barium	**0.049**	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 20:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 20:01	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 20:01	7440-43-9	
Chromium	**0.0042J**	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 20:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 20:01	7440-48-4	
Lead	**0.000047J**	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 20:01	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 20:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 20:01	7439-98-7	
Selenium	**0.0041J**	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 20:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 20:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:10	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.065J**	mg/L	0.30	0.050	1		03/10/20 14:25	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWA-1 **Lab ID: 2629714001** Collected: 03/02/20 11:39 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.10**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 20:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 20:07	7440-38-2	
Barium	**0.034**	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 20:07	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 20:07	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 20:07	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 20:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 20:07	7440-48-4	
Lead	**0.000048J**	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 20:07	7439-92-1	
Lithium	**0.0012J**	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 20:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 20:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 20:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 20:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:19	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.076J**	mg/L	0.30	0.050	1		03/10/20 15:07	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWA-2 **Lab ID: 2629714002** Collected: 03/02/20 11:10 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**5.43**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 20:13	7440-36-0	
Arsenic	**0.00043J**	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 20:13	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 20:13	7440-39-3	
Beryllium	**0.00014J**	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 20:13	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 20:13	7440-43-9	
Chromium	**0.00041J**	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 20:13	7440-47-3	
Cobalt	**0.019**	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 20:13	7440-48-4	
Lead	**0.000095J**	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 20:13	7439-92-1	
Lithium	**0.0017J**	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 20:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 20:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 20:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 20:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:22	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 15:21	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWA-3 **Lab ID: 2629714003** Collected: 03/02/20 13:15 Received: 03/03/20 12:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.12**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/05/20 22:19	03/10/20 20:18	7440-36-0	
Arsenic	**0.00040J**	mg/L	0.0050	0.00035	1	03/05/20 22:19	03/10/20 20:18	7440-38-2	
Barium	**0.14**	mg/L	0.010	0.00049	1	03/05/20 22:19	03/10/20 20:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/05/20 22:19	03/10/20 20:18	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/05/20 22:19	03/10/20 20:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/05/20 22:19	03/10/20 20:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/05/20 22:19	03/10/20 20:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/05/20 22:19	03/10/20 20:18	7439-92-1	
Lithium	**0.0037J**	mg/L	0.030	0.00078	1	03/05/20 22:19	03/10/20 20:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/05/20 22:19	03/10/20 20:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/05/20 22:19	03/10/20 20:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/05/20 22:19	03/10/20 20:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:39	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		03/10/20 15:35	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-6 **Lab ID: 2629703008** Collected: 03/03/20 10:12 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.78**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 16:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 16:05	7440-38-2	
Barium	**0.090**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 16:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 16:05	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 16:05	7440-43-9	
Chromium	**0.00044J**	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 16:05	7440-47-3	
Cobalt	**0.00094J**	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 16:05	7440-48-4	
Lead	**0.00013J**	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 16:05	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 16:05	7439-93-2	
Molybdenum	**0.0022J**	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 16:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 14:34	03/11/20 16:05	7782-49-2	
Thallium	**0.000082J**	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 16:05	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:42	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.062J**	mg/L	0.30	0.050	1		03/11/20 01:44	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-7 **Lab ID: 2629703009** Collected: 03/03/20 13:10 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.10**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.0013J**	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 16:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 16:28	7440-38-2	
Barium	**0.043**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 16:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 16:28	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 16:28	7440-43-9	
Chromium	**0.0015J**	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 16:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 16:28	7440-48-4	
Lead	**0.000062J**	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 16:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 16:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 16:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 14:34	03/11/20 16:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 16:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:44	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		03/11/20 01:59	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-10 **Lab ID: 2629703010** Collected: 03/03/20 13:20 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.67**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 16:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 16:34	7440-38-2	
Barium	**0.048**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 16:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 16:34	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 16:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 16:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 16:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 16:34	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 16:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 16:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 14:34	03/11/20 16:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 16:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:47	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.11J**	mg/L	0.30	0.050	1		03/11/20 02:13	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-11 **Lab ID: 2629703011** Collected: 03/03/20 13:30 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**5.95**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 16:40	7440-36-0	
Arsenic	**0.0022J**	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 16:40	7440-38-2	
Barium	**0.022**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 16:40	7440-39-3	
Beryllium	**0.00012J**	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 16:40	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 16:40	7440-43-9	
Chromium	**0.00061J**	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 16:40	7440-47-3	
Cobalt	**0.00087J**	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 16:40	7440-48-4	
Lead	**0.00021J**	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 16:40	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 16:40	7439-93-2	
Molybdenum	**0.011**	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 16:40	7439-98-7	
Selenium	**0.016**	mg/L	0.010	0.0013	1	03/10/20 14:34	03/12/20 16:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 16:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:49	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.24J**	mg/L	0.30	0.050	1		03/11/20 02:57	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-12 **Lab ID: 2629703012** Collected: 03/03/20 14:15 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.95**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 16:45	7440-36-0	
Arsenic	**0.0023J**	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 16:45	7440-38-2	
Barium	**0.092**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 16:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 16:45	7440-41-7	
Cadmium	**0.00015J**	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 16:45	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 16:45	7440-47-3	
Cobalt	**0.0013J**	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 16:45	7440-48-4	
Lead	**0.000056J**	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 16:45	7439-92-1	
Lithium	**0.0063J**	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 16:45	7439-93-2	
Molybdenum	**0.045**	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 16:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 14:34	03/11/20 16:45	7782-49-2	
Thallium	**0.000066J**	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 16:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:51	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.21J**	mg/L	0.30	0.050	1		03/11/20 03:12	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-25D **Lab ID: 2629703013** Collected: 03/03/20 15:15 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.59**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 17:13	7440-36-0	
Arsenic	**0.0010J**	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 17:13	7440-38-2	
Barium	**0.42**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 17:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 17:13	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 17:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 17:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 17:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 17:13	7439-92-1	
Lithium	**0.050**	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 17:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 17:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 14:34	03/11/20 17:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 17:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:54	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**1.4**	mg/L	0.30	0.050	1		03/10/20 16:40	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-8 **Lab ID: 2629703014** Collected: 03/03/20 16:46 Received: 03/04/20 10:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.06**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 14:34	03/11/20 17:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 14:34	03/11/20 17:18	7440-38-2	
Barium	**0.052**	mg/L	0.010	0.00049	1	03/10/20 14:34	03/11/20 17:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 14:34	03/11/20 17:18	7440-41-7	
Cadmium	**0.00017J**	mg/L	0.0025	0.00011	1	03/10/20 14:34	03/11/20 17:18	7440-43-9	
Chromium	**0.00070J**	mg/L	0.010	0.00039	1	03/10/20 14:34	03/11/20 17:18	7440-47-3	
Cobalt	**0.0020J**	mg/L	0.0050	0.00030	1	03/10/20 14:34	03/11/20 17:18	7440-48-4	
Lead	**0.00013J**	mg/L	0.0050	0.000046	1	03/10/20 14:34	03/11/20 17:18	7439-92-1	
Lithium	**0.0028J**	mg/L	0.030	0.00078	1	03/10/20 14:34	03/11/20 17:18	7439-93-2	
Molybdenum	**0.44**	mg/L	0.010	0.00095	1	03/10/20 14:34	03/11/20 17:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 14:34	03/11/20 17:18	7782-49-2	
Thallium	**0.000061J**	mg/L	0.0010	0.000052	1	03/10/20 14:34	03/11/20 17:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 17:56	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.45**	mg/L	0.30	0.050	1		03/10/20 17:22	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-30D **Lab ID: 2629703015** Collected: 03/04/20 14:15 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**8.12**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 21:23	7440-36-0	
Arsenic	**0.0021J**	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 21:23	7440-38-2	
Barium	**0.065**	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 21:23	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 21:23	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 21:23	7440-43-9	
Chromium	**0.0013J**	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 21:23	7440-47-3	B
Cobalt	ND	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 21:23	7440-48-4	
Lead	**0.00041J**	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 21:23	7439-92-1	
Lithium	**0.18**	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 21:23	7439-93-2	
Molybdenum	**0.021**	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 21:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 21:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 21:23	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 19:17	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**9.4**	mg/L	1.2	0.20	4		03/11/20 07:50	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-7 **Lab ID: 2629703016** Collected: 03/04/20 11:50 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.17**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/10/20 20:52	03/11/20 21:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/10/20 20:52	03/11/20 21:28	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00049	1	03/10/20 20:52	03/11/20 21:28	7440-39-3	
Beryllium	**0.000077J**	mg/L	0.0030	0.000074	1	03/10/20 20:52	03/11/20 21:28	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/10/20 20:52	03/11/20 21:28	7440-43-9	
Chromium	**0.0016J**	mg/L	0.010	0.00039	1	03/10/20 20:52	03/11/20 21:28	7440-47-3	B
Cobalt	**0.0011J**	mg/L	0.0050	0.00030	1	03/10/20 20:52	03/11/20 21:28	7440-48-4	
Lead	**0.00051J**	mg/L	0.0050	0.000046	1	03/10/20 20:52	03/11/20 21:28	7439-92-1	
Lithium	**0.0034J**	mg/L	0.030	0.00078	1	03/10/20 20:52	03/11/20 21:28	7439-93-2	
Molybdenum	**0.045**	mg/L	0.010	0.00095	1	03/10/20 20:52	03/11/20 21:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/10/20 20:52	03/11/20 21:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/10/20 20:52	03/11/20 21:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 19:19	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.077J**	mg/L	0.30	0.050	1		03/10/20 17:50	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-28D **Lab ID: 2629703017** Collected: 03/04/20 10:05 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.55**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 20:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 20:06	7440-38-2	
Barium	**0.77**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 20:06	7440-39-3	M1
Beryllium	**0.00014J**	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 20:06	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 20:06	7440-43-9	
Chromium	**0.0027J**	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 20:06	7440-47-3	
Cobalt	**0.00093J**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 20:06	7440-48-4	
Lead	**0.0010J**	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 20:06	7439-92-1	
Lithium	**0.015J**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 20:06	7439-93-2	
Molybdenum	**0.0090J**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 20:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 20:06	7782-49-2	
Thallium	**0.000092J**	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 20:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 19:22	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.26J**	mg/L	0.30	0.050	1		03/10/20 18:04	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-24D **Lab ID: 2629703018** Collected: 03/04/20 12:27 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.47**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.0017J**	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 20:28	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 20:28	7440-38-2	
Barium	**0.081**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 20:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 20:28	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 20:28	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 20:28	7440-47-3	
Cobalt	**0.00056J**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 20:28	7440-48-4	
Lead	**0.00019J**	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 20:28	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 20:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 20:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 20:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 20:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 19:24	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.051J**	mg/L	0.30	0.050	1		03/10/20 18:18	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: FD-02 **Lab ID: 2629703019** Collected: 03/04/20 12:00 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00084J**	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 20:34	7440-36-0	B
Arsenic	**0.49**	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 20:34	7440-38-2	
Barium	**0.096**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 20:34	7440-39-3	
Beryllium	**0.000086J**	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 20:34	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 20:34	7440-43-9	
Chromium	**0.00045J**	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 20:34	7440-47-3	
Cobalt	**0.0063**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 20:34	7440-48-4	
Lead	**0.00012J**	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 20:34	7439-92-1	
Lithium	**0.039**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 20:34	7439-93-2	
Molybdenum	**0.029**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 20:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 20:34	7782-49-2	
Thallium	**0.00053J**	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 20:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/10/20 08:40	03/10/20 19:26	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.37**	mg/L	0.30	0.050	1		03/10/20 19:14	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-13 **Lab ID: 2629703020** Collected: 03/04/20 13:25 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.16**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00061J**	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 20:40	7440-36-0	B
Arsenic	**0.52**	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 20:40	7440-38-2	
Barium	**0.10**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 20:40	7440-39-3	
Beryllium	**0.000093J**	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 20:40	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 20:40	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 20:40	7440-47-3	
Cobalt	**0.0066**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 20:40	7440-48-4	
Lead	**0.00014J**	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 20:40	7439-92-1	
Lithium	**0.041**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 20:40	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 20:40	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 20:40	7782-49-2	
Thallium	**0.00056J**	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 20:40	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/11/20 09:30	03/12/20 18:20	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.37**	mg/L	0.30	0.050	1		03/10/20 19:28	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-19 **Lab ID: 2629703021** Collected: 03/04/20 17:55 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.29**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 20:46	7440-36-0	
Arsenic	**0.00045J**	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 20:46	7440-38-2	
Barium	**0.069**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 20:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 20:46	7440-41-7	
Cadmium	**0.00026J**	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 20:46	7440-43-9	
Chromium	**0.00066J**	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 20:46	7440-47-3	
Cobalt	**0.048**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 20:46	7440-48-4	
Lead	**0.00011J**	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 20:46	7439-92-1	
Lithium	**0.010J**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 20:46	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 20:46	7439-98-7	
Selenium	**0.0044J**	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 20:46	7782-49-2	
Thallium	**0.00026J**	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 20:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/11/20 09:30	03/12/20 18:34	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.096J**	mg/L	0.30	0.050	1		03/10/20 19:42	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: HGWC-9 **Lab ID: 2629703022** Collected: 03/04/20 10:26 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**6.97**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00032J**	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 21:03	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 21:03	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 21:03	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 21:03	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 21:03	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 21:03	7440-47-3	
Cobalt	**0.00053J**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 21:03	7440-48-4	
Lead	**0.000084J**	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 21:03	7439-92-1	
Lithium	**0.0040J**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 21:03	7439-93-2	
Molybdenum	**0.031**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 21:03	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 21:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 21:03	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/11/20 09:30	03/12/20 18:37	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.080J**	mg/L	0.30	0.050	1		03/10/20 19:56	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-26D **Lab ID: 2629703023** Collected: 03/04/20 13:41 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**7.14**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.0020J**	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 21:09	7440-36-0	B
Arsenic	**0.00060J**	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 21:09	7440-38-2	
Barium	**0.17**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 21:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 21:09	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 21:09	7440-43-9	
Chromium	**0.0028J**	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 21:09	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 21:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 21:09	7439-92-1	
Lithium	**0.030J**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 21:09	7439-93-2	
Molybdenum	**0.0074J**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 21:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 21:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 21:09	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/11/20 09:30	03/12/20 18:39	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.052J**	mg/L	0.30	0.050	1		03/10/20 20:10	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Sample: MW-27D **Lab ID: 2629703024** Collected: 03/04/20 16:27 Received: 03/05/20 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method:								
Field pH	**8.33**	Std. Units			1		03/16/20 16:27		
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00037J**	mg/L	0.0030	0.00027	1	03/11/20 19:35	03/12/20 21:14	7440-36-0	B
Arsenic	**0.00069J**	mg/L	0.0050	0.00035	1	03/11/20 19:35	03/12/20 21:14	7440-38-2	
Barium	**0.95**	mg/L	0.010	0.00049	1	03/11/20 19:35	03/12/20 21:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/11/20 19:35	03/12/20 21:14	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/11/20 19:35	03/12/20 21:14	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/11/20 19:35	03/12/20 21:14	7440-47-3	
Cobalt	**0.00045J**	mg/L	0.0050	0.00030	1	03/11/20 19:35	03/12/20 21:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/11/20 19:35	03/12/20 21:14	7439-92-1	
Lithium	**0.0047J**	mg/L	0.030	0.00078	1	03/11/20 19:35	03/12/20 21:14	7439-93-2	
Molybdenum	**0.0058J**	mg/L	0.010	0.00095	1	03/11/20 19:35	03/12/20 21:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/11/20 19:35	03/12/20 21:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/11/20 19:35	03/12/20 21:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	03/11/20 09:30	03/12/20 18:41	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	**0.25J**	mg/L	0.30	0.050	1		03/10/20 20:52	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44210 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2629703001, 2629703002, 2629703003

METHOD BLANK: 202602 Matrix: Water
Associated Lab Samples: 2629703001, 2629703002, 2629703003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	03/05/20 14:53	

LABORATORY CONTROL SAMPLE: 202603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202604 202605

Parameter	Units	2629719006 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	0.0026	0.0026	106	106	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44366 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2629703004, 2629703008, 2629703009, 2629703010, 2629703011, 2629703012, 2629703013, 2629703014, 2629714001, 2629714002, 2629714003

METHOD BLANK: 203475 Matrix: Water
Associated Lab Samples: 2629703004, 2629703008, 2629703009, 2629703010, 2629703011, 2629703012, 2629703013, 2629703014, 2629714001, 2629714002, 2629714003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	03/10/20 17:03	

LABORATORY CONTROL SAMPLE: 203476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203477 203478

Parameter	Units	2629703004 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	0.0024	96	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44367 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2629703015, 2629703016, 2629703017, 2629703018, 2629703019

METHOD BLANK: 203479 Matrix: Water
Associated Lab Samples: 2629703015, 2629703016, 2629703017, 2629703018, 2629703019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	03/10/20 18:17	

LABORATORY CONTROL SAMPLE: 203480

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: 203481 203482

Parameter	Units	2629786001 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	0.0025	98	101	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44416 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2629703020, 2629703021, 2629703022, 2629703023, 2629703024

METHOD BLANK: 203797 Matrix: Water
Associated Lab Samples: 2629703020, 2629703021, 2629703022, 2629703023, 2629703024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	03/12/20 18:15	

LABORATORY CONTROL SAMPLE: 203798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203799 203800

Parameter	Units	2629703020 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	0.0025	97	102	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44279 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2629703001, 2629703002, 2629703003, 2629703004, 2629714001, 2629714002, 2629714003

METHOD BLANK: 202988 Matrix: Water
Associated Lab Samples: 2629703001, 2629703002, 2629703003, 2629703004, 2629714001, 2629714002, 2629714003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00029J	0.0030	0.00027	03/10/20 17:38	
Arsenic	mg/L	ND	0.0050	0.00035	03/10/20 17:38	
Barium	mg/L	ND	0.010	0.00049	03/10/20 17:38	
Beryllium	mg/L	ND	0.0030	0.000074	03/10/20 17:38	
Cadmium	mg/L	ND	0.0025	0.00011	03/10/20 17:38	
Chromium	mg/L	ND	0.010	0.00039	03/10/20 17:38	
Cobalt	mg/L	ND	0.0050	0.00030	03/10/20 17:38	
Lead	mg/L	ND	0.0050	0.000046	03/10/20 17:38	
Lithium	mg/L	ND	0.030	0.00078	03/10/20 17:38	
Molybdenum	mg/L	ND	0.010	0.00095	03/10/20 17:38	
Selenium	mg/L	ND	0.010	0.0013	03/10/20 17:38	
Thallium	mg/L	ND	0.0010	0.000052	03/10/20 17:38	

LABORATORY CONTROL SAMPLE: 202989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.11	105	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202990 202991

Parameter	Units	2629679001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	111	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	
Barium	mg/L	0.035	0.1	0.1	0.14	0.15	109	110	75-125	1	20	
Beryllium	mg/L	0.000096J	0.1	0.1	0.10	0.11	104	105	75-125	2	20	
Cadmium	mg/L	0.00041J	0.1	0.1	0.10	0.11	102	105	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 202990 202991

Parameter	Units	2629679001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.0013J	0.1	0.1	0.11	0.11	107	108	75-125	2	20	
Cobalt	mg/L	0.00037J	0.1	0.1	0.11	0.11	105	106	75-125	1	20	
Lead	mg/L	0.000074J	0.1	0.1	0.098	0.10	98	101	75-125	3	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	105	106	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	103	105	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	8	20	
Thallium	mg/L	0.000078J	0.1	0.1	0.10	0.10	100	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44398 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2629703008, 2629703009, 2629703010, 2629703011, 2629703012, 2629703013, 2629703014

METHOD BLANK: 203664 Matrix: Water
Associated Lab Samples: 2629703008, 2629703009, 2629703010, 2629703011, 2629703012, 2629703013, 2629703014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	03/11/20 15:54	
Arsenic	mg/L	ND	0.0050	0.00035	03/11/20 15:54	
Barium	mg/L	ND	0.010	0.00049	03/11/20 15:54	
Beryllium	mg/L	ND	0.0030	0.000074	03/11/20 15:54	
Cadmium	mg/L	ND	0.0025	0.00011	03/11/20 15:54	
Chromium	mg/L	ND	0.010	0.00039	03/11/20 15:54	
Cobalt	mg/L	ND	0.0050	0.00030	03/11/20 15:54	
Lead	mg/L	ND	0.0050	0.000046	03/11/20 15:54	
Lithium	mg/L	ND	0.030	0.00078	03/11/20 15:54	
Molybdenum	mg/L	ND	0.010	0.00095	03/11/20 15:54	
Selenium	mg/L	ND	0.010	0.0013	03/11/20 15:54	
Thallium	mg/L	ND	0.0010	0.000052	03/11/20 15:54	

LABORATORY CONTROL SAMPLE: 203665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	110	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203666 203667

Parameter	Units	2629703008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	109	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	
Barium	mg/L	0.090	0.1	0.1	0.19	0.19	98	98	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203666 203667

Parameter	Units	2629703008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00044J	0.1	0.1	0.11	0.11	107	108	75-125	0	20	
Cobalt	mg/L	0.00094J	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Lead	mg/L	0.00013J	0.1	0.1	0.095	0.096	95	96	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	0	20	
Molybdenum	mg/L	0.0022J	0.1	0.1	0.10	0.10	99	102	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	100	105	75-125	5	20	
Thallium	mg/L	0.000082J	0.1	0.1	0.10	0.10	101	101	75-125	0	20	

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44440 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2629703015, 2629703016

METHOD BLANK: 203914 Matrix: Water
Associated Lab Samples: 2629703015, 2629703016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	03/11/20 18:48	
Arsenic	mg/L	ND	0.0050	0.00035	03/11/20 18:48	
Barium	mg/L	ND	0.010	0.00049	03/11/20 18:48	
Beryllium	mg/L	ND	0.0030	0.000074	03/11/20 18:48	
Cadmium	mg/L	ND	0.0025	0.00011	03/11/20 18:48	
Chromium	mg/L	0.00054J	0.010	0.00039	03/11/20 18:48	
Cobalt	mg/L	ND	0.0050	0.00030	03/11/20 18:48	
Lead	mg/L	ND	0.0050	0.000046	03/11/20 18:48	
Lithium	mg/L	ND	0.030	0.00078	03/11/20 18:48	
Molybdenum	mg/L	ND	0.010	0.00095	03/11/20 18:48	
Selenium	mg/L	ND	0.010	0.0013	03/11/20 18:48	
Thallium	mg/L	ND	0.0010	0.000052	03/11/20 18:48	

LABORATORY CONTROL SAMPLE: 203915

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	0.098	98	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.11	105	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	104	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.11	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203916 203917

Parameter	Units	2629786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	107	75-125	0	20	
Arsenic	mg/L	0.00073J	0.1	0.1	0.099	0.099	99	98	75-125	1	20	
Barium	mg/L	0.017	0.1	0.1	0.12	0.12	100	100	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	104	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203916 203917

Parameter	Units	2629786001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	2	20	
Lead	mg/L	0.000051J	0.1	0.1	0.096	0.096	96	96	75-125	0	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	104	105	75-125	0	20	
Molybdenum	mg/L	0.0064J	0.1	0.1	0.10	0.10	95	96	75-125	2	20	
Selenium	mg/L	0.0053J	0.1	0.1	0.10	0.11	98	104	75-125	6	20	
Thallium	mg/L	0.00012J	0.1	0.1	0.10	0.10	103	104	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 44486 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2629703017, 2629703018, 2629703019, 2629703020, 2629703021, 2629703022, 2629703023, 2629703024

METHOD BLANK: 204134 Matrix: Water
Associated Lab Samples: 2629703017, 2629703018, 2629703019, 2629703020, 2629703021, 2629703022, 2629703023, 2629703024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00041J	0.0030	0.00027	03/12/20 19:54	
Arsenic	mg/L	ND	0.0050	0.00035	03/12/20 19:54	
Barium	mg/L	ND	0.010	0.00049	03/12/20 19:54	
Beryllium	mg/L	ND	0.0030	0.000074	03/12/20 19:54	
Cadmium	mg/L	ND	0.0025	0.00011	03/12/20 19:54	
Chromium	mg/L	ND	0.010	0.00039	03/12/20 19:54	
Cobalt	mg/L	ND	0.0050	0.00030	03/12/20 19:54	
Lead	mg/L	ND	0.0050	0.000046	03/12/20 19:54	
Lithium	mg/L	ND	0.030	0.00078	03/12/20 19:54	
Molybdenum	mg/L	ND	0.010	0.00095	03/12/20 19:54	
Selenium	mg/L	ND	0.010	0.0013	03/12/20 19:54	
Thallium	mg/L	ND	0.0010	0.000052	03/12/20 19:54	

LABORATORY CONTROL SAMPLE: 204135

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	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	0.10	102	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	101	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204136 204137

Parameter	Units	2629703017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	109	110	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	
Barium	mg/L	0.77	0.1	0.1	0.88	0.91	104	136	75-125	4	20	M1
Beryllium	mg/L	0.00014J	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.11	107	105	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204136 204137

Parameter	Units	2629703017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.0027J	0.1	0.1	0.11	0.11	106	103	75-125	3	20	
Cobalt	mg/L	0.00093J	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Lead	mg/L	0.0010J	0.1	0.1	0.099	0.10	98	99	75-125	1	20	
Lithium	mg/L	0.015J	0.1	0.1	0.11	0.11	94	96	75-125	2	20	
Molybdenum	mg/L	0.0090J	0.1	0.1	0.11	0.12	105	106	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.079	0.078	79	77	75-125	2	20	
Thallium	mg/L	0.000092J	0.1	0.1	0.099	0.10	99	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 529175 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
Associated Lab Samples: 2629703001, 2629703002, 2629703003, 2629703004, 2629714001, 2629714002, 2629714003

METHOD BLANK: 2826400 Matrix: Water
Associated Lab Samples: 2629703001, 2629703002, 2629703003, 2629703004, 2629714001, 2629714002, 2629714003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	03/10/20 12:19	

LABORATORY CONTROL SAMPLE: 2826401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826402 2826403

Parameter	Units	92468470002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	96	99	90-110	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826404 2826405

Parameter	Units	2629679002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	99	108	90-110	8	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 529177 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
Associated Lab Samples: 2629703008, 2629703009, 2629703010, 2629703011, 2629703012

METHOD BLANK: 2826406 Matrix: Water
Associated Lab Samples: 2629703008, 2629703009, 2629703010, 2629703011, 2629703012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	03/10/20 19:28	

LABORATORY CONTROL SAMPLE: 2826407

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826408 2826409

Parameter	Units	92468412012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	3.0	2.9	119	114	90-110	4	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2826410 2826411

Parameter	Units	2629734005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	103	105	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

QC Batch: 529390 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
Associated Lab Samples: 2629703013, 2629703014, 2629703015, 2629703016, 2629703017, 2629703018, 2629703019, 2629703020, 2629703021, 2629703022, 2629703023, 2629703024

METHOD BLANK: 2827590 Matrix: Water
Associated Lab Samples: 2629703013, 2629703014, 2629703015, 2629703016, 2629703017, 2629703018, 2629703019, 2629703020, 2629703021, 2629703022, 2629703023, 2629703024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	03/10/20 16:12	

LABORATORY CONTROL SAMPLE: 2827591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2827592 2827593

Parameter	Units	2629703013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	1.4	2.5	2.5	4.0	4.0	101	102	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2827594 2827595

Parameter	Units	2629703023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.052J	2.5	2.5	2.6	2.6	103	103	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

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.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629703001	**MW-20**				
2629703003	**MW-29**				
2629703004	**MW-5**				
2629714001	**HGWA-1**				
2629714002	**HGWA-2**				
2629714003	**HGWA-3**				
2629703008	**MW-6**				
2629703009	**MW-7**				
2629703010	**HGWC-10**				
2629703011	**HGWC-11**				
2629703012	**HGWC-12**				
2629703013	**MW-25D**				
2629703014	**HGWC-8**				
2629703015	**MW-30D**				
2629703016	**HGWC-7**				
2629703017	**MW-28D**				
2629703018	**MW-24D**				
2629703020	**HGWC-13**				
2629703021	**MW-19**				
2629703022	**HGWC-9**				
2629703023	**MW-26D**				
2629703024	**MW-27D**				
2629703001	**MW-20**	EPA 3005A	44279	EPA 6020B	44313
2629703002	**FB-01**	EPA 3005A	44279	EPA 6020B	44313
2629703003	**MW-29**	EPA 3005A	44279	EPA 6020B	44313
2629703004	**MW-5**	EPA 3005A	44279	EPA 6020B	44313
2629714001	**HGWA-1**	EPA 3005A	44279	EPA 6020B	44313
2629714002	**HGWA-2**	EPA 3005A	44279	EPA 6020B	44313
2629714003	**HGWA-3**	EPA 3005A	44279	EPA 6020B	44313
2629703008	**MW-6**	EPA 3005A	44398	EPA 6020B	44434
2629703009	**MW-7**	EPA 3005A	44398	EPA 6020B	44434
2629703010	**HGWC-10**	EPA 3005A	44398	EPA 6020B	44434
2629703011	**HGWC-11**	EPA 3005A	44398	EPA 6020B	44434
2629703012	**HGWC-12**	EPA 3005A	44398	EPA 6020B	44434
2629703013	**MW-25D**	EPA 3005A	44398	EPA 6020B	44434
2629703014	**HGWC-8**	EPA 3005A	44398	EPA 6020B	44434
2629703015	**MW-30D**	EPA 3005A	44440	EPA 6020B	44463
2629703016	**HGWC-7**	EPA 3005A	44440	EPA 6020B	44463
2629703017	**MW-28D**	EPA 3005A	44486	EPA 6020B	44510
2629703018	**MW-24D**	EPA 3005A	44486	EPA 6020B	44510
2629703019	**FD-02**	EPA 3005A	44486	EPA 6020B	44510
2629703020	**HGWC-13**	EPA 3005A	44486	EPA 6020B	44510
2629703021	**MW-19**	EPA 3005A	44486	EPA 6020B	44510
2629703022	**HGWC-9**	EPA 3005A	44486	EPA 6020B	44510
2629703023	**MW-26D**	EPA 3005A	44486	EPA 6020B	44510
2629703024	**MW-27D**	EPA 3005A	44486	EPA 6020B	44510

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629703001	**MW-20**	EPA 7470A	44210	EPA 7470A	44266
2629703002	**FB-01**	EPA 7470A	44210	EPA 7470A	44266
2629703003	**MW-29**	EPA 7470A	44210	EPA 7470A	44266
2629703004	**MW-5**	EPA 7470A	44366	EPA 7470A	44419
2629714001	**HGWA-1**	EPA 7470A	44366	EPA 7470A	44419
2629714002	**HGWA-2**	EPA 7470A	44366	EPA 7470A	44419
2629714003	**HGWA-3**	EPA 7470A	44366	EPA 7470A	44419
2629703008	**MW-6**	EPA 7470A	44366	EPA 7470A	44419
2629703009	**MW-7**	EPA 7470A	44366	EPA 7470A	44419
2629703010	**HGWC-10**	EPA 7470A	44366	EPA 7470A	44419
2629703011	**HGWC-11**	EPA 7470A	44366	EPA 7470A	44419
2629703012	**HGWC-12**	EPA 7470A	44366	EPA 7470A	44419
2629703013	**MW-25D**	EPA 7470A	44366	EPA 7470A	44419
2629703014	**HGWC-8**	EPA 7470A	44366	EPA 7470A	44419
2629703015	**MW-30D**	EPA 7470A	44367	EPA 7470A	44420
2629703016	**HGWC-7**	EPA 7470A	44367	EPA 7470A	44420
2629703017	**MW-28D**	EPA 7470A	44367	EPA 7470A	44420
2629703018	**MW-24D**	EPA 7470A	44367	EPA 7470A	44420
2629703019	**FD-02**	EPA 7470A	44367	EPA 7470A	44420
2629703020	**HGWC-13**	EPA 7470A	44416	EPA 7470A	44475
2629703021	**MW-19**	EPA 7470A	44416	EPA 7470A	44475
2629703022	**HGWC-9**	EPA 7470A	44416	EPA 7470A	44475
2629703023	**MW-26D**	EPA 7470A	44416	EPA 7470A	44475
2629703024	**MW-27D**	EPA 7470A	44416	EPA 7470A	44475
2629703001	**MW-20**	EPA 300.0 Rev 2.1 1993	529175		
2629703002	**FB-01**	EPA 300.0 Rev 2.1 1993	529175		
2629703003	**MW-29**	EPA 300.0 Rev 2.1 1993	529175		
2629703004	**MW-5**	EPA 300.0 Rev 2.1 1993	529175		
2629714001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	529175		
2629714002	**HGWA-2**	EPA 300.0 Rev 2.1 1993	529175		
2629714003	**HGWA-3**	EPA 300.0 Rev 2.1 1993	529175		
2629703008	**MW-6**	EPA 300.0 Rev 2.1 1993	529177		
2629703009	**MW-7**	EPA 300.0 Rev 2.1 1993	529177		
2629703010	**HGWC-10**	EPA 300.0 Rev 2.1 1993	529177		
2629703011	**HGWC-11**	EPA 300.0 Rev 2.1 1993	529177		
2629703012	**HGWC-12**	EPA 300.0 Rev 2.1 1993	529177		
2629703013	**MW-25D**	EPA 300.0 Rev 2.1 1993	529390		
2629703014	**HGWC-8**	EPA 300.0 Rev 2.1 1993	529390		
2629703015	**MW-30D**	EPA 300.0 Rev 2.1 1993	529390		
2629703016	**HGWC-7**	EPA 300.0 Rev 2.1 1993	529390		
2629703017	**MW-28D**	EPA 300.0 Rev 2.1 1993	529390		
2629703018	**MW-24D**	EPA 300.0 Rev 2.1 1993	529390		
2629703019	**FD-02**	EPA 300.0 Rev 2.1 1993	529390		
2629703020	**HGWC-13**	EPA 300.0 Rev 2.1 1993	529390		
2629703021	**MW-19**	EPA 300.0 Rev 2.1 1993	529390		
2629703022	**HGWC-9**	EPA 300.0 Rev 2.1 1993	529390		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT HAMMOND APP IV AP-1
Pace Project No.: 2629703

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2629703023	**MW-26D**	EPA 300.0 Rev 2.1 1993	529390		
2629703024	**MW-27D**	EPA 300.0 Rev 2.1 1993	529390		

Sample Condition Upon Receipt

Pace Analytical

Client Name: G-A[illegible] Project # ________

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace Other ________

Tracking #: ________

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other ________

Thermometer Used: 233 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 1.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: [illegible]

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

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

Person Contacted: ________ Date/Time: ________

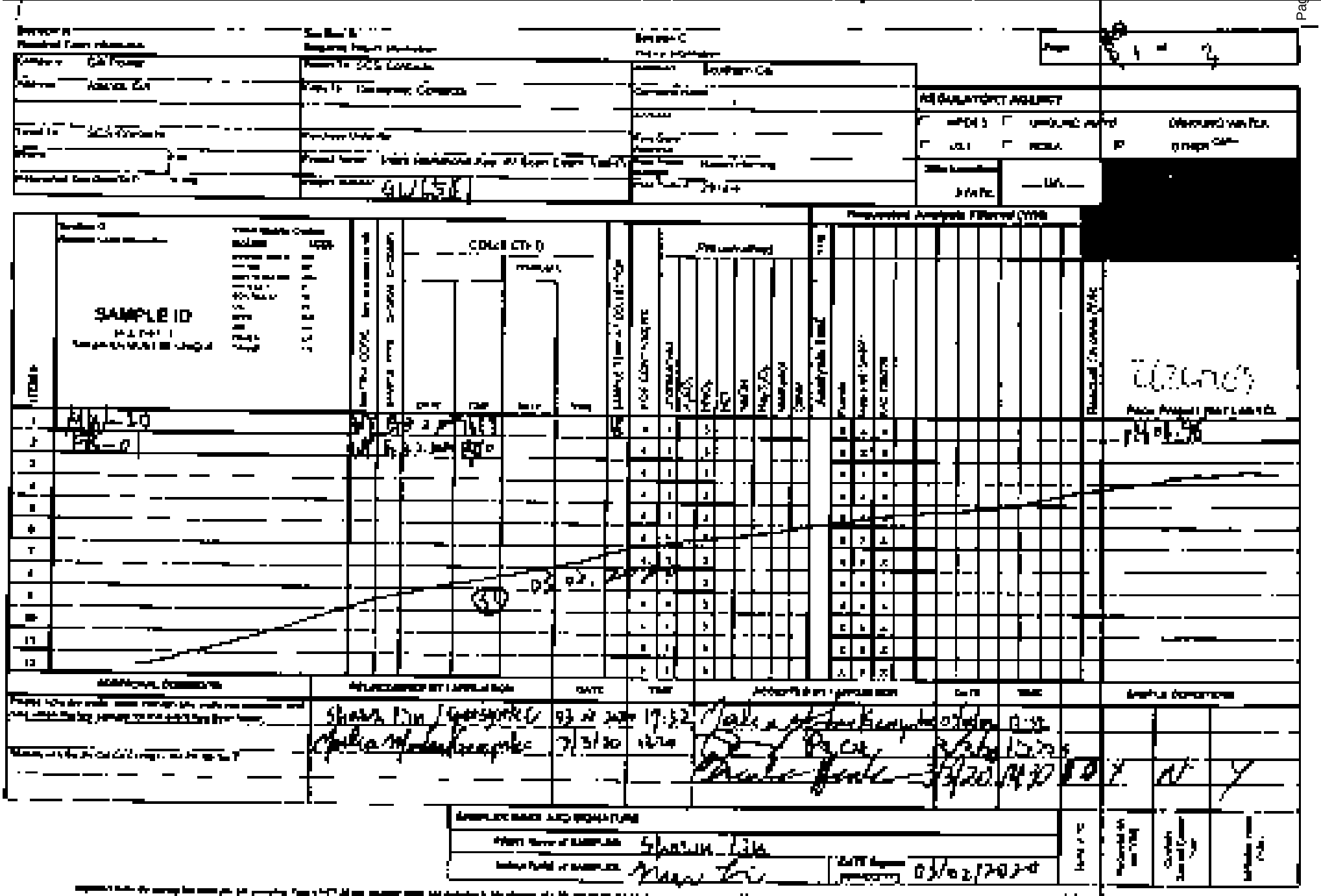
Comments/ Resolution: ________

Project Manager Review: ________ Date: ________

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

F-ALL-C-003rev.3, 11September2006

CHAIN-OF-CUSTODY / Analytical Request Document



Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

SAMPLE ID

Pace Project No./ Lab I.D.

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

Company: [illegible]
Address: [illegible]
Report To: SCS Consulting
Copy To: [illegible]
Project Name: [illegible]
Project Number: 6V6591 [illegible]

Attention: [illegible]
Company Name: [illegible]

Page: 2 of 3

REGULATORY AGENCY

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Pace Project No./ Lab I.D.
1	DUV-5	M	[illegible]	3-2-20	1621	[illegible]	[illegible]
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

AR 3-2-2020

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Sampler	3-2-20	1757	[illegible]	3/2/20	1757
[illegible]	3/3/20	[illegible]	[illegible]	[illegible]	[illegible]

Y N Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron [illegible]
SIGNATURE of SAMPLER: [illegible]
DATE Signed: 03/03/2020

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

Section A Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts

Section B Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond [illegible]
Project Number: 6V4581

Section C Invoice Information
Attention: Southern Co
Pace Project Manager: Kevin Herring

REGULATORY AGENCY
NPDES / GROUND WATER / DRINKING WATER
UST / RCRA / OTHER

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Pace Project No./ Lab I.D.
1	HGWA-3	WT	G	3-2-20	1135		

AB 3-2-2020

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	3-2-20	1751	[illegible]	[illegible]	1751
[illegible]	[illegible]	1230	[illegible]	3-3-20	1230
			[illegible]	3/4/20	1530

ADDITIONAL COMMENTS: Include in MI and AR [illegible]

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: [illegible]
DATE Signed: 03/02/2020

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 2 of 2

REGULATORY AGENCY

SAMPLE ID

Recommended Analysis Filtered (Y/N)

#	SAMPLE ID	Collected Date	Collected Time	Grab	Composite	Start	End	Matrix	Preservation	Analysis Requested	Filtered (Y/N)	Residual Chlorine (Y/N)
1	MW-2A-R	3/31/20	1017	X		1110	1140	GW				
2	MW-3A-R	3/31/20	1153	X		1315	1345	GW				
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

SAMPLER(S) Complete	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Sample Conditions
Please note: By email, relinquished signature authorizes work to proceed according to the attached price quote.	Chad Ruple	3/31/20	1800				
Requested Turnaround Time (TAT)	Mark Henderson	4/1/20	1330				
Standard TAT = 10 Business Days				Mark Henderson 3/31/20 1430			

SAMPLER NAME AND SIGNATURE

PRINT Name of Sampler: Chad Ruple

SIGNATURE of Sampler: Chad Ruple

DATE Signed (MM/DD/YY): 03/31/20

Pace Analytical

Pace Analytical

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

Section B Required Project Information: Report To: SCS Contacts; Copy To: Geosyntec Contacts; Project Name: Plant Hammond Ash Pond / Scan Event (?); Project Number: 6V65B1

Section C Invoice Information: Attention: Southern Co.; Pace Project Manager: Kevin Herring; Pace Profile #: 2784

Regulatory Agency / State: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Pace Project No./Lab I.D.
1	MW-6	WT	G	3-3-20	1012		pH 6.78 Temp 16.03
2	MW-7	WT	G	3-3-20	1131		pH 6.10 Temp 17.34
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

AP 3-3-2020

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] Southern	3-3-20	1805	Chad Rogers / GEOSYNTEC	3/3/20	1805
Chad Rogers / GEO	3/3/20	2015	[signature]	3/3/20	2015
[signature]	3/4/20	1005	[signature] / Pace	3/4/20	1005
[signature] / Pace	3/4/20	1530			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Brooker

SIGNATURE of SAMPLER: [signature]

DATE Signed: 03/03/2020

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Company: GA Power

Address: Atlanta, GA

Report To: SCS Contacts

Copy To: Geosyntec Contacts

Invoice Information: Southern Co

Pace Project Manager: Kevin Herring

Pace Profile #: [illegible]

Site Location STATE: GA

REGULATORY AGENCY

Project Name: Plant Hammond Ash Pond [illegible]

Project #: GA [illegible]

SAMPLE ID

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	TIME	COLLECTED DATE	TIME	# OF CONTAINERS
1	NGWC-8	WG	G	3/11/20	1457	3/11/20	1456	4

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Analysis Test: Radium, Metals, Anions

Pace Project No./ Lab I.D.: pH: 7.04

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / SCS	3/12/20	1045	[illegible]	3/12/20	1045
[illegible]	3/12/20	1005	[illegible]	3/13/20	1005
[illegible]	3/13/20	1616			

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed: 03/13/2020

SAMPLE CONDITIONS

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

Section A

Required Client Information:

Company: GA Power

Address: Atlanta, GA

Email To: SCS Company

Section B

Required Project Information:

Report To: SCS Contacts

Copy To: Geosyntec Contacts

Section C

Invoice Information:

Page: 1 of 2

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER

UST | RCRA | OTHER

Site Location STATE: GA

Section D

Required Client Information

SAMPLE ID

COLLECTED

Preservatives

Unpreserved

Methanol

Other

Analysis Test

Residual Chlorine (Y/N)

ITEM #	SAMPLE ID							
1	[illegible]							
2	[illegible]							
3	[illegible]							
4								
5								
6								
7								
8								
9								
10								
11								
12								

ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

Page: 2 of 3

Company: GA Power
Report To: SCS Contacts
Copy To: Geosyntec Consultants
Project Name: Plant Hammond Ash Pond
Project Number: GAPG1601

Invoice Information: Southern Co
Pace Project Manager: Kevin Herring

REGULATORY AGENCY
Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED START DATE	START TIME	END DATE	END TIME	Pace Project No./ Lab I.D.
1	MW-24D	WG	G	3/4/20	1310	3/4/20	1417	pH 7.47
2	FD-02	WG	G		0000		1500	
3	HGWC-13	WG	G		1452		1525	pH 6.??
4	MW-16	WG	G		1743		1835	pH 6.14

Pace Project No./ Lab I.D.: 2624963

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Chad Russo / GEO	3/4/2020	1945	Shawn Lin / Pace	3/4/20	1945
Shawn Lin / Pace	3/5/20	1045		3/5/20	1045
				3/5/20	1000

SAMPLE CONDITIONS: Y N Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: Chad Russo
DATE Signed: 3/4/2020

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

Required Client Information: Company: Cal Power; Report To: SCS Contacts

Required Project Information: Copy To: SCS Contacts; Project Name: Plant [illegible]; Project Number: EV6581

Invoice Information: Company Name: Southern Co

REGULATORY AGENCY

Page: 1 of 3

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Pace Project No./ Lab I.D.
1	HGWT-9	WT	G	3-4-20	1241	4	pH 6.87
2	MV-260	WT	G	3-4-20	1341	4	pH 7.14
3	MU-270	WT	G	3-4-20	1427	4	pH 8.33

AR 3-4-2020

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	3-4-20	1541	[illegible] / Pace	3/4/20	1541
[illegible] / Pace	3/4/20	1945	Shauna Lin Rodriguez	3/4/20	1945
Shauna Lin Rodriguez	3/5/20	1145	[illegible]	3/4/20	1145
			[illegible] / Pace	3/5/20	1200

SAMPLE CONDITIONS: Y Y N Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron [illegible]

DATE Signed: 03/04/2020

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

May 27, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between March 26, 2020 and April 03, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Atlanta, GA

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

Sincerely,

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

Enclosures

cc: Kristen Jurinko
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630471001	**HGWA-1**	Water	03/25/20 15:56	03/26/20 11:10
2630471002	**HGWA-3**	Water	03/25/20 15:17	03/26/20 11:10
2630471003	**HGWA-2**	Water	03/25/20 16:32	03/26/20 11:10
2630471004	**HGWC-12**	Water	03/26/20 08:50	03/27/20 13:00
2630471005	**MW-25D**	Water	03/26/20 10:45	03/27/20 13:00
2630471006	**MW-19**	Water	03/26/20 12:30	03/27/20 13:00
2630471007	**MW-5**	Water	03/26/20 14:10	03/27/20 13:00
2630471008	**HGWC-7**	Water	03/27/20 09:30	03/30/20 10:20
2630471009	**MW-28D**	Water	03/27/20 10:40	03/30/20 10:20
2630471010	**MW-20**	Water	03/27/20 09:30	03/30/20 10:20
2630471011	**HGWC-8**	Water	03/27/20 10:40	03/30/20 10:20
2630471012	**MW-6**	Water	03/27/20 13:00	03/30/20 10:20
2630471013	**FB-01**	Water	03/27/20 00:00	03/30/20 10:20
2630471014	**MW-7**	Water	03/30/20 09:05	03/31/20 11:35
2630471015	**MW-24D**	Water	03/30/20 10:30	03/31/20 11:35
2630471016	**HGWC-13**	Water	03/30/20 12:15	03/31/20 11:35
2630471017	**MW-29**	Water	03/30/20 15:35	03/31/20 11:35
2630471018	**HGWC-11**	Water	03/31/20 15:22	04/01/20 10:30
2630471019	**MW-26D**	Water	03/31/20 09:35	04/01/20 10:30
2630471020	**HGWC-9**	Water	03/31/20 12:00	04/01/20 10:30
2630471021	**MW-30D**	Water	03/31/20 10:00	04/01/20 10:30
2630471022	**FD-01**	Water	03/31/20 00:00	04/01/20 10:30
2630471023	**HGWC-10**	Water	04/01/20 09:47	04/02/20 10:25
2630471024	**MW-27D**	Water	04/02/20 10:48	04/03/20 11:50

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630471001	**HGWA-1**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471002	**HGWA-3**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471003	**HGWA-2**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471004	**HGWC-12**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471005	**MW-25D**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471006	**MW-19**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471007	**MW-5**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471008	**HGWC-7**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471009	**MW-28D**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471010	**MW-20**	EPA 6010D	DRB	1	PASI-GA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471011	**HGWC-8**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471012	**MW-6**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471013	**FB-01**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630471014	**MW-7**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471015	**MW-24D**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471016	**HGWC-13**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471017	**MW-29**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471018	**HGWC-11**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471019	**MW-26D**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471020	**HGWC-9**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471021	**MW-30D**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471022	**FD-01**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471023	**HGWC-10**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	BRJ	3	PASI-A
2630471024	**MW-27D**	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	JRS	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, GA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471001	**HGWA-1**					
	Field pH	6.95	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	127	mg/L	1.0	04/02/20 13:58	
EPA 6020B	Barium	0.043	mg/L	0.010	04/02/20 20:39	
EPA 6020B	Boron	0.025J	mg/L	0.10	04/02/20 20:39	
EPA 6020B	Chromium	0.00072J	mg/L	0.010	04/02/20 20:39	
EPA 6020B	Lithium	0.00083J	mg/L	0.030	04/02/20 20:39	
SM 2540C	Total Dissolved Solids	496	mg/L	10.0	04/01/20 15:05	
EPA 300.0 Rev 2.1 1993	Chloride	20.4	mg/L	1.0	04/03/20 00:17	
EPA 300.0 Rev 2.1 1993	Fluoride	0.098J	mg/L	0.30	04/03/20 00:17	
EPA 300.0 Rev 2.1 1993	Sulfate	85.9	mg/L	1.0	04/03/20 00:17	
2630471002	**HGWA-3**					
	Field pH	7.4	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	89.8	mg/L	1.0	04/02/20 14:01	
EPA 6020B	Barium	0.13	mg/L	0.010	04/02/20 20:56	
EPA 6020B	Boron	0.0096J	mg/L	0.10	04/02/20 20:56	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	04/02/20 20:56	
SM 2540C	Total Dissolved Solids	284	mg/L	10.0	04/01/20 15:05	
EPA 300.0 Rev 2.1 1993	Chloride	6.1	mg/L	1.0	04/03/20 01:01	
EPA 300.0 Rev 2.1 1993	Sulfate	50.5	mg/L	1.0	04/03/20 01:01	
2630471003	**HGWA-2**					
	Field pH	5.36	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	23.0	mg/L	1.0	04/02/20 14:05	
EPA 6020B	Barium	0.12	mg/L	0.010	04/02/20 21:02	
EPA 6020B	Beryllium	0.00016J	mg/L	0.0030	04/02/20 21:02	
EPA 6020B	Boron	0.039J	mg/L	0.10	04/02/20 21:02	
EPA 6020B	Cadmium	0.00014J	mg/L	0.0025	04/02/20 21:02	
EPA 6020B	Cobalt	0.020	mg/L	0.0050	04/02/20 21:02	
EPA 6020B	Lead	0.00011J	mg/L	0.0050	04/02/20 21:02	
EPA 6020B	Lithium	0.0017J	mg/L	0.030	04/02/20 21:02	
SM 2540C	Total Dissolved Solids	138	mg/L	10.0	04/01/20 15:06	
EPA 300.0 Rev 2.1 1993	Chloride	5.2	mg/L	1.0	04/03/20 01:46	
EPA 300.0 Rev 2.1 1993	Sulfate	46.3	mg/L	1.0	04/03/20 01:46	
2630471004	**HGWC-12**					
	Field pH	6.99	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	145	mg/L	1.0	04/02/20 17:59	
EPA 6020B	Arsenic	0.0028J	mg/L	0.0050	04/02/20 22:30	
EPA 6020B	Barium	0.089	mg/L	0.010	04/02/20 22:30	
EPA 6020B	Boron	1.6	mg/L	0.10	04/02/20 22:30	
EPA 6020B	Cobalt	0.0012J	mg/L	0.0050	04/02/20 22:30	
EPA 6020B	Lead	0.00043J	mg/L	0.0050	04/02/20 22:30	
EPA 6020B	Lithium	0.0063J	mg/L	0.030	04/02/20 22:30	
EPA 6020B	Molybdenum	0.045	mg/L	0.010	04/02/20 22:30	
EPA 6020B	Thallium	0.000080J	mg/L	0.0010	04/02/20 22:30	
SM 2540C	Total Dissolved Solids	533	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	48.0	mg/L	1.0	04/03/20 03:23	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17J	mg/L	0.30	04/03/20 03:23	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471004	**HGWC-12**					
EPA 300.0 Rev 2.1 1993	Sulfate	182	mg/L	4.0	04/03/20 10:34	
2630471005	**MW-25D**					
	Field pH	7.57	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	27.0	mg/L	1.0	04/03/20 21:08	
EPA 6020B	Arsenic	0.00075J	mg/L	0.0050	04/02/20 22:47	
EPA 6020B	Barium	0.45	mg/L	0.010	04/02/20 22:47	
EPA 6020B	Boron	0.44	mg/L	0.10	04/02/20 22:47	
EPA 6020B	Chromium	0.00061J	mg/L	0.010	04/02/20 22:47	
EPA 6020B	Lithium	0.054	mg/L	0.030	04/02/20 22:47	
SM 2540C	Total Dissolved Solids	385	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	34.6	mg/L	1.0	04/03/20 03:37	
EPA 300.0 Rev 2.1 1993	Fluoride	1.6	mg/L	0.30	04/03/20 03:37	
EPA 300.0 Rev 2.1 1993	Sulfate	32.3	mg/L	1.0	04/03/20 03:37	
2630471006	**MW-19**					
	Field pH	6.28	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	171	mg/L	1.0	04/03/20 21:22	
EPA 6020B	Barium	0.067	mg/L	0.010	04/02/20 22:52	
EPA 6020B	Boron	1.0	mg/L	0.10	04/02/20 22:52	
EPA 6020B	Cadmium	0.00019J	mg/L	0.0025	04/02/20 22:52	
EPA 6020B	Chromium	0.00047J	mg/L	0.010	04/02/20 22:52	
EPA 6020B	Cobalt	0.045	mg/L	0.0050	04/02/20 22:52	
EPA 6020B	Lithium	0.013J	mg/L	0.030	04/02/20 22:52	
EPA 6020B	Molybdenum	0.033	mg/L	0.010	04/02/20 22:52	
EPA 6020B	Selenium	0.0053J	mg/L	0.010	04/02/20 22:52	
EPA 6020B	Thallium	0.00026J	mg/L	0.0010	04/02/20 22:52	
SM 2540C	Total Dissolved Solids	626	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	64.0	mg/L	1.0	04/03/20 03:52	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12J	mg/L	0.30	04/03/20 03:52	
EPA 300.0 Rev 2.1 1993	Sulfate	310	mg/L	6.0	04/03/20 10:55	
2630471007	**MW-5**					
	Field pH	6.14	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	89.6	mg/L	1.0	04/03/20 21:26	
EPA 6020B	Barium	0.046	mg/L	0.010	04/02/20 22:58	
EPA 6020B	Boron	0.041J	mg/L	0.10	04/02/20 22:58	
EPA 6020B	Chromium	0.0044J	mg/L	0.010	04/02/20 22:58	
EPA 6020B	Selenium	0.0039J	mg/L	0.010	04/02/20 22:58	
SM 2540C	Total Dissolved Solids	385	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	0.73J	mg/L	1.0	04/03/20 04:07	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.082J	mg/L	0.30	04/03/20 04:07	
EPA 300.0 Rev 2.1 1993	Sulfate	176	mg/L	4.0	04/03/20 11:16	
2630471008	**HGWC-7**					
	Field pH	7.05	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	119	mg/L	1.0	04/03/20 22:40	
EPA 6020B	Barium	0.059	mg/L	0.010	04/03/20 17:05	
EPA 6020B	Boron	1.2	mg/L	0.10	04/03/20 17:05	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471008	**HGWC-7**					
EPA 6020B	Chromium	0.00040J	mg/L	0.010	04/03/20 17:05	
EPA 6020B	Cobalt	0.00074J	mg/L	0.0050	04/03/20 17:05	
EPA 6020B	Lead	0.000054J	mg/L	0.0050	04/03/20 17:05	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	04/03/20 17:05	
EPA 6020B	Molybdenum	0.044	mg/L	0.010	04/03/20 17:05	
SM 2540C	Total Dissolved Solids	413	mg/L	10.0	04/02/20 17:56	
EPA 300.0 Rev 2.1 1993	Chloride	48.3	mg/L	1.0	04/02/20 18:44	
EPA 300.0 Rev 2.1 1993	Fluoride	0.059J	mg/L	0.30	04/02/20 18:44	
EPA 300.0 Rev 2.1 1993	Sulfate	109	mg/L	2.0	04/03/20 08:03	
2630471009	**MW-28D**					
	Field pH	7.42	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	53.0	mg/L	1.0	04/03/20 19:47	
EPA 6020B	Barium	0.64	mg/L	0.010	04/03/20 17:22	
EPA 6020B	Boron	0.14	mg/L	0.10	04/03/20 17:22	
EPA 6020B	Lead	0.000062J	mg/L	0.0050	04/03/20 17:22	
EPA 6020B	Lithium	0.014J	mg/L	0.030	04/03/20 17:22	
EPA 6020B	Molybdenum	0.0068J	mg/L	0.010	04/03/20 17:22	
SM 2540C	Total Dissolved Solids	287	mg/L	10.0	04/02/20 17:56	
EPA 300.0 Rev 2.1 1993	Chloride	33.0	mg/L	1.0	04/02/20 18:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.26J	mg/L	0.30	04/02/20 18:59	
EPA 300.0 Rev 2.1 1993	Sulfate	36.0	mg/L	1.0	04/02/20 18:59	
2630471010	**MW-20**					
	Field pH	6.75	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	126	mg/L	1.0	04/03/20 19:50	
EPA 6020B	Barium	0.093	mg/L	0.010	04/03/20 17:28	
EPA 6020B	Boron	0.12	mg/L	0.10	04/03/20 17:28	
EPA 6020B	Chromium	0.00051J	mg/L	0.010	04/03/20 17:28	
EPA 6020B	Lead	0.00013J	mg/L	0.0050	04/03/20 17:28	
EPA 6020B	Lithium	0.0012J	mg/L	0.030	04/03/20 17:28	
SM 2540C	Total Dissolved Solids	429	mg/L	10.0	04/02/20 17:56	
EPA 300.0 Rev 2.1 1993	Chloride	28.8	mg/L	1.0	04/02/20 19:43	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	04/03/20 08:26	
2630471011	**HGWC-8**					
	Field pH	6.95	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	133	mg/L	1.0	04/03/20 19:54	
EPA 6020B	Barium	0.059	mg/L	0.010	04/03/20 17:33	
EPA 6020B	Boron	2.4	mg/L	0.10	04/03/20 17:33	
EPA 6020B	Cadmium	0.00014J	mg/L	0.0025	04/03/20 17:33	
EPA 6020B	Cobalt	0.0018J	mg/L	0.0050	04/03/20 17:33	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	04/03/20 17:33	
EPA 6020B	Molybdenum	0.42	mg/L	0.010	04/03/20 17:33	
EPA 6020B	Thallium	0.000077J	mg/L	0.0010	04/03/20 17:33	
SM 2540C	Total Dissolved Solids	541	mg/L	10.0	04/02/20 17:56	
EPA 300.0 Rev 2.1 1993	Chloride	79.8	mg/L	1.0	04/02/20 19:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.46	mg/L	0.30	04/02/20 19:58	
EPA 300.0 Rev 2.1 1993	Sulfate	173	mg/L	4.0	04/03/20 08:48	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471012	**MW-6**					
	Field pH	6.82	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	186	mg/L	1.0	04/03/20 19:57	
EPA 6020B	Barium	0.086	mg/L	0.010	04/03/20 17:39	
EPA 6020B	Boron	0.77	mg/L	0.10	04/03/20 17:39	
EPA 6020B	Chromium	0.00059J	mg/L	0.010	04/03/20 17:39	
EPA 6020B	Cobalt	0.00059J	mg/L	0.0050	04/03/20 17:39	
EPA 6020B	Molybdenum	0.0026J	mg/L	0.010	04/03/20 17:39	
SM 2540C	Total Dissolved Solids	676	mg/L	10.0	04/02/20 17:57	
EPA 300.0 Rev 2.1 1993	Chloride	48.6	mg/L	1.0	04/02/20 20:13	
EPA 300.0 Rev 2.1 1993	Sulfate	204	mg/L	4.0	04/03/20 09:09	
2630471013	**FB-01**					
EPA 6020B	Lead	0.00019J	mg/L	0.0050	04/03/20 17:51	
2630471014	**MW-7**					
	Field pH	6.06	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	31.1	mg/L	1.0	04/03/20 20:04	
EPA 6020B	Barium	0.050	mg/L	0.010	04/02/20 15:28	
EPA 6020B	Boron	0.051J	mg/L	0.10	04/02/20 15:28	
EPA 6020B	Chromium	0.0021J	mg/L	0.010	04/02/20 15:28	
EPA 6020B	Selenium	0.0014J	mg/L	0.010	04/02/20 15:28	
SM 2540C	Total Dissolved Solids	142	mg/L	10.0	04/02/20 17:57	
EPA 300.0 Rev 2.1 1993	Chloride	1.5	mg/L	1.0	04/04/20 15:22	
EPA 300.0 Rev 2.1 1993	Sulfate	46.2	mg/L	1.0	04/04/20 15:22	
2630471015	**MW-24D**					
	Field pH	7.49	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	84.4	mg/L	1.0	04/03/20 20:08	
EPA 6020B	Barium	0.056	mg/L	0.010	04/02/20 15:34	
EPA 6020B	Boron	0.51	mg/L	0.10	04/02/20 15:34	
EPA 6020B	Lead	0.000064J	mg/L	0.0050	04/02/20 15:34	
EPA 6020B	Lithium	0.0027J	mg/L	0.030	04/02/20 15:34	
SM 2540C	Total Dissolved Solids	280	mg/L	10.0	04/02/20 17:58	
EPA 300.0 Rev 2.1 1993	Chloride	37.4	mg/L	1.0	04/04/20 16:35	
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.30	04/04/20 16:35	
EPA 300.0 Rev 2.1 1993	Sulfate	84.9	mg/L	1.0	04/04/20 16:35	
2630471016	**HGWC-13**					
	Field pH	6.91	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	234	mg/L	1.0	04/03/20 20:11	
EPA 6020B	Antimony	0.00036J	mg/L	0.0030	04/02/20 15:52	
EPA 6020B	Arsenic	0.47	mg/L	0.0050	04/02/20 15:52	
EPA 6020B	Barium	0.080	mg/L	0.010	04/02/20 15:52	
EPA 6020B	Beryllium	0.000099J	mg/L	0.0030	04/02/20 15:52	
EPA 6020B	Boron	1.8	mg/L	0.10	04/02/20 15:52	
EPA 6020B	Chromium	0.00059J	mg/L	0.010	04/02/20 15:52	
EPA 6020B	Cobalt	0.0053	mg/L	0.0050	04/02/20 15:52	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	04/02/20 15:52	
EPA 6020B	Lithium	0.038	mg/L	0.030	04/02/20 15:52	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471016	**HGWC-13**					
EPA 6020B	Molybdenum	0.029	mg/L	0.010	04/02/20 15:52	
EPA 6020B	Thallium	0.00048J	mg/L	0.0010	04/02/20 15:52	
SM 2540C	Total Dissolved Solids	895	mg/L	10.0	04/02/20 17:58	
EPA 300.0 Rev 2.1 1993	Chloride	75.1	mg/L	1.0	04/04/20 16:49	
EPA 300.0 Rev 2.1 1993	Fluoride	0.44	mg/L	0.30	04/04/20 16:49	
EPA 300.0 Rev 2.1 1993	Sulfate	393	mg/L	8.0	04/05/20 07:07	
2630471017	**MW-29**					
	Field pH	7.07	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	148	mg/L	1.0	04/03/20 20:15	
EPA 6020B	Arsenic	0.00037J	mg/L	0.0050	04/02/20 15:58	B
EPA 6020B	Barium	0.080	mg/L	0.010	04/02/20 15:58	
EPA 6020B	Boron	1.3	mg/L	0.10	04/02/20 15:58	
EPA 6020B	Chromium	0.0010J	mg/L	0.010	04/02/20 15:58	
EPA 6020B	Cobalt	0.00063J	mg/L	0.0050	04/02/20 15:58	
EPA 6020B	Lead	0.00011J	mg/L	0.0050	04/02/20 15:58	
EPA 6020B	Lithium	0.0023J	mg/L	0.030	04/02/20 15:58	
EPA 6020B	Molybdenum	0.0029J	mg/L	0.010	04/02/20 15:58	
SM 2540C	Total Dissolved Solids	552	mg/L	10.0	04/02/20 17:58	
EPA 300.0 Rev 2.1 1993	Chloride	71.2	mg/L	1.0	04/04/20 17:04	
EPA 300.0 Rev 2.1 1993	Sulfate	130	mg/L	3.0	04/05/20 07:23	
2630471018	**HGWC-11**					
	Field pH	5.7	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	124	mg/L	1.0	04/02/20 18:39	M1
EPA 6020B	Arsenic	0.0022J	mg/L	0.0050	04/08/20 17:09	B
EPA 6020B	Barium	0.026	mg/L	0.010	04/08/20 17:09	
EPA 6020B	Beryllium	0.00015J	mg/L	0.0030	04/08/20 17:09	
EPA 6020B	Boron	0.17	mg/L	0.10	04/08/20 17:09	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	04/08/20 17:09	
EPA 6020B	Lead	0.00030J	mg/L	0.0050	04/08/20 17:09	
EPA 6020B	Molybdenum	0.0074J	mg/L	0.010	04/08/20 17:09	
EPA 6020B	Selenium	0.019	mg/L	0.010	04/08/20 17:09	
SM 2540C	Total Dissolved Solids	565	mg/L	10.0	04/07/20 12:16	
EPA 300.0 Rev 2.1 1993	Chloride	3.2	mg/L	1.0	04/04/20 16:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19J	mg/L	0.30	04/04/20 16:58	
EPA 300.0 Rev 2.1 1993	Sulfate	283	mg/L	6.0	04/05/20 07:41	
2630471019	**MW-26D**					
	Field pH	7.20	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	155	mg/L	1.0	04/02/20 18:53	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	04/08/20 17:32	
EPA 6020B	Barium	0.11	mg/L	0.010	04/08/20 17:32	
EPA 6020B	Boron	1.8	mg/L	0.10	04/08/20 17:32	
EPA 6020B	Chromium	0.0010J	mg/L	0.010	04/08/20 17:32	
EPA 6020B	Cobalt	0.00030J	mg/L	0.0050	04/08/20 17:32	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	04/08/20 17:32	
EPA 6020B	Lithium	0.0036J	mg/L	0.030	04/08/20 17:32	
EPA 6020B	Molybdenum	0.0093J	mg/L	0.010	04/08/20 17:32	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471019	**MW-26D**					
SM 2540C	Total Dissolved Solids	623	mg/L	10.0	04/07/20 12:16	
EPA 300.0 Rev 2.1 1993	Chloride	98.0	mg/L	1.0	04/04/20 17:54	
EPA 300.0 Rev 2.1 1993	Sulfate	129	mg/L	3.0	04/05/20 07:56	
2630471020	**HGWC-9**					
	Field pH	7.07	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	182	mg/L	1.0	04/02/20 18:56	
EPA 6020B	Antimony	0.00042J	mg/L	0.0030	04/08/20 17:37	
EPA 6020B	Barium	0.11	mg/L	0.010	04/08/20 17:37	
EPA 6020B	Boron	2.2	mg/L	0.10	04/08/20 17:37	
EPA 6020B	Chromium	0.00052J	mg/L	0.010	04/08/20 17:37	
EPA 6020B	Cobalt	0.00051J	mg/L	0.0050	04/08/20 17:37	
EPA 6020B	Lead	0.00014J	mg/L	0.0050	04/08/20 17:37	
EPA 6020B	Lithium	0.0043J	mg/L	0.030	04/08/20 17:37	
EPA 6020B	Molybdenum	0.031	mg/L	0.010	04/08/20 17:37	
SM 2540C	Total Dissolved Solids	1010	mg/L	10.0	04/07/20 12:16	
EPA 300.0 Rev 2.1 1993	Chloride	105	mg/L	4.0	04/05/20 08:52	
EPA 300.0 Rev 2.1 1993	Fluoride	0.074J	mg/L	0.30	04/04/20 18:08	
EPA 300.0 Rev 2.1 1993	Sulfate	185	mg/L	4.0	04/05/20 08:52	
2630471021	**MW-30D**					
	Field pH	7.95	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	7.1	mg/L	1.0	04/02/20 19:00	
EPA 6020B	Antimony	0.00032J	mg/L	0.0030	04/08/20 17:43	
EPA 6020B	Barium	0.29	mg/L	0.010	04/08/20 17:43	
EPA 6020B	Boron	0.90	mg/L	0.10	04/08/20 17:43	
EPA 6020B	Chromium	0.00070J	mg/L	0.010	04/08/20 17:43	
EPA 6020B	Lead	0.000067J	mg/L	0.0050	04/08/20 17:43	
EPA 6020B	Lithium	0.25	mg/L	0.030	04/08/20 17:43	
EPA 6020B	Molybdenum	0.015	mg/L	0.010	04/08/20 17:43	
SM 2540C	Total Dissolved Solids	1130	mg/L	10.0	04/07/20 12:17	
EPA 300.0 Rev 2.1 1993	Chloride	111	mg/L	4.0	04/05/20 09:06	
EPA 300.0 Rev 2.1 1993	Fluoride	10.5	mg/L	1.2	04/05/20 09:06	
EPA 300.0 Rev 2.1 1993	Sulfate	139	mg/L	4.0	04/05/20 09:06	
2630471022	**FD-01**					
EPA 6010D	Calcium	7.8	mg/L	1.0	04/02/20 19:04	
EPA 6020B	Barium	0.27	mg/L	0.010	04/08/20 17:49	
EPA 6020B	Boron	0.86	mg/L	0.10	04/08/20 17:49	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	04/08/20 17:49	
EPA 6020B	Lead	0.00021J	mg/L	0.0050	04/08/20 17:49	
EPA 6020B	Lithium	0.24	mg/L	0.030	04/08/20 17:49	
EPA 6020B	Molybdenum	0.014	mg/L	0.010	04/08/20 17:49	
SM 2540C	Total Dissolved Solids	1080	mg/L	10.0	04/07/20 12:17	
EPA 300.0 Rev 2.1 1993	Chloride	104	mg/L	4.0	04/05/20 09:20	
EPA 300.0 Rev 2.1 1993	Fluoride	10.4	mg/L	1.2	04/05/20 09:20	
EPA 300.0 Rev 2.1 1993	Sulfate	166	mg/L	4.0	04/05/20 09:20	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630471023	**HGWC-10**					
	Field pH	6.84	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	96.2	mg/L	1.0	04/06/20 16:34	M1
EPA 6020B	Barium	0.058	mg/L	0.010	04/09/20 11:02	
EPA 6020B	Boron	0.23	mg/L	0.10	04/09/20 11:02	
EPA 6020B	Lead	0.000050J	mg/L	0.0050	04/09/20 11:02	
EPA 6020B	Selenium	0.0020J	mg/L	0.010	04/09/20 11:02	
SM 2540C	Total Dissolved Solids	290	mg/L	10.0	04/07/20 12:20	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	04/04/20 16:02	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12J	mg/L	0.30	04/04/20 16:02	
EPA 300.0 Rev 2.1 1993	Sulfate	59.0	mg/L	1.0	04/04/20 16:02	
2630471024	**MW-27D**					
	Field pH	8.11	Std. Units		04/07/20 14:38	
EPA 6010D	Calcium	28.4	mg/L	1.0	04/07/20 19:35	
EPA 6020B	Antimony	0.00030J	mg/L	0.0030	04/07/20 17:13	
EPA 6020B	Barium	1.0	mg/L	0.010	04/07/20 17:13	
EPA 6020B	Boron	0.13	mg/L	0.10	04/07/20 17:13	
EPA 6020B	Lead	0.00013J	mg/L	0.0050	04/07/20 17:13	
EPA 6020B	Lithium	0.0068J	mg/L	0.030	04/07/20 17:13	
EPA 6020B	Molybdenum	0.0030J	mg/L	0.010	04/07/20 17:13	
SM 2540C	Total Dissolved Solids	224	mg/L	10.0	04/07/20 12:20	
EPA 300.0 Rev 2.1 1993	Chloride	27.9	mg/L	1.0	04/07/20 20:04	
EPA 300.0 Rev 2.1 1993	Fluoride	0.24J	mg/L	0.30	04/07/20 20:04	
EPA 300.0 Rev 2.1 1993	Sulfate	13.3	mg/L	1.0	04/07/20 20:04	

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWA-1 **Lab ID: 2630471001** Collected: 03/25/20 15:56 Received: 03/26/20 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.95**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**127**	mg/L	1.0	0.14	1	03/31/20 20:57	04/02/20 13:58	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:39	7440-38-2	
Barium	**0.043**	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:39	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 20:39	7440-41-7	
Boron	**0.025J**	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 20:39	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 20:39	7440-43-9	
Chromium	**0.00072J**	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:39	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:39	7439-92-1	
Lithium	**0.00083J**	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:39	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**496**	mg/L	10.0	10.0	1		04/01/20 15:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**20.4**	mg/L	1.0	0.60	1		04/03/20 00:17	16887-00-6	
Fluoride	**0.098J**	mg/L	0.30	0.050	1		04/03/20 00:17	16984-48-8	
Sulfate	**85.9**	mg/L	1.0	0.50	1		04/03/20 00:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWA-3 **Lab ID: 2630471002** Collected: 03/25/20 15:17 Received: 03/26/20 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.4**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**89.8**	mg/L	1.0	0.14	1	03/31/20 20:57	04/02/20 14:01	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:56	7440-38-2	
Barium	**0.13**	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 20:56	7440-41-7	
Boron	**0.0096J**	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 20:56	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 20:56	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:56	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:56	7439-92-1	
Lithium	**0.0035J**	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**284**	mg/L	10.0	10.0	1		04/01/20 15:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.1**	mg/L	1.0	0.60	1		04/03/20 01:01	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 01:01	16984-48-8	
Sulfate	**50.5**	mg/L	1.0	0.50	1		04/03/20 01:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWA-2 **Lab ID: 2630471003** Collected: 03/25/20 16:32 Received: 03/26/20 11:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**5.36**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**23.0**	mg/L	1.0	0.14	1	03/31/20 20:57	04/02/20 14:05	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 21:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 21:02	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 21:02	7440-39-3	
Beryllium	**0.00016J**	mg/L	0.0030	0.000074	1	03/31/20 21:03	04/02/20 21:02	7440-41-7	
Boron	**0.039J**	mg/L	0.10	0.0049	1	03/31/20 21:03	04/02/20 21:02	7440-42-8	
Cadmium	**0.00014J**	mg/L	0.0025	0.00011	1	03/31/20 21:03	04/02/20 21:02	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 21:02	7440-47-3	
Cobalt	**0.020**	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 21:02	7440-48-4	
Lead	**0.00011J**	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 21:02	7439-92-1	
Lithium	**0.0017J**	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 21:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 21:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 21:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 21:02	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**138**	mg/L	10.0	10.0	1		04/01/20 15:06		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.2**	mg/L	1.0	0.60	1		04/03/20 01:46	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 01:46	16984-48-8	
Sulfate	**46.3**	mg/L	1.0	0.50	1		04/03/20 01:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-12 **Lab ID: 2630471004** Collected: 03/26/20 08:50 Received: 03/27/20 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.99**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**145**	mg/L	1.0	0.14	1	04/01/20 15:36	04/02/20 17:59	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 22:30	7440-36-0	
Arsenic	**0.0028J**	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 22:30	7440-38-2	
Barium	**0.089**	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 22:30	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 15:40	04/02/20 22:30	7440-41-7	
Boron	**1.6**	mg/L	0.10	0.0049	1	04/01/20 15:40	04/02/20 22:30	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 15:40	04/02/20 22:30	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 22:30	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 22:30	7440-48-4	
Lead	**0.00043J**	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 22:30	7439-92-1	
Lithium	**0.0063J**	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 22:30	7439-93-2	
Molybdenum	**0.045**	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 22:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 22:30	7782-49-2	
Thallium	**0.000080J**	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 22:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**533**	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**48.0**	mg/L	1.0	0.60	1		04/03/20 03:23	16887-00-6	
Fluoride	**0.17J**	mg/L	0.30	0.050	1		04/03/20 03:23	16984-48-8	
Sulfate	**182**	mg/L	4.0	2.0	4		04/03/20 10:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-25D **Lab ID: 2630471005** Collected: 03/26/20 10:45 Received: 03/27/20 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.57**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**27.0**	mg/L	1.0	0.14	1	04/01/20 19:37	04/03/20 21:08	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 22:47	7440-36-0	
Arsenic	**0.00075J**	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 22:47	7440-38-2	
Barium	**0.45**	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 22:47	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 15:40	04/02/20 22:47	7440-41-7	
Boron	**0.44**	mg/L	0.10	0.0049	1	04/01/20 15:40	04/02/20 22:47	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 15:40	04/02/20 22:47	7440-43-9	
Chromium	**0.00061J**	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 22:47	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 22:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 22:47	7439-92-1	
Lithium	**0.054**	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 22:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 22:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 22:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 22:47	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**385**	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**34.6**	mg/L	1.0	0.60	1		04/03/20 03:37	16887-00-6	
Fluoride	**1.6**	mg/L	0.30	0.050	1		04/03/20 03:37	16984-48-8	
Sulfate	**32.3**	mg/L	1.0	0.50	1		04/03/20 03:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-19 **Lab ID: 2630471006** Collected: 03/26/20 12:30 Received: 03/27/20 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.28**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**171**	mg/L	1.0	0.14	1	04/01/20 19:37	04/03/20 21:22	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 22:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 22:52	7440-38-2	
Barium	**0.067**	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 22:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 15:40	04/02/20 22:52	7440-41-7	
Boron	**1.0**	mg/L	0.10	0.0049	1	04/01/20 15:40	04/02/20 22:52	7440-42-8	
Cadmium	**0.00019J**	mg/L	0.0025	0.00011	1	04/01/20 15:40	04/02/20 22:52	7440-43-9	
Chromium	**0.00047J**	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 22:52	7440-47-3	
Cobalt	**0.045**	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 22:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 22:52	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 22:52	7439-93-2	
Molybdenum	**0.033**	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 22:52	7439-98-7	
Selenium	**0.0053J**	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 22:52	7782-49-2	
Thallium	**0.00026J**	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 22:52	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**626**	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**64.0**	mg/L	1.0	0.60	1		04/03/20 03:52	16887-00-6	
Fluoride	**0.12J**	mg/L	0.30	0.050	1		04/03/20 03:52	16984-48-8	
Sulfate	**310**	mg/L	6.0	3.0	6		04/03/20 10:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-5 **Lab ID: 2630471007** Collected: 03/26/20 14:10 Received: 03/27/20 13:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.14**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**89.6**	mg/L	1.0	0.14	1	04/01/20 19:37	04/03/20 21:26	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 22:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 22:58	7440-38-2	
Barium	**0.046**	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 22:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 15:40	04/02/20 22:58	7440-41-7	
Boron	**0.041J**	mg/L	0.10	0.0049	1	04/01/20 15:40	04/02/20 22:58	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 15:40	04/02/20 22:58	7440-43-9	
Chromium	**0.0044J**	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 22:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 22:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 22:58	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 22:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 22:58	7439-98-7	
Selenium	**0.0039J**	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 22:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 22:58	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**385**	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**0.73J**	mg/L	1.0	0.60	1		04/03/20 04:07	16887-00-6	M1
Fluoride	**0.082J**	mg/L	0.30	0.050	1		04/03/20 04:07	16984-48-8	
Sulfate	**176**	mg/L	4.0	2.0	4		04/03/20 11:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-7 **Lab ID: 2630471008** Collected: 03/27/20 09:30 Received: 03/30/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.05**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**119**	mg/L	1.0	0.14	1	04/01/20 19:37	04/03/20 22:40	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:37	04/03/20 17:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:37	04/03/20 17:05	7440-38-2	
Barium	**0.059**	mg/L	0.010	0.00049	1	04/01/20 18:37	04/03/20 17:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:37	04/03/20 17:05	7440-41-7	
Boron	**1.2**	mg/L	0.10	0.0049	1	04/01/20 18:37	04/03/20 17:05	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:37	04/03/20 17:05	7440-43-9	
Chromium	**0.00040J**	mg/L	0.010	0.00039	1	04/01/20 18:37	04/03/20 17:05	7440-47-3	
Cobalt	**0.00074J**	mg/L	0.0050	0.00030	1	04/01/20 18:37	04/03/20 17:05	7440-48-4	
Lead	**0.000054J**	mg/L	0.0050	0.000046	1	04/01/20 18:37	04/03/20 17:05	7439-92-1	
Lithium	**0.0020J**	mg/L	0.030	0.00078	1	04/01/20 18:37	04/03/20 17:05	7439-93-2	
Molybdenum	**0.044**	mg/L	0.010	0.00095	1	04/01/20 18:37	04/03/20 17:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:37	04/03/20 17:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:37	04/03/20 17:05	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**413**	mg/L	10.0	10.0	1		04/02/20 17:56		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**48.3**	mg/L	1.0	0.60	1		04/02/20 18:44	16887-00-6	
Fluoride	**0.059J**	mg/L	0.30	0.050	1		04/02/20 18:44	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		04/03/20 08:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-28D **Lab ID: 2630471009** Collected: 03/27/20 10:40 Received: 03/30/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.42**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**53.0**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 19:47	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:37	04/03/20 17:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:37	04/03/20 17:22	7440-38-2	
Barium	**0.64**	mg/L	0.010	0.00049	1	04/01/20 18:37	04/03/20 17:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:37	04/03/20 17:22	7440-41-7	
Boron	**0.14**	mg/L	0.10	0.0049	1	04/01/20 18:37	04/03/20 17:22	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:37	04/03/20 17:22	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 18:37	04/03/20 17:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 18:37	04/03/20 17:22	7440-48-4	
Lead	**0.000062J**	mg/L	0.0050	0.000046	1	04/01/20 18:37	04/03/20 17:22	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00078	1	04/01/20 18:37	04/03/20 17:22	7439-93-2	
Molybdenum	**0.0068J**	mg/L	0.010	0.00095	1	04/01/20 18:37	04/03/20 17:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:37	04/03/20 17:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:37	04/03/20 17:22	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**287**	mg/L	10.0	10.0	1		04/02/20 17:56		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**33.0**	mg/L	1.0	0.60	1		04/02/20 18:59	16887-00-6	
Fluoride	**0.26J**	mg/L	0.30	0.050	1		04/02/20 18:59	16984-48-8	
Sulfate	**36.0**	mg/L	1.0	0.50	1		04/02/20 18:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-20 **Lab ID: 2630471010** Collected: 03/27/20 09:30 Received: 03/30/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.75**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**126**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 19:50	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:37	04/03/20 17:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:37	04/03/20 17:28	7440-38-2	
Barium	**0.093**	mg/L	0.010	0.00049	1	04/01/20 18:37	04/03/20 17:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:37	04/03/20 17:28	7440-41-7	
Boron	**0.12**	mg/L	0.10	0.0049	1	04/01/20 18:37	04/03/20 17:28	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:37	04/03/20 17:28	7440-43-9	
Chromium	**0.00051J**	mg/L	0.010	0.00039	1	04/01/20 18:37	04/03/20 17:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 18:37	04/03/20 17:28	7440-48-4	
Lead	**0.00013J**	mg/L	0.0050	0.000046	1	04/01/20 18:37	04/03/20 17:28	7439-92-1	
Lithium	**0.0012J**	mg/L	0.030	0.00078	1	04/01/20 18:37	04/03/20 17:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 18:37	04/03/20 17:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:37	04/03/20 17:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:37	04/03/20 17:28	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**429**	mg/L	10.0	10.0	1		04/02/20 17:56		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.8**	mg/L	1.0	0.60	1		04/02/20 19:43	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 19:43	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		04/03/20 08:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-8 **Lab ID: 2630471011** Collected: 03/27/20 10:40 Received: 03/30/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.95**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**133**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 19:54	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:37	04/03/20 17:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:37	04/03/20 17:33	7440-38-2	
Barium	**0.059**	mg/L	0.010	0.00049	1	04/01/20 18:37	04/03/20 17:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:37	04/03/20 17:33	7440-41-7	
Boron	**2.4**	mg/L	0.10	0.0049	1	04/01/20 18:37	04/03/20 17:33	7440-42-8	
Cadmium	**0.00014J**	mg/L	0.0025	0.00011	1	04/01/20 18:37	04/03/20 17:33	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 18:37	04/03/20 17:33	7440-47-3	
Cobalt	**0.0018J**	mg/L	0.0050	0.00030	1	04/01/20 18:37	04/03/20 17:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 18:37	04/03/20 17:33	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00078	1	04/01/20 18:37	04/03/20 17:33	7439-93-2	
Molybdenum	**0.42**	mg/L	0.010	0.00095	1	04/01/20 18:37	04/03/20 17:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:37	04/03/20 17:33	7782-49-2	
Thallium	**0.000077J**	mg/L	0.0010	0.000052	1	04/01/20 18:37	04/03/20 17:33	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**541**	mg/L	10.0	10.0	1		04/02/20 17:56		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**79.8**	mg/L	1.0	0.60	1		04/02/20 19:58	16887-00-6	
Fluoride	**0.46**	mg/L	0.30	0.050	1		04/02/20 19:58	16984-48-8	
Sulfate	**173**	mg/L	4.0	2.0	4		04/03/20 08:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-6 **Lab ID: 2630471012** Collected: 03/27/20 13:00 Received: 03/30/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.82**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**186**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 19:57	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:37	04/03/20 17:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:37	04/03/20 17:39	7440-38-2	
Barium	**0.086**	mg/L	0.010	0.00049	1	04/01/20 18:37	04/03/20 17:39	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:37	04/03/20 17:39	7440-41-7	
Boron	**0.77**	mg/L	0.10	0.0049	1	04/01/20 18:37	04/03/20 17:39	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:37	04/03/20 17:39	7440-43-9	
Chromium	**0.00059J**	mg/L	0.010	0.00039	1	04/01/20 18:37	04/03/20 17:39	7440-47-3	
Cobalt	**0.00059J**	mg/L	0.0050	0.00030	1	04/01/20 18:37	04/03/20 17:39	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 18:37	04/03/20 17:39	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 18:37	04/03/20 17:39	7439-93-2	
Molybdenum	**0.0026J**	mg/L	0.010	0.00095	1	04/01/20 18:37	04/03/20 17:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:37	04/03/20 17:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:37	04/03/20 17:39	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**676**	mg/L	10.0	10.0	1		04/02/20 17:57		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**48.6**	mg/L	1.0	0.60	1		04/02/20 20:13	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 20:13	16984-48-8	
Sulfate	**204**	mg/L	4.0	2.0	4		04/03/20 09:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: FB-01 **Lab ID: 2630471013** Collected: 03/27/20 00:00 Received: 03/30/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	ND	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 20:01	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:37	04/03/20 17:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:37	04/03/20 17:51	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	04/01/20 18:37	04/03/20 17:51	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:37	04/03/20 17:51	7440-41-7	
Boron	ND	mg/L	0.10	0.0049	1	04/01/20 18:37	04/03/20 17:51	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:37	04/03/20 17:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 18:37	04/03/20 17:51	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 18:37	04/03/20 17:51	7440-48-4	
Lead	**0.00019J**	mg/L	0.0050	0.000046	1	04/01/20 18:37	04/03/20 17:51	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 18:37	04/03/20 17:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 18:37	04/03/20 17:51	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:37	04/03/20 17:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:37	04/03/20 17:51	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		04/02/20 17:57		
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		04/02/20 20:28	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/02/20 20:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/02/20 20:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-7 **Lab ID: 2630471014** Collected: 03/30/20 09:05 Received: 03/31/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.06**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**31.1**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 20:04	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:00	04/02/20 15:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:00	04/02/20 15:28	7440-38-2	
Barium	**0.050**	mg/L	0.010	0.00049	1	04/01/20 18:00	04/02/20 15:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:00	04/02/20 15:28	7440-41-7	
Boron	**0.051J**	mg/L	0.10	0.0049	1	04/01/20 18:00	04/02/20 15:28	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:00	04/02/20 15:28	7440-43-9	
Chromium	**0.0021J**	mg/L	0.010	0.00039	1	04/01/20 18:00	04/02/20 15:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 18:00	04/02/20 15:28	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 18:00	04/02/20 15:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 18:00	04/02/20 15:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 18:00	04/02/20 15:28	7439-98-7	
Selenium	**0.0014J**	mg/L	0.010	0.0013	1	04/01/20 18:00	04/02/20 15:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:00	04/02/20 15:28	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**142**	mg/L	10.0	10.0	1		04/02/20 17:57		
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		04/04/20 15:22	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/04/20 15:22	16984-48-8	
Sulfate	**46.2**	mg/L	1.0	0.50	1		04/04/20 15:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-24D **Lab ID: 2630471015** Collected: 03/30/20 10:30 Received: 03/31/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.49**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**84.4**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 20:08	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:00	04/02/20 15:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 18:00	04/02/20 15:34	7440-38-2	
Barium	**0.056**	mg/L	0.010	0.00049	1	04/01/20 18:00	04/02/20 15:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:00	04/02/20 15:34	7440-41-7	
Boron	**0.51**	mg/L	0.10	0.0049	1	04/01/20 18:00	04/02/20 15:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:00	04/02/20 15:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 18:00	04/02/20 15:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 18:00	04/02/20 15:34	7440-48-4	
Lead	**0.000064J**	mg/L	0.0050	0.000046	1	04/01/20 18:00	04/02/20 15:34	7439-92-1	
Lithium	**0.0027J**	mg/L	0.030	0.00078	1	04/01/20 18:00	04/02/20 15:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 18:00	04/02/20 15:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:00	04/02/20 15:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:00	04/02/20 15:34	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**280**	mg/L	10.0	10.0	1		04/02/20 17:58		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**37.4**	mg/L	1.0	0.60	1		04/04/20 16:35	16887-00-6	
Fluoride	**0.064J**	mg/L	0.30	0.050	1		04/04/20 16:35	16984-48-8	
Sulfate	**84.9**	mg/L	1.0	0.50	1		04/04/20 16:35	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-13 **Lab ID: 2630471016** Collected: 03/30/20 12:15 Received: 03/31/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.91**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**234**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 20:11	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	**0.00036J**	mg/L	0.0030	0.00027	1	04/01/20 18:00	04/02/20 15:52	7440-36-0	
Arsenic	**0.47**	mg/L	0.0050	0.00035	1	04/01/20 18:00	04/02/20 15:52	7440-38-2	
Barium	**0.080**	mg/L	0.010	0.00049	1	04/01/20 18:00	04/02/20 15:52	7440-39-3	
Beryllium	**0.000099J**	mg/L	0.0030	0.000074	1	04/01/20 18:00	04/02/20 15:52	7440-41-7	
Boron	**1.8**	mg/L	0.10	0.0049	1	04/01/20 18:00	04/02/20 15:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:00	04/02/20 15:52	7440-43-9	
Chromium	**0.00059J**	mg/L	0.010	0.00039	1	04/01/20 18:00	04/02/20 15:52	7440-47-3	
Cobalt	**0.0053**	mg/L	0.0050	0.00030	1	04/01/20 18:00	04/02/20 15:52	7440-48-4	
Lead	**0.00010J**	mg/L	0.0050	0.000046	1	04/01/20 18:00	04/02/20 15:52	7439-92-1	
Lithium	**0.038**	mg/L	0.030	0.00078	1	04/01/20 18:00	04/02/20 15:52	7439-93-2	
Molybdenum	**0.029**	mg/L	0.010	0.00095	1	04/01/20 18:00	04/02/20 15:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:00	04/02/20 15:52	7782-49-2	
Thallium	**0.00048J**	mg/L	0.0010	0.000052	1	04/01/20 18:00	04/02/20 15:52	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**895**	mg/L	10.0	10.0	1		04/02/20 17:58		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**75.1**	mg/L	1.0	0.60	1		04/04/20 16:49	16887-00-6	
Fluoride	**0.44**	mg/L	0.30	0.050	1		04/04/20 16:49	16984-48-8	
Sulfate	**393**	mg/L	8.0	4.0	8		04/05/20 07:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-29 **Lab ID: 2630471017** Collected: 03/30/20 15:35 Received: 03/31/20 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.07**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**148**	mg/L	1.0	0.14	1	04/01/20 18:00	04/03/20 20:15	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 18:00	04/02/20 15:58	7440-36-0	
Arsenic	**0.00037J**	mg/L	0.0050	0.00035	1	04/01/20 18:00	04/02/20 15:58	7440-38-2	B
Barium	**0.080**	mg/L	0.010	0.00049	1	04/01/20 18:00	04/02/20 15:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/01/20 18:00	04/02/20 15:58	7440-41-7	
Boron	**1.3**	mg/L	0.10	0.0049	1	04/01/20 18:00	04/02/20 15:58	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/01/20 18:00	04/02/20 15:58	7440-43-9	
Chromium	**0.0010J**	mg/L	0.010	0.00039	1	04/01/20 18:00	04/02/20 15:58	7440-47-3	
Cobalt	**0.00063J**	mg/L	0.0050	0.00030	1	04/01/20 18:00	04/02/20 15:58	7440-48-4	
Lead	**0.00011J**	mg/L	0.0050	0.000046	1	04/01/20 18:00	04/02/20 15:58	7439-92-1	
Lithium	**0.0023J**	mg/L	0.030	0.00078	1	04/01/20 18:00	04/02/20 15:58	7439-93-2	
Molybdenum	**0.0029J**	mg/L	0.010	0.00095	1	04/01/20 18:00	04/02/20 15:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 18:00	04/02/20 15:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 18:00	04/02/20 15:58	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**552**	mg/L	10.0	10.0	1		04/02/20 17:58		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**71.2**	mg/L	1.0	0.60	1		04/04/20 17:04	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/04/20 17:04	16984-48-8	
Sulfate	**130**	mg/L	3.0	1.5	3		04/05/20 07:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-11 **Lab ID: 2630471018** Collected: 03/31/20 15:22 Received: 04/01/20 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**5.7**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**124**	mg/L	1.0	0.14	1	04/02/20 14:30	04/02/20 18:39	7440-70-2	M1
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/02/20 19:04	04/08/20 17:09	7440-36-0	
Arsenic	**0.0022J**	mg/L	0.0050	0.00035	1	04/02/20 19:04	04/08/20 17:09	7440-38-2	B
Barium	**0.026**	mg/L	0.010	0.00049	1	04/02/20 19:04	04/08/20 17:09	7440-39-3	
Beryllium	**0.00015J**	mg/L	0.0030	0.000074	1	04/02/20 19:04	04/08/20 17:09	7440-41-7	
Boron	**0.17**	mg/L	0.10	0.0049	1	04/02/20 19:04	04/08/20 17:09	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/02/20 19:04	04/08/20 17:09	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/02/20 19:04	04/08/20 17:09	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00030	1	04/02/20 19:04	04/08/20 17:09	7440-48-4	
Lead	**0.00030J**	mg/L	0.0050	0.000046	1	04/02/20 19:04	04/08/20 17:09	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/02/20 19:04	04/08/20 17:09	7439-93-2	
Molybdenum	**0.0074J**	mg/L	0.010	0.00095	1	04/02/20 19:04	04/08/20 17:09	7439-98-7	
Selenium	**0.019**	mg/L	0.010	0.0013	1	04/02/20 19:04	04/08/20 17:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/02/20 19:04	04/08/20 17:09	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**565**	mg/L	10.0	10.0	1		04/07/20 12:16		
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		04/04/20 16:58	16887-00-6	
Fluoride	**0.19J**	mg/L	0.30	0.050	1		04/04/20 16:58	16984-48-8	
Sulfate	**283**	mg/L	6.0	3.0	6		04/05/20 07:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-26D **Lab ID: 2630471019** Collected: 03/31/20 09:35 Received: 04/01/20 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.20**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**155**	mg/L	1.0	0.14	1	04/02/20 14:30	04/02/20 18:53	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	**0.0013J**	mg/L	0.0030	0.00027	1	04/02/20 19:04	04/08/20 17:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/02/20 19:04	04/08/20 17:32	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	04/02/20 19:04	04/08/20 17:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/02/20 19:04	04/08/20 17:32	7440-41-7	
Boron	**1.8**	mg/L	0.10	0.0049	1	04/02/20 19:04	04/08/20 17:32	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/02/20 19:04	04/08/20 17:32	7440-43-9	
Chromium	**0.0010J**	mg/L	0.010	0.00039	1	04/02/20 19:04	04/08/20 17:32	7440-47-3	
Cobalt	**0.00030J**	mg/L	0.0050	0.00030	1	04/02/20 19:04	04/08/20 17:32	7440-48-4	
Lead	**0.00010J**	mg/L	0.0050	0.000046	1	04/02/20 19:04	04/08/20 17:32	7439-92-1	
Lithium	**0.0036J**	mg/L	0.030	0.00078	1	04/02/20 19:04	04/08/20 17:32	7439-93-2	
Molybdenum	**0.0093J**	mg/L	0.010	0.00095	1	04/02/20 19:04	04/08/20 17:32	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/02/20 19:04	04/08/20 17:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/02/20 19:04	04/08/20 17:32	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**623**	mg/L	10.0	10.0	1		04/07/20 12:16		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**98.0**	mg/L	1.0	0.60	1		04/04/20 17:54	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/04/20 17:54	16984-48-8	
Sulfate	**129**	mg/L	3.0	1.5	3		04/05/20 07:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-9 **Lab ID: 2630471020** Collected: 03/31/20 12:00 Received: 04/01/20 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.07**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**182**	mg/L	1.0	0.14	1	04/02/20 14:30	04/02/20 18:56	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	**0.00042J**	mg/L	0.0030	0.00027	1	04/02/20 19:04	04/08/20 17:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/02/20 19:04	04/08/20 17:37	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	04/02/20 19:04	04/08/20 17:37	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/02/20 19:04	04/08/20 17:37	7440-41-7	
Boron	**2.2**	mg/L	0.10	0.0049	1	04/02/20 19:04	04/08/20 17:37	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/02/20 19:04	04/08/20 17:37	7440-43-9	
Chromium	**0.00052J**	mg/L	0.010	0.00039	1	04/02/20 19:04	04/08/20 17:37	7440-47-3	
Cobalt	**0.00051J**	mg/L	0.0050	0.00030	1	04/02/20 19:04	04/08/20 17:37	7440-48-4	
Lead	**0.00014J**	mg/L	0.0050	0.000046	1	04/02/20 19:04	04/08/20 17:37	7439-92-1	
Lithium	**0.0043J**	mg/L	0.030	0.00078	1	04/02/20 19:04	04/08/20 17:37	7439-93-2	
Molybdenum	**0.031**	mg/L	0.010	0.00095	1	04/02/20 19:04	04/08/20 17:37	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/02/20 19:04	04/08/20 17:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/02/20 19:04	04/08/20 17:37	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**1010**	mg/L	10.0	10.0	1		04/07/20 12:16		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**105**	mg/L	4.0	2.4	4		04/05/20 08:52	16887-00-6	
Fluoride	**0.074J**	mg/L	0.30	0.050	1		04/04/20 18:08	16984-48-8	
Sulfate	**185**	mg/L	4.0	2.0	4		04/05/20 08:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-30D **Lab ID: 2630471021** Collected: 03/31/20 10:00 Received: 04/01/20 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**7.95**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**7.1**	mg/L	1.0	0.14	1	04/02/20 14:30	04/02/20 19:00	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	**0.00032J**	mg/L	0.0030	0.00027	1	04/02/20 19:04	04/08/20 17:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/02/20 19:04	04/08/20 17:43	7440-38-2	
Barium	**0.29**	mg/L	0.010	0.00049	1	04/02/20 19:04	04/08/20 17:43	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/02/20 19:04	04/08/20 17:43	7440-41-7	
Boron	**0.90**	mg/L	0.10	0.0049	1	04/02/20 19:04	04/08/20 17:43	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/02/20 19:04	04/08/20 17:43	7440-43-9	
Chromium	**0.00070J**	mg/L	0.010	0.00039	1	04/02/20 19:04	04/08/20 17:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/02/20 19:04	04/08/20 17:43	7440-48-4	
Lead	**0.000067J**	mg/L	0.0050	0.000046	1	04/02/20 19:04	04/08/20 17:43	7439-92-1	
Lithium	**0.25**	mg/L	0.030	0.00078	1	04/02/20 19:04	04/08/20 17:43	7439-93-2	
Molybdenum	**0.015**	mg/L	0.010	0.00095	1	04/02/20 19:04	04/08/20 17:43	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/02/20 19:04	04/08/20 17:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/02/20 19:04	04/08/20 17:43	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**1130**	mg/L	10.0	10.0	1		04/07/20 12:17		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**111**	mg/L	4.0	2.4	4		04/05/20 09:06	16887-00-6	
Fluoride	**10.5**	mg/L	1.2	0.20	4		04/05/20 09:06	16984-48-8	
Sulfate	**139**	mg/L	4.0	2.0	4		04/05/20 09:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: FD-01 **Lab ID: 2630471022** Collected: 03/31/20 00:00 Received: 04/01/20 10:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**7.8**	mg/L	1.0	0.14	1	04/02/20 14:30	04/02/20 19:04	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/02/20 19:04	04/08/20 17:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/02/20 19:04	04/08/20 17:49	7440-38-2	
Barium	**0.27**	mg/L	0.010	0.00049	1	04/02/20 19:04	04/08/20 17:49	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/02/20 19:04	04/08/20 17:49	7440-41-7	
Boron	**0.86**	mg/L	0.10	0.0049	1	04/02/20 19:04	04/08/20 17:49	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/02/20 19:04	04/08/20 17:49	7440-43-9	
Chromium	**0.0013J**	mg/L	0.010	0.00039	1	04/02/20 19:04	04/08/20 17:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/02/20 19:04	04/08/20 17:49	7440-48-4	
Lead	**0.00021J**	mg/L	0.0050	0.000046	1	04/02/20 19:04	04/08/20 17:49	7439-92-1	
Lithium	**0.24**	mg/L	0.030	0.00078	1	04/02/20 19:04	04/08/20 17:49	7439-93-2	
Molybdenum	**0.014**	mg/L	0.010	0.00095	1	04/02/20 19:04	04/08/20 17:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/02/20 19:04	04/08/20 17:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/02/20 19:04	04/08/20 17:49	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**1080**	mg/L	10.0	10.0	1		04/07/20 12:17		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**104**	mg/L	4.0	2.4	4		04/05/20 09:20	16887-00-6	
Fluoride	**10.4**	mg/L	1.2	0.20	4		04/05/20 09:20	16984-48-8	
Sulfate	**166**	mg/L	4.0	2.0	4		04/05/20 09:20	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: HGWC-10 **Lab ID: 2630471023** Collected: 04/01/20 09:47 Received: 04/02/20 10:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**6.84**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**96.2**	mg/L	1.0	0.14	1	04/03/20 15:15	04/06/20 16:34	7440-70-2	M1
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	04/02/20 19:04	04/09/20 11:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/02/20 19:04	04/09/20 11:02	7440-38-2	
Barium	**0.058**	mg/L	0.010	0.00049	1	04/02/20 19:04	04/09/20 11:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/02/20 19:04	04/09/20 11:02	7440-41-7	
Boron	**0.23**	mg/L	0.10	0.0049	1	04/02/20 19:04	04/09/20 11:02	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/02/20 19:04	04/09/20 11:02	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/02/20 19:04	04/09/20 11:02	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/02/20 19:04	04/09/20 11:02	7440-48-4	
Lead	**0.000050J**	mg/L	0.0050	0.000046	1	04/02/20 19:04	04/09/20 11:02	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/02/20 19:04	04/09/20 11:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/02/20 19:04	04/09/20 11:02	7439-98-7	
Selenium	**0.0020J**	mg/L	0.010	0.0013	1	04/02/20 19:04	04/09/20 11:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/02/20 19:04	04/09/20 11:02	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**290**	mg/L	10.0	10.0	1		04/07/20 12:20		
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		04/04/20 16:02	16887-00-6	
Fluoride	**0.12J**	mg/L	0.30	0.050	1		04/04/20 16:02	16984-48-8	
Sulfate	**59.0**	mg/L	1.0	0.50	1		04/04/20 16:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Sample: MW-27D **Lab ID: 2630471024** Collected: 04/02/20 10:48 Received: 04/03/20 11:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	**8.11**	Std. Units			1		04/07/20 14:38		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	**28.4**	mg/L	1.0	0.14	1	04/06/20 13:13	04/07/20 19:35	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	**0.00030J**	mg/L	0.0030	0.00027	1	04/06/20 13:09	04/07/20 17:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/06/20 13:09	04/07/20 17:13	7440-38-2	
Barium	**1.0**	mg/L	0.010	0.00049	1	04/06/20 13:09	04/07/20 17:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	04/06/20 13:09	04/07/20 17:13	7440-41-7	
Boron	**0.13**	mg/L	0.10	0.0049	1	04/06/20 13:09	04/07/20 17:13	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	04/06/20 13:09	04/07/20 17:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	04/06/20 13:09	04/07/20 17:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/06/20 13:09	04/07/20 17:13	7440-48-4	
Lead	**0.00013J**	mg/L	0.0050	0.000046	1	04/06/20 13:09	04/07/20 17:13	7439-92-1	
Lithium	**0.0068J**	mg/L	0.030	0.00078	1	04/06/20 13:09	04/07/20 17:13	7439-93-2	
Molybdenum	**0.0030J**	mg/L	0.010	0.00095	1	04/06/20 13:09	04/07/20 17:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/06/20 13:09	04/07/20 17:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/06/20 13:09	04/07/20 17:13	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	**224**	mg/L	10.0	10.0	1		04/07/20 12:20		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**27.9**	mg/L	1.0	0.60	1		04/07/20 20:04	16887-00-6	
Fluoride	**0.24J**	mg/L	0.30	0.050	1		04/07/20 20:04	16984-48-8	
Sulfate	**13.3**	mg/L	1.0	0.50	1		04/07/20 20:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45121
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471001, 2630471002, 2630471003

METHOD BLANK: 207982 Matrix: Water
Associated Lab Samples: 2630471001, 2630471002, 2630471003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/02/20 13:05	

LABORATORY CONTROL SAMPLE: 207983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207984 207985

Parameter	Units	2630449007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	157	1	1	158	157	93	15	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45172
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471004

METHOD BLANK: 208108 Matrix: Water
Associated Lab Samples: 2630471004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/02/20 16:01	

LABORATORY CONTROL SAMPLE: 208109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208110 208111

Parameter	Units	2630435022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	107	1	1	110	108	372	91	75-125	3	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45185
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471005, 2630471006, 2630471007, 2630471008

METHOD BLANK: 208195 Matrix: Water
Associated Lab Samples: 2630471005, 2630471006, 2630471007, 2630471008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/03/20 20:54	

LABORATORY CONTROL SAMPLE: 208196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208197 208198

Parameter	Units	2630471005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	27.0	1	1	27.9	28.3	89	125	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45190
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471009, 2630471010, 2630471011, 2630471012, 2630471013, 2630471014, 2630471015, 2630471016, 2630471017

METHOD BLANK: 208222 Matrix: Water
Associated Lab Samples: 2630471009, 2630471010, 2630471011, 2630471012, 2630471013, 2630471014, 2630471015, 2630471016, 2630471017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/03/20 19:19	

LABORATORY CONTROL SAMPLE: 208223

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208224 208225

Parameter	Units	2630623001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	7420 ug/L	1	1	8.7	8.6	124	119	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45218
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022

METHOD BLANK: 208341 Matrix: Water
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/02/20 18:14	

LABORATORY CONTROL SAMPLE: 208342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208343 208344

Parameter	Units	2630471018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	124	1	1	128	131	368	710	75-125	3	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45249
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471023

METHOD BLANK: 208586 Matrix: Water
Associated Lab Samples: 2630471023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/06/20 16:20	

LABORATORY CONTROL SAMPLE: 208587

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208588 208589

Parameter	Units	2630471023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	96.2	1	1	97.8	98.3	156	209	75-125	1	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45281
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471024

METHOD BLANK: 208760 Matrix: Water
Associated Lab Samples: 2630471024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	04/07/20 18:12	

LABORATORY CONTROL SAMPLE: 208761

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208762 208763

Parameter	Units	2630683017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	2310 ug/L	1	1	3.4	3.3	113	100	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45112
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471001, 2630471002, 2630471003

METHOD BLANK: 207955 Matrix: Water
Associated Lab Samples: 2630471001, 2630471002, 2630471003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 18:39	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 18:39	
Barium	mg/L	ND	0.010	0.00049	04/02/20 18:39	
Beryllium	mg/L	ND	0.0030	0.000074	04/02/20 18:39	
Boron	mg/L	ND	0.10	0.0049	04/02/20 18:39	
Cadmium	mg/L	ND	0.0025	0.00011	04/02/20 18:39	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 18:39	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 18:39	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 18:39	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 18:39	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 18:39	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 18:39	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 18:39	

LABORATORY CONTROL SAMPLE: 207956

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	100	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207957 207958

Parameter	Units	2630435012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00031J	0.1	0.1	0.11	0.11	106	105	75-125	1	20	
Arsenic	mg/L	0.00070J	0.1	0.1	0.10	0.10	99	101	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207957 207958

Parameter	Units	2630435012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.033	0.1	0.1	0.14	0.13	102	99	75-125	2	20	
Beryllium	mg/L	0.00034J	0.1	0.1	0.096	0.099	95	99	75-125	4	20	
Boron	mg/L	2.4	1	1	3.4	3.4	97	102	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	107	102	75-125	4	20	
Cobalt	mg/L	0.0016J	0.1	0.1	0.10	0.10	102	101	75-125	1	20	
Lead	mg/L	0.000075J	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Lithium	mg/L	0.016J	0.1	0.1	0.12	0.12	101	103	75-125	2	20	
Molybdenum	mg/L	0.0015J	0.1	0.1	0.11	0.11	105	104	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	99	100	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45171
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471004, 2630471005, 2630471006, 2630471007

METHOD BLANK: 208104 Matrix: Water
Associated Lab Samples: 2630471004, 2630471005, 2630471006, 2630471007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 20:29	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 20:29	
Barium	mg/L	ND	0.010	0.00049	04/02/20 20:29	
Beryllium	mg/L	ND	0.0030	0.000074	04/02/20 20:29	
Boron	mg/L	ND	0.10	0.0049	04/02/20 20:29	
Cadmium	mg/L	ND	0.0025	0.00011	04/02/20 20:29	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 20:29	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 20:29	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 20:29	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 20:29	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 20:29	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 20:29	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 20:29	

LABORATORY CONTROL SAMPLE: 208105

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	0.096	96	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208106 208107

Parameter	Units	2630449011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00042J	0.1	0.1	0.10	0.10	104	104	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208106 208107

Parameter	Units	2630449011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.0072J	0.1	0.1	0.11	0.11	101	101	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	
Boron	mg/L	0.24	1	1	1.2	1.2	94	97	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Chromium	mg/L	0.0016J	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.094	0.094	94	93	75-125	0	20	
Lithium	mg/L	0.0031J	0.1	0.1	0.10	0.10	98	97	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.096	0.097	95	96	75-125	2	20	
Thallium	mg/L	0.000085J	0.1	0.1	0.094	0.095	94	95	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45184
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471008, 2630471009, 2630471010, 2630471011, 2630471012, 2630471013

METHOD BLANK: 208191 Matrix: Water
Associated Lab Samples: 2630471008, 2630471009, 2630471010, 2630471011, 2630471012, 2630471013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/03/20 15:05	
Arsenic	mg/L	ND	0.0050	0.00035	04/03/20 15:05	
Barium	mg/L	ND	0.010	0.00049	04/03/20 15:05	
Beryllium	mg/L	ND	0.0030	0.000074	04/03/20 15:05	
Boron	mg/L	ND	0.10	0.0049	04/03/20 15:05	
Cadmium	mg/L	ND	0.0025	0.00011	04/03/20 15:05	
Chromium	mg/L	ND	0.010	0.00039	04/03/20 15:05	
Cobalt	mg/L	ND	0.0050	0.00030	04/03/20 15:05	
Lead	mg/L	ND	0.0050	0.000046	04/03/20 15:05	
Lithium	mg/L	ND	0.030	0.00078	04/03/20 15:05	
Molybdenum	mg/L	ND	0.010	0.00095	04/03/20 15:05	
Selenium	mg/L	ND	0.010	0.0013	04/03/20 15:05	
Thallium	mg/L	ND	0.0010	0.000052	04/03/20 15:05	

LABORATORY CONTROL SAMPLE: 208192

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	0.098	98	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208193 208194

Parameter	Units	2630325039 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	0	20	
Arsenic	mg/L	0.00051J	0.1	0.1	0.10	0.10	99	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208193 208194

Parameter	Units	2630325039 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.046	0.1	0.1	0.15	0.14	100	98	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	2	20	
Boron	mg/L	1.9	1	1	2.9	2.9	91	92	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	
Chromium	mg/L	0.00058J	0.1	0.1	0.10	0.10	101	103	75-125	2	20	
Cobalt	mg/L	0.00056J	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Lead	mg/L	0.00017J	0.1	0.1	0.092	0.092	91	92	75-125	0	20	
Lithium	mg/L	0.00079J	0.1	0.1	0.099	0.10	98	100	75-125	2	20	
Molybdenum	mg/L	0.0012J	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Selenium	mg/L	0.0039J	0.1	0.1	0.10	0.11	100	104	75-125	4	20	
Thallium	mg/L	0.00014J	0.1	0.1	0.093	0.095	93	95	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45189
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471014, 2630471015, 2630471016, 2630471017

METHOD BLANK: 208216 Matrix: Water
Associated Lab Samples: 2630471014, 2630471015, 2630471016, 2630471017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 14:43	
Arsenic	mg/L	0.00071J	0.0050	0.00035	04/02/20 14:43	
Barium	mg/L	ND	0.010	0.00049	04/02/20 14:43	
Beryllium	mg/L	ND	0.0030	0.000074	04/02/20 14:43	
Boron	mg/L	ND	0.10	0.0049	04/02/20 14:43	
Cadmium	mg/L	ND	0.0025	0.00011	04/02/20 14:43	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 14:43	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 14:43	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 14:43	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 14:43	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 14:43	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 14:43	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 14:43	

LABORATORY CONTROL SAMPLE: 208217

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208218 208219

Parameter	Units	2630600001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.098	98	96	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208218 208219

Parameter	Units	2630600001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.021	0.1	0.1	0.12	0.12	97	98	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20	
Boron	mg/L	ND	1	1	1.0	1.0	100	98	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.099	99	98	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20	
Lithium	mg/L	ND	0.1	0.1	0.098	0.099	97	99	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	99	99	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.096	96	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.094	96	94	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45226
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022, 2630471023

METHOD BLANK: 208424 Matrix: Water
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022, 2630471023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/08/20 16:57	
Arsenic	mg/L	0.00095J	0.0050	0.00035	04/08/20 16:57	
Barium	mg/L	ND	0.010	0.00049	04/08/20 16:57	
Beryllium	mg/L	ND	0.0030	0.000074	04/08/20 16:57	
Boron	mg/L	ND	0.10	0.0049	04/08/20 16:57	
Cadmium	mg/L	ND	0.0025	0.00011	04/08/20 16:57	
Chromium	mg/L	ND	0.010	0.00039	04/08/20 16:57	
Cobalt	mg/L	ND	0.0050	0.00030	04/08/20 16:57	
Lead	mg/L	ND	0.0050	0.000046	04/08/20 16:57	
Lithium	mg/L	ND	0.030	0.00078	04/08/20 16:57	
Molybdenum	mg/L	ND	0.010	0.00095	04/08/20 16:57	
Selenium	mg/L	ND	0.010	0.0013	04/08/20 16:57	
Thallium	mg/L	ND	0.0010	0.000052	04/08/20 16:57	

LABORATORY CONTROL SAMPLE: 208425

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	0.10	102	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.1	105	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208426 208427

Parameter	Units	2630471018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	2	20	
Arsenic	mg/L	0.0022J	0.1	0.1	0.10	0.10	101	101	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208426 208427

Parameter	Units	2630471018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.026	0.1	0.1	0.13	0.13	107	108	75-125	0	20	
Beryllium	mg/L	0.00015J	0.1	0.1	0.097	0.098	97	97	75-125	0	20	
Boron	mg/L	0.17	1	1	1.2	1.2	102	106	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	2	20	
Cobalt	mg/L	0.0014J	0.1	0.1	0.099	0.10	97	99	75-125	1	20	
Lead	mg/L	0.00030J	0.1	0.1	0.092	0.094	92	93	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	100	105	75-125	5	20	
Molybdenum	mg/L	0.0074J	0.1	0.1	0.11	0.11	105	105	75-125	0	20	
Selenium	mg/L	0.019	0.1	0.1	0.12	0.12	102	99	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45280
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630471024

METHOD BLANK: 208755 Matrix: Water
Associated Lab Samples: 2630471024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/07/20 14:39	
Arsenic	mg/L	ND	0.0050	0.00035	04/07/20 14:39	
Barium	mg/L	ND	0.010	0.00049	04/07/20 14:39	
Beryllium	mg/L	ND	0.0030	0.000074	04/07/20 14:39	
Boron	mg/L	ND	0.10	0.0049	04/07/20 14:39	
Cadmium	mg/L	ND	0.0025	0.00011	04/07/20 14:39	
Chromium	mg/L	ND	0.010	0.00039	04/07/20 14:39	
Cobalt	mg/L	ND	0.0050	0.00030	04/07/20 14:39	
Lead	mg/L	ND	0.0050	0.000046	04/07/20 14:39	
Lithium	mg/L	ND	0.030	0.00078	04/07/20 14:39	
Molybdenum	mg/L	ND	0.010	0.00095	04/07/20 14:39	
Selenium	mg/L	ND	0.010	0.0013	04/07/20 14:39	
Thallium	mg/L	ND	0.0010	0.000052	04/07/20 14:39	

LABORATORY CONTROL SAMPLE: 208756

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	0.093	93	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.096	96	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	0.093	93	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208757 208758

Parameter	Units	92471969008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.093	0.093	92	93	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208757 208758

Parameter	Units	92471969008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	59.9 ug/L	0.1	0.1	0.15	0.15	95	92	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	1	20	
Boron	mg/L	ND	1	1	0.94	0.97	94	96	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	0	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20	
Lithium	mg/L	ND	0.1	0.1	0.097	0.097	95	96	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.092	94	92	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45160
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471001, 2630471002, 2630471003

LABORATORY CONTROL SAMPLE: 208030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	371	93	84-108	

SAMPLE DUPLICATE: 208031

Parameter	Units	2630449005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	278	272	2	10	

SAMPLE DUPLICATE: 208032

Parameter	Units	2630472002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	281	277	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45207
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471004, 2630471005, 2630471006, 2630471007

LABORATORY CONTROL SAMPLE: 208287

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	341	85	84-108	

SAMPLE DUPLICATE: 208288

Parameter	Units	2630482003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	79.0	57.0	32	10	D6

SAMPLE DUPLICATE: 208289

Parameter	Units	2630472006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	69.0	80.0	15	10	D6

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45209
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471008, 2630471009, 2630471010, 2630471011, 2630471012, 2630471013, 2630471014, 2630471015, 2630471016, 2630471017

LABORATORY CONTROL SAMPLE: 208290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	375	94	84-108	

SAMPLE DUPLICATE: 208291

Parameter	Units	2630525003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	193	188	3	10	

SAMPLE DUPLICATE: 208292

Parameter	Units	2630471008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	413	422	2	10	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 45302
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022, 2630471023, 2630471024

LABORATORY CONTROL SAMPLE: 208859

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	368	92	84-108	

SAMPLE DUPLICATE: 208860

Parameter	Units	2630471018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	565	535	5	10	

SAMPLE DUPLICATE: 208861

Parameter	Units	2630525018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	267	269	1	10	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 533983
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630471008, 2630471009, 2630471010, 2630471011, 2630471012, 2630471013

METHOD BLANK: 2849870 Matrix: Water
Associated Lab Samples: 2630471008, 2630471009, 2630471010, 2630471011, 2630471012, 2630471013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 16:46	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 16:46	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 16:46	

LABORATORY CONTROL SAMPLE: 2849871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.8	102	90-110	
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	50	50.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849872 2849873

Parameter	Units	2630525010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.2	50	50	56.1	56.3	110	110	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	103	105	90-110	2	10	
Sulfate	mg/L	10.8	50	50	65.8	66.0	110	110	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849874 2849875

Parameter	Units	92471182001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.2	50	50	57.8	59.5	109	113	90-110	3	10	M1
Fluoride	mg/L	0.12	2.5	2.5	2.8	2.9	109	113	90-110	4	10	M1
Sulfate	mg/L	ND	50	50	54.8	56.8	109	112	90-110	3	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 533985
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630471001, 2630471002, 2630471003, 2630471004, 2630471005, 2630471006, 2630471007

METHOD BLANK: 2849882 Matrix: Water
Associated Lab Samples: 2630471001, 2630471002, 2630471003, 2630471004, 2630471005, 2630471006, 2630471007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 23:48	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 23:48	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 23:48	

LABORATORY CONTROL SAMPLE: 2849883

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	2.5	102	90-110	
Sulfate	mg/L	50	49.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849884 2849885

Parameter	Units	2630472001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.4	50	50	75.6	76.0	110	111	90-110	1	10	M1
Fluoride	mg/L	0.098J	2.5	2.5	2.7	2.8	104	106	90-110	2	10	
Sulfate	mg/L	85.9	50	50	138	138	103	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849886 2849887

Parameter	Units	2630471007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.73J	50	50	58.0	58.4	114	115	90-110	1	10	M1
Fluoride	mg/L	0.082J	2.5	2.5	2.8	2.8	109	109	90-110	0	10	
Sulfate	mg/L	176	50	50	227	231	102	109	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 534237
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630471014, 2630471015, 2630471016, 2630471017

METHOD BLANK: 2851088 Matrix: Water
Associated Lab Samples: 2630471014, 2630471015, 2630471016, 2630471017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/04/20 14:53	
Fluoride	mg/L	ND	0.10	0.050	04/04/20 14:53	
Sulfate	mg/L	ND	1.0	0.50	04/04/20 14:53	

LABORATORY CONTROL SAMPLE: 2851089

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	2.5	99	90-110	
Sulfate	mg/L	50	48.6	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2851147 2851148

Parameter	Units	2630471014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.5	50	50	50.2	50.4	97	98	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	104	105	90-110	0	10	
Sulfate	mg/L	46.2	50	50	93.5	93.5	95	95	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2851149 2851150

Parameter	Units	92471612001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	391	50	50	392	404	0	25	90-110	3	10	M6
Fluoride	mg/L	0.27	2.5	2.5	2.6	2.6	93	94	90-110	1	10	
Sulfate	mg/L	119	50	50	161	166	83	93	90-110	3	10	M6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 534425
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022, 2630471023

METHOD BLANK: 2852105 Matrix: Water
Associated Lab Samples: 2630471018, 2630471019, 2630471020, 2630471021, 2630471022, 2630471023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/04/20 14:52	
Fluoride	mg/L	ND	0.10	0.050	04/04/20 14:52	
Sulfate	mg/L	ND	1.0	0.50	04/04/20 14:52	

LABORATORY CONTROL SAMPLE: 2852106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	51.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2852107 2852108

Parameter	Units	2630491001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	124	50	50	177	178	105	109	90-110	1	10	
Fluoride	mg/L	0.59	2.5	2.5	3.2	3.3	106	110	90-110	3	10	
Sulfate	mg/L	118	50	50	170	171	103	107	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2852109 2852110

Parameter	Units	2630472013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	161	50	50	215	216	107	109	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.9	3.0	116	120	90-110	3	10	M1
Sulfate	mg/L	484	50	50	534	536	100	103	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

QC Batch: 534656
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630471024

METHOD BLANK: 2853372 Matrix: Water
Associated Lab Samples: 2630471024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/07/20 19:36	
Fluoride	mg/L	ND	0.10	0.050	04/07/20 19:36	
Sulfate	mg/L	ND	1.0	0.50	04/07/20 19:36	

LABORATORY CONTROL SAMPLE: 2853373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.5	101	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2853374 2853375

Parameter	Units	2630471024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	27.9	50	50	77.4	78.8	99	102	90-110	2	10	
Fluoride	mg/L	0.24J	2.5	2.5	2.7	2.8	98	103	90-110	4	10	
Sulfate	mg/L	13.3	50	50	62.0	63.5	98	100	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2853376 2853377

Parameter	Units	92472309013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.5	50	50	59.3	59.7	104	104	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	100	102	90-110	1	10	
Sulfate	mg/L	ND	50	50	51.0	51.4	102	102	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

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.

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.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
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.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630471001	**HGWA-1**				
2630471002	**HGWA-3**				
2630471003	**HGWA-2**				
2630471004	**HGWC-12**				
2630471005	**MW-25D**				
2630471006	**MW-19**				
2630471007	**MW-5**				
2630471008	**HGWC-7**				
2630471009	**MW-28D**				
2630471010	**MW-20**				
2630471011	**HGWC-8**				
2630471012	**MW-6**				
2630471014	**MW-7**				
2630471015	**MW-24D**				
2630471016	**HGWC-13**				
2630471017	**MW-29**				
2630471018	**HGWC-11**				
2630471019	**MW-26D**				
2630471020	**HGWC-9**				
2630471021	**MW-30D**				
2630471023	**HGWC-10**				
2630471024	**MW-27D**				
2630471001	**HGWA-1**	EPA 3010A	45121	EPA 6010D	45135
2630471002	**HGWA-3**	EPA 3010A	45121	EPA 6010D	45135
2630471003	**HGWA-2**	EPA 3010A	45121	EPA 6010D	45135
2630471004	**HGWC-12**	EPA 3010A	45172	EPA 6010D	45193
2630471005	**MW-25D**	EPA 3010A	45185	EPA 6010D	45196
2630471006	**MW-19**	EPA 3010A	45185	EPA 6010D	45196
2630471007	**MW-5**	EPA 3010A	45185	EPA 6010D	45196
2630471008	**HGWC-7**	EPA 3010A	45185	EPA 6010D	45196
2630471009	**MW-28D**	EPA 3010A	45190	EPA 6010D	45194
2630471010	**MW-20**	EPA 3010A	45190	EPA 6010D	45194
2630471011	**HGWC-8**	EPA 3010A	45190	EPA 6010D	45194
2630471012	**MW-6**	EPA 3010A	45190	EPA 6010D	45194
2630471013	**FB-01**	EPA 3010A	45190	EPA 6010D	45194
2630471014	**MW-7**	EPA 3010A	45190	EPA 6010D	45194
2630471015	**MW-24D**	EPA 3010A	45190	EPA 6010D	45194
2630471016	**HGWC-13**	EPA 3010A	45190	EPA 6010D	45194
2630471017	**MW-29**	EPA 3010A	45190	EPA 6010D	45194
2630471018	**HGWC-11**	EPA 3010A	45218	EPA 6010D	45223
2630471019	**MW-26D**	EPA 3010A	45218	EPA 6010D	45223
2630471020	**HGWC-9**	EPA 3010A	45218	EPA 6010D	45223
2630471021	**MW-30D**	EPA 3010A	45218	EPA 6010D	45223
2630471022	**FD-01**	EPA 3010A	45218	EPA 6010D	45223
2630471023	**HGWC-10**	EPA 3010A	45249	EPA 6010D	45263

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630471024	**MW-27D**	EPA 3010A	45281	EPA 6010D	45288
2630471001	**HGWA-1**	EPA 3005A	45112	EPA 6020B	45137
2630471002	**HGWA-3**	EPA 3005A	45112	EPA 6020B	45137
2630471003	**HGWA-2**	EPA 3005A	45112	EPA 6020B	45137
2630471004	**HGWC-12**	EPA 3005A	45171	EPA 6020B	45192
2630471005	**MW-25D**	EPA 3005A	45171	EPA 6020B	45192
2630471006	**MW-19**	EPA 3005A	45171	EPA 6020B	45192
2630471007	**MW-5**	EPA 3005A	45171	EPA 6020B	45192
2630471008	**HGWC-7**	EPA 3005A	45184	EPA 6020B	45197
2630471009	**MW-28D**	EPA 3005A	45184	EPA 6020B	45197
2630471010	**MW-20**	EPA 3005A	45184	EPA 6020B	45197
2630471011	**HGWC-8**	EPA 3005A	45184	EPA 6020B	45197
2630471012	**MW-6**	EPA 3005A	45184	EPA 6020B	45197
2630471013	**FB-01**	EPA 3005A	45184	EPA 6020B	45197
2630471014	**MW-7**	EPA 3005A	45189	EPA 6020B	45195
2630471015	**MW-24D**	EPA 3005A	45189	EPA 6020B	45195
2630471016	**HGWC-13**	EPA 3005A	45189	EPA 6020B	45195
2630471017	**MW-29**	EPA 3005A	45189	EPA 6020B	45195
2630471018	**HGWC-11**	EPA 3005A	45226	EPA 6020B	45233
2630471019	**MW-26D**	EPA 3005A	45226	EPA 6020B	45233
2630471020	**HGWC-9**	EPA 3005A	45226	EPA 6020B	45233
2630471021	**MW-30D**	EPA 3005A	45226	EPA 6020B	45233
2630471022	**FD-01**	EPA 3005A	45226	EPA 6020B	45233
2630471023	**HGWC-10**	EPA 3005A	45226	EPA 6020B	45233
2630471024	**MW-27D**	EPA 3005A	45280	EPA 6020B	45289
2630471001	**HGWA-1**	SM 2540C	45160		
2630471002	**HGWA-3**	SM 2540C	45160		
2630471003	**HGWA-2**	SM 2540C	45160		
2630471004	**HGWC-12**	SM 2540C	45207		
2630471005	**MW-25D**	SM 2540C	45207		
2630471006	**MW-19**	SM 2540C	45207		
2630471007	**MW-5**	SM 2540C	45207		
2630471008	**HGWC-7**	SM 2540C	45209		
2630471009	**MW-28D**	SM 2540C	45209		
2630471010	**MW-20**	SM 2540C	45209		
2630471011	**HGWC-8**	SM 2540C	45209		
2630471012	**MW-6**	SM 2540C	45209		
2630471013	**FB-01**	SM 2540C	45209		
2630471014	**MW-7**	SM 2540C	45209		
2630471015	**MW-24D**	SM 2540C	45209		
2630471016	**HGWC-13**	SM 2540C	45209		
2630471017	**MW-29**	SM 2540C	45209		
2630471018	**HGWC-11**	SM 2540C	45302		
2630471019	**MW-26D**	SM 2540C	45302		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 1ST SEMIANNUAL
Pace Project No.: 2630471

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630471020	**HGWC-9**	SM 2540C	45302		
2630471021	**MW-30D**	SM 2540C	45302		
2630471022	**FD-01**	SM 2540C	45302		
2630471023	**HGWC-10**	SM 2540C	45302		
2630471024	**MW-27D**	SM 2540C	45302		
2630471001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	533985		
2630471002	**HGWA-3**	EPA 300.0 Rev 2.1 1993	533985		
2630471003	**HGWA-2**	EPA 300.0 Rev 2.1 1993	533985		
2630471004	**HGWC-12**	EPA 300.0 Rev 2.1 1993	533985		
2630471005	**MW-25D**	EPA 300.0 Rev 2.1 1993	533985		
2630471006	**MW-19**	EPA 300.0 Rev 2.1 1993	533985		
2630471007	**MW-5**	EPA 300.0 Rev 2.1 1993	533985		
2630471008	**HGWC-7**	EPA 300.0 Rev 2.1 1993	533983		
2630471009	**MW-28D**	EPA 300.0 Rev 2.1 1993	533983		
2630471010	**MW-20**	EPA 300.0 Rev 2.1 1993	533983		
2630471011	**HGWC-8**	EPA 300.0 Rev 2.1 1993	533983		
2630471012	**MW-6**	EPA 300.0 Rev 2.1 1993	533983		
2630471013	**FB-01**	EPA 300.0 Rev 2.1 1993	533983		
2630471014	**MW-7**	EPA 300.0 Rev 2.1 1993	534237		
2630471015	**MW-24D**	EPA 300.0 Rev 2.1 1993	534237		
2630471016	**HGWC-13**	EPA 300.0 Rev 2.1 1993	534237		
2630471017	**MW-29**	EPA 300.0 Rev 2.1 1993	534237		
2630471018	**HGWC-11**	EPA 300.0 Rev 2.1 1993	534425		
2630471019	**MW-26D**	EPA 300.0 Rev 2.1 1993	534425		
2630471020	**HGWC-9**	EPA 300.0 Rev 2.1 1993	534425		
2630471021	**MW-30D**	EPA 300.0 Rev 2.1 1993	534425		
2630471022	**FD-01**	EPA 300.0 Rev 2.1 1993	534425		
2630471023	**HGWC-10**	EPA 300.0 Rev 2.1 1993	534425		
2630471024	**MW-27D**	EPA 300.0 Rev 2.1 1993	534656		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

WO#: 2630471

2630471

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 Consult	Company Name:
			Address:
Email To:	SCS Contacts	Purchase Order No.:	Pace Quote Reference:
Phone:	Fax:	Project Name: Plant Hammond AP-1 Semiannual	Pace Project Manager: Kevin Herring
Requested Due Date/TAT:	10 Day	Project Number: GW6581D	Pace Profile #: 2012-4

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED START DATE	TIME	END DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MN-22D	WT	G	4/2	1040	—	—	18										N	pH = 8.11 Last sample
2		WT	G															N	pH =
3		WT	G															N	pH =
4		WT	G															N	pH =
5		WT	G															N	pH =
6		WT	G															N	pH =
7		WT	G															N	pH =
8		WT	G															N	pH =
9		WT	G															N	pH =
10		WT	G															N	pH =
11		WT	G															N	pH =
12		WT	G															N	pH =

CR 4/2/2020

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Chad Russo / GCO	4/2/20	1915	Marsha Mahon Knapp	4/2/20	1915				
	Marsha Mahon Knapp	4/3/20	1150	[illegible] / Pace	4/3/20	1150				
	[illegible] / Pace	4/3/20	1441	R. Williams / PACE	4/3/20	1441	2.8	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo — DATE Signed (MM/DD/YY): 4/2/2020

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

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO#: 2630471

PM: [illegible] Due Date: [illegible]
CLIENT: [illegible]-GA Power

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other
Tracking #: ______

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziploc bag

Thermometer Used: [illegible] Type of Ice: ☑ Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 0°C

Date and Initials of person examining contents: [illegible] 4/[illegible]

		Comments
Chain of Custody Present	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr)	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested	☐Yes ☑No ☐N/A	7. 10 Day TAT
Sufficient Volume	☑Yes ☐No ☐N/A	8.
Correct Containers Used	☑Yes ☐No ☐N/A	9.
-Pace Containers Used	☑Yes ☐No ☐N/A	
Containers Intact	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	WT	
All containers needing preservation have been checked	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, [illegible]	☑Yes ☐No	Initial when completed: [illegible] Lot # of added preservative:
Samples checked for dechlorination	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm)	☐Yes ☐No ☑N/A	15.
Trip Blank Present	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: ______ Date: ______

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

F-ALL-C-[illegible]

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

August 10, 2020

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between June 17, 2020 and June 22, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

This report was revised 8/5/20 to remove extra metals reported on sample MW-30D due to a lab error.

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Co. Services
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92482346001	**HGWC-8**	Water	06/16/20 15:15	06/17/20 10:57
92482346002	**MW-1**	Water	06/16/20 14:10	06/17/20 10:57
92482346003	**HGWA-1**	Water	06/16/20 09:48	06/17/20 10:57
92482346004	**HGWA-3**	Water	06/16/20 11:16	06/17/20 10:57
92482346005	**HGWC-7**	Water	06/17/20 13:00	06/18/20 10:37
92482346006	**FB-01**	Water	06/17/20 17:05	06/18/20 10:37
92482346007	**MW-30D**	Water	06/17/20 13:44	06/18/20 10:37
92482346008	**MW-30D FILTERED**	Water	06/17/20 13:49	06/18/20 10:37
92482346009	**MW-40D**	Water	06/19/20 10:25	06/22/20 10:45

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92482346001	**HGWC-8**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346002	**MW-1**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346003	**HGWA-1**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346004	**HGWA-3**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	VB	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346005	**HGWC-7**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346006	**FB-01**	EPA 6010D	DRB	5
		EPA 6020B	CW1	3
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346007	**MW-30D**	EPA 6010D	DRB	5

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	3
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346008	**MW-30D FILTERED**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92482346009	**MW-40D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	2
		SM 2450C-2011	JRS	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	LMS1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92482346001	**HGWC-8**					
	pH	6.97	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	120	mg/L	1.0	06/19/20 16:47	
EPA 6010D	Iron	0.057	mg/L	0.040	06/19/20 16:47	
EPA 6010D	Magnesium	16.4	mg/L	0.050	06/19/20 16:47	
EPA 6010D	Manganese	0.23	mg/L	0.040	06/19/20 16:47	
EPA 6010D	Potassium	7.2	mg/L	0.20	06/19/20 16:47	
EPA 6010D	Sodium	9.2	mg/L	1.0	06/19/20 16:47	
EPA 6020B	Boron	2.2	mg/L	0.10	06/19/20 15:21	
EPA 6020B	Molybdenum	0.45	mg/L	0.010	06/19/20 15:21	
SM 2450C-2011	Total Dissolved Solids	573	mg/L	10.0	06/18/20 11:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	126	mg/L	5.0	06/29/20 16:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	126	mg/L	5.0	06/29/20 16:48	
EPA 300.0 Rev 2.1 1993	Chloride	67.9	mg/L	1.0	06/24/20 22:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.45	mg/L	0.10	06/24/20 22:13	
EPA 300.0 Rev 2.1 1993	Sulfate	157	mg/L	3.0	06/25/20 07:57	
92482346002	**MW-1**					
	pH	6.86	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	157	mg/L	1.0	06/19/20 16:51	
EPA 6010D	Iron	0.78	mg/L	0.040	06/19/20 16:51	
EPA 6010D	Magnesium	23.7	mg/L	0.050	06/19/20 16:51	
EPA 6010D	Manganese	0.36	mg/L	0.040	06/19/20 16:51	
EPA 6010D	Potassium	0.39	mg/L	0.20	06/19/20 16:51	
EPA 6010D	Sodium	12.5	mg/L	1.0	06/19/20 16:51	
EPA 6020B	Boron	0.19	mg/L	0.10	06/19/20 15:27	
SM 2450C-2011	Total Dissolved Solids	653	mg/L	10.0	06/18/20 11:24	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	376	mg/L	5.0	06/29/20 19:20	
SM 2320B-2011	Alkalinity, Total as CaCO3	376	mg/L	5.0	06/29/20 19:20	
EPA 300.0 Rev 2.1 1993	Chloride	29.6	mg/L	1.0	06/24/20 22:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	06/24/20 22:28	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	06/25/20 08:13	
92482346003	**HGWA-1**					
	pH	6.97	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	130	mg/L	1.0	06/19/20 17:07	
EPA 6010D	Magnesium	4.7	mg/L	0.050	06/19/20 17:07	
EPA 6010D	Manganese	0.034J	mg/L	0.040	06/19/20 17:07	
EPA 6010D	Potassium	0.32	mg/L	0.20	06/19/20 17:07	
EPA 6010D	Sodium	58.5	mg/L	1.0	06/19/20 17:07	
EPA 6020B	Boron	0.021J	mg/L	0.10	06/19/20 15:33	
SM 2450C-2011	Total Dissolved Solids	632	mg/L	10.0	06/18/20 11:25	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	345	mg/L	5.0	06/30/20 12:34	
SM 2320B-2011	Alkalinity, Total as CaCO3	345	mg/L	5.0	06/30/20 12:34	
EPA 300.0 Rev 2.1 1993	Chloride	41.1	mg/L	1.0	06/24/20 22:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.10	06/24/20 22:42	
EPA 300.0 Rev 2.1 1993	Sulfate	88.2	mg/L	1.0	06/24/20 22:42	
92482346004	**HGWA-3**					
	pH	7.31	Std. Units		06/30/20 17:10	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92482346004	**HGWA-3**					
EPA 6010D	Calcium	85.1	mg/L	1.0	06/19/20 17:11	
EPA 6010D	Iron	1.3	mg/L	0.040	06/19/20 17:11	
EPA 6010D	Magnesium	5.2	mg/L	0.050	06/19/20 17:11	
EPA 6010D	Manganese	0.24	mg/L	0.040	06/19/20 17:11	
EPA 6010D	Potassium	0.44	mg/L	0.20	06/19/20 17:11	
EPA 6010D	Sodium	5.9	mg/L	1.0	06/19/20 17:11	
EPA 6020B	Boron	0.010J	mg/L	0.10	06/19/20 15:38	
SM 2450C-2011	Total Dissolved Solids	448	mg/L	10.0	06/18/20 11:25	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	195	mg/L	5.0	06/29/20 17:23	
SM 2320B-2011	Alkalinity, Total as CaCO3	195	mg/L	5.0	06/29/20 17:23	
EPA 300.0 Rev 2.1 1993	Chloride	5.8	mg/L	1.0	06/24/20 22:56	
EPA 300.0 Rev 2.1 1993	Sulfate	49.5	mg/L	1.0	06/24/20 22:56	
92482346005	**HGWC-7**					
	pH	7.2	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	112	mg/L	1.0	06/22/20 15:01	M1
EPA 6010D	Iron	0.56	mg/L	0.040	06/22/20 15:01	
EPA 6010D	Magnesium	10.3	mg/L	0.050	06/22/20 15:01	M1
EPA 6010D	Manganese	0.22	mg/L	0.040	06/22/20 15:01	
EPA 6010D	Potassium	2.7	mg/L	0.20	06/22/20 15:01	
EPA 6010D	Sodium	10.3	mg/L	1.0	06/22/20 15:01	M1
EPA 6020B	Boron	1.0	mg/L	0.10	06/19/20 19:33	
EPA 6020B	Molybdenum	0.048	mg/L	0.010	06/19/20 19:33	
SM 2450C-2011	Total Dissolved Solids	423	mg/L	10.0	06/19/20 18:06	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	171	mg/L	5.0	06/29/20 18:03	
SM 2320B-2011	Alkalinity, Total as CaCO3	171	mg/L	5.0	06/29/20 18:03	
EPA 300.0 Rev 2.1 1993	Chloride	45.2	mg/L	1.0	06/25/20 04:43	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.10	06/25/20 04:43	
EPA 300.0 Rev 2.1 1993	Sulfate	102	mg/L	2.0	06/25/20 09:31	
92482346007	**MW-30D**					
	pH	8.33	Std. Units		08/10/20 09:13	
EPA 6010D	Calcium	8.3	mg/L	1.0	06/22/20 15:53	
EPA 6010D	Magnesium	2.3	mg/L	0.050	06/22/20 15:53	
EPA 6010D	Manganese	0.013J	mg/L	0.040	06/22/20 15:53	
EPA 6010D	Potassium	1.4	mg/L	0.20	06/22/20 15:53	
EPA 6010D	Sodium	376	mg/L	10.0	06/23/20 12:29	
EPA 6020B	Boron	0.77	mg/L	0.10	06/19/20 20:07	
EPA 6020B	Molybdenum	0.0062J	mg/L	0.010	06/19/20 20:07	
SM 2450C-2011	Total Dissolved Solids	1040	mg/L	10.0	06/19/20 18:07	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	654	mg/L	5.0	06/30/20 12:45	
SM 2320B-2011	Alkalinity, Total as CaCO3	654	mg/L	5.0	06/30/20 12:45	
SM 4500-S2D-2011	Sulfide	0.051J	mg/L	0.10	06/24/20 18:52	
EPA 300.0 Rev 2.1 1993	Chloride	92.5	mg/L	3.0	06/25/20 09:47	
EPA 300.0 Rev 2.1 1993	Fluoride	10.9	mg/L	0.30	06/25/20 09:47	
EPA 300.0 Rev 2.1 1993	Sulfate	104	mg/L	3.0	06/25/20 09:47	
92482346008	**MW-30D FILTERED**					
	pH	8.33	Std. Units		06/30/20 17:10	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92482346008	**MW-30D FILTERED**					
EPA 6010D	Calcium	4.2	mg/L	1.0	06/22/20 15:57	
EPA 6010D	Iron	0.043	mg/L	0.040	06/22/20 15:57	
EPA 6010D	Magnesium	1.7	mg/L	0.050	06/22/20 15:57	
EPA 6010D	Potassium	1.2	mg/L	0.20	06/22/20 15:57	
EPA 6010D	Sodium	325	mg/L	10.0	06/23/20 12:33	
EPA 6020B	Boron	0.73	mg/L	0.10	06/19/20 20:13	
EPA 6020B	Molybdenum	0.0093J	mg/L	0.010	06/19/20 20:13	
SM 2450C-2011	Total Dissolved Solids	850	mg/L	10.0	06/19/20 18:08	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	582	mg/L	5.0	06/30/20 12:57	
SM 2320B-2011	Alkalinity, Total as CaCO3	583	mg/L	5.0	06/30/20 12:57	
EPA 300.0 Rev 2.1 1993	Chloride	85.1	mg/L	1.0	06/25/20 05:27	
EPA 300.0 Rev 2.1 1993	Fluoride	10.3	mg/L	0.30	06/25/20 10:02	
EPA 300.0 Rev 2.1 1993	Sulfate	92.3	mg/L	3.0	06/25/20 10:02	
92482346009	**MW-40D**					
	pH	7.4	Std. Units		06/30/20 17:10	
EPA 6010D	Calcium	109	mg/L	1.0	06/29/20 16:50	
EPA 6010D	Iron	8.8	mg/L	0.040	06/29/20 16:50	
EPA 6010D	Magnesium	14.7	mg/L	0.050	06/29/20 16:50	
EPA 6010D	Manganese	0.31	mg/L	0.040	06/29/20 16:50	
EPA 6010D	Potassium	9.3	mg/L	0.20	06/29/20 16:50	
EPA 6010D	Sodium	464	mg/L	10.0	06/30/20 12:14	
EPA 6020B	Boron	0.19	mg/L	0.10	06/25/20 16:35	
EPA 6020B	Molybdenum	0.015	mg/L	0.010	06/25/20 16:35	
SM 2450C-2011	Total Dissolved Solids	1420	mg/L	10.0	06/22/20 17:40	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	955	mg/L	5.0	06/30/20 16:50	
SM 2320B-2011	Alkalinity, Total as CaCO3	955	mg/L	5.0	06/30/20 16:50	
EPA 300.0 Rev 2.1 1993	Chloride	145	mg/L	9.0	06/26/20 09:14	
EPA 300.0 Rev 2.1 1993	Sulfate	435	mg/L	9.0	06/26/20 09:14	

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWC-8 **Lab ID: 92482346001** Collected: 06/16/20 15:15 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.97**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**120**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 16:47	7440-70-2	
Iron	**0.057**	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 16:47	7439-89-6	
Magnesium	**16.4**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 16:47	7439-95-4	
Manganese	**0.23**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 16:47	7439-96-5	
Potassium	**7.2**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 16:47	7440-09-7	
Sodium	**9.2**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 16:47	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**2.2**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:21	7440-42-8	
Molybdenum	**0.45**	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:21	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**573**	mg/L	10.0	10.0	1		06/18/20 11:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**126**	mg/L	5.0	5.0	1		06/29/20 16:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 16:48		
Alkalinity, Total as CaCO3	**126**	mg/L	5.0	5.0	1		06/29/20 16:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**67.9**	mg/L	1.0	0.60	1		06/24/20 22:13	16887-00-6	
Fluoride	**0.45**	mg/L	0.10	0.050	1		06/24/20 22:13	16984-48-8	
Sulfate	**157**	mg/L	3.0	1.5	3		06/25/20 07:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-1 **Lab ID: 92482346002** Collected: 06/16/20 14:10 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.86**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**157**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 16:51	7440-70-2	
Iron	**0.78**	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 16:51	7439-89-6	
Magnesium	**23.7**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 16:51	7439-95-4	
Manganese	**0.36**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 16:51	7439-96-5	
Potassium	**0.39**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 16:51	7440-09-7	
Sodium	**12.5**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 16:51	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.19**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:27	7440-42-8	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:27	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**653**	mg/L	10.0	10.0	1		06/18/20 11:24		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**376**	mg/L	5.0	5.0	1		06/29/20 19:20		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 19:20		
Alkalinity, Total as CaCO3	**376**	mg/L	5.0	5.0	1		06/29/20 19:20		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.6**	mg/L	1.0	0.60	1		06/24/20 22:28	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		06/24/20 22:28	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		06/25/20 08:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWA-1 **Lab ID: 92482346003** Collected: 06/16/20 09:48 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.97**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**130**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 17:07	7440-70-2	
Iron	ND	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 17:07	7439-89-6	
Magnesium	**4.7**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 17:07	7439-95-4	
Manganese	**0.034J**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 17:07	7439-96-5	
Potassium	**0.32**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 17:07	7440-09-7	
Sodium	**58.5**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 17:07	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.021J**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:33	7440-42-8	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:33	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**632**	mg/L	10.0	10.0	1		06/18/20 11:25		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**345**	mg/L	5.0	5.0	1		06/30/20 12:34		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 12:34		
Alkalinity, Total as CaCO3	**345**	mg/L	5.0	5.0	1		06/30/20 12:34		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**41.1**	mg/L	1.0	0.60	1		06/24/20 22:42	16887-00-6	
Fluoride	**0.071J**	mg/L	0.10	0.050	1		06/24/20 22:42	16984-48-8	
Sulfate	**88.2**	mg/L	1.0	0.50	1		06/24/20 22:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWA-3 **Lab ID: 92482346004** Collected: 06/16/20 11:16 Received: 06/17/20 10:57 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.31**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**85.1**	mg/L	1.0	0.14	1	06/18/20 16:00	06/19/20 17:11	7440-70-2	
Iron	**1.3**	mg/L	0.040	0.015	1	06/18/20 16:00	06/19/20 17:11	7439-89-6	
Magnesium	**5.2**	mg/L	0.050	0.011	1	06/18/20 16:00	06/19/20 17:11	7439-95-4	
Manganese	**0.24**	mg/L	0.040	0.0061	1	06/18/20 16:00	06/19/20 17:11	7439-96-5	
Potassium	**0.44**	mg/L	0.20	0.026	1	06/18/20 16:00	06/19/20 17:11	7440-09-7	
Sodium	**5.9**	mg/L	1.0	0.19	1	06/18/20 16:00	06/19/20 17:11	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.010J**	mg/L	0.10	0.0049	1	06/18/20 13:00	06/19/20 15:38	7440-42-8	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/18/20 13:00	06/19/20 15:38	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**448**	mg/L	10.0	10.0	1		06/18/20 11:25		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**195**	mg/L	5.0	5.0	1		06/29/20 17:23		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 17:23		
Alkalinity, Total as CaCO3	**195**	mg/L	5.0	5.0	1		06/29/20 17:23		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/19/20 18:58	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		06/24/20 22:56	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/24/20 22:56	16984-48-8	
Sulfate	**49.5**	mg/L	1.0	0.50	1		06/24/20 22:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: HGWC-7 **Lab ID: 92482346005** Collected: 06/17/20 13:00 Received: 06/18/20 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.2**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**112**	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:01	7440-70-2	M1
Iron	**0.56**	mg/L	0.040	0.015	1	06/19/20 14:00	06/22/20 15:01	7439-89-6	
Magnesium	**10.3**	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:01	7439-95-4	M1
Manganese	**0.22**	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:01	7439-96-5	
Potassium	**2.7**	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:01	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.19	1	06/19/20 14:00	06/22/20 15:01	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**1.0**	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 19:33	7440-42-8	
Molybdenum	**0.048**	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 19:33	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**423**	mg/L	10.0	10.0	1		06/19/20 18:06		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**171**	mg/L	5.0	5.0	1		06/29/20 18:03		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 18:03		
Alkalinity, Total as CaCO3	**171**	mg/L	5.0	5.0	1		06/29/20 18:03		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/24/20 18:51	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**45.2**	mg/L	1.0	0.60	1		06/25/20 04:43	16887-00-6	
Fluoride	**0.077J**	mg/L	0.10	0.050	1		06/25/20 04:43	16984-48-8	
Sulfate	**102**	mg/L	2.0	1.0	2		06/25/20 09:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: FB-01 **Lab ID: 92482346006** Collected: 06/17/20 17:05 Received: 06/18/20 10:37 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								
Calcium	ND	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:49	7440-70-2	
Magnesium	ND	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:49	7439-95-4	
Manganese	ND	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:49	7439-96-5	
Potassium	ND	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:49	7440-09-7	
Sodium	ND	mg/L	1.0	0.19	1	06/19/20 14:00	06/22/20 15:49	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	ND	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 19:50	7440-42-8	
Iron	ND	mg/L	0.040	0.0097	1	06/19/20 12:30	06/19/20 19:50	7439-89-6	
Molybdenum	ND	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 19:50	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		06/19/20 18:07		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 18:14		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/29/20 18:14		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		06/29/20 18:14		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/24/20 18:52	18496-25-8	
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		06/25/20 04:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/25/20 04:58	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		06/25/20 04:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-30D **Lab ID: 92482346007** Collected: 06/17/20 13:44 Received: 06/18/20 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**8.33**	Std. Units			1		08/10/20 09:13		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**8.3**	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:53	7440-70-2	
Magnesium	**2.3**	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:53	7439-95-4	
Manganese	**0.013J**	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:53	7439-96-5	
Potassium	**1.4**	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:53	7440-09-7	
Sodium	**376**	mg/L	10.0	1.9	10	06/19/20 14:00	06/23/20 12:29	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.77**	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 20:07	7440-42-8	
Iron	ND	mg/L	0.040	0.0097	1	06/19/20 12:30	06/19/20 19:50	7439-89-6	
Molybdenum	**0.0062J**	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 20:07	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1040**	mg/L	10.0	10.0	1		06/19/20 18:07		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**654**	mg/L	5.0	5.0	1		06/30/20 12:45		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 12:45		
Alkalinity, Total as CaCO3	**654**	mg/L	5.0	5.0	1		06/30/20 12:45		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.051J**	mg/L	0.10	0.050	1		06/24/20 18:52	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**92.5**	mg/L	3.0	1.8	3		06/25/20 09:47	16887-00-6	
Fluoride	**10.9**	mg/L	0.30	0.15	3		06/25/20 09:47	16984-48-8	
Sulfate	**104**	mg/L	3.0	1.5	3		06/25/20 09:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-30D FILTERED **Lab ID: 92482346008** Collected: 06/17/20 13:49 Received: 06/18/20 10:37 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**8.33**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**4.2**	mg/L	1.0	0.14	1	06/19/20 14:00	06/22/20 15:57	7440-70-2	
Iron	**0.043**	mg/L	0.040	0.015	1	06/19/20 14:00	06/22/20 15:57	7439-89-6	
Magnesium	**1.7**	mg/L	0.050	0.011	1	06/19/20 14:00	06/22/20 15:57	7439-95-4	
Manganese	ND	mg/L	0.040	0.0061	1	06/19/20 14:00	06/22/20 15:57	7439-96-5	
Potassium	**1.2**	mg/L	0.20	0.026	1	06/19/20 14:00	06/22/20 15:57	7440-09-7	
Sodium	**325**	mg/L	10.0	1.9	10	06/19/20 14:00	06/23/20 12:33	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.73**	mg/L	0.10	0.0049	1	06/19/20 12:30	06/19/20 20:13	7440-42-8	
Molybdenum	**0.0093J**	mg/L	0.010	0.00095	1	06/19/20 12:30	06/19/20 20:13	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**850**	mg/L	10.0	10.0	1		06/19/20 18:08		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**582**	mg/L	5.0	5.0	1		06/30/20 12:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 12:57		
Alkalinity, Total as CaCO3	**583**	mg/L	5.0	5.0	1		06/30/20 12:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		06/24/20 18:53	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**85.1**	mg/L	1.0	0.60	1		06/25/20 05:27	16887-00-6	
Fluoride	**10.3**	mg/L	0.30	0.15	3		06/25/20 10:02	16984-48-8	
Sulfate	**92.3**	mg/L	3.0	1.5	3		06/25/20 10:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Sample: MW-40D **Lab ID: 92482346009** Collected: 06/19/20 10:25 Received: 06/22/20 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.4**	Std. Units			1		06/30/20 17:10		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**109**	mg/L	1.0	0.14	1	06/29/20 12:40	06/29/20 16:50	7440-70-2	
Iron	**8.8**	mg/L	0.040	0.015	1	06/29/20 12:40	06/29/20 16:50	7439-89-6	
Magnesium	**14.7**	mg/L	0.050	0.011	1	06/29/20 12:40	06/29/20 16:50	7439-95-4	
Manganese	**0.31**	mg/L	0.040	0.0061	1	06/29/20 12:40	06/29/20 16:50	7439-96-5	
Potassium	**9.3**	mg/L	0.20	0.026	1	06/29/20 12:40	06/29/20 16:50	7440-09-7	
Sodium	**464**	mg/L	10.0	1.9	10	06/29/20 12:40	06/30/20 12:14	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.19**	mg/L	0.10	0.0049	1	06/24/20 13:30	06/25/20 16:35	7440-42-8	
Molybdenum	**0.015**	mg/L	0.010	0.00095	1	06/24/20 13:30	06/25/20 16:35	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**1420**	mg/L	10.0	10.0	1		06/22/20 17:40		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**955**	mg/L	5.0	5.0	1		06/30/20 16:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		06/30/20 16:50		
Alkalinity, Total as CaCO3	**955**	mg/L	5.0	5.0	1		06/30/20 16:50		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	1.0	0.50	10		06/24/20 19:01	18496-25-8	D3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**145**	mg/L	9.0	5.4	9		06/26/20 09:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		06/26/20 02:27	16984-48-8	
Sulfate	**435**	mg/L	9.0	4.5	9		06/26/20 09:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548325
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2917356 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	06/19/20 15:48	
Iron	mg/L	ND	0.040	0.015	06/19/20 15:48	
Magnesium	mg/L	ND	0.050	0.011	06/19/20 15:48	
Manganese	mg/L	ND	0.040	0.0061	06/19/20 15:48	
Potassium	mg/L	ND	0.20	0.026	06/22/20 12:08	
Sodium	mg/L	ND	1.0	0.19	06/22/20 12:08	

LABORATORY CONTROL SAMPLE: 2917357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	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	101	80-120	
Potassium	mg/L	1	0.98	98	80-120	
Sodium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2917358 2917359

Parameter	Units	92482102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	174	1	1	174	182	-20	757	75-125	4	20	M1
Iron	mg/L	0.20	1	1	1.2	1.3	103	108	75-125	4	20	
Magnesium	mg/L	23.4	1	1	24.3	25.4	94	206	75-125	5	20	M1
Manganese	mg/L	0.88	1	1	1.9	1.9	98	104	75-125	3	20	
Potassium	mg/L	6.5	1	1	7.5	7.8	101	134	75-125	4	20	M1
Sodium	mg/L	9.6	1	1	10.6	11.0	100	140	75-125	4	20	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

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548539
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2918225 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	06/22/20 14:53	
Iron	mg/L	ND	0.040	0.015	06/22/20 14:53	
Magnesium	mg/L	ND	0.050	0.011	06/22/20 14:53	
Manganese	mg/L	ND	0.040	0.0061	06/22/20 14:53	
Potassium	mg/L	ND	0.20	0.026	06/22/20 14:53	
Sodium	mg/L	ND	1.0	0.19	06/22/20 14:53	

LABORATORY CONTROL SAMPLE: 2918226

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.0	104	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	0.97	97	80-120	
Sodium	mg/L	1	1.1	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2918227 2918228

Parameter	Units	92482346005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	112	1	1	110	114	-256	180	75-125	4	20	M1
Iron	mg/L	0.56	1	1	1.6	1.6	103	108	75-125	3	20	
Magnesium	mg/L	10.3	1	1	11.0	11.4	74	117	75-125	4	20	M1
Manganese	mg/L	0.22	1	1	1.2	1.2	96	100	75-125	3	20	
Potassium	mg/L	2.7	1	1	3.7	3.8	95	107	75-125	3	20	
Sodium	mg/L	10.3	1	1	11.0	11.4	68	109	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 550184
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346009

METHOD BLANK: 2925536 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	06/29/20 16:20	
Iron	mg/L	ND	0.040	0.015	06/29/20 16:20	
Magnesium	mg/L	ND	0.050	0.011	06/29/20 16:20	
Manganese	mg/L	ND	0.040	0.0061	06/29/20 16:20	
Potassium	mg/L	0.039J	0.20	0.026	06/29/20 16:20	
Sodium	mg/L	ND	1.0	0.19	06/29/20 16:20	

LABORATORY CONTROL SAMPLE: 2925537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.97J	97	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.0	104	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	1.1	105	80-120	
Sodium	mg/L	1	1.1	113	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2925538 2925539

Parameter	Units	92482800004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	41.3	1	1	41.9	41.8	60	49	75-125	0	20	M1
Iron	mg/L	0.12	1	1	1.1	1.1	102	100	75-125	2	20	
Magnesium	mg/L	10.8	1	1	11.7	11.6	86	78	75-125	1	20	
Manganese	mg/L	0.026J	1	1	0.99	0.99	97	97	75-125	0	20	
Potassium	mg/L	0.53	1	1	1.5	1.5	97	95	75-125	1	20	
Sodium	mg/L	27.0	1	1	27.6	27.6	61	61	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548037
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2915983 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0049	06/19/20 14:13	
Molybdenum	mg/L	ND	0.010	0.00095	06/19/20 14:13	

LABORATORY CONTROL SAMPLE: 2915984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.1	106	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2915985 2915986

Parameter	Units	92482102001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	1.2	1	1	2.2	2.2	97	98	75-125	1	20	
Molybdenum	mg/L	0.035	0.1	0.1	0.14	0.14	107	102	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548509
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2918043 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0049	06/19/20 17:32	
Iron	mg/L	ND	0.040	0.0097	06/19/20 17:32	
Molybdenum	mg/L	ND	0.010	0.00095	06/19/20 17:32	

LABORATORY CONTROL SAMPLE: 2918044

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	102	80-120	
Iron	mg/L	1	1.0	100	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2918045 2918046

Parameter	Units	92482427001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	54.3 ug/L	1	1	1.0	1.0	96	96	75-125	0	20	
Iron	mg/L	639 ug/L	1	1	1.6	1.6	95	95	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549351
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346009

METHOD BLANK: 2921563 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0049	06/25/20 16:01	
Molybdenum	mg/L	ND	0.010	0.00095	06/25/20 16:01	

LABORATORY CONTROL SAMPLE: 2921564

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.97	97	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921565 2921566

Parameter	Units	92482800006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.086J	1	1	0.96	0.96	87	87	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.094	0.090	93	90	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548159
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2916338 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/18/20 10:55	

LABORATORY CONTROL SAMPLE: 2916339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	418	104	84-108	

SAMPLE DUPLICATE: 2916340

Parameter	Units	92482102004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	665	818	21	10	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548606
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2918729 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/19/20 17:58	

LABORATORY CONTROL SAMPLE: 2918730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	419	105	84-108	

SAMPLE DUPLICATE: 2918731

Parameter	Units	92482647001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	18.0	15.0	18	10	D6

SAMPLE DUPLICATE: 2918732

Parameter	Units	92482647005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	28.0	43.0	42	10	D6

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548907
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92482346009

METHOD BLANK: 2919762 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	06/22/20 17:30	

LABORATORY CONTROL SAMPLE: 2919763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	84-108	

SAMPLE DUPLICATE: 2919764

Parameter	Units	92482662002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	163	182	11	10	D6

SAMPLE DUPLICATE: 2919765

Parameter	Units	92482737002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	97.0	86.0	12	10	D6

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549851
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004, 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2923886 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004, 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/29/20 15:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/29/20 15:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/29/20 15:57	

LABORATORY CONTROL SAMPLE: 2923887

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2923888 2923889

Parameter	Units	92482268001 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	ND	50	50	54.3	54.2	109	108	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2923890 2923891

Parameter	Units	92482880003 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	8.3	50	50	63.0	63.9	109	111	80-120	2	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 550396
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346009

METHOD BLANK: 2926273 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	06/30/20 13:53	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	06/30/20 13:53	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	06/30/20 13:53	

LABORATORY CONTROL SAMPLE: 2926274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.6	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2926275 2926276

Parameter	Units	92483174015 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	ND	50	50	50.7	50.1	101	100	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2926277 2926278

Parameter	Units	92482649003 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	ND	50	50	57.1	57.5	104	105	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548296
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2917145 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	06/19/20 18:51	

LABORATORY CONTROL SAMPLE: 2917146

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: 2917149 2917150

Parameter	Units	92482295001 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	0.51	0.51	99	98	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2918737 2918738

Parameter	Units	92482295007 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	0.81	0.81	152	152	80-120	0	10	M1

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549379
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2921729 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	06/24/20 18:37	

LABORATORY CONTROL SAMPLE: 2921730

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921731 2921732

Parameter	Units	92482441001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	<0.050	0.5	0.5	0.54	0.54	107	107	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921733 2921734

Parameter	Units	92482441002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	<0.050	0.5	0.5	0.25	0.25	49	49	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549382
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346009

METHOD BLANK: 2921743 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	06/24/20 18:53	

LABORATORY CONTROL SAMPLE: 2921744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921745 2921746

Parameter	Units	92482649001 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	0.55	0.54	110	109	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2921747 2921748

Parameter	Units	92482649002 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	0.34	0.34	67	67	80-120	1	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 548965
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

METHOD BLANK: 2919910 Matrix: Water
Associated Lab Samples: 92482346001, 92482346002, 92482346003, 92482346004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/24/20 15:56	
Fluoride	mg/L	ND	0.10	0.050	06/24/20 15:56	
Sulfate	mg/L	ND	1.0	0.50	06/24/20 15:56	

LABORATORY CONTROL SAMPLE: 2919911

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	51.0	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2919912 2919913

Parameter	Units	92482711001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.2	50	50	56.6	56.6	97	97	90-110	0	10	
Fluoride	mg/L	0.57	2.5	2.5	2.7	2.8	86	88	90-110	1	10	M1
Sulfate	mg/L	13.6	50	50	62.3	62.3	98	97	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2919914 2919915

Parameter	Units	92482268001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.5	50	50	62.7	63.0	96	97	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	104	107	90-110	3	10	
Sulfate	mg/L	ND	50	50	48.8	49.1	98	98	90-110	1	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549186
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

METHOD BLANK: 2920985 Matrix: Water
Associated Lab Samples: 92482346005, 92482346006, 92482346007, 92482346008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/24/20 23:11	
Fluoride	mg/L	ND	0.10	0.050	06/24/20 23:11	
Sulfate	mg/L	ND	1.0	0.50	06/24/20 23:11	

LABORATORY CONTROL SAMPLE: 2920986

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.2	102	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.9	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2920987 2920988

Parameter	Units	92482762001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.2	50	50	49.9	49.9	97	97	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	97	97	90-110	1	10	
Sulfate	mg/L	ND	50	50	48.9	48.9	97	97	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2920989 2920990

Parameter	Units	92483147008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.7	50	50	55.2	57.4	105	110	90-110	4	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	97	102	90-110	5	10	
Sulfate	mg/L	0.74J	50	50	53.3	55.4	105	109	90-110	4	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

QC Batch: 549586
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92482346009

METHOD BLANK: 2922599 Matrix: Water
Associated Lab Samples: 92482346009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	06/25/20 23:34	
Fluoride	mg/L	ND	0.10	0.050	06/25/20 23:34	
Sulfate	mg/L	ND	1.0	0.50	06/25/20 23:34	

LABORATORY CONTROL SAMPLE: 2922600

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	105	90-110	
Sulfate	mg/L	50	51.7	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2922601 2922602

Parameter	Units	92483177002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.9	50	50	55.0	54.3	102	101	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	99	107	90-110	8	10	
Sulfate	mg/L	ND	50	50	52.6	51.6	103	101	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2922603 2922604

Parameter	Units	92483187001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	15.7	50	50	67.7	65.2	104	99	90-110	4	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	104	100	90-110	4	10	
Sulfate	mg/L	88.7	50	50	128	126	78	75	90-110	1	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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 92482346

[2] This report was revised 8/7/20 to correct a sample mix up between samples MW-30D and the Field Blank.

ANALYTE QUALIFIERS

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.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92482346001	**HGWC-8**				
92482346002	**MW-1**				
92482346003	**HGWA-1**				
92482346004	**HGWA-3**				
92482346005	**HGWC-7**				
92482346007	**MW-30D**				
92482346008	**MW-30D FILTERED**				
92482346009	**MW-40D**				
92482346001	**HGWC-8**	EPA 3010A	548325	EPA 6010D	548371
92482346002	**MW-1**	EPA 3010A	548325	EPA 6010D	548371
92482346003	**HGWA-1**	EPA 3010A	548325	EPA 6010D	548371
92482346004	**HGWA-3**	EPA 3010A	548325	EPA 6010D	548371
92482346005	**HGWC-7**	EPA 3010A	548539	EPA 6010D	548601
92482346006	**FB-01**	EPA 3010A	548539	EPA 6010D	548601
92482346007	**MW-30D**	EPA 3010A	548539	EPA 6010D	548601
92482346008	**MW-30D FILTERED**	EPA 3010A	548539	EPA 6010D	548601
92482346009	**MW-40D**	EPA 3010A	550184	EPA 6010D	550253
92482346001	**HGWC-8**	EPA 3005A	548037	EPA 6020B	548275
92482346002	**MW-1**	EPA 3005A	548037	EPA 6020B	548275
92482346003	**HGWA-1**	EPA 3005A	548037	EPA 6020B	548275
92482346004	**HGWA-3**	EPA 3005A	548037	EPA 6020B	548275
92482346005	**HGWC-7**	EPA 3005A	548509	EPA 6020B	548546
92482346006	**FB-01**	EPA 3005A	548509	EPA 6020B	548546
92482346007	**MW-30D**	EPA 3005A	548509	EPA 6020B	548546
92482346008	**MW-30D FILTERED**	EPA 3005A	548509	EPA 6020B	548546
92482346009	**MW-40D**	EPA 3005A	549351	EPA 6020B	549398
92482346001	**HGWC-8**	SM 2450C-2011	548159		
92482346002	**MW-1**	SM 2450C-2011	548159		
92482346003	**HGWA-1**	SM 2450C-2011	548159		
92482346004	**HGWA-3**	SM 2450C-2011	548159		
92482346005	**HGWC-7**	SM 2450C-2011	548606		
92482346006	**FB-01**	SM 2450C-2011	548606		
92482346007	**MW-30D**	SM 2450C-2011	548606		
92482346008	**MW-30D FILTERED**	SM 2450C-2011	548606		
92482346009	**MW-40D**	SM 2450C-2011	548907		
92482346001	**HGWC-8**	SM 2320B-2011	549851		
92482346002	**MW-1**	SM 2320B-2011	549851		
92482346003	**HGWA-1**	SM 2320B-2011	549851		
92482346004	**HGWA-3**	SM 2320B-2011	549851		
92482346005	**HGWC-7**	SM 2320B-2011	549851		
92482346006	**FB-01**	SM 2320B-2011	549851		
92482346007	**MW-30D**	SM 2320B-2011	549851		
92482346008	**MW-30D FILTERED**	SM 2320B-2011	549851		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 NON ROUTINE
Pace Project No.: 92482346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92482346009	**MW-40D**	SM 2320B-2011	550396		
92482346001	**HGWC-8**	SM 4500-S2D-2011	548296		
92482346002	**MW-1**	SM 4500-S2D-2011	548296		
92482346003	**HGWA-1**	SM 4500-S2D-2011	548296		
92482346004	**HGWA-3**	SM 4500-S2D-2011	548296		
92482346005	**HGWC-7**	SM 4500-S2D-2011	549379		
92482346006	**FB-01**	SM 4500-S2D-2011	549379		
92482346007	**MW-30D**	SM 4500-S2D-2011	549379		
92482346008	**MW-30D FILTERED**	SM 4500-S2D-2011	549379		
92482346009	**MW-40D**	SM 4500-S2D-2011	549382		
92482346001	**HGWC-8**	EPA 300.0 Rev 2.1 1993	548965		
92482346002	**MW-1**	EPA 300.0 Rev 2.1 1993	548965		
92482346003	**HGWA-1**	EPA 300.0 Rev 2.1 1993	548965		
92482346004	**HGWA-3**	EPA 300.0 Rev 2.1 1993	548965		
92482346005	**HGWC-7**	EPA 300.0 Rev 2.1 1993	549186		
92482346006	**FB-01**	EPA 300.0 Rev 2.1 1993	549186		
92482346007	**MW-30D**	EPA 300.0 Rev 2.1 1993	549186		
92482346008	**MW-30D FILTERED**	EPA 300.0 Rev 2.1 1993	549186		
92482346009	**MW-40D**	EPA 300.0 Rev 2.1 1993	549586		

WO#: 92482346

92482346

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

Section A — Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: 1 Day

Section B — Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Non-Routine
Project Number: GW6918

Section C — Invoice Information
Attention: Southern Co
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #:

REGULATORY AGENCY: NPDES | GROUND WATER | DRINKING WATER | UST | RCRA ✓ | OTHER
Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G					N	pH =
2	~~HGWA-3~~	WT	G					N	pH =
3	~~HGWC-7~~	WT	G					N	pH =
4	HGWC-8	WT	G	6/16/20	1515	21		N	pH = 6.77
5	MW-1	WT	G	6/16/20	1410	24		N	pH = 6.84
6	~~MW-36D~~	WT	G					N	pH =
7	~~MW-40D~~	WT	G					N	pH =
8									
9									
10									
11									
12									

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Requested Analysis Filtered (Y/N) — Analysis Test: Chloride, Fluoride, Sulfate; TDS; Metals*; Alkalinity, Bicarbonate; Sulfide

6/16/20

ADDITIONAL COMMENTS: Please note any wells skipped and any wells not sampled and note when the last sample for this event has been taken.

*Metals: B, Ca, Fe, Mg, Mn, Na, K, Tsp

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Shawn Lin, Geosyntec	6/16/2020	1620	Chad Russell / Pace	6/16/20	1620	
Chad Russell / Pace	6/16/20	1755	Kelvin Manders / Pace	6/16/20	1755	
Kelvin Manders / Pace	6-17-20	1036	[illegible] / Pace	6-17-20	1057	
[illegible] / Pace	6-17-20	1411	[illegible] / PACE	6/17/20	1411	3.5 Y N Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Shawn Lin
SIGNATURE of SAMPLER: Shawn Lin
DATE Signed (MM/DD/YY): 6/16/2020

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

PaceAnalytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

WO# : 92482346
PM: KLH1 Due Date: 07/01/20
CLIENT: GA-GA Power

Page: 1 of 1

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Non-Routine	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	7 day	Project Number:	GW6581B	Pace Profile #:	

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D Required Client Information — SAMPLE ID

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride Fluoride Sulfate	TDS	Metals*	Alkalinity	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G	6/16/20	[illegible]	[illegible]	3	2		1						X	X	X	X	X	N	pH = [illegible]
2	HGWA-3	WT	G	6/16/20	1115	[illegible]	3	2		1						X	X	X	X	X	N	pH = 7.71
3	HGWC-7	WT	G																		N	pH =
4	HGWD-8	WT	G																		N	pH =
5	MW-1	WT	G																		N	pH =
6	MW-300	WT	G																		N	pH =
7	MW-400	WT	G																		N	pH =
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS: Please note any wells where through any wells not sampled and note where the last sample for the event was taken.

*Metals: [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Kuss / GSC	6/16/20	1755	[illegible]	6/16/20	1755				
[illegible]	6/17/20	1056	[illegible] / Pace	6/17/20	1057				
[illegible] / Pace	6/17/20	1411	[illegible] / Pace	6/17/20	1411	3.3	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Kuss
SIGNATURE of SAMPLER: [illegible]
DATE Signed (MM/DD/YY): 6/16/20

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

WO# : 92482346
PM: KLH1 Due Date: 07/01/20
CLIENT: GA-GA Power

Section A Required Client Information:
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Requested Due Date/TAT: 1 Day

Section B Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Project Name: Plant Hammond AP-1 Non-Routine
Project Number: GW0081B

Section C Invoice Information:
Attention: Southern Co
Pace Profile #: Kevin Herring

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER
Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Chloride, Fluoride, Sulfate	TDS	Metals	Alkalinity	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G											pH =
2	~~HGWA-3~~	WT	G											pH =
3	HGWC-7	WT	G	6/17/20	1330	24	5	X	X	X	X	X	N	pH = 7.2
4	~~HGWC-8~~	WT	G											pH =
5	~~MW-1~~	WT	G											pH =
6	MW-36D	WT	G	6/17/20	1537	24	5	X	X	X	X	X	N	pH = 7.37
7	~~MW-40D~~	WT	G											pH =
8	FB-01	WT	G	6/17/20	1705		5	X	X	X	X	X	N	
9	MW-36D Filtered	WT	G	6/17/20	1319	24	5	X	X	X	X	X	N	pH = 6.53
10														
11														
12														

ADDITIONAL COMMENTS: Please note any wells, where there is any sample not sampled and note which the last sample for the event has been taken. *Metals: Ca, Fe, Mg, Mn, Na, K, Sb

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo / SCO	6/17/20	1815	[illegible] Kasapakes	6/17/20	1845				
[illegible]	6/18/20	1037	[illegible] / Pace	6/18/20	1037				
[illegible] / Pace	6/18/20	1443	[illegible] / Pace	6/18/20	1443	3.2	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: Chad Russo
DATE Signed (MM/DD/YY): 6/17/2020

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

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical®

CHAIN-OF-CUSTODY / Analytical Request Docu[ment]

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed ac[curately]

WO# : 92482346

PM: KLH1 Due Date: 07/01/20

CLIENT: GA-GA Power

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond AP-1 Non-Routine	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	7 Day	Project Number:	GW6581B	Pace Profile #:	

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	TDS	Metals*	Alkalinity, Bicarbonate	Sulfide	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	~~pH=~~
2	~~HGWC-3~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	~~pH=~~
3	~~HGWC-7~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	~~pH=~~
4	~~HGWC-8~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	~~pH=~~
5	~~MW-1~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	~~pH=~~
6	~~MW-20D~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	~~pH=~~
7	MW-40D	WT	G	6/19/20	10:5[illegible]	—	—	22.5	[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	pH=7.4/Last sample
8	~~EB-1~~	WT	G						[illegible]	[illegible]		[illegible]					[illegible]		X	X	X	X	X	N	
9																									
10																									
11																									
12																									

CR 6/19/20

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note any errors, strike through any wells not sampled, and note when the last sample for the event has been taken.	Chad Russo / [illegible]	6/19/20	1745	[signature] / Pace	6/19/20	1745				
	[signature] / Pace	6/22/20	1045	[signature] / Pace	6/22/20	1045				
*Metals = Ca, Fe, Mg, Mn, K, Na	[signature] / Pace	6/22/20	1353	[signature]	6/22/20	1353	2.8	Y	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Chad Russo		
SIGNATURE of SAMPLER:	[signature]	DATE Signed (MM/DD/YY):	6/19/2020

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 20, 2020

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 16, 2020 and September 29, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Co. Services
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
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SAMPLE SUMMARY

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495894001	**HGWA-1**	Water	09/15/20 14:01	09/16/20 11:14
92495894002	**HGWA-2**	Water	09/15/20 10:58	09/16/20 11:14
92495894003	**HGWA-3**	Water	09/15/20 11:45	09/16/20 11:14
92495894004	**HGWC-7**	Water	09/16/20 12:24	09/17/20 09:45
92495894005	**HGWC-7 FILTERED**	Water	09/16/20 12:24	09/17/20 09:45
92495894006	**HGWC-8**	Water	09/16/20 09:32	09/17/20 09:45
92495894007	**HGWC-10**	Water	09/16/20 16:15	09/17/20 09:45
92495894008	**MW-29**	Water	09/16/20 13:15	09/17/20 09:45
92495894009	**HGWA-43D**	Water	09/16/20 11:58	09/17/20 09:45
92495894010	**HGWA-44D**	Water	09/16/20 15:18	09/17/20 09:45
92495894011	**HGWC-9**	Water	09/17/20 11:42	09/18/20 10:20
92495894012	**MW-5**	Water	09/17/20 17:51	09/18/20 10:20
92495894013	**MW-20**	Water	09/17/20 15:54	09/18/20 10:20
92495894014	**MW-26D**	Water	09/17/20 13:02	09/18/20 10:20
92495894015	**FD-01**	Water	09/17/20 00:00	09/18/20 10:20
92495894016	**HGWC-11**	Water	09/18/20 13:30	09/21/20 09:25
92495894017	**HGWC-12**	Water	09/18/20 15:50	09/21/20 09:25
92495894018	**MW-25D**	Water	09/18/20 13:20	09/21/20 09:25
92495894019	**MW-27D**	Water	09/18/20 08:53	09/21/20 09:25
92495894020	**HGWC-13**	Water	09/21/20 16:45	09/22/20 09:25
92495894021	**MW-6**	Water	09/21/20 10:19	09/22/20 09:25
92495894022	**MW-7**	Water	09/21/20 16:41	09/22/20 09:25
92495894023	**MW-24D**	Water	09/21/20 17:55	09/22/20 09:25
92495894024	**MW-19**	Water	09/21/20 15:18	09/22/20 09:25
92495894025	**MW-28D**	Water	09/21/20 19:28	09/22/20 09:25
92495894026	**MW-30D**	Water	09/24/20 11:00	09/25/20 10:45
92495894027	**FB-01**	Water	09/24/20 18:50	09/25/20 10:45
92495894028	**MW-40D**	Water	09/28/20 15:15	09/29/20 08:55

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92495894001	**HGWA-1**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894002	**HGWA-2**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894003	**HGWA-3**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894004	**HGWC-7**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894005	**HGWC-7 FILTERED**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894006	**HGWC-8**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894007	**HGWC-10**	EPA 6010D	DRB	6

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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894008	**MW-29**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894009	**HGWA-43D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894010	**HGWA-44D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	ALW	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894011	**HGWC-9**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894012	**MW-5**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92495894013	**MW-20**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894014	**MW-26D**	EPA 6010D	DRB	6
		EPA 6020B	CW1, KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894015	**FD-01**	EPA 6010D	DRB	6
		EPA 6020B	CW1, KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894016	**HGWC-11**	EPA 6010D	DRB	6
		EPA 6020B	CW1, KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894017	**HGWC-12**	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894018	**MW-25D**	EPA 6010D	DRB	6
		EPA 6020B	KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894019	**MW-27D**	EPA 6010D	DRB	6

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	KH	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894020	**HGWC-13**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894021	**MW-6**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894022	**MW-7**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894023	**MW-24D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894024	**MW-19**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894025	**MW-28D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92495894026	**MW-30D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894027	**FB-01**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495894028	**MW-40D**	EPA 6010D	DRB	6
		EPA 6020B	CW1	13
		SM 2450C-2011	AW1	1
		SM 2320B-2011	ECH	3
		SM 4500-S2D-2011	NAL	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

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

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894001	**HGWA-1**					
	pH	7.15	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	103	mg/L	1.0	09/23/20 17:49	
EPA 6010D	Iron	0.087	mg/L	0.040	09/23/20 17:49	
EPA 6010D	Magnesium	4.3	mg/L	0.050	09/23/20 17:49	
EPA 6010D	Manganese	0.18	mg/L	0.040	09/23/20 17:49	
EPA 6010D	Potassium	0.34	mg/L	0.20	09/23/20 17:49	B
EPA 6010D	Sodium	21.1	mg/L	1.0	09/23/20 17:49	
EPA 6020B	Barium	0.035	mg/L	0.010	09/23/20 17:15	
EPA 6020B	Boron	0.017J	mg/L	0.10	09/23/20 17:15	
EPA 6020B	Lithium	0.00087J	mg/L	0.030	09/23/20 17:15	
SM 2450C-2011	Total Dissolved Solids	265	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	307	mg/L	5.0	09/24/20 19:36	
SM 2320B-2011	Alkalinity, Total as CaCO3	307	mg/L	5.0	09/24/20 19:36	
EPA 300.0 Rev 2.1 1993	Chloride	13.4	mg/L	1.0	09/18/20 21:31	
EPA 300.0 Rev 2.1 1993	Fluoride	0.082J	mg/L	0.10	09/18/20 21:31	
EPA 300.0 Rev 2.1 1993	Sulfate	47.3	mg/L	1.0	09/18/20 21:31	
92495894002	**HGWA-2**					
	pH	5.22	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	21.1	mg/L	1.0	09/23/20 17:53	
EPA 6010D	Iron	0.78	mg/L	0.040	09/23/20 17:53	
EPA 6010D	Magnesium	2.5	mg/L	0.050	09/23/20 17:53	
EPA 6010D	Manganese	0.61	mg/L	0.040	09/23/20 17:53	
EPA 6010D	Potassium	0.89	mg/L	0.20	09/23/20 17:53	B
EPA 6010D	Sodium	7.4	mg/L	1.0	09/23/20 17:53	
EPA 6020B	Barium	0.12	mg/L	0.010	09/23/20 17:21	
EPA 6020B	Beryllium	0.00013J	mg/L	0.0030	09/23/20 17:21	
EPA 6020B	Boron	0.044J	mg/L	0.10	09/23/20 17:21	
EPA 6020B	Cadmium	0.00012J	mg/L	0.0025	09/23/20 17:21	
EPA 6020B	Cobalt	0.021	mg/L	0.0050	09/23/20 17:21	
EPA 6020B	Lead	0.000080J	mg/L	0.0050	09/23/20 17:21	
EPA 6020B	Lithium	0.0015J	mg/L	0.030	09/23/20 17:21	
SM 2450C-2011	Total Dissolved Solids	124	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	26.1	mg/L	5.0	09/24/20 13:36	
SM 2320B-2011	Alkalinity, Total as CaCO3	26.1	mg/L	5.0	09/24/20 13:36	
EPA 300.0 Rev 2.1 1993	Chloride	5.0	mg/L	1.0	09/18/20 21:46	
EPA 300.0 Rev 2.1 1993	Sulfate	51.5	mg/L	1.0	09/18/20 21:46	
92495894003	**HGWA-3**					
	pH	7.29	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	73.1	mg/L	1.0	09/23/20 17:57	
EPA 6010D	Iron	0.26	mg/L	0.040	09/23/20 17:57	
EPA 6010D	Magnesium	4.6	mg/L	0.050	09/23/20 17:57	
EPA 6010D	Manganese	0.22	mg/L	0.040	09/23/20 17:57	
EPA 6010D	Potassium	0.46	mg/L	0.20	09/23/20 17:57	B
EPA 6010D	Sodium	4.9	mg/L	1.0	09/23/20 17:57	
EPA 6020B	Barium	0.12	mg/L	0.010	09/23/20 17:27	
EPA 6020B	Boron	0.0071J	mg/L	0.10	09/23/20 17:27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894003	**HGWA-3**					
EPA 6020B	Lead	0.000042J	mg/L	0.0050	09/23/20 17:27	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	09/23/20 17:27	
SM 2450C-2011	Total Dissolved Solids	258	mg/L	10.0	09/17/20 15:19	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	187	mg/L	5.0	09/24/20 13:43	
SM 2320B-2011	Alkalinity, Total as CaCO3	187	mg/L	5.0	09/24/20 13:43	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	09/18/20 22:01	
EPA 300.0 Rev 2.1 1993	Sulfate	44.7	mg/L	1.0	09/18/20 22:01	
92495894004	**HGWC-7**					
	pH	7.30	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	98.0	mg/L	1.0	09/24/20 20:39	M1
EPA 6010D	Iron	0.30	mg/L	0.040	09/24/20 20:39	
EPA 6010D	Magnesium	8.9	mg/L	0.050	09/24/20 20:39	M1
EPA 6010D	Manganese	0.15	mg/L	0.040	09/24/20 20:39	
EPA 6010D	Potassium	2.3	mg/L	0.20	09/24/20 20:39	
EPA 6010D	Sodium	8.7	mg/L	1.0	09/24/20 20:39	M1
EPA 6020B	Antimony	0.00034J	mg/L	0.0030	09/23/20 19:13	
EPA 6020B	Barium	0.068	mg/L	0.010	09/23/20 19:13	
EPA 6020B	Boron	1.1	mg/L	0.10	09/23/20 19:13	
EPA 6020B	Chromium	0.00074J	mg/L	0.010	09/23/20 19:13	
EPA 6020B	Cobalt	0.00065J	mg/L	0.0050	09/23/20 19:13	
EPA 6020B	Lead	0.00020J	mg/L	0.0050	09/23/20 19:13	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	09/23/20 19:13	
EPA 6020B	Molybdenum	0.046	mg/L	0.010	09/23/20 19:13	
SM 2450C-2011	Total Dissolved Solids	392	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	177	mg/L	5.0	09/24/20 16:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	177	mg/L	5.0	09/24/20 16:19	
EPA 300.0 Rev 2.1 1993	Chloride	46.4	mg/L	1.0	09/19/20 22:06	
EPA 300.0 Rev 2.1 1993	Fluoride	0.081J	mg/L	0.10	09/19/20 22:06	
EPA 300.0 Rev 2.1 1993	Sulfate	109	mg/L	2.0	09/20/20 07:28	
92495894005	**HGWC-7 FILTERED**					
	pH	7.30	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	105	mg/L	1.0	09/24/20 20:57	M1
EPA 6010D	Iron	0.019J	mg/L	0.040	09/24/20 20:57	
EPA 6010D	Magnesium	9.5	mg/L	0.050	09/24/20 20:57	M1
EPA 6010D	Manganese	0.16	mg/L	0.040	09/24/20 20:57	
EPA 6010D	Potassium	2.4	mg/L	0.20	09/24/20 20:57	M1
EPA 6010D	Sodium	9.4	mg/L	1.0	09/24/20 20:57	M1
EPA 6020B	Barium	0.069	mg/L	0.010	09/23/20 19:19	
EPA 6020B	Boron	1.1	mg/L	0.10	09/23/20 19:19	
EPA 6020B	Cobalt	0.00051J	mg/L	0.0050	09/23/20 19:19	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	09/23/20 19:19	
EPA 6020B	Molybdenum	0.048	mg/L	0.010	09/23/20 19:19	
SM 2450C-2011	Total Dissolved Solids	399	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	177	mg/L	5.0	09/24/20 16:31	
SM 2320B-2011	Alkalinity, Total as CaCO3	177	mg/L	5.0	09/24/20 16:31	
EPA 300.0 Rev 2.1 1993	Chloride	46.4	mg/L	1.0	09/19/20 22:21	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894005	**HGWC-7 FILTERED**					
EPA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	09/19/20 22:21	
EPA 300.0 Rev 2.1 1993	Sulfate	109	mg/L	2.0	09/20/20 07:43	
92495894006	**HGWC-8**					
	pH	6.92	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	119	mg/L	1.0	09/24/20 21:01	
EPA 6010D	Iron	0.30	mg/L	0.040	09/24/20 21:01	
EPA 6010D	Magnesium	16.4	mg/L	0.050	09/24/20 21:01	
EPA 6010D	Manganese	0.22	mg/L	0.040	09/24/20 21:01	
EPA 6010D	Potassium	7.1	mg/L	0.20	09/24/20 21:01	
EPA 6010D	Sodium	8.5	mg/L	1.0	09/24/20 21:01	
EPA 6020B	Barium	0.060	mg/L	0.010	09/23/20 19:25	
EPA 6020B	Beryllium	0.00010J	mg/L	0.0030	09/23/20 19:25	
EPA 6020B	Boron	1.9	mg/L	0.10	09/23/20 19:25	
EPA 6020B	Cadmium	0.00023J	mg/L	0.0025	09/23/20 19:25	
EPA 6020B	Chromium	0.0015J	mg/L	0.010	09/23/20 19:25	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	09/23/20 19:25	
EPA 6020B	Lead	0.00020J	mg/L	0.0050	09/23/20 19:25	
EPA 6020B	Lithium	0.0033J	mg/L	0.030	09/23/20 19:25	
EPA 6020B	Molybdenum	0.43	mg/L	0.010	09/23/20 19:25	
SM 2450C-2011	Total Dissolved Solids	552	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	133	mg/L	5.0	09/24/20 16:42	
SM 2320B-2011	Alkalinity, Total as CaCO3	133	mg/L	5.0	09/24/20 16:42	
EPA 300.0 Rev 2.1 1993	Chloride	74.6	mg/L	1.0	09/19/20 22:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.53	mg/L	0.10	09/19/20 22:36	
EPA 300.0 Rev 2.1 1993	Sulfate	194	mg/L	4.0	09/20/20 07:58	
92495894007	**HGWC-10**					
	pH	6.66	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	139	mg/L	1.0	09/24/20 21:06	
EPA 6010D	Magnesium	10.8	mg/L	0.050	09/24/20 21:06	
EPA 6010D	Manganese	1.3	mg/L	0.040	09/24/20 21:06	
EPA 6010D	Potassium	1.3	mg/L	0.20	09/24/20 21:06	
EPA 6010D	Sodium	8.9	mg/L	1.0	09/24/20 21:06	
EPA 6020B	Barium	0.068	mg/L	0.010	09/23/20 19:42	
EPA 6020B	Boron	1.1	mg/L	1.0	09/24/20 13:51	
EPA 6020B	Molybdenum	0.0014J	mg/L	0.010	09/23/20 19:42	
SM 2450C-2011	Total Dissolved Solids	490	mg/L	10.0	09/18/20 10:00	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	247	mg/L	5.0	09/28/20 15:50	
SM 2320B-2011	Alkalinity, Total as CaCO3	247	mg/L	5.0	09/28/20 15:50	
EPA 300.0 Rev 2.1 1993	Chloride	39.7	mg/L	1.0	09/20/20 01:05	
EPA 300.0 Rev 2.1 1993	Sulfate	169	mg/L	4.0	09/20/20 08:12	
92495894008	**MW-29**					
	pH	6.88	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	126	mg/L	1.0	09/24/20 21:10	
EPA 6010D	Iron	0.035J	mg/L	0.040	09/24/20 21:10	
EPA 6010D	Magnesium	11.4	mg/L	0.050	09/24/20 21:10	
EPA 6010D	Manganese	1.2	mg/L	0.040	09/24/20 21:10	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894008	**MW-29**					
EPA 6010D	Potassium	0.94	mg/L	0.20	09/24/20 21:10	
EPA 6010D	Sodium	10.9	mg/L	1.0	09/24/20 21:10	
EPA 6020B	Barium	0.076	mg/L	0.010	09/23/20 19:47	
EPA 6020B	Boron	1.7	mg/L	1.0	09/24/20 13:57	
EPA 6020B	Cobalt	0.0013J	mg/L	0.0050	09/23/20 19:47	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	09/23/20 19:47	
EPA 6020B	Molybdenum	0.0021J	mg/L	0.010	09/23/20 19:47	
SM 2450C-2011	Total Dissolved Solids	547	mg/L	10.0	09/18/20 10:01	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	194	mg/L	5.0	09/24/20 17:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	194	mg/L	5.0	09/24/20 17:02	
EPA 300.0 Rev 2.1 1993	Chloride	75.3	mg/L	1.0	09/20/20 01:20	
EPA 300.0 Rev 2.1 1993	Sulfate	143	mg/L	3.0	09/20/20 08:27	
92495894009	**HGWA-43D**					
	pH	7.52	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	56.0	mg/L	1.0	09/23/20 18:49	
EPA 6010D	Iron	0.020J	mg/L	0.040	09/23/20 18:49	
EPA 6010D	Magnesium	18.3	mg/L	0.050	09/23/20 18:49	
EPA 6010D	Manganese	0.010J	mg/L	0.040	09/23/20 18:49	
EPA 6010D	Potassium	0.97	mg/L	0.20	09/23/20 18:49	B
EPA 6010D	Sodium	14.0	mg/L	1.0	09/23/20 18:49	
EPA 6020B	Antimony	0.00051J	mg/L	0.0030	09/23/20 18:54	
EPA 6020B	Barium	0.26	mg/L	0.010	09/23/20 18:54	
EPA 6020B	Boron	0.061J	mg/L	0.10	09/23/20 18:54	
EPA 6020B	Lead	0.000050J	mg/L	0.0050	09/23/20 18:54	
EPA 6020B	Lithium	0.0018J	mg/L	0.030	09/23/20 18:54	
EPA 6020B	Molybdenum	0.0044J	mg/L	0.010	09/23/20 18:54	
SM 2450C-2011	Total Dissolved Solids	272	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	251	mg/L	5.0	09/28/20 15:11	
SM 2320B-2011	Alkalinity, Total as CaCO3	251	mg/L	5.0	09/28/20 15:11	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	09/19/20 21:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	09/19/20 21:36	
EPA 300.0 Rev 2.1 1993	Sulfate	43.0	mg/L	1.0	09/19/20 21:36	
92495894010	**HGWA-44D**					
	pH	7.83	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	30.0	mg/L	1.0	09/23/20 18:53	
EPA 6010D	Iron	0.42	mg/L	0.040	09/23/20 18:53	
EPA 6010D	Magnesium	15.1	mg/L	0.050	09/23/20 18:53	
EPA 6010D	Manganese	0.020J	mg/L	0.040	09/23/20 18:53	
EPA 6010D	Potassium	3.2	mg/L	0.20	09/23/20 18:53	
EPA 6010D	Sodium	50.3	mg/L	1.0	09/23/20 18:53	
EPA 6020B	Antimony	0.00049J	mg/L	0.0030	09/23/20 19:00	
EPA 6020B	Barium	0.24	mg/L	0.010	09/23/20 19:00	
EPA 6020B	Boron	0.23	mg/L	0.10	09/23/20 19:00	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	09/23/20 19:00	
EPA 6020B	Lead	0.00021J	mg/L	0.0050	09/23/20 19:00	
EPA 6020B	Lithium	0.014J	mg/L	0.030	09/23/20 19:00	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894010	**HGWA-44D**					
EPA 6020B	Molybdenum	0.0019J	mg/L	0.010	09/23/20 19:00	
SM 2450C-2011	Total Dissolved Solids	270	mg/L	10.0	09/17/20 15:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	294	mg/L	5.0	09/28/20 15:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	294	mg/L	5.0	09/28/20 15:19	
SM 4500-S2D-2011	Sulfide	0.11	mg/L	0.10	09/22/20 14:17	
EPA 300.0 Rev 2.1 1993	Chloride	7.2	mg/L	1.0	09/19/20 21:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.52	mg/L	0.10	09/19/20 21:51	
EPA 300.0 Rev 2.1 1993	Sulfate	6.9	mg/L	1.0	09/19/20 21:51	
92495894011	**HGWC-9**					
	pH	6.99	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	164	mg/L	1.0	09/24/20 21:23	
EPA 6010D	Iron	0.19	mg/L	0.040	09/24/20 21:23	
EPA 6010D	Magnesium	16.6	mg/L	0.050	09/24/20 21:23	
EPA 6010D	Manganese	0.42	mg/L	0.040	09/24/20 21:23	
EPA 6010D	Potassium	3.0	mg/L	0.20	09/24/20 21:23	
EPA 6010D	Sodium	11.3	mg/L	1.0	09/24/20 21:23	
EPA 6020B	Barium	0.11	mg/L	0.010	09/28/20 18:26	
EPA 6020B	Boron	2.0	mg/L	1.0	09/30/20 11:07	
EPA 6020B	Cobalt	0.00070J	mg/L	0.0050	09/28/20 18:26	
EPA 6020B	Lead	0.00022J	mg/L	0.0050	09/28/20 18:26	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	09/28/20 18:26	
EPA 6020B	Molybdenum	0.030	mg/L	0.010	09/28/20 18:26	
SM 2450C-2011	Total Dissolved Solids	680	mg/L	20.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	194	mg/L	5.0	09/24/20 19:13	
SM 2320B-2011	Alkalinity, Total as CaCO3	194	mg/L	5.0	09/24/20 19:13	
EPA 300.0 Rev 2.1 1993	Chloride	105	mg/L	4.0	09/22/20 15:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/22/20 08:02	
EPA 300.0 Rev 2.1 1993	Sulfate	209	mg/L	4.0	09/22/20 15:28	
92495894012	**MW-5**					
	pH	6.48	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	103	mg/L	1.0	09/24/20 21:28	
EPA 6010D	Magnesium	11.6	mg/L	0.050	09/24/20 21:28	
EPA 6010D	Manganese	0.0019J	mg/L	0.040	09/24/20 21:28	
EPA 6010D	Potassium	0.85	mg/L	0.20	09/24/20 21:28	
EPA 6010D	Sodium	18.1	mg/L	1.0	09/24/20 21:28	
EPA 6020B	Barium	0.043	mg/L	0.010	09/28/20 18:32	
EPA 6020B	Boron	0.067J	mg/L	0.10	09/28/20 18:32	
EPA 6020B	Chromium	0.0021J	mg/L	0.010	09/28/20 18:32	
EPA 6020B	Selenium	0.0028J	mg/L	0.010	09/28/20 18:32	
SM 2450C-2011	Total Dissolved Solids	486	mg/L	10.0	09/22/20 14:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	179	mg/L	5.0	09/24/20 19:25	
SM 2320B-2011	Alkalinity, Total as CaCO3	179	mg/L	5.0	09/24/20 19:25	
EPA 300.0 Rev 2.1 1993	Chloride	28.7	mg/L	1.0	09/22/20 08:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.094J	mg/L	0.10	09/22/20 08:47	
EPA 300.0 Rev 2.1 1993	Sulfate	153	mg/L	3.0	09/22/20 16:12	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894013	**MW-20**					
	pH	6.78	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	110	mg/L	1.0	09/24/20 21:32	
EPA 6010D	Iron	2.8	mg/L	0.040	09/24/20 21:32	
EPA 6010D	Magnesium	8.5	mg/L	0.050	09/24/20 21:32	
EPA 6010D	Manganese	0.24	mg/L	0.040	09/24/20 21:32	
EPA 6010D	Potassium	0.22	mg/L	0.20	09/24/20 21:32	
EPA 6010D	Sodium	10.3	mg/L	1.0	09/24/20 21:32	
EPA 6020B	Barium	0.096	mg/L	0.010	09/28/20 18:38	
EPA 6020B	Boron	0.11	mg/L	0.10	09/28/20 18:38	
SM 2450C-2011	Total Dissolved Solids	460	mg/L	10.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	231	mg/L	5.0	09/30/20 11:48	
SM 2320B-2011	Alkalinity, Total as CaCO3	231	mg/L	5.0	09/30/20 11:48	
EPA 300.0 Rev 2.1 1993	Chloride	29.7	mg/L	1.0	09/22/20 09:02	
EPA 300.0 Rev 2.1 1993	Sulfate	110	mg/L	2.0	09/22/20 16:57	
92495894014	**MW-26D**					
	pH	7.08	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	150	mg/L	1.0	09/24/20 21:36	
EPA 6010D	Iron	0.29	mg/L	0.040	09/24/20 21:36	
EPA 6010D	Magnesium	16.9	mg/L	0.050	09/24/20 21:36	
EPA 6010D	Manganese	0.16	mg/L	0.040	09/24/20 21:36	
EPA 6010D	Potassium	1.8	mg/L	0.20	09/24/20 21:36	
EPA 6010D	Sodium	11.9	mg/L	1.0	09/24/20 21:36	
EPA 6020B	Barium	0.099	mg/L	0.010	09/25/20 18:36	
EPA 6020B	Boron	2.0	mg/L	0.10	09/29/20 16:39	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	09/25/20 18:36	
EPA 6020B	Molybdenum	0.014	mg/L	0.010	09/25/20 18:36	
SM 2450C-2011	Total Dissolved Solids	732	mg/L	20.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	187	mg/L	5.0	09/30/20 12:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	187	mg/L	5.0	09/30/20 12:19	
EPA 300.0 Rev 2.1 1993	Chloride	103	mg/L	4.0	09/22/20 17:12	
EPA 300.0 Rev 2.1 1993	Fluoride	0.069J	mg/L	0.10	09/22/20 09:17	
EPA 300.0 Rev 2.1 1993	Sulfate	174	mg/L	4.0	09/22/20 17:12	
92495894015	**FD-01**					
EPA 6010D	Calcium	148	mg/L	1.0	09/24/20 21:41	
EPA 6010D	Iron	0.22	mg/L	0.040	09/24/20 21:41	
EPA 6010D	Magnesium	15.6	mg/L	0.050	09/24/20 21:41	
EPA 6010D	Manganese	0.16	mg/L	0.040	09/24/20 21:41	
EPA 6010D	Potassium	1.8	mg/L	0.20	09/24/20 21:41	
EPA 6010D	Sodium	11.5	mg/L	1.0	09/24/20 21:41	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	09/25/20 18:59	
EPA 6020B	Barium	0.099	mg/L	0.010	09/25/20 18:59	
EPA 6020B	Boron	2.1	mg/L	0.10	09/29/20 16:56	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	09/25/20 18:59	
EPA 6020B	Molybdenum	0.016	mg/L	0.010	09/25/20 18:59	
SM 2450C-2011	Total Dissolved Solids	702	mg/L	20.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	185	mg/L	5.0	09/30/20 12:30	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894015	**FD-01**					
SM 2320B-2011	Alkalinity, Total as CaCO3	185	mg/L	5.0	09/30/20 12:30	
EPA 300.0 Rev 2.1 1993	Chloride	104	mg/L	4.0	09/22/20 17:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.10	09/22/20 09:32	
EPA 300.0 Rev 2.1 1993	Sulfate	181	mg/L	4.0	09/22/20 17:26	
92495894016	**HGWC-11**					
	pH	6.42	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	122	mg/L	1.0	09/24/20 21:45	
EPA 6010D	Magnesium	16.2	mg/L	0.050	09/24/20 21:45	
EPA 6010D	Manganese	0.017J	mg/L	0.040	09/24/20 21:45	
EPA 6010D	Potassium	3.7	mg/L	0.20	09/24/20 21:45	
EPA 6010D	Sodium	5.5	mg/L	1.0	09/24/20 21:45	
EPA 6020B	Antimony	0.00038J	mg/L	0.0030	09/25/20 19:04	
EPA 6020B	Arsenic	0.00081J	mg/L	0.0050	09/25/20 19:04	
EPA 6020B	Barium	0.043	mg/L	0.010	09/25/20 19:04	
EPA 6020B	Boron	0.91	mg/L	0.10	09/29/20 17:02	
EPA 6020B	Lead	0.000060J	mg/L	0.0050	09/25/20 19:04	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	09/25/20 19:04	
EPA 6020B	Selenium	0.0042J	mg/L	0.010	09/25/20 19:04	
SM 2450C-2011	Total Dissolved Solids	626	mg/L	10.0	09/22/20 14:23	MW
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	91.6	mg/L	5.0	09/30/20 13:28	
SM 2320B-2011	Alkalinity, Total as CaCO3	91.6	mg/L	5.0	09/30/20 13:28	
EPA 300.0 Rev 2.1 1993	Chloride	34.9	mg/L	1.0	09/24/20 08:39	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	09/24/20 08:39	
EPA 300.0 Rev 2.1 1993	Sulfate	272	mg/L	4.0	09/24/20 21:54	
92495894017	**HGWC-12**					
	pH	7.15	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	163	mg/L	1.0	09/24/20 21:58	
EPA 6010D	Iron	0.083	mg/L	0.040	09/24/20 21:58	
EPA 6010D	Magnesium	17.3	mg/L	0.050	09/24/20 21:58	
EPA 6010D	Manganese	2.0	mg/L	0.040	09/24/20 21:58	
EPA 6010D	Potassium	7.2	mg/L	0.20	09/24/20 21:58	
EPA 6010D	Sodium	9.4	mg/L	1.0	09/24/20 21:58	
EPA 6020B	Arsenic	0.0031J	mg/L	0.0050	09/25/20 19:10	
EPA 6020B	Barium	0.086	mg/L	0.010	09/25/20 19:10	
EPA 6020B	Boron	1.6	mg/L	0.10	09/25/20 19:10	
EPA 6020B	Chromium	0.00091J	mg/L	0.010	09/25/20 19:10	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	09/25/20 19:10	
EPA 6020B	Lead	0.000096J	mg/L	0.0050	09/25/20 19:10	
EPA 6020B	Lithium	0.010J	mg/L	0.030	09/25/20 19:10	
EPA 6020B	Molybdenum	0.046	mg/L	0.010	09/25/20 19:10	
SM 2450C-2011	Total Dissolved Solids	704	mg/L	20.0	09/22/20 14:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	172	mg/L	5.0	09/30/20 13:37	
SM 2320B-2011	Alkalinity, Total as CaCO3	172	mg/L	5.0	09/30/20 13:37	
EPA 300.0 Rev 2.1 1993	Chloride	74.6	mg/L	1.0	09/24/20 08:53	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	09/24/20 08:53	
EPA 300.0 Rev 2.1 1993	Sulfate	266	mg/L	4.0	09/25/20 10:16	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894018	**MW-25D**					
	pH	7.64	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	25.1	mg/L	1.0	09/24/20 22:03	
EPA 6010D	Iron	0.088	mg/L	0.040	09/24/20 22:03	
EPA 6010D	Magnesium	8.3	mg/L	0.050	09/24/20 22:03	
EPA 6010D	Manganese	0.040J	mg/L	0.040	09/24/20 22:03	
EPA 6010D	Potassium	0.42	mg/L	0.20	09/24/20 22:03	
EPA 6010D	Sodium	103	mg/L	1.0	09/24/20 22:03	
EPA 6020B	Barium	0.44	mg/L	0.010	09/25/20 19:27	
EPA 6020B	Boron	0.36	mg/L	0.10	09/25/20 19:27	
EPA 6020B	Lithium	0.046	mg/L	0.030	09/25/20 19:27	
EPA 6020B	Molybdenum	0.00094J	mg/L	0.010	09/25/20 19:27	
SM 2450C-2011	Total Dissolved Solids	382	mg/L	10.0	09/23/20 13:15	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	288	mg/L	5.0	09/30/20 20:37	
SM 2320B-2011	Alkalinity, Total as CaCO3	288	mg/L	5.0	09/30/20 20:37	
SM 4500-S2D-2011	Sulfide	2.9	mg/L	1.0	09/22/20 15:14	
EPA 300.0 Rev 2.1 1993	Chloride	33.4	mg/L	1.0	09/24/20 09:08	
EPA 300.0 Rev 2.1 1993	Fluoride	1.6	mg/L	0.10	09/24/20 09:08	
EPA 300.0 Rev 2.1 1993	Sulfate	27.4	mg/L	1.0	09/24/20 09:08	
92495894019	**MW-27D**					
	pH	7.51	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	24.8	mg/L	1.0	09/25/20 20:10	
EPA 6010D	Iron	0.15	mg/L	0.040	09/25/20 20:10	
EPA 6010D	Magnesium	17.0	mg/L	0.050	09/25/20 20:10	
EPA 6010D	Manganese	0.13	mg/L	0.040	09/25/20 20:10	
EPA 6010D	Potassium	0.95	mg/L	0.20	09/25/20 20:10	
EPA 6010D	Sodium	27.3	mg/L	1.0	09/25/20 20:10	
EPA 6020B	Antimony	0.00031J	mg/L	0.0030	09/25/20 19:33	
EPA 6020B	Barium	1.0	mg/L	0.010	09/25/20 19:33	
EPA 6020B	Boron	0.12	mg/L	0.10	09/25/20 19:33	
EPA 6020B	Chromium	0.00070J	mg/L	0.010	09/25/20 19:33	
EPA 6020B	Lithium	0.0084J	mg/L	0.030	09/25/20 19:33	
EPA 6020B	Molybdenum	0.0018J	mg/L	0.010	09/25/20 19:33	
SM 2450C-2011	Total Dissolved Solids	211	mg/L	10.0	09/23/20 13:16	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	169	mg/L	5.0	09/30/20 14:16	
SM 2320B-2011	Alkalinity, Total as CaCO3	169	mg/L	5.0	09/30/20 14:16	
EPA 300.0 Rev 2.1 1993	Chloride	30.4	mg/L	1.0	09/24/20 09:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	09/24/20 09:51	
EPA 300.0 Rev 2.1 1993	Sulfate	7.5	mg/L	1.0	09/24/20 09:51	
92495894020	**HGWC-13**					
	pH	7.34	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	173	mg/L	1.0	09/25/20 20:27	
EPA 6010D	Iron	0.87	mg/L	0.040	09/25/20 20:27	
EPA 6010D	Magnesium	15.6	mg/L	0.050	09/25/20 20:27	
EPA 6010D	Manganese	2.1	mg/L	0.040	09/25/20 20:27	
EPA 6010D	Potassium	4.6	mg/L	0.20	09/25/20 20:27	
EPA 6010D	Sodium	6.4	mg/L	1.0	09/25/20 20:27	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894020	**HGWC-13**					
EPA 6020B	Antimony	0.00029J	mg/L	0.0030	09/30/20 17:37	
EPA 6020B	Arsenic	0.39	mg/L	0.0050	09/30/20 17:37	
EPA 6020B	Barium	0.052	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Beryllium	0.00011J	mg/L	0.0030	09/30/20 17:37	
EPA 6020B	Boron	1.6	mg/L	0.10	09/30/20 17:37	
EPA 6020B	Chromium	0.00056J	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Cobalt	0.0032J	mg/L	0.0050	09/30/20 17:37	
EPA 6020B	Lead	0.00015J	mg/L	0.0050	09/30/20 17:37	
EPA 6020B	Lithium	0.028J	mg/L	0.030	09/30/20 17:37	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Selenium	0.0016J	mg/L	0.010	09/30/20 17:37	
EPA 6020B	Thallium	0.00036J	mg/L	0.0010	09/30/20 17:37	
SM 2450C-2011	Total Dissolved Solids	732	mg/L	20.0	09/23/20 13:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	114	mg/L	5.0	09/30/20 14:57	
SM 2320B-2011	Alkalinity, Total as CaCO3	114	mg/L	5.0	09/30/20 14:57	
EPA 300.0 Rev 2.1 1993	Chloride	41.2	mg/L	1.0	09/24/20 16:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.44	mg/L	0.10	09/24/20 16:36	
EPA 300.0 Rev 2.1 1993	Sulfate	359	mg/L	5.0	09/25/20 10:45	
92495894021	**MW-6**					
	pH	6.88	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	173	mg/L	1.0	09/25/20 20:31	
EPA 6010D	Iron	0.49	mg/L	0.040	09/25/20 20:31	
EPA 6010D	Magnesium	13.5	mg/L	0.050	09/25/20 20:31	
EPA 6010D	Manganese	0.50	mg/L	0.040	09/25/20 20:31	
EPA 6010D	Potassium	1.4	mg/L	0.20	09/25/20 20:31	
EPA 6010D	Sodium	12.6	mg/L	1.0	09/25/20 20:31	
EPA 6020B	Antimony	0.0014J	mg/L	0.0030	09/30/20 18:00	
EPA 6020B	Barium	0.083	mg/L	0.010	09/30/20 18:00	
EPA 6020B	Boron	0.82	mg/L	0.10	09/30/20 18:00	
EPA 6020B	Cobalt	0.00041J	mg/L	0.0050	09/30/20 18:00	
EPA 6020B	Lead	0.00026J	mg/L	0.0050	09/30/20 18:00	
EPA 6020B	Molybdenum	0.0025J	mg/L	0.010	09/30/20 18:00	
SM 2450C-2011	Total Dissolved Solids	656	mg/L	20.0	09/23/20 13:18	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	273	mg/L	5.0	09/30/20 20:54	
SM 2320B-2011	Alkalinity, Total as CaCO3	273	mg/L	5.0	09/30/20 20:54	
EPA 300.0 Rev 2.1 1993	Chloride	58.1	mg/L	1.0	09/24/20 16:50	
EPA 300.0 Rev 2.1 1993	Sulfate	221	mg/L	3.0	09/25/20 10:59	
92495894022	**MW-7**					
	pH	6.50	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	75.3	mg/L	1.0	09/25/20 20:58	M1
EPA 6010D	Magnesium	8.6	mg/L	0.050	09/25/20 20:58	M1
EPA 6010D	Manganese	0.0077J	mg/L	0.040	09/25/20 20:58	
EPA 6010D	Potassium	0.91	mg/L	0.20	09/25/20 20:58	B
EPA 6010D	Sodium	8.4	mg/L	1.0	09/25/20 20:58	M1
EPA 6020B	Antimony	0.00051J	mg/L	0.0030	09/30/20 18:06	
EPA 6020B	Barium	0.065	mg/L	0.010	09/30/20 18:06	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894022	**MW-7**					
EPA 6020B	Boron	0.20	mg/L	0.10	09/30/20 18:06	
EPA 6020B	Chromium	0.0017J	mg/L	0.010	09/30/20 18:06	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	09/30/20 18:06	
EPA 6020B	Selenium	0.0026J	mg/L	0.010	09/30/20 18:06	
SM 2450C-2011	Total Dissolved Solids	326	mg/L	10.0	09/24/20 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	128	mg/L	5.0	09/30/20 15:16	
SM 2320B-2011	Alkalinity, Total as CaCO3	128	mg/L	5.0	09/30/20 15:16	
EPA 300.0 Rev 2.1 1993	Chloride	11.1	mg/L	1.0	09/24/20 17:05	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	09/25/20 11:14	
92495894023	**MW-24D**					
	pH	7.65	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	87.6	mg/L	1.0	09/25/20 21:15	
EPA 6010D	Iron	0.076	mg/L	0.040	09/25/20 21:15	
EPA 6010D	Magnesium	4.9	mg/L	0.050	09/25/20 21:15	
EPA 6010D	Manganese	0.13	mg/L	0.040	09/25/20 21:15	
EPA 6010D	Potassium	0.50	mg/L	0.20	09/25/20 21:15	B
EPA 6010D	Sodium	12.0	mg/L	1.0	09/25/20 21:15	
EPA 6020B	Barium	0.053	mg/L	0.010	09/30/20 18:12	
EPA 6020B	Boron	0.45	mg/L	0.10	09/30/20 18:12	
EPA 6020B	Lead	0.000042J	mg/L	0.0050	09/30/20 18:12	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	09/30/20 18:12	
EPA 6020B	Molybdenum	0.00099J	mg/L	0.010	09/30/20 18:12	
SM 2450C-2011	Total Dissolved Solids	391	mg/L	10.0	09/24/20 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	105	mg/L	5.0	09/30/20 15:25	
SM 2320B-2011	Alkalinity, Total as CaCO3	105	mg/L	5.0	09/30/20 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	45.2	mg/L	1.0	09/24/20 17:19	
EPA 300.0 Rev 2.1 1993	Sulfate	114	mg/L	2.0	09/25/20 11:29	
92495894024	**MW-19**					
	pH	6.41	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	135	mg/L	1.0	09/25/20 21:28	
EPA 6010D	Iron	0.16	mg/L	0.040	09/25/20 21:28	
EPA 6010D	Magnesium	15.5	mg/L	0.050	09/25/20 21:28	
EPA 6010D	Manganese	3.3	mg/L	0.040	09/25/20 21:28	
EPA 6010D	Potassium	4.2	mg/L	0.20	09/25/20 21:28	
EPA 6010D	Sodium	6.7	mg/L	1.0	09/25/20 21:28	
EPA 6020B	Barium	0.056	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Boron	0.89	mg/L	0.10	09/30/20 18:17	
EPA 6020B	Cadmium	0.00018J	mg/L	0.0025	09/30/20 18:17	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Cobalt	0.032	mg/L	0.0050	09/30/20 18:17	
EPA 6020B	Lead	0.000085J	mg/L	0.0050	09/30/20 18:17	
EPA 6020B	Lithium	0.013J	mg/L	0.030	09/30/20 18:17	
EPA 6020B	Molybdenum	0.064	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Selenium	0.0033J	mg/L	0.010	09/30/20 18:17	
EPA 6020B	Thallium	0.00030J	mg/L	0.0010	09/30/20 18:17	
SM 2450C-2011	Total Dissolved Solids	608	mg/L	20.0	09/24/20 10:27	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894024	**MW-19**					
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	89.9	mg/L	5.0	10/01/20 16:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	89.9	mg/L	5.0	10/01/20 16:02	
EPA 300.0 Rev 2.1 1993	Chloride	35.0	mg/L	1.0	09/24/20 17:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	09/24/20 17:33	
EPA 300.0 Rev 2.1 1993	Sulfate	305	mg/L	4.0	09/25/20 11:43	
92495894025	**MW-28D**					
	pH	7.46	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	76.8	mg/L	1.0	09/25/20 21:32	
EPA 6010D	Iron	0.30	mg/L	0.040	09/25/20 21:32	
EPA 6010D	Magnesium	22.9	mg/L	0.050	09/25/20 21:32	
EPA 6010D	Manganese	0.034J	mg/L	0.040	09/25/20 21:32	
EPA 6010D	Potassium	1.0	mg/L	0.20	09/25/20 21:32	B
EPA 6010D	Sodium	9.8	mg/L	1.0	09/25/20 21:32	
EPA 6020B	Barium	0.18	mg/L	0.010	09/30/20 18:34	
EPA 6020B	Boron	0.45	mg/L	0.10	09/30/20 18:34	
EPA 6020B	Chromium	0.00085J	mg/L	0.010	09/30/20 18:34	
EPA 6020B	Lead	0.00018J	mg/L	0.0050	09/30/20 18:34	
EPA 6020B	Lithium	0.0053J	mg/L	0.030	09/30/20 18:34	
EPA 6020B	Molybdenum	0.018	mg/L	0.010	09/30/20 18:34	
SM 2450C-2011	Total Dissolved Solids	393	mg/L	10.0	09/24/20 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	184	mg/L	5.0	10/01/20 16:10	
SM 2320B-2011	Alkalinity, Total as CaCO3	184	mg/L	5.0	10/01/20 16:10	
SM 4500-S2D-2011	Sulfide	0.30	mg/L	0.10	09/24/20 11:45	
EPA 300.0 Rev 2.1 1993	Chloride	42.9	mg/L	1.0	09/24/20 17:48	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/24/20 17:48	
EPA 300.0 Rev 2.1 1993	Sulfate	84.2	mg/L	1.0	09/24/20 17:48	
92495894026	**MW-30D**					
	Performed by	CUSTOMER			09/29/20 12:27	
	pH	8.72	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	6.3	mg/L	1.0	10/05/20 20:25	
EPA 6010D	Iron	0.092	mg/L	0.040	10/05/20 20:25	
EPA 6010D	Magnesium	1.5	mg/L	0.050	10/05/20 20:25	
EPA 6010D	Manganese	0.0040J	mg/L	0.040	10/05/20 20:25	
EPA 6010D	Potassium	1.5	mg/L	0.20	10/05/20 20:25	
EPA 6010D	Sodium	296	mg/L	1.0	10/05/20 20:25	
EPA 6020B	Arsenic	0.0017J	mg/L	0.0050	10/05/20 20:23	
EPA 6020B	Barium	0.11	mg/L	0.010	10/05/20 20:23	
EPA 6020B	Boron	0.62	mg/L	0.50	10/07/20 11:52	
EPA 6020B	Chromium	0.00065J	mg/L	0.010	10/05/20 20:23	
EPA 6020B	Lead	0.000068J	mg/L	0.0050	10/05/20 20:23	
EPA 6020B	Lithium	0.13	mg/L	0.030	10/05/20 20:23	
EPA 6020B	Molybdenum	0.011	mg/L	0.010	10/05/20 20:23	
SM 2450C-2011	Total Dissolved Solids	790	mg/L	20.0	09/30/20 09:28	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	437	mg/L	5.0	10/08/20 15:01	
SM 2320B-2011	Alkalinity,Carbonate (CaCO3)	5.8	mg/L	5.0	10/08/20 15:01	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92495894026	**MW-30D**					
SM 2320B-2011	Alkalinity, Total as CaCO3	442	mg/L	5.0	10/08/20 15:01	
SM 4500-S2D-2011	Sulfide	0.58	mg/L	0.10	09/29/20 13:40	
EPA 300.0 Rev 2.1 1993	Chloride	45.4	mg/L	1.0	09/29/20 13:56	
EPA 300.0 Rev 2.1 1993	Fluoride	8.2	mg/L	0.40	09/29/20 19:15	
EPA 300.0 Rev 2.1 1993	Sulfate	205	mg/L	4.0	09/29/20 19:15	
92495894027	**FB-01**					
EPA 6020B	Boron	0.0064J	mg/L	0.10	10/05/20 20:29	
92495894028	**MW-40D**					
	Performed by	CUSTOMER			09/29/20 13:37	
	pH	7.69	Std. Units		09/29/20 13:37	
EPA 6010D	Calcium	289	mg/L	10.0	10/06/20 16:28	
EPA 6010D	Iron	9.6	mg/L	0.040	10/05/20 20:43	
EPA 6010D	Magnesium	58.2	mg/L	0.050	10/05/20 20:43	
EPA 6010D	Manganese	0.36	mg/L	0.040	10/05/20 20:43	
EPA 6010D	Potassium	19.6	mg/L	0.20	10/05/20 20:43	
EPA 6010D	Sodium	1960	mg/L	10.0	10/06/20 16:28	
EPA 6020B	Antimony	0.0015J	mg/L	0.015	10/07/20 11:58	D3
EPA 6020B	Arsenic	0.0063J	mg/L	0.025	10/07/20 11:58	D3
EPA 6020B	Barium	0.35	mg/L	0.050	10/07/20 11:58	
EPA 6020B	Beryllium	0.00049J	mg/L	0.015	10/07/20 11:58	D3
EPA 6020B	Boron	0.57	mg/L	0.50	10/07/20 11:58	
EPA 6020B	Chromium	0.0080J	mg/L	0.050	10/07/20 11:58	D3
EPA 6020B	Cobalt	0.0037J	mg/L	0.025	10/07/20 11:58	D3
EPA 6020B	Lead	0.0075J	mg/L	0.025	10/07/20 11:58	D3
EPA 6020B	Lithium	0.095J	mg/L	0.15	10/07/20 11:58	D3
EPA 6020B	Molybdenum	0.016J	mg/L	0.050	10/07/20 11:58	D3
SM 2450C-2011	Total Dissolved Solids	6470	mg/L	50.0	10/01/20 15:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	1010	mg/L	5.0	10/08/20 19:04	
SM 2320B-2011	Alkalinity, Total as CaCO3	1010	mg/L	5.0	10/08/20 19:04	
SM 4500-S2D-2011	Sulfide	0.20	mg/L	0.10	10/01/20 12:53	
EPA 300.0 Rev 2.1 1993	Chloride	542	mg/L	50.0	10/01/20 17:23	M6
EPA 300.0 Rev 2.1 1993	Fluoride	0.41	mg/L	0.10	10/01/20 08:56	
EPA 300.0 Rev 2.1 1993	Sulfate	3480	mg/L	50.0	10/01/20 17:23	M6

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-1 **Lab ID: 92495894001** Collected: 09/15/20 14:01 Received: 09/16/20 11:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.15**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**103**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 17:49	7440-70-2	
Iron	**0.087**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 17:49	7439-89-6	
Magnesium	**4.3**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 17:49	7439-95-4	
Manganese	**0.18**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 17:49	7439-96-5	
Potassium	**0.34**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 17:49	7440-09-7	B
Sodium	**21.1**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 17:49	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 17:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 17:15	7440-38-2	
Barium	**0.035**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 17:15	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 17:15	7440-41-7	
Boron	**0.017J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 17:15	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 17:15	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 17:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 17:15	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 17:15	7439-92-1	
Lithium	**0.00087J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 17:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 17:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 17:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 17:15	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**265**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**307**	mg/L	5.0	5.0	1		09/24/20 19:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 19:36		
Alkalinity, Total as CaCO3	**307**	mg/L	5.0	5.0	1		09/24/20 19:36		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:10	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**13.4**	mg/L	1.0	0.60	1		09/18/20 21:31	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-1 **Lab ID: 92495894001** Collected: 09/15/20 14:01 Received: 09/16/20 11:14 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	**0.082J**	mg/L	0.10	0.050	1		09/18/20 21:31	16984-48-8	
Sulfate	**47.3**	mg/L	1.0	0.50	1		09/18/20 21:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-2 **Lab ID: 92495894002** Collected: 09/15/20 10:58 Received: 09/16/20 11:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.22**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**21.1**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 17:53	7440-70-2	
Iron	**0.78**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 17:53	7439-89-6	
Magnesium	**2.5**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 17:53	7439-95-4	
Manganese	**0.61**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 17:53	7439-96-5	
Potassium	**0.89**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 17:53	7440-09-7	B
Sodium	**7.4**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 17:53	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 17:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 17:21	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 17:21	7440-39-3	
Beryllium	**0.00013J**	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 17:21	7440-41-7	
Boron	**0.044J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 17:21	7440-42-8	
Cadmium	**0.00012J**	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 17:21	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 17:21	7440-47-3	
Cobalt	**0.021**	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 17:21	7440-48-4	
Lead	**0.000080J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 17:21	7439-92-1	
Lithium	**0.0015J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 17:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 17:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 17:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 17:21	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**124**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**26.1**	mg/L	5.0	5.0	1		09/24/20 13:36		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 13:36		
Alkalinity, Total as CaCO3	**26.1**	mg/L	5.0	5.0	1		09/24/20 13:36		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:11	18496-25-8	
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		09/18/20 21:46	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-2 **Lab ID: 92495894002** Collected: 09/15/20 10:58 Received: 09/16/20 11:14 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		09/18/20 21:46	16984-48-8	
Sulfate	**51.5**	mg/L	1.0	0.50	1		09/18/20 21:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-3 **Lab ID: 92495894003** Collected: 09/15/20 11:45 Received: 09/16/20 11:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.29**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**73.1**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 17:57	7440-70-2	
Iron	**0.26**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 17:57	7439-89-6	
Magnesium	**4.6**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 17:57	7439-95-4	
Manganese	**0.22**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 17:57	7439-96-5	
Potassium	**0.46**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 17:57	7440-09-7	B
Sodium	**4.9**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 17:57	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 17:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 17:27	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 17:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 17:27	7440-41-7	
Boron	**0.0071J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 17:27	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 17:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 17:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 17:27	7440-48-4	
Lead	**0.000042J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 17:27	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 17:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 17:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 17:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 17:27	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**258**	mg/L	10.0	10.0	1		09/17/20 15:19		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**187**	mg/L	5.0	5.0	1		09/24/20 13:43		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 13:43		
Alkalinity, Total as CaCO3	**187**	mg/L	5.0	5.0	1		09/24/20 13:43		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:13	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.0**	mg/L	1.0	0.60	1		09/18/20 22:01	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-3 **Lab ID: 92495894003** Collected: 09/15/20 11:45 Received: 09/16/20 11:14 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		09/18/20 22:01	16984-48-8	
Sulfate	**44.7**	mg/L	1.0	0.50	1		09/18/20 22:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 **Lab ID: 92495894004** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.30**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**98.0**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 20:39	7440-70-2	M1
Iron	**0.30**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 20:39	7439-89-6	
Magnesium	**8.9**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 20:39	7439-95-4	M1
Manganese	**0.15**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 20:39	7439-96-5	
Potassium	**2.3**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 20:39	7440-09-7	
Sodium	**8.7**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 20:39	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00034J**	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:13	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:13	7440-41-7	
Boron	**1.1**	mg/L	0.10	0.0052	1	09/23/20 13:53	09/23/20 19:13	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:13	7440-43-9	
Chromium	**0.00074J**	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:13	7440-47-3	
Cobalt	**0.00065J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:13	7440-48-4	
Lead	**0.00020J**	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:13	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:13	7439-93-2	
Molybdenum	**0.046**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:13	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**392**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**177**	mg/L	5.0	5.0	1		09/24/20 16:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 16:19		
Alkalinity, Total as CaCO3	**177**	mg/L	5.0	5.0	1		09/24/20 16:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:18	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**46.4**	mg/L	1.0	0.60	1		09/19/20 22:06	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 **Lab ID: 92495894004** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 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	**0.081J**	mg/L	0.10	0.050	1		09/19/20 22:06	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		09/20/20 07:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 FILTERED **Lab ID: 92495894005** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.30**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**105**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 20:57	7440-70-2	M1
Iron	**0.019J**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 20:57	7439-89-6	
Magnesium	**9.5**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 20:57	7439-95-4	M1
Manganese	**0.16**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 20:57	7439-96-5	
Potassium	**2.4**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 20:57	7440-09-7	M1
Sodium	**9.4**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 20:57	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:19	7440-38-2	
Barium	**0.069**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:19	7440-41-7	
Boron	**1.1**	mg/L	0.10	0.0052	1	09/23/20 13:53	09/23/20 19:19	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:19	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:19	7440-47-3	
Cobalt	**0.00051J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:19	7439-92-1	
Lithium	**0.0020J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:19	7439-93-2	
Molybdenum	**0.048**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:19	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**399**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**177**	mg/L	5.0	5.0	1		09/24/20 16:31		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 16:31		
Alkalinity, Total as CaCO3	**177**	mg/L	5.0	5.0	1		09/24/20 16:31		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:19	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**46.4**	mg/L	1.0	0.60	1		09/19/20 22:21	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-7 FILTERED **Lab ID: 92495894005** Collected: 09/16/20 12:24 Received: 09/17/20 09:45 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	**0.085J**	mg/L	0.10	0.050	1		09/19/20 22:21	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		09/20/20 07:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-8 **Lab ID: 92495894006** Collected: 09/16/20 09:32 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.92**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**119**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:01	7440-70-2	
Iron	**0.30**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:01	7439-89-6	
Magnesium	**16.4**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:01	7439-95-4	
Manganese	**0.22**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:01	7439-96-5	
Potassium	**7.1**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:01	7440-09-7	
Sodium	**8.5**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:01	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:25	7440-38-2	
Barium	**0.060**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:25	7440-39-3	
Beryllium	**0.00010J**	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:25	7440-41-7	
Boron	**1.9**	mg/L	0.10	0.0052	1	09/23/20 13:53	09/23/20 19:25	7440-42-8	
Cadmium	**0.00023J**	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:25	7440-43-9	
Chromium	**0.0015J**	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:25	7440-47-3	
Cobalt	**0.0019J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:25	7440-48-4	
Lead	**0.00020J**	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:25	7439-92-1	
Lithium	**0.0033J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:25	7439-93-2	
Molybdenum	**0.43**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:25	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**552**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**133**	mg/L	5.0	5.0	1		09/24/20 16:42		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 16:42		
Alkalinity, Total as CaCO3	**133**	mg/L	5.0	5.0	1		09/24/20 16:42		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:20	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**74.6**	mg/L	1.0	0.60	1		09/19/20 22:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-8 **Lab ID: 92495894006** Collected: 09/16/20 09:32 Received: 09/17/20 09:45 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	**0.53**	mg/L	0.10	0.050	1		09/19/20 22:36	16984-48-8	
Sulfate	**194**	mg/L	4.0	2.0	4		09/20/20 07:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-10 **Lab ID: 92495894007** Collected: 09/16/20 16:15 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.66**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**139**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:06	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:06	7439-89-6	
Magnesium	**10.8**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:06	7439-95-4	
Manganese	**1.3**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:06	7439-96-5	
Potassium	**1.3**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:06	7440-09-7	
Sodium	**8.9**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:06	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:42	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:42	7440-41-7	
Boron	**1.1**	mg/L	1.0	0.052	10	09/23/20 13:53	09/24/20 13:51	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:42	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:42	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:42	7439-93-2	
Molybdenum	**0.0014J**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**490**	mg/L	10.0	10.0	1		09/18/20 10:00		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**247**	mg/L	5.0	5.0	1		09/28/20 15:50		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/28/20 15:50		
Alkalinity, Total as CaCO3	**247**	mg/L	5.0	5.0	1		09/28/20 15:50		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:20	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**39.7**	mg/L	1.0	0.60	1		09/20/20 01:05	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-10 **Lab ID: 92495894007** Collected: 09/16/20 16:15 Received: 09/17/20 09:45 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		09/20/20 01:05	16984-48-8	
Sulfate	**169**	mg/L	4.0	2.0	4		09/20/20 08:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-29 **Lab ID: 92495894008** Collected: 09/16/20 13:15 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.88**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**126**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:10	7440-70-2	
Iron	**0.035J**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:10	7439-89-6	
Magnesium	**11.4**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:10	7439-95-4	
Manganese	**1.2**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:10	7439-96-5	
Potassium	**0.94**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:10	7440-09-7	
Sodium	**10.9**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:10	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/23/20 13:53	09/23/20 19:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/23/20 13:53	09/23/20 19:47	7440-38-2	
Barium	**0.076**	mg/L	0.010	0.00071	1	09/23/20 13:53	09/23/20 19:47	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/23/20 13:53	09/23/20 19:47	7440-41-7	
Boron	**1.7**	mg/L	1.0	0.052	10	09/23/20 13:53	09/24/20 13:57	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/23/20 13:53	09/23/20 19:47	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/23/20 13:53	09/23/20 19:47	7440-47-3	
Cobalt	**0.0013J**	mg/L	0.0050	0.00038	1	09/23/20 13:53	09/23/20 19:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/23/20 13:53	09/23/20 19:47	7439-92-1	
Lithium	**0.0021J**	mg/L	0.030	0.00081	1	09/23/20 13:53	09/23/20 19:47	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.00069	1	09/23/20 13:53	09/23/20 19:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/23/20 13:53	09/23/20 19:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/23/20 13:53	09/23/20 19:47	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**547**	mg/L	10.0	10.0	1		09/18/20 10:01		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**194**	mg/L	5.0	5.0	1		09/24/20 17:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 17:02		
Alkalinity, Total as CaCO3	**194**	mg/L	5.0	5.0	1		09/24/20 17:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:21	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**75.3**	mg/L	1.0	0.60	1		09/20/20 01:20	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-29 **Lab ID: 92495894008** Collected: 09/16/20 13:15 Received: 09/17/20 09:45 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		09/20/20 01:20	16984-48-8	
Sulfate	**143**	mg/L	3.0	1.5	3		09/20/20 08:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-43D **Lab ID: 92495894009** Collected: 09/16/20 11:58 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.52**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**56.0**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 18:49	7440-70-2	
Iron	**0.020J**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 18:49	7439-89-6	
Magnesium	**18.3**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 18:49	7439-95-4	
Manganese	**0.010J**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 18:49	7439-96-5	
Potassium	**0.97**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 18:49	7440-09-7	B
Sodium	**14.0**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 18:49	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00051J**	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 18:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 18:54	7440-38-2	
Barium	**0.26**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 18:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 18:54	7440-41-7	
Boron	**0.061J**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 18:54	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 18:54	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 18:54	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 18:54	7440-48-4	
Lead	**0.000050J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 18:54	7439-92-1	
Lithium	**0.0018J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 18:54	7439-93-2	
Molybdenum	**0.0044J**	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 18:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 18:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	10/13/20 08:00	10/13/20 12:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**272**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**251**	mg/L	5.0	5.0	1		09/28/20 15:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/28/20 15:11		
Alkalinity, Total as CaCO3	**251**	mg/L	5.0	5.0	1		09/28/20 15:11		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:17	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-43D **Lab ID: 92495894009** Collected: 09/16/20 11:58 Received: 09/17/20 09:45 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								
Chloride	**4.1**	mg/L	1.0	0.60	1		09/19/20 21:36	16887-00-6	
Fluoride	**0.22**	mg/L	0.10	0.050	1		09/19/20 21:36	16984-48-8	
Sulfate	**43.0**	mg/L	1.0	0.50	1		09/19/20 21:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-44D **Lab ID: 92495894010** Collected: 09/16/20 15:18 Received: 09/17/20 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.83**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**30.0**	mg/L	1.0	0.070	1	09/22/20 20:12	09/23/20 18:53	7440-70-2	
Iron	**0.42**	mg/L	0.040	0.016	1	09/22/20 20:12	09/23/20 18:53	7439-89-6	
Magnesium	**15.1**	mg/L	0.050	0.0076	1	09/22/20 20:12	09/23/20 18:53	7439-95-4	
Manganese	**0.020J**	mg/L	0.040	0.0017	1	09/22/20 20:12	09/23/20 18:53	7439-96-5	
Potassium	**3.2**	mg/L	0.20	0.056	1	09/22/20 20:12	09/23/20 18:53	7440-09-7	
Sodium	**50.3**	mg/L	1.0	0.26	1	09/22/20 20:12	09/23/20 18:53	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00049J**	mg/L	0.0030	0.00028	1	09/22/20 20:07	09/23/20 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/22/20 20:07	09/23/20 19:00	7440-38-2	
Barium	**0.24**	mg/L	0.010	0.00071	1	09/22/20 20:07	09/23/20 19:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/22/20 20:07	09/23/20 19:00	7440-41-7	
Boron	**0.23**	mg/L	0.10	0.0052	1	09/22/20 20:07	09/23/20 19:00	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/22/20 20:07	09/23/20 19:00	7440-43-9	
Chromium	**0.0012J**	mg/L	0.010	0.00055	1	09/22/20 20:07	09/23/20 19:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/22/20 20:07	09/23/20 19:00	7440-48-4	
Lead	**0.00021J**	mg/L	0.0050	0.000036	1	09/22/20 20:07	09/23/20 19:00	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00081	1	09/22/20 20:07	09/23/20 19:00	7439-93-2	
Molybdenum	**0.0019J**	mg/L	0.010	0.00069	1	09/22/20 20:07	09/23/20 19:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/22/20 20:07	09/23/20 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/22/20 20:07	09/23/20 19:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	10/13/20 08:00	10/13/20 12:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**270**	mg/L	10.0	10.0	1		09/17/20 15:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**294**	mg/L	5.0	5.0	1		09/28/20 15:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/28/20 15:19		
Alkalinity, Total as CaCO3	**294**	mg/L	5.0	5.0	1		09/28/20 15:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.11**	mg/L	0.10	0.050	1		09/22/20 14:17	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWA-44D **Lab ID: 92495894010** Collected: 09/16/20 15:18 Received: 09/17/20 09:45 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								
Chloride	**7.2**	mg/L	1.0	0.60	1		09/19/20 21:51	16887-00-6	
Fluoride	**0.52**	mg/L	0.10	0.050	1		09/19/20 21:51	16984-48-8	
Sulfate	**6.9**	mg/L	1.0	0.50	1		09/19/20 21:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-9 **Lab ID: 92495894011** Collected: 09/17/20 11:42 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.99**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**164**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:23	7440-70-2	
Iron	**0.19**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:23	7439-89-6	
Magnesium	**16.6**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:23	7439-95-4	
Manganese	**0.42**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:23	7439-96-5	
Potassium	**3.0**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:23	7440-09-7	
Sodium	**11.3**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:23	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 08:45	09/28/20 18:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 08:45	09/28/20 18:26	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00071	1	09/24/20 08:45	09/28/20 18:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 08:45	09/28/20 18:26	7440-41-7	
Boron	**2.0**	mg/L	1.0	0.052	10	09/24/20 08:45	09/30/20 11:07	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 08:45	09/28/20 18:26	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 08:45	09/28/20 18:26	7440-47-3	
Cobalt	**0.00070J**	mg/L	0.0050	0.00038	1	09/24/20 08:45	09/28/20 18:26	7440-48-4	
Lead	**0.00022J**	mg/L	0.0050	0.000036	1	09/24/20 08:45	09/28/20 18:26	7439-92-1	
Lithium	**0.0040J**	mg/L	0.030	0.00081	1	09/24/20 08:45	09/28/20 18:26	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.00069	1	09/24/20 08:45	09/28/20 18:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 08:45	09/28/20 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 08:45	09/28/20 18:26	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**680**	mg/L	20.0	20.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**194**	mg/L	5.0	5.0	1		09/24/20 19:13		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 19:13		
Alkalinity, Total as CaCO3	**194**	mg/L	5.0	5.0	1		09/24/20 19:13		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:38	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**105**	mg/L	4.0	2.4	4		09/22/20 15:28	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-9 **Lab ID: 92495894011** Collected: 09/17/20 11:42 Received: 09/18/20 10:20 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	**0.10**	mg/L	0.10	0.050	1		09/22/20 08:02	16984-48-8	
Sulfate	**209**	mg/L	4.0	2.0	4		09/22/20 15:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-5 **Lab ID: 92495894012** Collected: 09/17/20 17:51 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.48**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**103**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:28	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:28	7439-89-6	
Magnesium	**11.6**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:28	7439-95-4	
Manganese	**0.0019J**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:28	7439-96-5	
Potassium	**0.85**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:28	7440-09-7	
Sodium	**18.1**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:28	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 08:45	09/28/20 18:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 08:45	09/28/20 18:32	7440-38-2	
Barium	**0.043**	mg/L	0.010	0.00071	1	09/24/20 08:45	09/28/20 18:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 08:45	09/28/20 18:32	7440-41-7	
Boron	**0.067J**	mg/L	0.10	0.0052	1	09/24/20 08:45	09/28/20 18:32	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 08:45	09/28/20 18:32	7440-43-9	
Chromium	**0.0021J**	mg/L	0.010	0.00055	1	09/24/20 08:45	09/28/20 18:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 08:45	09/28/20 18:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 08:45	09/28/20 18:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/24/20 08:45	09/28/20 18:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/24/20 08:45	09/28/20 18:32	7439-98-7	
Selenium	**0.0028J**	mg/L	0.010	0.0016	1	09/24/20 08:45	09/28/20 18:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 08:45	09/28/20 18:32	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**486**	mg/L	10.0	10.0	1		09/22/20 14:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**179**	mg/L	5.0	5.0	1		09/24/20 19:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/24/20 19:25		
Alkalinity, Total as CaCO3	**179**	mg/L	5.0	5.0	1		09/24/20 19:25		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:38	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.7**	mg/L	1.0	0.60	1		09/22/20 08:47	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-5 **Lab ID: 92495894012** Collected: 09/17/20 17:51 Received: 09/18/20 10:20 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		09/22/20 08:47	16984-48-8	
Sulfate	**153**	mg/L	3.0	1.5	3		09/22/20 16:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-20 **Lab ID: 92495894013** Collected: 09/17/20 15:54 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.78**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**110**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:32	7440-70-2	
Iron	**2.8**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:32	7439-89-6	
Magnesium	**8.5**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:32	7439-95-4	
Manganese	**0.24**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:32	7439-96-5	
Potassium	**0.22**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:32	7440-09-7	
Sodium	**10.3**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:32	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 08:45	09/28/20 18:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 08:45	09/28/20 18:38	7440-38-2	
Barium	**0.096**	mg/L	0.010	0.00071	1	09/24/20 08:45	09/28/20 18:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 08:45	09/28/20 18:38	7440-41-7	
Boron	**0.11**	mg/L	0.10	0.0052	1	09/24/20 08:45	09/28/20 18:38	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 08:45	09/28/20 18:38	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 08:45	09/28/20 18:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 08:45	09/28/20 18:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 08:45	09/28/20 18:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/24/20 08:45	09/28/20 18:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/24/20 08:45	09/28/20 18:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 08:45	09/28/20 18:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 08:45	09/28/20 18:38	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**460**	mg/L	10.0	10.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**231**	mg/L	5.0	5.0	1		09/30/20 11:48		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 11:48		
Alkalinity, Total as CaCO3	**231**	mg/L	5.0	5.0	1		09/30/20 11:48		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:41	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.7**	mg/L	1.0	0.60	1		09/22/20 09:02	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-20 **Lab ID: 92495894013** Collected: 09/17/20 15:54 Received: 09/18/20 10:20 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		09/22/20 09:02	16984-48-8	
Sulfate	**110**	mg/L	2.0	1.0	2		09/22/20 16:57	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-26D **Lab ID: 92495894014** Collected: 09/17/20 13:02 Received: 09/18/20 10:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.08**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**150**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:36	7440-70-2	
Iron	**0.29**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:36	7439-89-6	
Magnesium	**16.9**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:36	7439-95-4	
Manganese	**0.16**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:36	7439-96-5	
Potassium	**1.8**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:36	7440-09-7	
Sodium	**11.9**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:36	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 18:36	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 18:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/29/20 16:39	7440-41-7	
Boron	**2.0**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/29/20 16:39	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 18:36	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 18:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 18:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 18:36	7439-92-1	
Lithium	**0.0032J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 18:36	7439-93-2	
Molybdenum	**0.014**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 18:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 18:36	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**732**	mg/L	20.0	20.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**187**	mg/L	5.0	5.0	1		09/30/20 12:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 12:19		
Alkalinity, Total as CaCO3	**187**	mg/L	5.0	5.0	1		09/30/20 12:19		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:42	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**103**	mg/L	4.0	2.4	4		09/22/20 17:12	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-26D **Lab ID: 92495894014** Collected: 09/17/20 13:02 Received: 09/18/20 10:20 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	**0.069J**	mg/L	0.10	0.050	1		09/22/20 09:17	16984-48-8	
Sulfate	**174**	mg/L	4.0	2.0	4		09/22/20 17:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: FD-01 **Lab ID: 92495894015** Collected: 09/17/20 00:00 Received: 09/18/20 10:20 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								
Calcium	**148**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:41	7440-70-2	
Iron	**0.22**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:41	7439-89-6	
Magnesium	**15.6**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:41	7439-95-4	
Manganese	**0.16**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:41	7439-96-5	
Potassium	**1.8**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:41	7440-09-7	
Sodium	**11.5**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:41	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0013J**	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 18:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 18:59	7440-38-2	
Barium	**0.099**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 18:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/29/20 16:56	7440-41-7	
Boron	**2.1**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/29/20 16:56	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 18:59	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 18:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 18:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 18:59	7439-92-1	
Lithium	**0.0035J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 18:59	7439-93-2	
Molybdenum	**0.016**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 18:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 18:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 18:59	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**702**	mg/L	20.0	20.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**185**	mg/L	5.0	5.0	1		09/30/20 12:30		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 12:30		
Alkalinity, Total as CaCO3	**185**	mg/L	5.0	5.0	1		09/30/20 12:30		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**104**	mg/L	4.0	2.4	4		09/22/20 17:26	16887-00-6	
Fluoride	**0.064J**	mg/L	0.10	0.050	1		09/22/20 09:32	16984-48-8	
Sulfate	**181**	mg/L	4.0	2.0	4		09/22/20 17:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-11 **Lab ID: 92495894016** Collected: 09/18/20 13:30 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.42**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**122**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:45	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:45	7439-89-6	
Magnesium	**16.2**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:45	7439-95-4	
Manganese	**0.017J**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:45	7439-96-5	
Potassium	**3.7**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:45	7440-09-7	
Sodium	**5.5**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:45	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00038J**	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:04	7440-36-0	
Arsenic	**0.00081J**	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:04	7440-38-2	
Barium	**0.043**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/29/20 17:02	7440-41-7	
Boron	**0.91**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/29/20 17:02	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:04	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:04	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:04	7440-48-4	
Lead	**0.000060J**	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:04	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:04	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:04	7439-98-7	
Selenium	**0.0042J**	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:04	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**626**	mg/L	10.0	10.0	1		09/22/20 14:23		MW
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**91.6**	mg/L	5.0	5.0	1		09/30/20 13:28		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 13:28		
Alkalinity, Total as CaCO3	**91.6**	mg/L	5.0	5.0	1		09/30/20 13:28		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**34.9**	mg/L	1.0	0.60	1		09/24/20 08:39	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-11 **Lab ID: 92495894016** Collected: 09/18/20 13:30 Received: 09/21/20 09:25 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	**0.15**	mg/L	0.10	0.050	1		09/24/20 08:39	16984-48-8	
Sulfate	**272**	mg/L	4.0	2.0	4		09/24/20 21:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-12 **Lab ID: 92495894017** Collected: 09/18/20 15:50 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.15**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**163**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 21:58	7440-70-2	
Iron	**0.083**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 21:58	7439-89-6	
Magnesium	**17.3**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 21:58	7439-95-4	
Manganese	**2.0**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 21:58	7439-96-5	
Potassium	**7.2**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 21:58	7440-09-7	
Sodium	**9.4**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 21:58	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:10	7440-36-0	
Arsenic	**0.0031J**	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:10	7440-38-2	
Barium	**0.086**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/25/20 19:10	7440-41-7	
Boron	**1.6**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/25/20 19:10	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:10	7440-43-9	
Chromium	**0.00091J**	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:10	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:10	7440-48-4	
Lead	**0.000096J**	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:10	7439-92-1	
Lithium	**0.010J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:10	7439-93-2	
Molybdenum	**0.046**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:10	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**704**	mg/L	20.0	20.0	1		09/22/20 14:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**172**	mg/L	5.0	5.0	1		09/30/20 13:37		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 13:37		
Alkalinity, Total as CaCO3	**172**	mg/L	5.0	5.0	1		09/30/20 13:37		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**74.6**	mg/L	1.0	0.60	1		09/24/20 08:53	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-12 **Lab ID: 92495894017** Collected: 09/18/20 15:50 Received: 09/21/20 09:25 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	**0.15**	mg/L	0.10	0.050	1		09/24/20 08:53	16984-48-8	
Sulfate	**266**	mg/L	4.0	2.0	4		09/25/20 10:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-25D **Lab ID: 92495894018** Collected: 09/18/20 13:20 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.64**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**25.1**	mg/L	1.0	0.070	1	09/24/20 08:45	09/24/20 22:03	7440-70-2	
Iron	**0.088**	mg/L	0.040	0.016	1	09/24/20 08:45	09/24/20 22:03	7439-89-6	
Magnesium	**8.3**	mg/L	0.050	0.0076	1	09/24/20 08:45	09/24/20 22:03	7439-95-4	
Manganese	**0.040J**	mg/L	0.040	0.0017	1	09/24/20 08:45	09/24/20 22:03	7439-96-5	
Potassium	**0.42**	mg/L	0.20	0.056	1	09/24/20 08:45	09/24/20 22:03	7440-09-7	
Sodium	**103**	mg/L	1.0	0.26	1	09/24/20 08:45	09/24/20 22:03	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:27	7440-38-2	
Barium	**0.44**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/25/20 19:27	7440-41-7	
Boron	**0.36**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/25/20 19:27	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:27	7439-92-1	
Lithium	**0.046**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:27	7439-93-2	
Molybdenum	**0.00094J**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:27	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**382**	mg/L	10.0	10.0	1		09/23/20 13:15		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**288**	mg/L	5.0	5.0	1		09/30/20 20:37		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 20:37		
Alkalinity, Total as CaCO3	**288**	mg/L	5.0	5.0	1		09/30/20 20:37		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**2.9**	mg/L	1.0	0.50	10		09/22/20 15:14	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**33.4**	mg/L	1.0	0.60	1		09/24/20 09:08	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-25D **Lab ID: 92495894018** Collected: 09/18/20 13:20 Received: 09/21/20 09:25 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	**1.6**	mg/L	0.10	0.050	1		09/24/20 09:08	16984-48-8	
Sulfate	**27.4**	mg/L	1.0	0.50	1		09/24/20 09:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-27D **Lab ID: 92495894019** Collected: 09/18/20 08:53 Received: 09/21/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.51**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**24.8**	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 20:10	7440-70-2	
Iron	**0.15**	mg/L	0.040	0.016	1	09/24/20 14:17	09/25/20 20:10	7439-89-6	
Magnesium	**17.0**	mg/L	0.050	0.0076	1	09/24/20 14:17	09/25/20 20:10	7439-95-4	
Manganese	**0.13**	mg/L	0.040	0.0017	1	09/24/20 14:17	09/25/20 20:10	7439-96-5	
Potassium	**0.95**	mg/L	0.20	0.056	1	09/24/20 14:17	09/25/20 20:10	7440-09-7	
Sodium	**27.3**	mg/L	1.0	0.26	1	09/24/20 14:17	09/25/20 20:10	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00031J**	mg/L	0.0030	0.00028	1	09/24/20 14:23	09/25/20 19:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/24/20 14:23	09/25/20 19:33	7440-38-2	
Barium	**1.0**	mg/L	0.010	0.00071	1	09/24/20 14:23	09/25/20 19:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/24/20 14:23	09/25/20 19:33	7440-41-7	
Boron	**0.12**	mg/L	0.10	0.0052	1	09/24/20 14:23	09/25/20 19:33	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/24/20 14:23	09/25/20 19:33	7440-43-9	
Chromium	**0.00070J**	mg/L	0.010	0.00055	1	09/24/20 14:23	09/25/20 19:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/24/20 14:23	09/25/20 19:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/24/20 14:23	09/25/20 19:33	7439-92-1	
Lithium	**0.0084J**	mg/L	0.030	0.00081	1	09/24/20 14:23	09/25/20 19:33	7439-93-2	
Molybdenum	**0.0018J**	mg/L	0.010	0.00069	1	09/24/20 14:23	09/25/20 19:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/24/20 14:23	09/25/20 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/24/20 14:23	09/25/20 19:33	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**211**	mg/L	10.0	10.0	1		09/23/20 13:16		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**169**	mg/L	5.0	5.0	1		09/30/20 14:16		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 14:16		
Alkalinity, Total as CaCO3	**169**	mg/L	5.0	5.0	1		09/30/20 14:16		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/22/20 14:47	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**30.4**	mg/L	1.0	0.60	1		09/24/20 09:51	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-27D **Lab ID: 92495894019** Collected: 09/18/20 08:53 Received: 09/21/20 09:25 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	**0.22**	mg/L	0.10	0.050	1		09/24/20 09:51	16984-48-8	
Sulfate	**7.5**	mg/L	1.0	0.50	1		09/24/20 09:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-13 **Lab ID: 92495894020** Collected: 09/21/20 16:45 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.34**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**173**	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 20:27	7440-70-2	
Iron	**0.87**	mg/L	0.040	0.016	1	09/24/20 14:17	09/25/20 20:27	7439-89-6	
Magnesium	**15.6**	mg/L	0.050	0.0076	1	09/24/20 14:17	09/25/20 20:27	7439-95-4	
Manganese	**2.1**	mg/L	0.040	0.0017	1	09/24/20 14:17	09/25/20 20:27	7439-96-5	
Potassium	**4.6**	mg/L	0.20	0.056	1	09/24/20 14:17	09/25/20 20:27	7440-09-7	
Sodium	**6.4**	mg/L	1.0	0.26	1	09/24/20 14:17	09/25/20 20:27	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00029J**	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 17:37	7440-36-0	
Arsenic	**0.39**	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 17:37	7440-38-2	
Barium	**0.052**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 17:37	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 17:37	7440-41-7	
Boron	**1.6**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 17:37	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 17:37	7440-43-9	
Chromium	**0.00056J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 17:37	7440-47-3	
Cobalt	**0.0032J**	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 17:37	7440-48-4	
Lead	**0.00015J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 17:37	7439-92-1	
Lithium	**0.028J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 17:37	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 17:37	7439-98-7	
Selenium	**0.0016J**	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 17:37	7782-49-2	
Thallium	**0.00036J**	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 17:37	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**732**	mg/L	20.0	20.0	1		09/23/20 13:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**114**	mg/L	5.0	5.0	1		09/30/20 14:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 14:57		
Alkalinity, Total as CaCO3	**114**	mg/L	5.0	5.0	1		09/30/20 14:57		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**41.2**	mg/L	1.0	0.60	1		09/24/20 16:36	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: HGWC-13 **Lab ID: 92495894020** Collected: 09/21/20 16:45 Received: 09/22/20 09:25 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	**0.44**	mg/L	0.10	0.050	1		09/24/20 16:36	16984-48-8	
Sulfate	**359**	mg/L	5.0	2.5	5		09/25/20 10:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-6 **Lab ID: 92495894021** Collected: 09/21/20 10:19 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.88**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**173**	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 20:31	7440-70-2	
Iron	**0.49**	mg/L	0.040	0.016	1	09/24/20 14:17	09/25/20 20:31	7439-89-6	
Magnesium	**13.5**	mg/L	0.050	0.0076	1	09/24/20 14:17	09/25/20 20:31	7439-95-4	
Manganese	**0.50**	mg/L	0.040	0.0017	1	09/24/20 14:17	09/25/20 20:31	7439-96-5	
Potassium	**1.4**	mg/L	0.20	0.056	1	09/24/20 14:17	09/25/20 20:31	7440-09-7	
Sodium	**12.6**	mg/L	1.0	0.26	1	09/24/20 14:17	09/25/20 20:31	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0014J**	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:00	7440-38-2	
Barium	**0.083**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:00	7440-41-7	
Boron	**0.82**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:00	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:00	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:00	7440-47-3	
Cobalt	**0.00041J**	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:00	7440-48-4	
Lead	**0.00026J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:00	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:00	7439-93-2	
Molybdenum	**0.0025J**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:00	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**656**	mg/L	20.0	20.0	1		09/23/20 13:18		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**273**	mg/L	5.0	5.0	1		09/30/20 20:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 20:54		
Alkalinity, Total as CaCO3	**273**	mg/L	5.0	5.0	1		09/30/20 20:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:43	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**58.1**	mg/L	1.0	0.60	1		09/24/20 16:50	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-6 **Lab ID: 92495894021** Collected: 09/21/20 10:19 Received: 09/22/20 09:25 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		09/24/20 16:50	16984-48-8	
Sulfate	**221**	mg/L	3.0	1.5	3		09/25/20 10:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-7 **Lab ID: 92495894022** Collected: 09/21/20 16:41 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.50**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**75.3**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 20:58	7440-70-2	M1
Iron	ND	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 20:58	7439-89-6	
Magnesium	**8.6**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 20:58	7439-95-4	M1
Manganese	**0.0077J**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 20:58	7439-96-5	
Potassium	**0.91**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 20:58	7440-09-7	B
Sodium	**8.4**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 20:58	7440-23-5	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00051J**	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:06	7440-38-2	
Barium	**0.065**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:06	7440-41-7	
Boron	**0.20**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:06	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:06	7440-43-9	
Chromium	**0.0017J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:06	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:06	7439-93-2	
Molybdenum	**0.0015J**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:06	7439-98-7	
Selenium	**0.0026J**	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:06	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**326**	mg/L	10.0	10.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**128**	mg/L	5.0	5.0	1		09/30/20 15:16		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 15:16		
Alkalinity, Total as CaCO3	**128**	mg/L	5.0	5.0	1		09/30/20 15:16		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**11.1**	mg/L	1.0	0.60	1		09/24/20 17:05	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-7 **Lab ID: 92495894022** Collected: 09/21/20 16:41 Received: 09/22/20 09:25 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		09/24/20 17:05	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		09/25/20 11:14	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-24D **Lab ID: 92495894023** Collected: 09/21/20 17:55 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.65**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**87.6**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 21:15	7440-70-2	
Iron	**0.076**	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 21:15	7439-89-6	
Magnesium	**4.9**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 21:15	7439-95-4	
Manganese	**0.13**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 21:15	7439-96-5	
Potassium	**0.50**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 21:15	7440-09-7	B
Sodium	**12.0**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 21:15	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:12	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:12	7440-41-7	
Boron	**0.45**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:12	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:12	7440-48-4	
Lead	**0.000042J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:12	7439-92-1	
Lithium	**0.0024J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:12	7439-93-2	
Molybdenum	**0.00099J**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:12	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**391**	mg/L	10.0	10.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**105**	mg/L	5.0	5.0	1		09/30/20 15:25		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		09/30/20 15:25		
Alkalinity, Total as CaCO3	**105**	mg/L	5.0	5.0	1		09/30/20 15:25		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**45.2**	mg/L	1.0	0.60	1		09/24/20 17:19	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-24D **Lab ID: 92495894023** Collected: 09/21/20 17:55 Received: 09/22/20 09:25 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		09/24/20 17:19	16984-48-8	
Sulfate	**114**	mg/L	2.0	1.0	2		09/25/20 11:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-19 **Lab ID: 92495894024** Collected: 09/21/20 15:18 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.41**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**135**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 21:28	7440-70-2	
Iron	**0.16**	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 21:28	7439-89-6	
Magnesium	**15.5**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 21:28	7439-95-4	
Manganese	**3.3**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 21:28	7439-96-5	
Potassium	**4.2**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 21:28	7440-09-7	
Sodium	**6.7**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 21:28	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:17	7440-38-2	
Barium	**0.056**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:17	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:17	7440-41-7	
Boron	**0.89**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:17	7440-42-8	
Cadmium	**0.00018J**	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:17	7440-43-9	
Chromium	**0.0014J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:17	7440-47-3	
Cobalt	**0.032**	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:17	7440-48-4	
Lead	**0.000085J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:17	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:17	7439-93-2	
Molybdenum	**0.064**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:17	7439-98-7	
Selenium	**0.0033J**	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:17	7782-49-2	
Thallium	**0.00030J**	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:17	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**608**	mg/L	20.0	20.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**89.9**	mg/L	5.0	5.0	1		10/01/20 16:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/01/20 16:02		
Alkalinity, Total as CaCO3	**89.9**	mg/L	5.0	5.0	1		10/01/20 16:02		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/24/20 11:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**35.0**	mg/L	1.0	0.60	1		09/24/20 17:33	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-19 **Lab ID: 92495894024** Collected: 09/21/20 15:18 Received: 09/22/20 09:25 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	**0.17**	mg/L	0.10	0.050	1		09/24/20 17:33	16984-48-8	
Sulfate	**305**	mg/L	4.0	2.0	4		09/25/20 11:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-28D **Lab ID: 92495894025** Collected: 09/21/20 19:28 Received: 09/22/20 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.46**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**76.8**	mg/L	1.0	0.070	1	09/24/20 14:20	09/25/20 21:32	7440-70-2	
Iron	**0.30**	mg/L	0.040	0.016	1	09/24/20 14:20	09/25/20 21:32	7439-89-6	
Magnesium	**22.9**	mg/L	0.050	0.0076	1	09/24/20 14:20	09/25/20 21:32	7439-95-4	
Manganese	**0.034J**	mg/L	0.040	0.0017	1	09/24/20 14:20	09/25/20 21:32	7439-96-5	
Potassium	**1.0**	mg/L	0.20	0.056	1	09/24/20 14:20	09/25/20 21:32	7440-09-7	B
Sodium	**9.8**	mg/L	1.0	0.26	1	09/24/20 14:20	09/25/20 21:32	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/29/20 14:13	09/30/20 18:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/29/20 14:13	09/30/20 18:34	7440-38-2	
Barium	**0.18**	mg/L	0.010	0.00071	1	09/29/20 14:13	09/30/20 18:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/29/20 14:13	09/30/20 18:34	7440-41-7	
Boron	**0.45**	mg/L	0.10	0.0052	1	09/29/20 14:13	09/30/20 18:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/29/20 14:13	09/30/20 18:34	7440-43-9	
Chromium	**0.00085J**	mg/L	0.010	0.00055	1	09/29/20 14:13	09/30/20 18:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/29/20 14:13	09/30/20 18:34	7440-48-4	
Lead	**0.00018J**	mg/L	0.0050	0.000036	1	09/29/20 14:13	09/30/20 18:34	7439-92-1	
Lithium	**0.0053J**	mg/L	0.030	0.00081	1	09/29/20 14:13	09/30/20 18:34	7439-93-2	
Molybdenum	**0.018**	mg/L	0.010	0.00069	1	09/29/20 14:13	09/30/20 18:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/29/20 14:13	09/30/20 18:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/29/20 14:13	09/30/20 18:34	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**393**	mg/L	10.0	10.0	1		09/24/20 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**184**	mg/L	5.0	5.0	1		10/01/20 16:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/01/20 16:10		
Alkalinity, Total as CaCO3	**184**	mg/L	5.0	5.0	1		10/01/20 16:10		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.30**	mg/L	0.10	0.050	1		09/24/20 11:45	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**42.9**	mg/L	1.0	0.60	1		09/24/20 17:48	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-28D **Lab ID: 92495894025** Collected: 09/21/20 19:28 Received: 09/22/20 09:25 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	**0.10**	mg/L	0.10	0.050	1		09/24/20 17:48	16984-48-8	
Sulfate	**84.2**	mg/L	1.0	0.50	1		09/24/20 17:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-30D **Lab ID: 92495894026** Collected: 09/24/20 11:00 Received: 09/25/20 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		09/29/20 12:27		
pH	**8.72**	Std. Units			1		09/29/20 12:27		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**6.3**	mg/L	1.0	0.070	1	10/01/20 18:49	10/05/20 20:25	7440-70-2	
Iron	**0.092**	mg/L	0.040	0.016	1	10/01/20 18:49	10/05/20 20:25	7439-89-6	
Magnesium	**1.5**	mg/L	0.050	0.0076	1	10/01/20 18:49	10/05/20 20:25	7439-95-4	
Manganese	**0.0040J**	mg/L	0.040	0.0017	1	10/01/20 18:49	10/05/20 20:25	7439-96-5	
Potassium	**1.5**	mg/L	0.20	0.056	1	10/01/20 18:49	10/05/20 20:25	7440-09-7	
Sodium	**296**	mg/L	1.0	0.26	1	10/01/20 18:49	10/05/20 20:25	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	10/02/20 15:00	10/05/20 20:23	7440-36-0	
Arsenic	**0.0017J**	mg/L	0.0050	0.00078	1	10/02/20 15:00	10/05/20 20:23	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00071	1	10/02/20 15:00	10/05/20 20:23	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	10/02/20 15:00	10/05/20 20:23	7440-41-7	
Boron	**0.62**	mg/L	0.50	0.026	5	10/02/20 15:00	10/07/20 11:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	10/02/20 15:00	10/05/20 20:23	7440-43-9	
Chromium	**0.00065J**	mg/L	0.010	0.00055	1	10/02/20 15:00	10/05/20 20:23	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	10/02/20 15:00	10/05/20 20:23	7440-48-4	
Lead	**0.000068J**	mg/L	0.0050	0.000036	1	10/02/20 15:00	10/05/20 20:23	7439-92-1	
Lithium	**0.13**	mg/L	0.030	0.00081	1	10/02/20 15:00	10/05/20 20:23	7439-93-2	
Molybdenum	**0.011**	mg/L	0.010	0.00069	1	10/02/20 15:00	10/05/20 20:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	10/02/20 15:00	10/05/20 20:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/02/20 15:00	10/05/20 20:23	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**790**	mg/L	20.0	20.0	1		09/30/20 09:28		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**437**	mg/L	5.0	5.0	1		10/08/20 15:01		
Alkalinity,Carbonate (CaCO3)	**5.8**	mg/L	5.0	5.0	1		10/08/20 15:01		
Alkalinity, Total as CaCO3	**442**	mg/L	5.0	5.0	1		10/08/20 15:01		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.58**	mg/L	0.10	0.050	1		09/29/20 13:40	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-30D **Lab ID: 92495894026** Collected: 09/24/20 11:00 Received: 09/25/20 10:45 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								
Chloride	**45.4**	mg/L	1.0	0.60	1		09/29/20 13:56	16887-00-6	
Fluoride	**8.2**	mg/L	0.40	0.20	4		09/29/20 19:15	16984-48-8	
Sulfate	**205**	mg/L	4.0	2.0	4		09/29/20 19:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: FB-01 **Lab ID: 92495894027** Collected: 09/24/20 18:50 Received: 09/25/20 10:45 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								
Calcium	ND	mg/L	1.0	0.070	1	10/01/20 18:49	10/05/20 20:38	7440-70-2	
Iron	ND	mg/L	0.040	0.016	1	10/01/20 18:49	10/05/20 20:38	7439-89-6	
Magnesium	ND	mg/L	0.050	0.0076	1	10/01/20 18:49	10/05/20 20:38	7439-95-4	
Manganese	ND	mg/L	0.040	0.0017	1	10/01/20 18:49	10/05/20 20:38	7439-96-5	
Potassium	ND	mg/L	0.20	0.056	1	10/01/20 18:49	10/05/20 20:38	7440-09-7	
Sodium	ND	mg/L	1.0	0.26	1	10/01/20 18:49	10/05/20 20:38	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	10/02/20 15:00	10/05/20 20:29	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	10/02/20 15:00	10/05/20 20:29	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	10/02/20 15:00	10/05/20 20:29	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	10/02/20 15:00	10/05/20 20:29	7440-41-7	
Boron	**0.0064J**	mg/L	0.10	0.0052	1	10/02/20 15:00	10/05/20 20:29	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	10/02/20 15:00	10/05/20 20:29	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	10/02/20 15:00	10/05/20 20:29	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	10/02/20 15:00	10/05/20 20:29	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	10/02/20 15:00	10/05/20 20:29	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	10/02/20 15:00	10/05/20 20:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	10/02/20 15:00	10/05/20 20:29	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	10/02/20 15:00	10/05/20 20:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/02/20 15:00	10/05/20 20:29	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	10/19/20 11:30	10/19/20 16:30	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/30/20 09:28		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/08/20 15:10		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/08/20 15:10		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		10/08/20 15:10		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		09/29/20 13:41	18496-25-8	
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		09/29/20 14:11	16887-00-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: FB-01 **Lab ID: 92495894027** Collected: 09/24/20 18:50 Received: 09/25/20 10:45 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		09/29/20 14:11	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/29/20 14:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-40D **Lab ID: 92495894028** Collected: 09/28/20 15:15 Received: 09/29/20 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		09/29/20 13:37		
pH	**7.69**	Std. Units			1		09/29/20 13:37		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**289**	mg/L	10.0	0.70	10	10/01/20 18:49	10/06/20 16:28	7440-70-2	
Iron	**9.6**	mg/L	0.040	0.016	1	10/01/20 18:49	10/05/20 20:43	7439-89-6	
Magnesium	**58.2**	mg/L	0.050	0.0076	1	10/01/20 18:49	10/05/20 20:43	7439-95-4	
Manganese	**0.36**	mg/L	0.040	0.0017	1	10/01/20 18:49	10/05/20 20:43	7439-96-5	
Potassium	**19.6**	mg/L	0.20	0.056	1	10/01/20 18:49	10/05/20 20:43	7440-09-7	
Sodium	**1960**	mg/L	10.0	2.6	10	10/01/20 18:49	10/06/20 16:28	7440-23-5	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0015J**	mg/L	0.015	0.0014	5	10/02/20 15:00	10/07/20 11:58	7440-36-0	D3
Arsenic	**0.0063J**	mg/L	0.025	0.0039	5	10/02/20 15:00	10/07/20 11:58	7440-38-2	D3
Barium	**0.35**	mg/L	0.050	0.0036	5	10/02/20 15:00	10/07/20 11:58	7440-39-3	
Beryllium	**0.00049J**	mg/L	0.015	0.00023	5	10/02/20 15:00	10/07/20 11:58	7440-41-7	D3
Boron	**0.57**	mg/L	0.50	0.026	5	10/02/20 15:00	10/07/20 11:58	7440-42-8	
Cadmium	ND	mg/L	0.012	0.00059	5	10/02/20 15:00	10/07/20 11:58	7440-43-9	D3
Chromium	**0.0080J**	mg/L	0.050	0.0028	5	10/02/20 15:00	10/07/20 11:58	7440-47-3	D3
Cobalt	**0.0037J**	mg/L	0.025	0.0019	5	10/02/20 15:00	10/07/20 11:58	7440-48-4	D3
Lead	**0.0075J**	mg/L	0.025	0.00018	5	10/02/20 15:00	10/07/20 11:58	7439-92-1	D3
Lithium	**0.095J**	mg/L	0.15	0.0040	5	10/02/20 15:00	10/07/20 11:58	7439-93-2	D3
Molybdenum	**0.016J**	mg/L	0.050	0.0034	5	10/02/20 15:00	10/07/20 11:58	7439-98-7	D3
Selenium	ND	mg/L	0.050	0.0078	5	10/02/20 15:00	10/07/20 11:58	7782-49-2	D3
Thallium	ND	mg/L	0.0050	0.00072	5	10/02/20 15:00	10/07/20 11:58	7440-28-0	D3
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**6470**	mg/L	50.0	50.0	1		10/01/20 15:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**1010**	mg/L	5.0	5.0	1		10/08/20 19:04		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		10/08/20 19:04		
Alkalinity, Total as CaCO3	**1010**	mg/L	5.0	5.0	1		10/08/20 19:04		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.20**	mg/L	0.10	0.050	1		10/01/20 12:53	18496-25-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Sample: MW-40D **Lab ID: 92495894028** Collected: 09/28/20 15:15 Received: 09/29/20 08:55 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								
Chloride	**542**	mg/L	50.0	30.0	50		10/01/20 17:23	16887-00-6	M6
Fluoride	**0.41**	mg/L	0.10	0.050	1		10/01/20 08:56	16984-48-8	
Sulfate	**3480**	mg/L	50.0	25.0	50		10/01/20 17:23	14808-79-8	M6

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568201
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3010803 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/23/20 17:40	
Iron	mg/L	ND	0.040	0.016	09/23/20 17:40	
Magnesium	mg/L	ND	0.050	0.0076	09/23/20 17:40	
Manganese	mg/L	ND	0.040	0.0017	09/23/20 17:40	
Potassium	mg/L	0.14J	0.20	0.056	09/23/20 17:40	
Sodium	mg/L	ND	1.0	0.26	09/23/20 17:40	

LABORATORY CONTROL SAMPLE: 3010804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	0.99	99	80-120	
Manganese	mg/L	1	0.98	98	80-120	
Potassium	mg/L	1	1.1	105	80-120	
Sodium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010805 3010806

Parameter	Units	92495900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	20.4	1	1	21.1	21.9	69	147	75-125	4	20	M1
Iron	mg/L	0.028J	1	1	0.96	0.97	93	95	75-125	2	20	
Magnesium	mg/L	0.88	1	1	1.8	1.8	94	97	75-125	2	20	
Manganese	mg/L	0.0083J	1	1	0.95	0.96	94	95	75-125	1	20	
Potassium	mg/L	0.28	1	1	1.2	1.2	92	94	75-125	2	20	
Sodium	mg/L	7.7	1	1	8.5	8.9	83	118	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568471
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018

METHOD BLANK: 3011975 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/24/20 20:30	
Iron	mg/L	ND	0.040	0.016	09/24/20 20:30	
Magnesium	mg/L	ND	0.050	0.0076	09/24/20 20:30	
Manganese	mg/L	ND	0.040	0.0017	09/24/20 20:30	
Potassium	mg/L	ND	0.20	0.056	09/24/20 20:30	
Sodium	mg/L	ND	1.0	0.26	09/24/20 20:30	

LABORATORY CONTROL SAMPLE: 3011976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.92J	92	80-120	
Iron	mg/L	1	0.96	96	80-120	
Magnesium	mg/L	1	0.96	96	80-120	
Manganese	mg/L	1	0.97	97	80-120	
Potassium	mg/L	1	0.85	85	80-120	
Sodium	mg/L	1	0.97J	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011977 3011978

Parameter	Units	92495894004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	98.0	1	1	103	99.8	522	175	75-125	3	20	M1
Iron	mg/L	0.30	1	1	1.3	1.4	97	107	75-125	7	20	
Magnesium	mg/L	8.9	1	1	10.3	10.1	139	122	75-125	2	20	M1
Manganese	mg/L	0.15	1	1	1.1	1.2	96	109	75-125	11	20	
Potassium	mg/L	2.3	1	1	3.4	3.4	108	107	75-125	0	20	
Sodium	mg/L	8.7	1	1	10.0	9.8	133	107	75-125	3	20	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011979 3011980

Parameter	Units	92495894005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	105	1	1	124	132	1930	2680	75-125	6	20	M1
Iron	mg/L	0.019J	1	1	0.96	0.94	94	92	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011979 3011980

Parameter	Units	92495894005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Magnesium	mg/L	9.5	1	1	17.3	18.3	782	883	75-125	6	20	M1
Manganese	mg/L	0.16	1	1	0.96	0.95	80	79	75-125	1	20	
Potassium	mg/L	2.4	1	1	4.7	4.8	227	242	75-125	3	20	M1
Sodium	mg/L	9.4	1	1	6.6	6.9	-281	-247	75-125	5	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568747
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894019, 92495894020, 92495894021

METHOD BLANK: 3013294 Matrix: Water
Associated Lab Samples: 92495894019, 92495894020, 92495894021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 18:16	
Iron	mg/L	ND	0.040	0.016	09/25/20 18:16	
Magnesium	mg/L	ND	0.050	0.0076	09/25/20 18:16	
Manganese	mg/L	ND	0.040	0.0017	09/25/20 18:16	
Potassium	mg/L	ND	0.20	0.056	09/25/20 18:16	
Sodium	mg/L	ND	1.0	0.26	09/25/20 18:16	

LABORATORY CONTROL SAMPLE: 3013295

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.98J	98	80-120	
Iron	mg/L	1	0.97	97	80-120	
Magnesium	mg/L	1	1.0	100	80-120	
Manganese	mg/L	1	1.0	101	80-120	
Potassium	mg/L	1	1.0	105	80-120	
Sodium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013296 3013297

Parameter	Units	92495904004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	75.8	1	1	74.9	75.7	-84	-9	75-125	1	20	M1
Iron	mg/L	0.031J	1	1	0.94	0.96	91	93	75-125	2	20	
Magnesium	mg/L	5.6	1	1	6.4	6.4	81	89	75-125	1	20	
Manganese	mg/L	0.0055J	1	1	0.95	0.97	94	97	75-125	3	20	
Potassium	mg/L	0.90	1	1	1.8	1.9	93	99	75-125	3	20	
Sodium	mg/L	7.1	1	1	8.0	8.0	82	87	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568748
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3013298 Matrix: Water
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 20:40	
Iron	mg/L	ND	0.040	0.016	09/25/20 20:40	
Magnesium	mg/L	ND	0.050	0.0076	09/25/20 20:40	
Manganese	mg/L	ND	0.040	0.0017	09/25/20 20:40	
Potassium	mg/L	0.12J	0.20	0.056	09/25/20 20:40	
Sodium	mg/L	ND	1.0	0.26	09/25/20 20:40	

LABORATORY CONTROL SAMPLE: 3013299

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.95J	95	80-120	
Iron	mg/L	1	0.93	93	80-120	
Magnesium	mg/L	1	0.95	95	80-120	
Manganese	mg/L	1	0.96	96	80-120	
Potassium	mg/L	1	1.1	107	80-120	
Sodium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013300 3013301

Parameter	Units	92495894022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	75.3	1	1	79.7	76.2	438	83	75-125	5	20	M1
Iron	mg/L	ND	1	1	0.96	0.93	95	92	75-125	3	20	
Magnesium	mg/L	8.6	1	1	10	9.5	138	94	75-125	4	20	M1
Manganese	mg/L	0.0077J	1	1	0.99	0.96	98	95	75-125	3	20	
Potassium	mg/L	0.91	1	1	2.0	2.0	110	110	75-125	0	20	
Sodium	mg/L	8.4	1	1	9.8	9.4	137	92	75-125	5	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570395
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894026, 92495894027, 92495894028

METHOD BLANK: 3021771 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027, 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	10/05/20 18:52	
Iron	mg/L	ND	0.040	0.016	10/05/20 18:52	
Magnesium	mg/L	ND	0.050	0.0076	10/05/20 18:52	
Manganese	mg/L	ND	0.040	0.0017	10/05/20 18:52	
Potassium	mg/L	ND	0.20	0.056	10/05/20 18:52	
Sodium	mg/L	ND	1.0	0.26	10/05/20 18:52	

LABORATORY CONTROL SAMPLE: 3021772

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	
Iron	mg/L	1	0.99	99	80-120	
Magnesium	mg/L	1	1.0	101	80-120	
Manganese	mg/L	1	0.99	99	80-120	
Potassium	mg/L	1	1.0	104	80-120	
Sodium	mg/L	1	1.1	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3021773 3021774

Parameter	Units	92496524015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	72.8	1	1	73.5	75.1	70	232	75-125	2	20	M1
Iron	mg/L	0.39	1	1	1.4	1.5	103	107	75-125	3	20	
Magnesium	mg/L	12.8	1	1	13.8	14.1	96	132	75-125	3	20	M1
Manganese	mg/L	8.6	1	1	9.5	9.7	86	110	75-125	2	20	
Potassium	mg/L	0.72	1	1	1.8	1.8	110	108	75-125	1	20	
Sodium	mg/L	8.1	1	1	9.1	9.3	95	124	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568198
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3010799 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/23/20 17:04	
Arsenic	mg/L	ND	0.0050	0.00078	09/23/20 17:04	
Barium	mg/L	ND	0.010	0.00071	09/23/20 17:04	
Beryllium	mg/L	ND	0.0030	0.000046	09/23/20 17:04	
Boron	mg/L	ND	0.10	0.0052	09/23/20 17:04	
Cadmium	mg/L	ND	0.0025	0.00012	09/23/20 17:04	
Chromium	mg/L	ND	0.010	0.00055	09/23/20 17:04	
Cobalt	mg/L	ND	0.0050	0.00038	09/23/20 17:04	
Lead	mg/L	ND	0.0050	0.000036	09/23/20 17:04	
Lithium	mg/L	ND	0.030	0.00081	09/23/20 17:04	
Molybdenum	mg/L	ND	0.010	0.00069	09/23/20 17:04	
Selenium	mg/L	ND	0.010	0.0016	09/23/20 17:04	
Thallium	mg/L	ND	0.0010	0.00014	09/23/20 17:04	

LABORATORY CONTROL SAMPLE: 3010800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.090	90	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010801 3010802

Parameter	Units	92495900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L				0.10	0.10				1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.097	97	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010801 3010802

Parameter	Units	92495900004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.024	0.1	0.1	0.12	0.12	100	100	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Boron	mg/L	0.013J	1	1	0.97	0.98	96	96	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.098	98	97	75-125	0	20	
Lead	mg/L	0.000049J	0.1	0.1	0.095	0.097	95	97	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.092	0.092	91	92	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568417
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

METHOD BLANK: 3011604 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/23/20 18:33	
Arsenic	mg/L	ND	0.0050	0.00078	09/23/20 18:33	
Barium	mg/L	ND	0.010	0.00071	09/23/20 18:33	
Beryllium	mg/L	ND	0.0030	0.000046	09/23/20 18:33	
Boron	mg/L	ND	0.10	0.0052	09/23/20 18:33	
Cadmium	mg/L	ND	0.0025	0.00012	09/23/20 18:33	
Chromium	mg/L	ND	0.010	0.00055	09/23/20 18:33	
Cobalt	mg/L	ND	0.0050	0.00038	09/23/20 18:33	
Lead	mg/L	ND	0.0050	0.000036	09/23/20 18:33	
Lithium	mg/L	ND	0.030	0.00081	09/23/20 18:33	
Molybdenum	mg/L	ND	0.010	0.00069	09/23/20 18:33	
Selenium	mg/L	ND	0.010	0.0016	09/23/20 18:33	
Thallium	mg/L	ND	0.0010	0.00014	09/23/20 18:33	

LABORATORY CONTROL SAMPLE: 3011605

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	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	106	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011606 3011607

Parameter	Units	92495876001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011606 3011607

Parameter	Units	92495876001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.030	0.1	0.1	0.13	0.13	96	95	75-125	1	20	
Beryllium	mg/L	0.00012J	0.1	0.1	0.098	0.095	98	95	75-125	2	20	
Boron	mg/L	0.0065J	1	1	1.0	0.98	100	97	75-125	3	20	
Cadmium	mg/L	0.00016J	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	1	20	
Lead	mg/L	0.00065J	0.1	0.1	0.098	0.099	97	99	75-125	2	20	
Lithium	mg/L	0.0014J	0.1	0.1	0.10	0.10	101	100	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.096	96	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568430
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894011, 92495894012, 92495894013

METHOD BLANK: 3011696 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012, 92495894013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/28/20 15:48	
Arsenic	mg/L	ND	0.0050	0.00078	09/28/20 15:48	
Barium	mg/L	ND	0.010	0.00071	09/28/20 15:48	
Beryllium	mg/L	ND	0.0030	0.000046	09/28/20 15:48	
Boron	mg/L	ND	0.10	0.0052	09/28/20 15:48	
Cadmium	mg/L	ND	0.0025	0.00012	09/28/20 15:48	
Chromium	mg/L	ND	0.010	0.00055	09/28/20 15:48	
Cobalt	mg/L	ND	0.0050	0.00038	09/28/20 15:48	
Lead	mg/L	ND	0.0050	0.000036	09/28/20 15:48	
Lithium	mg/L	ND	0.030	0.00081	09/28/20 15:48	
Molybdenum	mg/L	ND	0.010	0.00069	09/28/20 15:48	
Selenium	mg/L	ND	0.010	0.0016	09/28/20 15:48	
Thallium	mg/L	ND	0.0010	0.00014	09/28/20 15:48	

LABORATORY CONTROL SAMPLE: 3011697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.1	115	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012194 3012195

Parameter	Units	92495870011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012194 3012195

Parameter	Units	92495870011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.0079J	0.1	0.1	0.10	0.11	96	103	75-125	6	20	
Beryllium	mg/L	ND	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Boron	mg/L	0.0079J	1	1	1.1	1.2	112	116	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	102	75-125	5	20	
Chromium	mg/L	ND	0.1	0.1	0.098	0.10	98	104	75-125	7	20	
Cobalt	mg/L	ND	0.1	0.1	0.096	0.10	96	101	75-125	6	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.10	97	103	75-125	6	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.11	101	106	75-125	5	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.091	0.097	90	96	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.10	97	102	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568749
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

METHOD BLANK: 3013302 Matrix: Water
Associated Lab Samples: 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/25/20 18:19	
Arsenic	mg/L	ND	0.0050	0.00078	09/25/20 18:19	
Barium	mg/L	ND	0.010	0.00071	09/25/20 18:19	
Beryllium	mg/L	ND	0.0030	0.000046	09/25/20 18:19	
Boron	mg/L	ND	0.10	0.0052	09/25/20 18:19	
Cadmium	mg/L	ND	0.0025	0.00012	09/25/20 18:19	
Chromium	mg/L	ND	0.010	0.00055	09/25/20 18:19	
Cobalt	mg/L	ND	0.0050	0.00038	09/25/20 18:19	
Lead	mg/L	ND	0.0050	0.000036	09/25/20 18:19	
Lithium	mg/L	ND	0.030	0.00081	09/25/20 18:19	
Molybdenum	mg/L	ND	0.010	0.00069	09/25/20 18:19	
Selenium	mg/L	ND	0.010	0.0016	09/25/20 18:19	
Thallium	mg/L	ND	0.0010	0.00014	09/25/20 18:19	

LABORATORY CONTROL SAMPLE: 3013303

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	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013304 3013305

Parameter	Units	92495894014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	104	108	75-125	4	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.11	101	106	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3013304 3013305

Parameter	Units	92495894014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.099	0.1	0.1	0.18	0.19	85	89	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.099	96	99	75-125	4	20	
Boron	mg/L	2.0	1	1	3.0	3.1	102	106	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	104	75-125	7	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	101	108	75-125	7	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.10	97	101	75-125	4	20	
Lithium	mg/L	0.0032J	0.1	0.1	0.095	0.099	92	96	75-125	4	20	
Molybdenum	mg/L	0.014	0.1	0.1	0.12	0.12	105	109	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.10	97	103	75-125	7	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.099	94	99	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569670
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3017842 Matrix: Water
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/30/20 17:26	
Arsenic	mg/L	ND	0.0050	0.00078	09/30/20 17:26	
Barium	mg/L	ND	0.010	0.00071	09/30/20 17:26	
Beryllium	mg/L	ND	0.0030	0.000046	09/30/20 17:26	
Boron	mg/L	ND	0.10	0.0052	09/30/20 17:26	
Cadmium	mg/L	ND	0.0025	0.00012	09/30/20 17:26	
Chromium	mg/L	ND	0.010	0.00055	09/30/20 17:26	
Cobalt	mg/L	ND	0.0050	0.00038	09/30/20 17:26	
Lead	mg/L	ND	0.0050	0.000036	09/30/20 17:26	
Lithium	mg/L	ND	0.030	0.00081	09/30/20 17:26	
Molybdenum	mg/L	ND	0.010	0.00069	09/30/20 17:26	
Selenium	mg/L	ND	0.010	0.0016	09/30/20 17:26	
Thallium	mg/L	ND	0.0010	0.00014	09/30/20 17:26	

LABORATORY CONTROL SAMPLE: 3017843

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017844 3017845

Parameter	Units	92495894020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00029J	0.1	0.1	0.099	0.10	99	102	75-125	3	20	
Arsenic	mg/L	0.39	0.1	0.1	0.48	0.48	88	90	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017844 3017845

Parameter	Units	92495894020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.052	0.1	0.1	0.15	0.15	98	101	75-125	2	20	
Beryllium	mg/L	0.00011J	0.1	0.1	0.087	0.090	87	90	75-125	4	20	
Boron	mg/L	1.6	1	1	2.4	2.5	79	89	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20	
Chromium	mg/L	0.00056J	0.1	0.1	0.093	0.094	93	93	75-125	1	20	
Cobalt	mg/L	0.0032J	0.1	0.1	0.094	0.096	91	92	75-125	2	20	
Lead	mg/L	0.00015J	0.1	0.1	0.093	0.093	93	92	75-125	0	20	
Lithium	mg/L	0.028J	0.1	0.1	0.12	0.12	87	89	75-125	2	20	
Molybdenum	mg/L	0.032	0.1	0.1	0.13	0.13	95	99	75-125	3	20	
Selenium	mg/L	0.0016J	0.1	0.1	0.094	0.10	92	98	75-125	6	20	
Thallium	mg/L	0.00036J	0.1	0.1	0.095	0.096	94	95	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570627
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894026, 92495894027, 92495894028

METHOD BLANK: 3022878 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027, 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	10/05/20 18:29	
Arsenic	mg/L	ND	0.0050	0.00078	10/05/20 18:29	
Barium	mg/L	ND	0.010	0.00071	10/05/20 18:29	
Beryllium	mg/L	ND	0.0030	0.000046	10/05/20 18:29	
Boron	mg/L	ND	0.10	0.0052	10/05/20 18:29	
Cadmium	mg/L	ND	0.0025	0.00012	10/05/20 18:29	
Chromium	mg/L	ND	0.010	0.00055	10/05/20 18:29	
Cobalt	mg/L	ND	0.0050	0.00038	10/05/20 18:29	
Lead	mg/L	ND	0.0050	0.000036	10/05/20 18:29	
Lithium	mg/L	ND	0.030	0.00081	10/05/20 18:29	
Molybdenum	mg/L	ND	0.010	0.00069	10/05/20 18:29	
Selenium	mg/L	ND	0.010	0.0016	10/05/20 18:29	
Thallium	mg/L	ND	0.0010	0.00014	10/05/20 18:29	

LABORATORY CONTROL SAMPLE: 3022879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	101	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	0.097	97	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3022880 3022881

Parameter	Units	92498084008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.095	102	95	75-125	7	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.095	100	95	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3022880 3022881

Parameter	Units	92498084008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.026	0.1	0.1	0.13	0.12	101	91	75-125	9	20	
Beryllium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	4	20	
Boron	mg/L	0.053	1	1	1.1	1.1	105	103	75-125	2	20	
Cadmium	mg/L	0.00012J	0.1	0.1	0.10	0.094	99	94	75-125	6	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.096	103	95	75-125	8	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.093	100	93	75-125	7	20	
Lead	mg/L	ND	0.1	0.1	0.099	0.094	99	94	75-125	5	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.096	100	96	75-125	4	20	
Molybdenum	mg/L	0.0089J	0.1	0.1	0.11	0.10	100	93	75-125	7	20	
Selenium	mg/L	0.0051J	0.1	0.1	0.11	0.099	101	94	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.094	100	93	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 572608
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894009, 92495894010

METHOD BLANK: 3032633 Matrix: Water
Associated Lab Samples: 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	10/13/20 12:38	

LABORATORY CONTROL SAMPLE: 3032634

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3032635 3032636

Parameter	Units	92499821002 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	0.0025	0.0026	97	102	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 574037
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894027

METHOD BLANK: 3039024 Matrix: Water
Associated Lab Samples: 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	10/19/20 15:26	

LABORATORY CONTROL SAMPLE: 3039025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3039026 3039027

Parameter	Units	92500270001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	0.090J ug/L	0.0025	0.0025	0.0024	0.0024	92	93	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567372
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

METHOD BLANK: 3006601 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/18/20 09:58	

LABORATORY CONTROL SAMPLE: 3006602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	84-108	

SAMPLE DUPLICATE: 3006603

Parameter	Units	92495653011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	622	654	5	10	

SAMPLE DUPLICATE: 3006604

Parameter	Units	92495900008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1220	1250	3	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567872
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3009209 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/17/20 15:18	

LABORATORY CONTROL SAMPLE: 3009210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	84-108	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568080 | Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017

METHOD BLANK: 3010068 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015, 92495894016, 92495894017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/22/20 14:20	

LABORATORY CONTROL SAMPLE: 3010069

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	84-108	

SAMPLE DUPLICATE: 3010070

Parameter	Units	92495870014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	111	110	1	10	

SAMPLE DUPLICATE: 3010071

Parameter	Units	92495900015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	188	187	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568395
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894018, 92495894019, 92495894020, 92495894021

METHOD BLANK: 3011476 Matrix: Water
Associated Lab Samples: 92495894018, 92495894019, 92495894020, 92495894021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/23/20 13:15	

LABORATORY CONTROL SAMPLE: 3011477

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	375	94	84-108	

SAMPLE DUPLICATE: 3011478

Parameter	Units	92495894018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	382	404	6	10	

SAMPLE DUPLICATE: 3011479

Parameter	Units	92495870020 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	93.0	91.0	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568648
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3012738 Matrix: Water
Associated Lab Samples: 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/24/20 10:26	

LABORATORY CONTROL SAMPLE: 3012739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	84-108	

SAMPLE DUPLICATE: 3012740

Parameter	Units	92497007001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	207	204	1	10	

SAMPLE DUPLICATE: 3012944

Parameter	Units	92496771001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	158	157	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569874
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3018862 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/20 09:26	

LABORATORY CONTROL SAMPLE: 3018863

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	84-108	

SAMPLE DUPLICATE: 3018864

Parameter	Units	92497404001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	130	150	14	10	D6

SAMPLE DUPLICATE: 3018865

Parameter	Units	92495894026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	790	774	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570220
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92495894028

METHOD BLANK: 3020462 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/01/20 15:26	

LABORATORY CONTROL SAMPLE: 3020463

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

SAMPLE DUPLICATE: 3020464

Parameter	Units	92496524014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	188	205	9	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568673
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

METHOD BLANK: 3012830 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/24/20 13:03	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 13:03	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 13:03	

LABORATORY CONTROL SAMPLE: 3012831

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012832 3012833

Parameter	Units	92495900001 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	307	50	50	358	359	102	104	80-120	0	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012834 3012835

Parameter	Units	92495900007 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	ND	50	50	42.7	42.2	85	84	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568674
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012

METHOD BLANK: 3012844 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894011, 92495894012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/24/20 15:38	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 15:38	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/24/20 15:38	

LABORATORY CONTROL SAMPLE: 3012845

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012846 3012847

Parameter	Units	92495900010 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	294	50	50	329	322	69	57	80-120	2	25	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012848 3012849

Parameter	Units	92496584005 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	15.8	50	50	68.4	68.9	105	106	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568970
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019, 92495894020, 92495894021, 92495894022, 92495894023

METHOD BLANK: 3014490 Matrix: Water
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019, 92495894020, 92495894021, 92495894022, 92495894023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	09/30/20 11:38	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	09/30/20 11:38	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	09/30/20 11:38	

LABORATORY CONTROL SAMPLE: 3014491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.5	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3014492 3014493

Parameter	Units	92495894013 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	231	50	50	274	281	86	100	80-120	3	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3014494 3014495

Parameter	Units	92495894018 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	288	50	50	343	338	111	100	80-120	2	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570242
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894024, 92495894025

METHOD BLANK: 3020557 Matrix: Water
Associated Lab Samples: 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/01/20 14:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/01/20 14:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/01/20 14:25	

LABORATORY CONTROL SAMPLE: 3020558

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.2	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020559 3020560

Parameter	Units	92496574010 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	20.2	50	50	70.4	71.4	100	102	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020561 3020562

Parameter	Units	92496574018 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	ND	50	50	51.4	51.5	103	103	80-120	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 571506
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3026929 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/08/20 14:21	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 14:21	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 14:21	

LABORATORY CONTROL SAMPLE: 3026930

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.1	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3026931 3026932

Parameter	Units	92497532022 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	231	50	50	288	286	114	110	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3026933 3026934

Parameter	Units	92497532028 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	90.3	50	50	141	143	101	104	80-120	1	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 571655
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894028

METHOD BLANK: 3027877 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/08/20 18:28	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 18:28	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/08/20 18:28	

LABORATORY CONTROL SAMPLE: 3027878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3027879 3027880

Parameter	Units	92497913003 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	57.8	50	50	108	109	100	103	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3029635 3029636

Parameter	Units	92495904018 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	313	50	50	353	358	79	90	80-120	2	25	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568020
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894009, 92495894010

METHOD BLANK: 3009676 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003, 92495894004, 92495894005, 92495894006, 92495894007, 92495894008, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/22/20 14:09	

LABORATORY CONTROL SAMPLE: 3009677

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: 3009678 3009679

Parameter	Units	92495900001 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	0.52	0.52	98	98	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009680 3009681

Parameter	Units	92495900002 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	0.39	0.39	77	77	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568021
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894011, 92495894012

METHOD BLANK: 3009682 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/22/20 14:24	

LABORATORY CONTROL SAMPLE: 3009683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.54	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009684 3009685

Parameter	Units	92496157004 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	0.46	0.47	90	91	80-120	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009686 3009687

Parameter	Units	92496157005 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	0.38	0.38	72	72	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568022
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

METHOD BLANK: 3009689 Matrix: Water
Associated Lab Samples: 92495894013, 92495894014, 92495894015, 92495894016, 92495894017, 92495894018, 92495894019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/22/20 14:40	

LABORATORY CONTROL SAMPLE: 3009690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009691 3009692

Parameter	Units	92495894013 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	0.50	94	94	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009693 3009694

Parameter	Units	92495894014 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	0.51	0.51	98	98	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568633
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3012716 Matrix: Water
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/24/20 11:36	

LABORATORY CONTROL SAMPLE: 3012717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012718 3012719

Parameter	Units	92496675001 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	0.49	0.49	96	96	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3012720 3012721

Parameter	Units	92496675002 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	0.45	83	83	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569578
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3017573 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	09/29/20 13:31	

LABORATORY CONTROL SAMPLE: 3017574

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.53	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017575 3017576

Parameter	Units	92497532005 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	0.55	0.54	108	108	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017577 3017578

Parameter	Units	92497358003 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	0.54	0.55	107	108	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570214
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894028

METHOD BLANK: 3020426 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	10/01/20 12:47	

LABORATORY CONTROL SAMPLE: 3020427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.55	109	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020428 3020429

Parameter	Units	92497738004 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	0.55	0.55	108	108	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020430 3020431

Parameter	Units	92497738003 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	0.56	0.56	109	109	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567529
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894001, 92495894002, 92495894003

METHOD BLANK: 3007534 Matrix: Water
Associated Lab Samples: 92495894001, 92495894002, 92495894003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/18/20 16:46	
Fluoride	mg/L	ND	0.10	0.050	09/18/20 16:46	
Sulfate	mg/L	ND	1.0	0.50	09/18/20 16:46	

LABORATORY CONTROL SAMPLE: 3007535

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	52.4	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3007536 3007537

Parameter	Units	92496029001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	13.6	50	50	68.1	69.2	109	111	90-110	2	10	M1
Fluoride	mg/L	0.10	2.5	2.5	2.8	2.9	109	112	90-110	3	10	M1
Sulfate	mg/L	7.4	50	50	62.2	63.3	110	112	90-110	2	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3007538 3007539

Parameter	Units	92495653005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.5	50	50	58.5	62.8	106	115	90-110	7	10	M1
Fluoride	mg/L	0.057J	2.5	2.5	2.8	3.0	108	116	90-110	7	10	M1
Sulfate	mg/L	241	50	50	287	291	91	100	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567607
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894009, 92495894010

METHOD BLANK: 3008004 Matrix: Water
Associated Lab Samples: 92495894004, 92495894005, 92495894006, 92495894009, 92495894010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/19/20 15:23	
Fluoride	mg/L	ND	0.10	0.050	09/19/20 15:23	
Sulfate	mg/L	ND	1.0	0.50	09/19/20 15:23	

LABORATORY CONTROL SAMPLE: 3008005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.3	105	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008008 3008009

Parameter	Units	92495964005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.9	50	50	61.3	62.0	107	108	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	107	108	90-110	1	10	
Sulfate	mg/L	256	50	50	298	299	85	87	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008006 3008007

Parameter	Units	92495653007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.4	50	50	57.4	58.2	106	108	90-110	1	10	
Fluoride	mg/L	0.13	2.5	2.5	2.8	2.8	107	109	90-110	1	10	
Sulfate	mg/L	334	50	50	389	385	111	103	90-110	1	10	M6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567633
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894007, 92495894008

METHOD BLANK: 3008109 Matrix: Water
Associated Lab Samples: 92495894007, 92495894008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/19/20 22:51	
Fluoride	mg/L	ND	0.10	0.050	09/19/20 22:51	
Sulfate	mg/L	ND	1.0	0.50	09/19/20 22:51	

LABORATORY CONTROL SAMPLE: 3008110

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.0	106	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	53.1	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008111 3008112

Parameter	Units	92496222001 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	52.6	53.5	105	107	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	105	107	90-110	2	10	
Sulfate	mg/L	ND	50	50	52.3	53.3	105	106	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 567943
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015

METHOD BLANK: 3009484 Matrix: Water
Associated Lab Samples: 92495894011, 92495894012, 92495894013, 92495894014, 92495894015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/22/20 07:03	
Fluoride	mg/L	ND	0.10	0.050	09/22/20 07:03	
Sulfate	mg/L	ND	1.0	0.50	09/22/20 07:03	

LABORATORY CONTROL SAMPLE: 3009485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.8	110	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	54.9	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009486 3009487

Parameter	Units	92495894011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	105	50	50	152	155	94	101	90-110	2	10	
Fluoride	mg/L	0.10	2.5	2.5	2.7	2.7	103	104	90-110	1	10	
Sulfate	mg/L	209	50	50	255	261	92	103	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009488 3009489

Parameter	Units	92495900016 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	52.8	52.5	106	105	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.6	52.2	105	104	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568377
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894016, 92495894017, 92495894018, 92495894019

METHOD BLANK: 3011350 Matrix: Water
Associated Lab Samples: 92495894016, 92495894017, 92495894018, 92495894019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/20 06:58	
Fluoride	mg/L	ND	0.10	0.050	09/24/20 06:58	
Sulfate	mg/L	ND	1.0	0.50	09/24/20 06:58	

LABORATORY CONTROL SAMPLE: 3011351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011352 3011353

Parameter	Units	92495656005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.9	50	50	55.8	56.2	108	109	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.8	109	110	90-110	1	10	
Sulfate	mg/L	5.9	50	50	59.3	59.6	107	108	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011354 3011355

Parameter	Units	92496524001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.6	50	50	56.8	57.6	108	110	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.8	108	110	90-110	2	10	
Sulfate	mg/L	1.0	50	50	54.0	54.8	106	108	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 568379
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

METHOD BLANK: 3011360 Matrix: Water
Associated Lab Samples: 92495894020, 92495894021, 92495894022, 92495894023, 92495894024, 92495894025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/20 14:11	
Fluoride	mg/L	ND	0.10	0.050	09/24/20 14:11	
Sulfate	mg/L	ND	1.0	0.50	09/24/20 14:11	

LABORATORY CONTROL SAMPLE: 3011361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.6	103	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	50.7	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011362 3011363

Parameter	Units	92495870024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.64J	50	50	54.6	55.2	108	109	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.8	110	110	90-110	0	10	
Sulfate	mg/L	0.90J	50	50	53.7	54.3	106	107	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011364 3011365

Parameter	Units	92495900019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	236	50	50	284	284	96	95	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	100	90-110	4	10	
Sulfate	mg/L	1010	50	50	1040	1040	78	68	90-110	1	10	M6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 569516
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894026, 92495894027

METHOD BLANK: 3017410 Matrix: Water
Associated Lab Samples: 92495894026, 92495894027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/29/20 08:53	
Fluoride	mg/L	ND	0.10	0.050	09/29/20 08:53	
Sulfate	mg/L	ND	1.0	0.50	09/29/20 08:53	

LABORATORY CONTROL SAMPLE: 3017411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.8	110	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	54.9	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017412 3017413

Parameter	Units	92497532015 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	52.8	52.1	106	104	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	106	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.5	52.0	105	104	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017414 3017415

Parameter	Units	92495894027 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	52.5	52.9	105	105	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.1	52.0	104	104	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

QC Batch: 570137
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92495894028

METHOD BLANK: 3020267 Matrix: Water
Associated Lab Samples: 92495894028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/01/20 07:56	
Fluoride	mg/L	ND	0.10	0.050	10/01/20 07:56	
Sulfate	mg/L	ND	1.0	0.50	10/01/20 07:56	

LABORATORY CONTROL SAMPLE: 3020268

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.3	107	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	53.4	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020269 3020270

Parameter	Units	92495894028 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	542	50	50	583	587	82	89	90-110	1	10	M6
Fluoride	mg/L	0.41	2.5	2.5	3.2	3.1	110	109	90-110	1	10	
Sulfate	mg/L	3480	50	50	3520	3530	86	111	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3020271 3020272

Parameter	Units	92496914018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.6	50	50	56.0	56.5	109	110	90-110	1	10	
Fluoride	mg/L	0.063J	2.5	2.5	2.8	2.8	109	111	90-110	2	10	M1
Sulfate	mg/L	110	50	50	160	161	101	103	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
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.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
MW	Due to matrix interference, achieving a constant weight is not possible.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894001	**HGWA-1**				
92495894002	**HGWA-2**				
92495894003	**HGWA-3**				
92495894004	**HGWC-7**				
92495894005	**HGWC-7 FILTERED**				
92495894006	**HGWC-8**				
92495894007	**HGWC-10**				
92495894008	**MW-29**				
92495894009	**HGWA-43D**				
92495894010	**HGWA-44D**				
92495894011	**HGWC-9**				
92495894012	**MW-5**				
92495894013	**MW-20**				
92495894014	**MW-26D**				
92495894016	**HGWC-11**				
92495894017	**HGWC-12**				
92495894018	**MW-25D**				
92495894019	**MW-27D**				
92495894020	**HGWC-13**				
92495894021	**MW-6**				
92495894022	**MW-7**				
92495894023	**MW-24D**				
92495894024	**MW-19**				
92495894025	**MW-28D**				
92495894026	**MW-30D**				
92495894028	**MW-40D**				
92495894001	**HGWA-1**	EPA 3010A	568201	EPA 6010D	568230
92495894002	**HGWA-2**	EPA 3010A	568201	EPA 6010D	568230
92495894003	**HGWA-3**	EPA 3010A	568201	EPA 6010D	568230
92495894004	**HGWC-7**	EPA 3010A	568471	EPA 6010D	568669
92495894005	**HGWC-7 FILTERED**	EPA 3010A	568471	EPA 6010D	568669
92495894006	**HGWC-8**	EPA 3010A	568471	EPA 6010D	568669
92495894007	**HGWC-10**	EPA 3010A	568471	EPA 6010D	568669
92495894008	**MW-29**	EPA 3010A	568471	EPA 6010D	568669
92495894009	**HGWA-43D**	EPA 3010A	568201	EPA 6010D	568230
92495894010	**HGWA-44D**	EPA 3010A	568201	EPA 6010D	568230
92495894011	**HGWC-9**	EPA 3010A	568471	EPA 6010D	568669
92495894012	**MW-5**	EPA 3010A	568471	EPA 6010D	568669
92495894013	**MW-20**	EPA 3010A	568471	EPA 6010D	568669
92495894014	**MW-26D**	EPA 3010A	568471	EPA 6010D	568669
92495894015	**FD-01**	EPA 3010A	568471	EPA 6010D	568669
92495894016	**HGWC-11**	EPA 3010A	568471	EPA 6010D	568669
92495894017	**HGWC-12**	EPA 3010A	568471	EPA 6010D	568669
92495894018	**MW-25D**	EPA 3010A	568471	EPA 6010D	568669
92495894019	**MW-27D**	EPA 3010A	568747	EPA 6010D	568813
92495894020	**HGWC-13**	EPA 3010A	568747	EPA 6010D	568813

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894021	**MW-6**	EPA 3010A	568747	EPA 6010D	568813
92495894022	**MW-7**	EPA 3010A	568748	EPA 6010D	568812
92495894023	**MW-24D**	EPA 3010A	568748	EPA 6010D	568812
92495894024	**MW-19**	EPA 3010A	568748	EPA 6010D	568812
92495894025	**MW-28D**	EPA 3010A	568748	EPA 6010D	568812
92495894026	**MW-30D**	EPA 3010A	570395	EPA 6010D	570414
92495894027	**FB-01**	EPA 3010A	570395	EPA 6010D	570414
92495894028	**MW-40D**	EPA 3010A	570395	EPA 6010D	570414
92495894001	**HGWA-1**	EPA 3005A	568198	EPA 6020B	568229
92495894002	**HGWA-2**	EPA 3005A	568198	EPA 6020B	568229
92495894003	**HGWA-3**	EPA 3005A	568198	EPA 6020B	568229
92495894004	**HGWC-7**	EPA 3005A	568417	EPA 6020B	568454
92495894005	**HGWC-7 FILTERED**	EPA 3005A	568417	EPA 6020B	568454
92495894006	**HGWC-8**	EPA 3005A	568417	EPA 6020B	568454
92495894007	**HGWC-10**	EPA 3005A	568417	EPA 6020B	568454
92495894008	**MW-29**	EPA 3005A	568417	EPA 6020B	568454
92495894009	**HGWA-43D**	EPA 3005A	568198	EPA 6020B	568229
92495894010	**HGWA-44D**	EPA 3005A	568198	EPA 6020B	568229
92495894011	**HGWC-9**	EPA 3005A	568430	EPA 6020B	568663
92495894012	**MW-5**	EPA 3005A	568430	EPA 6020B	568663
92495894013	**MW-20**	EPA 3005A	568430	EPA 6020B	568663
92495894014	**MW-26D**	EPA 3005A	568749	EPA 6020B	568811
92495894015	**FD-01**	EPA 3005A	568749	EPA 6020B	568811
92495894016	**HGWC-11**	EPA 3005A	568749	EPA 6020B	568811
92495894017	**HGWC-12**	EPA 3005A	568749	EPA 6020B	568811
92495894018	**MW-25D**	EPA 3005A	568749	EPA 6020B	568811
92495894019	**MW-27D**	EPA 3005A	568749	EPA 6020B	568811
92495894020	**HGWC-13**	EPA 3005A	569670	EPA 6020B	569718
92495894021	**MW-6**	EPA 3005A	569670	EPA 6020B	569718
92495894022	**MW-7**	EPA 3005A	569670	EPA 6020B	569718
92495894023	**MW-24D**	EPA 3005A	569670	EPA 6020B	569718
92495894024	**MW-19**	EPA 3005A	569670	EPA 6020B	569718
92495894025	**MW-28D**	EPA 3005A	569670	EPA 6020B	569718
92495894026	**MW-30D**	EPA 3005A	570627	EPA 6020B	570682
92495894027	**FB-01**	EPA 3005A	570627	EPA 6020B	570682
92495894028	**MW-40D**	EPA 3005A	570627	EPA 6020B	570682
92495894009	**HGWA-43D**	EPA 7470A	572608	EPA 7470A	572822
92495894010	**HGWA-44D**	EPA 7470A	572608	EPA 7470A	572822
92495894027	**FB-01**	EPA 7470A	574037	EPA 7470A	574115
92495894001	**HGWA-1**	SM 2450C-2011	567872		
92495894002	**HGWA-2**	SM 2450C-2011	567872		
92495894003	**HGWA-3**	SM 2450C-2011	567872		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894004	**HGWC-7**	SM 2450C-2011	567372		
92495894005	**HGWC-7 FILTERED**	SM 2450C-2011	567372		
92495894006	**HGWC-8**	SM 2450C-2011	567372		
92495894007	**HGWC-10**	SM 2450C-2011	567372		
92495894008	**MW-29**	SM 2450C-2011	567372		
92495894009	**HGWA-43D**	SM 2450C-2011	567872		
92495894010	**HGWA-44D**	SM 2450C-2011	567872		
92495894011	**HGWC-9**	SM 2450C-2011	568080		
92495894012	**MW-5**	SM 2450C-2011	568080		
92495894013	**MW-20**	SM 2450C-2011	568080		
92495894014	**MW-26D**	SM 2450C-2011	568080		
92495894015	**FD-01**	SM 2450C-2011	568080		
92495894016	**HGWC-11**	SM 2450C-2011	568080		
92495894017	**HGWC-12**	SM 2450C-2011	568080		
92495894018	**MW-25D**	SM 2450C-2011	568395		
92495894019	**MW-27D**	SM 2450C-2011	568395		
92495894020	**HGWC-13**	SM 2450C-2011	568395		
92495894021	**MW-6**	SM 2450C-2011	568395		
92495894022	**MW-7**	SM 2450C-2011	568648		
92495894023	**MW-24D**	SM 2450C-2011	568648		
92495894024	**MW-19**	SM 2450C-2011	568648		
92495894025	**MW-28D**	SM 2450C-2011	568648		
92495894026	**MW-30D**	SM 2450C-2011	569874		
92495894027	**FB-01**	SM 2450C-2011	569874		
92495894028	**MW-40D**	SM 2450C-2011	570220		
92495894001	**HGWA-1**	SM 2320B-2011	568673		
92495894002	**HGWA-2**	SM 2320B-2011	568673		
92495894003	**HGWA-3**	SM 2320B-2011	568673		
92495894004	**HGWC-7**	SM 2320B-2011	568674		
92495894005	**HGWC-7 FILTERED**	SM 2320B-2011	568674		
92495894006	**HGWC-8**	SM 2320B-2011	568674		
92495894007	**HGWC-10**	SM 2320B-2011	568674		
92495894008	**MW-29**	SM 2320B-2011	568674		
92495894009	**HGWA-43D**	SM 2320B-2011	568673		
92495894010	**HGWA-44D**	SM 2320B-2011	568673		
92495894011	**HGWC-9**	SM 2320B-2011	568674		
92495894012	**MW-5**	SM 2320B-2011	568674		
92495894013	**MW-20**	SM 2320B-2011	568970		
92495894014	**MW-26D**	SM 2320B-2011	568970		
92495894015	**FD-01**	SM 2320B-2011	568970		
92495894016	**HGWC-11**	SM 2320B-2011	568970		
92495894017	**HGWC-12**	SM 2320B-2011	568970		
92495894018	**MW-25D**	SM 2320B-2011	568970		

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894019	**MW-27D**	SM 2320B-2011	568970		
92495894020	**HGWC-13**	SM 2320B-2011	568970		
92495894021	**MW-6**	SM 2320B-2011	568970		
92495894022	**MW-7**	SM 2320B-2011	568970		
92495894023	**MW-24D**	SM 2320B-2011	568970		
92495894024	**MW-19**	SM 2320B-2011	570242		
92495894025	**MW-28D**	SM 2320B-2011	570242		
92495894026	**MW-30D**	SM 2320B-2011	571506		
92495894027	**FB-01**	SM 2320B-2011	571506		
92495894028	**MW-40D**	SM 2320B-2011	571655		
92495894001	**HGWA-1**	SM 4500-S2D-2011	568020		
92495894002	**HGWA-2**	SM 4500-S2D-2011	568020		
92495894003	**HGWA-3**	SM 4500-S2D-2011	568020		
92495894004	**HGWC-7**	SM 4500-S2D-2011	568020		
92495894005	**HGWC-7 FILTERED**	SM 4500-S2D-2011	568020		
92495894006	**HGWC-8**	SM 4500-S2D-2011	568020		
92495894007	**HGWC-10**	SM 4500-S2D-2011	568020		
92495894008	**MW-29**	SM 4500-S2D-2011	568020		
92495894009	**HGWA-43D**	SM 4500-S2D-2011	568020		
92495894010	**HGWA-44D**	SM 4500-S2D-2011	568020		
92495894011	**HGWC-9**	SM 4500-S2D-2011	568021		
92495894012	**MW-5**	SM 4500-S2D-2011	568021		
92495894013	**MW-20**	SM 4500-S2D-2011	568022		
92495894014	**MW-26D**	SM 4500-S2D-2011	568022		
92495894015	**FD-01**	SM 4500-S2D-2011	568022		
92495894016	**HGWC-11**	SM 4500-S2D-2011	568022		
92495894017	**HGWC-12**	SM 4500-S2D-2011	568022		
92495894018	**MW-25D**	SM 4500-S2D-2011	568022		
92495894019	**MW-27D**	SM 4500-S2D-2011	568022		
92495894020	**HGWC-13**	SM 4500-S2D-2011	568633		
92495894021	**MW-6**	SM 4500-S2D-2011	568633		
92495894022	**MW-7**	SM 4500-S2D-2011	568633		
92495894023	**MW-24D**	SM 4500-S2D-2011	568633		
92495894024	**MW-19**	SM 4500-S2D-2011	568633		
92495894025	**MW-28D**	SM 4500-S2D-2011	568633		
92495894026	**MW-30D**	SM 4500-S2D-2011	569578		
92495894027	**FB-01**	SM 4500-S2D-2011	569578		
92495894028	**MW-40D**	SM 4500-S2D-2011	570214		
92495894001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	567529		
92495894002	**HGWA-2**	EPA 300.0 Rev 2.1 1993	567529		
92495894003	**HGWA-3**	EPA 300.0 Rev 2.1 1993	567529		
92495894004	**HGWC-7**	EPA 300.0 Rev 2.1 1993	567607		
92495894005	**HGWC-7 FILTERED**	EPA 300.0 Rev 2.1 1993	567607		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92495894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495894006	**HGWC-8**	EPA 300.0 Rev 2.1 1993	567607		
92495894007	**HGWC-10**	EPA 300.0 Rev 2.1 1993	567633		
92495894008	**MW-29**	EPA 300.0 Rev 2.1 1993	567633		
92495894009	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	567607		
92495894010	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	567607		
92495894011	**HGWC-9**	EPA 300.0 Rev 2.1 1993	567943		
92495894012	**MW-5**	EPA 300.0 Rev 2.1 1993	567943		
92495894013	**MW-20**	EPA 300.0 Rev 2.1 1993	567943		
92495894014	**MW-26D**	EPA 300.0 Rev 2.1 1993	567943		
92495894015	**FD-01**	EPA 300.0 Rev 2.1 1993	567943		
92495894016	**HGWC-11**	EPA 300.0 Rev 2.1 1993	568377		
92495894017	**HGWC-12**	EPA 300.0 Rev 2.1 1993	568377		
92495894018	**MW-25D**	EPA 300.0 Rev 2.1 1993	568377		
92495894019	**MW-27D**	EPA 300.0 Rev 2.1 1993	568377		
92495894020	**HGWC-13**	EPA 300.0 Rev 2.1 1993	568379		
92495894021	**MW-6**	EPA 300.0 Rev 2.1 1993	568379		
92495894022	**MW-7**	EPA 300.0 Rev 2.1 1993	568379		
92495894023	**MW-24D**	EPA 300.0 Rev 2.1 1993	568379		
92495894024	**MW-19**	EPA 300.0 Rev 2.1 1993	568379		
92495894025	**MW-28D**	EPA 300.0 Rev 2.1 1993	568379		
92495894026	**MW-30D**	EPA 300.0 Rev 2.1 1993	569516		
92495894027	**FB-01**	EPA 300.0 Rev 2.1 1993	569516		
92495894028	**MW-40D**	EPA 300.0 Rev 2.1 1993	570137		

Sample Condition Upon Receipt

PaceAnalytical

Client Name: GA Power

WO#: 92495894

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

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

Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 214 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.4 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 9/16/2009

Temp should be above freezing to 6°C

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

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: Date:

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

F-ALL-C003rev.3, 11September2008

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2

Section A – Required Client Information

- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts
- Phone:
- Fax:
- Requested Due Date/TAT: 10 day

Section B – Required Project Information

- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond AP-1 Semiannual
- Project Number: GW6581B

Section C – Invoice Information

- Attention: Southern Co.
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Kevin Herring
- Pace Profile #: 10839-10/10839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals 6010/6020	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	HGWA-1	WT	G	9-15-20	1401	–	–	22	7	3		3					1	X	X	X	X	X	N	pH = 7.15
2	HGWA-2	WT	G	9-15-20	1158	–	–	20	7	3		3					1	X	X	X	X	X	N	pH = 5.22
~~3~~	~~HGWA-3~~	WT	G																					
~~4~~	~~HGWC-7~~	WT	G																					
~~5~~	~~HGWC-8~~	WT	G																					
~~6~~	~~HGWC-9~~	WT	G																					
~~7~~	~~HGWC-10~~	WT	G																					
~~8~~	~~HGWC-11~~	WT	G																					
~~9~~	~~HGWC-12~~	WT	G																					
~~10~~	~~HGWC-13~~	WT	G																					
~~11~~	~~HAMW-5~~	WT	G																					
~~12~~	~~HAMW-6~~	WT	G																					

G2ug5844

ADDITIONAL COMMENTS:

Please note any wells, strike through any wells not sampled, and note which the last sample for the event has been taken.
*App. III & IV Metals: Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl
Major ions**: Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide
One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MS/MSD. MS/MSD last day will be reported by AP-1/GW SDGs.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Victor Thwar / SCD	9-15-20	17:05	[illegible] / SCD	9/15/20	1705
[illegible] / SCD	9/15/20	1810	[illegible] / GEO	9/15/20	1810
[illegible] / Geo	9/16/20	1113	[illegible] / Pace	9/16/20	1114
Ryan Williams / Pace	9/16/20	1400	[illegible]	9/16/20	1457

SAMPLE CONDITIONS: Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Victor Thwar
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-15-20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 2 of 2

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	[illegible] Day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	[illegible]

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N): N N N N N

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

Pace Project No./ Lab I.D.: 92495894

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G					N	pH =
2	~~HGWA-2~~	WT	G					N	pH =
3	HGWA-3	WT	G	9/15	1145	20	7	N	pH = 7.29
4	~~[illegible]~~	WT	G					N	pH =
5	~~[illegible]~~	WT	G					N	pH =
6	~~[illegible]~~	WT	G					N	pH =
7	~~[illegible]~~	WT	G					N	pH =
8	~~[illegible]~~	WT	G					N	pH =
9	~~[illegible]~~	WT	G					N	pH =
10	~~[illegible]~~	WT	G					N	pH =
11	~~[illegible]~~	WT	G					N	pH =
12	~~[illegible]~~	WT	G					N	pH =

ADDITIONAL COMMENTS: [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / GPC	9/15/20	1830	[signature] / GEO	9/15/20	1830
[signature] / GEO	9/16/20	1113	Ryan Willis / Pace	9/16/20	1114
Ryan Willis / Pace	9/16/20	1457	[signature]	9/16/20	1450

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/15/2020

SAMPLE CONDITIONS: Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 7 of 8

Section A – Required Client Information

Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: Fax:
Requested Due Date/TAT: 10 Day

Section B – Required Project Information

Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6581B

Section C – Invoice Information

Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10636-19/10636-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location (STATE): GA

Pace Project No./ Lab I.D.: 92495894

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Residual Chlorine (Y/N)	Notes
1	HGWA-1	WT	G					pH=
2	HGWA-2	WT	G					pH=
3	HGWA-3	WT	G					pH=
4	HGWC-7	WT	G	9-16-20	1224	7	N	pH= 7.50 004
5	~~HGWC-8~~ HGWC-7-Field	WT	G	9-16-20	1224	7	N	pH= 7.50 005
6	HGWC-9	WT	G					pH=
7	HGWC-10	WT	G					pH=
8	HGWC-11	WT	G					pH=
9	HGWC-12	WT	G					pH=
10	HGWC-13	WT	G					pH=
11	MW-1	WT	G					pH=
12	MW-4	WT	G					pH=

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020*; RAD 226/228; Major Ions

ADDITIONAL COMMENTS:
Please note dry wells, wells though any wells not sampled, and note when the last sample for the event has been taken.
*App. III & IV Metals=Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl
Major Ions** = Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide
One sample set submitted for HGWA-1, HGWA-2, HGWA-3, [illegible] but they will be reported for AP-1/OO [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / GEO	9-16-20	1830	[signature] / GEO	9/16	1830
[signature] / GEO	9/16	1955	[signature] / GEO	9/16/20	1955
[signature] / GEO	9/17	0845	[signature] / Pace	9/17/20	0845
[signature] / Pace	9/17/20	1306	[signature]	9/17/20	1305

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): Y; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: V [illegible]
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-16-20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 7 (4)

Section A – Required Client Information

Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: 10 Day

Section B – Required Project Information

Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6591B

Section C – Invoice Information

Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10639-1/10639-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER
Site Location STATE: GA

Pace Project No./Lab I.D. 92495844

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	# OF CONTAINERS	Unpreserved	HNO_3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	HGWA-1	WT	G												N	pH =
2	HGWA-2	WT	G												N	pH =
3	HGWA-3	WT	G												N	pH =
4	HGWC-7	WT	G												N	pH =
5	HGWC-8	WT	G	9/16	0932	7	2	3	1	X	X	X	X	X	N	pH = 6.92 006
6	HGWC-9	WT	G												N	pH =
7	HGWC-10	WT	G	9/16	1615	7	2	3	1	X	X	X	X	X	N	pH = 6.66 007
8	HGWC-11	WT	G												N	pH =
9	HGWC-12	WT	G												N	pH =
10	HGWC-22	WT	G												N	pH =
11	MW-3	WT	G												N	pH =
12	MW-5	WT	G												N	pH =

ADDITIONAL COMMENTS: Please note dry wells, wells not sampled, and note when the last sample for the event has been taken. *App. III & IV Metals = [illegible]. Major ions = [illegible]. One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MW-4(D), MW-6(D) but they will be reported for AP-1/DD [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	9/16	1835	[illegible] / GPC	9/16	1835
[illegible] / GPC	9/16	1958	[illegible] / GPC	9/16	1955
[illegible] / GPC	9/17	0945	[illegible] / Pace	9/17	0945
[illegible] / Pace	9/17	1305	[illegible]	9/17	1305

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Bryan [illegible]
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9/16/20

SAMPLE CONDITIONS: Temp in °C: 4.1 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): Y | Samples Intact (Y/N): Y

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10836-10/10839-2

Page: 3 of 4 30

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER (checked)

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	Requested Analysis: Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G									
2	~~MW-10~~	WT	G								N	pH =
3	~~MW-20~~	WT	G								N	pH =
4	~~MW-24D~~	WT	G								N	pH =
5	~~MW-25D~~	WT	G								N	pH =
6	~~MW-26D~~	WT	G								N	pH =
7	~~MW-27D~~	WT	G								N	pH =
8	~~MW-28D~~	WT	G								N	pH =
9	MW-29	WT	G	9/16	1835	X	X	X	X	X	N	pH =
10	~~MW-30D~~	WT	G								N	pH = 6.44
11	~~MW-40D~~	WT	G								N	pH =
12	~~FD-01~~	WT	G								N	pH =

Pace Project No./Lab I.D.: 92495894

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.
[illegible]
Major ions: [illegible]
[illegible] AP-1003 SOCs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible signature]	9/16	1835	[illegible signature] / GEO	9/16	1835
[illegible signature] / GEO	9/16	1955	[illegible signature] / GEO	9/16/20	1955
[illegible signature] / GEO	9/17/20	0945	[illegible signature] / Pace	9/17/20	0945
[illegible signature] / Pace	9/17/20	1305	Charles Hand	9/17/20	1305

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): Y; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James J Kessler
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9/16

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 4 of 4

Section A – Required Client Information:
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: 10 day

Section B – Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6518

Section C – Invoice Information:
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: 10606-4/10633-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER
Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	COMPOSITE END DATE	COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	Full App. III/IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./Lab I.D. 92495894
1	MW-43D	WT	G	9/14	1159	–	–		7	3		3					1	X	X	X	X	X	N	pH = 7.52	006
2	MW-44D	WT	G	9/16	1513	–	–		7	3		3					1	X	X	X	X	X	N	pH = 7.93	010
3	~~FB-01~~	WT	G						7	3		3					1	X	X	X	X	X	N	
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

9/16/20

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Please note: dry wells, leaks through any wells not sampled, and date when the last sample for the event has been taken.	Chad Russo / GEO	9/16	1155	Martin Marquez / GEO	9/16/20	1955				
Full App. III & IV metals (Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Hg, Mo, Se, Tl) Major ions: Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide	Martin Marquez / GEO	9/17/20	0945	[signature] / Pace	9/17/20	0945				
One sample will be submitted for HGWA-1, HGWA-2, HGWA-3, MW-40D, MW-44D but they will be reported for AP-1/2/3 SDGs	[signature] / Pace	9/17/20	1306	Charles [signature]	9/17/20	1305	4.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Chad Russo
SIGNATURE of SAMPLER: Chad Russo
DATE Signed (MM/DD/YY): 9/16/20

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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F-ALL-Q-020rev.07, 15-Feb-2007

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

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Page: 1 of 2 (handwritten over "10")

Section A — Required Client Information

- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts
- Phone: | Fax:
- Requested Due Date/TAT: 10 day

Section B — Required Project Information

- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond AP-1 Semiannual
- Project Number: GW6618

Section C — Invoice Information

- Attention: Southern Co
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Kevin Herring
- Pace Profile #: 10839-10*10839-2

REGULATORY AGENCY

NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~HGWA-1~~	WT	G				[illegible]	N	pH=
2	~~HGWA-2~~	WT	G				[illegible]	N	pH=
3	~~HGWA-3~~	WT	G				[illegible]	N	pH=
4	~~HGWC-7~~	WT	G				[illegible]	N	pH=
5	~~HGWC-8~~	WT	G				[illegible]	N	pH=
6	HGWC-9	WT	G	9/17	1142	[illegible]	[illegible]	N	pH= 6.99 011
7	~~HGWC-10~~	WT	G				[illegible]	N	pH=
8	~~HGWC-11~~	WT	G				[illegible]	N	pH=
9	~~HGWC-12~~	WT	G				[illegible]	N	pH=
10	~~HGWC-13~~	WT	G				[illegible]	N	pH=
11	MW-5	WT	G	9/17	1731	[illegible]	[illegible]	N	pH= 6.48 012
12	~~MW-6~~	WT	G				[illegible]	N	pH=

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Requested Analysis Filtered (Y/N) — Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions (marked X for each sample row)

Pace Project No.: 92495894

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / Geosyntec	9/17	1840	[signature] / GPC	9/17	1840
[signature] / GPC	9/17	2000	[signature] / GPC	9/18/20	2000
[signature] / GPC	9/18/20	1017	[signature] / Pace	9/18/20	1018
[signature] / Pace	9/18/20	1345	[signature]	9/18/2020	1345

ADDITIONAL COMMENTS

[illegible]

SAMPLE CONDITIONS: Temp in °C: 5.3 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): Y | Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

- PRINT Name of SAMPLER: Thomas Wessels
- SIGNATURE of SAMPLER: [signature]
- DATE Signed (MM/DD/YY): 09/17/20

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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2 of 2

Page: 1 of 1

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6591B

Section C — Invoice Information

Attention:	Southern Co
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10632-1/10632-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER [illegible]

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92495894

Requested Analysis Filtered (Y/N) — Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals [illegible]; RAD [illegible]; [illegible]

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Notes
1	~~MW-7~~	WT	G					N	~~pH=~~
2	~~MW-19~~	WT	G					N	~~pH=~~
3	MW-20	WT	G	9/17	1534	21	7	N	pH= 6.78 017
4	~~MW-24D~~	WT	G					N	~~pH=~~
5	~~MW-25D~~	WT	G					N	~~pH=~~
6	MW-26D	WT	G	9/17	1302	22	7	N	~~pH=~~
7	~~MW-27D~~	WT	G					N	pH= 7.08 014
8	~~MW-28D~~	WT	G					N	~~pH=~~
9	~~MW-29~~	WT	G					N	~~pH=~~
10	~~MW-30D~~	WT	G					N	~~pH=~~
11	~~MW-40D~~	WT	G					N	~~pH=~~
12	FD-01	WT	G	9/17		22	7	N	015

ADDITIONAL COMMENTS: [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
[signature] / Geosyntec	9/17	1840	[signature] / GPO	9/17	1840	
[signature] / GPO	9/17	1080	[signature] / GPO	9/17	2000	
[signature] / GPO	9/18/20	1017	[signature] / Pace	9/18	1034	
[signature] / Pace	9/18/20	1845	[signature]	9/18/20	1945	5.1 / Y / Y / Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Hammond Kessler

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 09/17/20

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 2

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW0081B

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10039-1010839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D – Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

Requested Analysis Filtered (Y/N): N N N N N

Analyses: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020*; RAD 226/228; Major Ions

Pace Project No./ Lab I.D.: 92495844

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE END DATE	COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major Ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
~~1~~	~~HGWA-1~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~2~~	~~HGWA-2~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~3~~	~~HGWA-3~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~4~~	~~HGWC-7~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~5~~	~~HGWC-8~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~6~~	~~HGWC-9~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~7~~	~~HGWC-10~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
8	HGWC-11	WT	G	09-18-20	15:50	–	–	26	7	3		3					1	X	X	X	X	X	N	pH = 6.4 016
9	HGWC-12	WT	G	09-18-20	15:30	–	–	24	7	3		3					1	X	X	X	X	X	N	pH = 7.15 017
~~10~~	~~HGWC-13~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~11~~	~~MW-5~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =
~~12~~	~~MW-6~~	WT	G						7	3		3					1	X	X	X	X	X	N	pH =

ADDITIONAL COMMENTS

Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.

*App. III & IV Metals: Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl

Major ions**= Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

One sample set submitted for HGWA-1, HGWA-2, HGWA-3, MW-4D, MW-6AD but they will be reported for all [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / Geosyntec	9-18-20	1645	[illegible] / GPC	9/18	1645
[illegible] / GPC	9/18	1910	[illegible] / Pace	9/18/20	1910
[illegible] / Pace	9/21/20	1926	[illegible] / Pace	9/21/20	926
[illegible] / Pace	9/21/20	1209	[illegible]	9/21/20	1209

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
3.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 9-18-20

*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.

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 2

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581E

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-1010839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER CCR

Site Location STATE: GA

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Start DATE	COLLECTED Start TIME	COMPOSITE END DATE	COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
2	~~MW-15~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
3	~~MW-20~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
4	~~MW-24D~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
5	MW-25D	WT	G	9/16	1320	-	-	23	7	3		3					1	X	X	X	X	X	N	pH = 7.64 014
6	~~MW-26D~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
7	MW-27D	WT	G	9/18	0858	-	-	22	7	3		3					1	X	X	X	X	X	N	pH = 7.51 015
8	~~MW-28D~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
9	~~MW-29~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
10	~~MW-30D~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
11	~~MW-40D~~	WT	G			-	-		7	3		3					1	X	X	X	X	X	N	pH =
12	~~FD-01~~	WT	G	-	-	-	-		7	3		3					1	X	X	X	X	X	N	

Pace Project No./Lab I.D.: 92495844

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.	[signature] / GPC	9/18	1520	[signature] / GPC	9/18/20	1520				
*App. III & IV Metals=Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl	[signature] / GPC	9/21/20	0925	[signature] / Pace	9/21/20	926				
Major ions*=Ca, Mg, Na, K, Alk, Sulfate; One sample not submitted for HGWA-1, HGWA-2, HGWA-3, MW-45D, MW-44D but they will be reported for AP-1/2/3 SSOs	[signature] / Pace	9/21/20	1208	Charles Hecke	9/21/20	1208	5.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: [signature]   DATE Signed (MM/DD/YY): 9/18/2020

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 5

Section A — Required Client Information

- Company: GA Power
- Address: Atlanta, GA
- Email To: SCS Contacts
- Phone:
- Fax:
- Requested Due Date/TAT: 10 day

Section B — Required Project Information

- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond AP-1 Semiannual
- Project Number: GW6581B

Section C — Invoice Information

- Attention: Southern Co.
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Kevin Herring
- Pace Profile #: 10839-1910839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./ Lab I.D.: 92XX5884

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED START DATE	COLLECTED START TIME	COMPOSITE END DATE	COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate (N)	TDS (N)	App. III & IV Metals (N)	RAD 226/228 (N)	Major ions (N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G																					pH =
2	HGWA-2	WT	G																					pH =
3	HGWA-3	WT	G																					pH =
4	HGWC-7	WT	G																					pH =
5	HGWC-8	WT	G																					pH =
6	HGWC-9	WT	G																					pH =
7	HGWC-10	WT	G																					pH =
8	HGWC-11	WT	G																					pH =
9	HGWC-12	WT	G																					pH =
10	HGWC-13	WT	G	9-21-20	1145	—	—	24	7	3		3					1	X	X	X	X	X	N	pH = 7.8
11	MW-2	WT	G																					pH =
12	MW-3	WT	G																					pH =

ADDITIONAL COMMENTS

[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible] / GAPower	9-21-20	1800	[illegible] / Pace	9/21	1800
[illegible] / Pace	9/21	2110	[illegible] / Pace	9/21/20	2110
[illegible] / Pace	9/22/20	0925	[illegible]	9/22/20	925
[illegible] / Pace	9/22/20	[illegible]	[illegible]	9/22/20	1215

SAMPLER NAME AND SIGNATURE

- PRINT Name of SAMPLER: [illegible] Tatum
- SIGNATURE of SAMPLER: [illegible]
- DATE Signed (MM/DD/YY): 9-21-20

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.1	Y	N	Y

*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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 5

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839-10112839-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER CCR

Site Location STATE: GA

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): N N N N N

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020*; RAD 226/228; Major ions

Pace Project No./ Lab I.D.: 92495841

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)
1	HGWA-1	WT	G	-	-		2	1	1		X	X	X	X	X	
2	[illegible]	WT	G	-	-		2	1	1		X	X	X	X	X	
3	HGWA-3	WT	G	-	-		2	1	1		X	X	X	X	X	
4	[illegible]	WT	G	-	-		2	1	1		X	X	X	X	X	
5	HGWC-8	WT	G	-	-		2	1	1		X	X	X	X	X	
6	HGWC-9	WT	G	-	-		2	1	1		X	X	X	X	X	
7	HGWC-10	WT	G	-	-		2	1	1		X	X	X	X	X	
8	HGWC-11	WT	G	-	-		2	1	1		X	X	X	X	X	
9	HGWC-12	WT	G	-	-		2	1	1		X	X	X	X	X	
10	HGWC-13	WT	G	-	-		2	1	1		X	X	X	X	X	
11	MW-5	WT	G	-	-		2	1	1		X	X	X	X	X	
12	MW-6	WT	G	9/21	1017	21	2	1	1		X	X	X	X	X	N

Sample 12 lab I.D.: pH = 6.88 (handwritten; one more mark after it is unreadable)

ADDITIONAL COMMENTS

Please note dry wells, order through any wells not sampled, and note which the last sample for the event has been taken.

* App. III & IV Metals=Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Mo, Se, Tl

Major ions** = Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide

One sample not submitted for HGWA-1, HGWA-2, HGWA-3, MW-5/3D, MW-4A?, but they will be reported for AP-1/2/3 SOGs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Chad Russo	9/21	2110	[signature] / GTC?	9/21/20	2110
[signature] / GTC?	9/22/20	0925	[signature] / Pace	9/22/20	925
[signature] / Pace	9/22/20	1215	Charles Hertz	9/23/20	0915

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: Chad Russo

DATE Signed (MM/DD/YY): 9/21/2020

*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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B – Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581[illegible]

Section C – Invoice Information

Attention:	Southern Co
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	[illegible]

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO_3	Other	Chloride, Fluoride, Sulfate	TDS	App. III & IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G	9/21	1641	-	-	21	7	3	3	1	X	X	X	X	X	N	pH=6.50 022
2	~~MW-15~~	WT	G																
3	~~MW-22~~	WT	G						7	3	3	1	X	X	X	X	X	N	
4	~~MW-24D~~	WT	G			-	-		7	3	3	1	X	X	X	X	X	N	
5	~~MW-25D~~	WT	G						7	3	3	1	X	X	X	X	X	N	
6	~~MW-26D~~	WT	G															N	
7	~~MW-27D~~	WT	G															N	
8	~~MW-28D~~	WT	G						7	3	3	1	X	X	X	X	X	N	
9	~~[illegible]~~	WT	G															N	
10	~~MW-33D~~	WT	G			-	-		7	3	3	1	X	X	X	X	X	N	
11	~~MW-40D~~	WT	G						7	3	3	1						N	
12	~~FD-01~~	WT	G						7	3	3	1	X	X	X	X	X		

92[illegible]5[illegible]

ADDITIONAL COMMENTS

Please note dry wells, stick through any wells not sampled, and note when the last sample for the event has been taken.

App. III & IV Metals ...

Major ions ...

One sample not submitted ... MW-40D, MW-44D but they will be reported for AP-1/... CCOs.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Chad Russo / GPC	9/21	240	Martin Morgan / GPC	9/21/21	2110				
Martin Morgan / GPC	9/22/21	0925	[illegible] / Pace	9/22/21	925				
[illegible] / Pace	9/22/21	1215	[illegible]	9/22/21	1415	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Russo

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 9/21/2021

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

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Pace Analytical

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Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10829-10/12939-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Pace Project No./Lab I.D.: 92495444

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE/TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Requested Analysis	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
~~1~~	~~MW-7~~	~~WT~~	~~G~~							~~pH =~~
~~2~~	~~MWL-15~~	~~WT~~	~~G~~							~~pH =~~
~~3~~	~~MW-29~~	~~WT~~	~~G~~							~~pH =~~
4	MW-24D	WT	G	9-21-20 1745	20	[illegible]	[illegible]	X X X X X	N	pH = 7.45 — 023
~~5~~	~~MW-25D~~	~~WT~~	~~G~~							~~pH =~~
~~6~~	~~MW-26D~~	~~WT~~	~~G~~							~~pH =~~
~~7~~	~~MW-27D~~	~~WT~~	~~G~~							~~pH =~~
~~8~~	~~MW-28D~~	~~WT~~	~~G~~							~~pH =~~
~~9~~	~~MW-2D~~	~~WT~~	~~G~~							~~pH =~~
~~10~~	~~MW-30D~~	~~WT~~	~~G~~							~~pH =~~
~~11~~	~~MW-40D~~	~~WT~~	~~G~~							~~pH =~~
~~12~~	~~FD-01~~	~~WT~~	~~G~~							~~pH =~~

Requested analyses: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020; RAD 226/228; Major ions

ADDITIONAL COMMENTS: Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken. [illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Jason Tolan / [illegible]	9-21-20	1850	[illegible] / GP	9/21	1850
[illegible] / GP	9/21	[illegible]	[illegible] / Pace	9/21/20	2110
[illegible] / Pace	9/22/20	0925	[illegible] / Pace	9/22/20	925
[illegible] / Pace	9/22/20	1216	[illegible]	9/22/20	1145

SAMPLE CONDITIONS: Temp in °C: 4.1 | Received on Ice (Y/N): Y | Custody Sealed Cooler (Y/N): N | Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jason Tolan
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-21-20

*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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 5 of 5

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10639-1/2/10639-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): N N N N N

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

Pace Project No./ Lab I.D.: 92495844

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G						pH =
2	MW-19	WT	G	9/21	1510	22		N	pH = 6.41 024
3	MW-20	WT	G						pH =
4	MW-24D	WT	G						pH =
5	MW-25D	WT	G						pH =
6	MW-26D	WT	G						pH =
7	MW-27D	WT	G						pH =
8	MW-28D	WT	G	9/21	1525	24		N	pH = 7.16 025
9	MW-29	WT	G						pH =
10	MW-30D	WT	G						pH =
11	MW-40D	WT	G						pH =
12	FD-01	WT	G						pH =

ADDITIONAL COMMENTS

[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Thomas Wessel / Geosyntec	09/21	2000	[signature] / GCO	9/21	2030
[signature] / GCO	9/21	2116	Marlia [illegible] / Pace	9/21/20	2110
Marlia [illegible] / Pace	9/22/20	0925	[signature] / Pace	9/22/20	935
[signature] / Pace	9/22/20	1216	Charl [illegible]	9/22/20	1215

SAMPLE CONDITIONS: Temp in °C: 4.1; Received on Ice (Y/N): Y; Custody Sealed Cooler (Y/N): N; Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Wessel

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 09/21/20

F-ALL-Q-020rev.07, 15-Feb-2007

CHAIN-OF-CUSTODY / Analytical Request Document

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Pace Analytical

Page: 1 of 2

Section A – Required Client Information
Company: GA Power
Address: Atlanta, GA
Email To: SCS Contacts
Phone: | Fax:
Requested Due Date/TAT: 10 Day

Section B – Required Project Information
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GW6591B

Section C – Invoice Information
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Kevin Herring
Pace Profile #: [illegible]

REGULATORY AGENCY
NPDES | GROUND WATER | DRINKING WATER | UST | RCRA | OTHER
Site Location STATE: GA

Section D – Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE/TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	~~MW-7~~	WT	G			[illegible]	N	pH =
2	~~MW-10~~	WT	G			[illegible]	N	pH =
3	~~MW-20~~	WT	G			[illegible]	N	pH =
4	~~MW-24D~~	WT	G			[illegible]	N	pH =
5	~~MW-26D~~	WT	G			[illegible]	N	pH =
6	~~MW-[illegible]~~	WT	G			[illegible]	N	pH =
7	~~MW-27D~~	WT	G			[illegible]	N	pH =
8	~~MW-28D~~	WT	G			[illegible]	N	pH =
9	~~MW-29~~	WT	G			[illegible]	N	pH =
10	MW-30D	WT	G	9-26-20 1150	15	[illegible]	N	pH = 8.72 026
11	~~MW-40D~~	WT	G			[illegible]	N	pH =
12	~~FD-01~~	WT	G			[illegible]	N	

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Requested Analysis Filtered (Y/N) – Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals 6010/6020*; RAD 226/228; Major ions

Pace Project No.: 92495894

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Teresa Thomas / Geosyntec	9-26-20	1936	Chad [illegible] / SCO	9/24	1930
Chad [illegible] / SCO	9/28	2030	Marlin [illegible] / Pace	9/28/20	2030
Marlin [illegible] / Pace	9/29/20	1045	[illegible] / Pace	9/29/20	1045
[illegible] / Pace	9/29/20	1233	[illegible] / Pace	9/29/20	1233

ADDITIONAL COMMENTS
Please note any wells, strike through any wells not sampled, and note which field blank sample is for the wells that have been taken.
* App. III & IV Metals = [illegible]
Major ions = Alk, [illegible], Fe, Mg, Mn, K, Na, Sulfide
One sample not submitted for [illegible] [illegible] [illegible]

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Teresa Thomas
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9-24-20

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.7	Y	N	Y

*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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

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Page: 3 of 2

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond AP-1 Semiannual
Project Number:	GW6581B

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10830-4/10830-2

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	COMPOSITE DATE	COMPOSITE TIME	# OF CONTAINERS	Analysis Test: Chloride, Fluoride, Sulfate	TDS	Full App. III/IV Metals	RAD 226/228	Major ions	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-43D~~	WT	G						N	N	N	N	N	N	
2	~~MW-44D~~	WT	G						N	N	N	N	N	N	
3	FB-01	WT	G	9/24	1150	—	—	7	N	N	N	N	N	N	023
4															
5															
6															
7															
8															
9															
10															
11															
12															

Pace Project No.: 92496844

9/24/2020

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.	Chad Kessner / GEO	9/24	2030	Julia Noferdam / GEO	9/24/20	2030				
Full App III & IV metals: Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Pb, Li, Hg, Mo, Se, Tl	Julia Noferdam / GEO	9/25/20	1045	[illegible] / Pace	9/25/20	1045				
Major ions: Alk, Bicarb Alk, Fe, Mg, Mn, K, Na, Sulfide	[illegible] / Pace	9/25/20	1233	K. Wellington / PACE	9/25/20	1233	1.7	Y	N	Y
Chir samples are submitted for HGWA-1, HGWA-2, HGWA-3, MW-43D, MW-44D but they will be reported for AP-1/AP-3 SOGs.										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Chad Kessner

SIGNATURE of SAMPLER: Chad Kessner — DATE Signed (MM/DD/YY): 9/24/2020

*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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

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
- Phone:
- Fax:
- Requested Due Date/TAT: 10 Day

Section B — Required Project Information:
- Report To: SCS Contacts
- Copy To: Geosyntec Contacts
- Purchase Order No.:
- Project Name: Plant Hammond AP-1 Semiannual
- Project Number: GW0913

Section C — Invoice Information:
- Attention: Southern Co.
- Company Name:
- Address:
- Pace Quote Reference:
- Pace Project Manager: Kevin Herring
- Pace Profile #: 10839-10-10839-2

Page: 1 of 1

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Section D — Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	# OF CONTAINERS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	~~MW-7~~	WT	G	–	–	1	N	
2	~~MW-19~~	WT	G	–	–	1	N	
3	~~MW-20~~	WT	G	–	–	1	N	
4	~~MW-24D~~	WT	G	–	–	1	N	
5	~~MW-26R~~	WT	G	–	–	1	N	
6	~~MW-28D~~	WT	G	–	–	1	N	
7	~~MW-27D~~	WT	G	–	–	1	N	
8	~~MW-29D~~	WT	G	–	–	1	N	
9	~~MW-29~~	WT	G	–	–	1	N	
10	~~MW-30D~~	WT	G	–	–	1	N	
11	MW-40D	WT	G	9/28	1515	1	N	pH= 7.27 last sample 026
12	~~FD-01~~	WT	G	–	–	1	N	

Sample temp at collection (item 11): 3.7

Preservatives: Unpreserved, H_2SO_4, HNO_3, HCl, NaOH, $Na_2S_2O_3$, Methanol, Other

Analysis Test: Chloride, Fluoride, Sulfate; TDS; App. III & IV Metals; RAD 226/228; Major ions

ADDITIONAL COMMENTS

Please note any wells, strike through any wells not sampled, and note when the last sample for the event has been taken.
*App. III & IV Metals [illegible]
Major ions [illegible]
One sample [illegible] MW-40D, MW-44D [illegible] AP-1/2/3 SOCs

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / GSC	9/28	1845	[signature] / Pace	9-28	1845
[signature] / Pace	9-29	0752	Marlin Winkey / Pace	9/29	0752
Marlin Winkey / Pace	9/29/20	0955	[signature] / Pace	9/29/20	955
[signature] / Pace	9/29/20	1130	Charles Horte	9/29/20	1130

SAMPLE CONDITIONS: Temp in °C: 5.6 — Received on Ice (Y/N): Y — Custody Sealed Cooler (Y/N): N — Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE
- PRINT Name of SAMPLER: Chad Russo
- SIGNATURE of SAMPLER: [signature]
- DATE Signed (MM/DD/YY): 09/28/20

*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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

March 09, 2021

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 09, 2021 and February 23, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Co. Services
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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 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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92521151001	**HGWA-1**	Water	02/08/21 16:13	02/09/21 12:33
92521151002	**HGWA-2**	Water	02/09/21 10:38	02/10/21 09:56
92521151003	**HGWA-3**	Water	02/09/21 11:56	02/10/21 09:56
92521151004	**HGWA-43D**	Water	02/09/21 17:58	02/10/21 09:56
92521151005	**HGWA-44D**	Water	02/09/21 13:09	02/10/21 09:56
92521151006	**HGWC-7**	Water	02/10/21 12:11	02/11/21 09:19
92521151007	**MW-28D**	Water	02/10/21 17:31	02/11/21 09:19
92521151008	**MW-28D FILTERED**	Water	02/10/21 17:31	02/11/21 09:19
92521151009	**MW-20**	Water	02/11/21 11:59	02/12/21 09:36
92521151010	**HGWC-11**	Water	02/12/21 12:45	02/15/21 09:45
92521151011	**HGWC-12**	Water	02/12/21 14:51	02/15/21 09:45
92521151012	**MW-19**	Water	02/12/21 13:40	02/15/21 09:45
92521151013	**DUP-1**	Water	02/12/21 00:00	02/15/21 09:45
92521151014	**MW-25D**	Water	02/12/21 10:31	02/15/21 09:45
92521151015	**FB-1**	Water	02/12/21 15:30	02/15/21 09:45
92521151016	**EB-1**	Water	02/12/21 15:35	02/15/21 09:45
92521151017	**HGWC-10**	Water	02/15/21 13:31	02/17/21 11:54
92521151018	**MW-7**	Water	02/15/21 17:17	02/17/21 11:54
92521151019	**MW-29**	Water	02/15/21 14:45	02/17/21 11:54
92521151020	**HGWC-8**	Water	02/16/21 15:05	02/17/21 11:54
92521151021	**HGWC-9**	Water	02/16/21 18:39	02/17/21 11:54
92521151022	**MW-5**	Water	02/16/21 16:27	02/17/21 11:54
92521151023	**MW-6**	Water	02/16/21 15:12	02/17/21 11:54
92521151024	**MW-24D**	Water	02/16/21 12:44	02/17/21 11:54
92521151025	**MW-26D**	Water	02/16/21 18:03	02/17/21 11:54
92521151026	**MW-27D**	Water	02/16/21 11:11	02/17/21 11:54
92521151027	**MW-27D FILTERED**	Water	02/16/21 11:11	02/17/21 11:54
92521151028	**HGWC-13**	Water	02/22/21 13:54	02/23/21 09:10

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92521151001	**HGWA-1**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151002	**HGWA-2**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151003	**HGWA-3**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151004	**HGWA-43D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151005	**HGWA-44D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151006	**HGWC-7**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151007	**MW-28D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151008	**MW-28D FILTERED**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151009	**MW-20**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151010	**HGWC-11**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151011	**HGWC-12**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151012	**MW-19**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151013	**DUP-1**	EPA 6020B	CW1	12

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151014	**MW-25D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151015	**FB-1**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151016	**EB-1**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1
92521151017	**HGWC-10**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151018	**MW-7**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151019	**MW-29**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151020	**HGWC-8**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151021	**HGWC-9**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151022	**MW-5**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151023	**MW-6**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151024	**MW-24D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151025	**MW-26D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151026	**MW-27D**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151027	**MW-27D FILTERED**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92521151028	**HGWC-13**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	JLH	1

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92521151001	**HGWA-1**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.11	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.032	mg/L	0.010	02/23/21 18:06	
EPA 6020B	Lead	0.000058J	mg/L	0.0050	02/23/21 18:06	
EPA 6020B	Lithium	0.00086J	mg/L	0.030	02/23/21 18:06	
EPA 300.0 Rev 2.1 1993	Fluoride	0.078J	mg/L	0.10	02/10/21 17:59	
92521151002	**HGWA-2**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	5.42	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00062J	mg/L	0.0030	02/23/21 18:41	B
EPA 6020B	Barium	0.12	mg/L	0.010	02/23/21 18:41	
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	02/23/21 18:41	
EPA 6020B	Cadmium	0.00016J	mg/L	0.0025	02/23/21 18:41	
EPA 6020B	Cobalt	0.020	mg/L	0.0050	02/23/21 18:41	
EPA 6020B	Lead	0.000094J	mg/L	0.0050	02/23/21 18:41	
EPA 6020B	Lithium	0.0012J	mg/L	0.030	02/23/21 18:41	
92521151003	**HGWA-3**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.23	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00031J	mg/L	0.0030	02/23/21 18:46	B
EPA 6020B	Barium	0.13	mg/L	0.010	02/23/21 18:46	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	02/23/21 18:46	
EPA 300.0 Rev 2.1 1993	Fluoride	0.074J	mg/L	0.10	02/11/21 18:16	
92521151004	**HGWA-43D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.44	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00037J	mg/L	0.0030	02/23/21 19:15	B
EPA 6020B	Arsenic	0.0017J	mg/L	0.0050	02/23/21 19:15	B
EPA 6020B	Barium	0.34	mg/L	0.010	02/23/21 19:15	
EPA 6020B	Chromium	0.00095J	mg/L	0.010	02/23/21 19:15	
EPA 6020B	Lead	0.00029J	mg/L	0.0050	02/23/21 19:15	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	02/23/21 19:15	
EPA 6020B	Molybdenum	0.0045J	mg/L	0.010	02/23/21 19:15	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	02/11/21 19:36	
92521151005	**HGWA-44D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.84	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00042J	mg/L	0.0030	02/23/21 19:21	B
EPA 6020B	Arsenic	0.00083J	mg/L	0.0050	02/23/21 19:21	B
EPA 6020B	Barium	0.46	mg/L	0.010	02/23/21 19:21	
EPA 6020B	Chromium	0.00066J	mg/L	0.010	02/23/21 19:21	

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92521151005	**HGWA-44D**					
EPA 6020B	Lead	0.00010J	mg/L	0.0050	02/23/21 19:21	
EPA 6020B	Lithium	0.026J	mg/L	0.030	02/23/21 19:21	
EPA 6020B	Molybdenum	0.0038J	mg/L	0.010	02/23/21 19:21	
EPA 300.0 Rev 2.1 1993	Fluoride	0.44	mg/L	0.10	02/11/21 19:52	
92521151006	**HGWC-7**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.29	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.069	mg/L	0.010	02/24/21 14:42	
EPA 6020B	Beryllium	0.000081J	mg/L	0.0030	02/24/21 14:42	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	02/24/21 14:42	
EPA 6020B	Cobalt	0.00081J	mg/L	0.0050	02/24/21 14:42	
EPA 6020B	Lead	0.00056J	mg/L	0.0050	02/24/21 14:42	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	02/24/21 14:42	
EPA 6020B	Molybdenum	0.051	mg/L	0.010	02/24/21 14:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	02/16/21 01:43	
92521151007	**MW-28D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.54	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.0019J	mg/L	0.0030	02/24/21 15:05	
EPA 6020B	Arsenic	0.0011J	mg/L	0.0050	02/24/21 15:05	
EPA 6020B	Barium	0.26	mg/L	0.010	02/24/21 15:05	
EPA 6020B	Beryllium	0.000054J	mg/L	0.0030	02/24/21 15:05	
EPA 6020B	Chromium	0.0014J	mg/L	0.010	02/24/21 15:05	
EPA 6020B	Lead	0.00044J	mg/L	0.0050	02/24/21 15:05	
EPA 6020B	Lithium	0.0092J	mg/L	0.030	02/24/21 15:05	
EPA 6020B	Molybdenum	0.020	mg/L	0.010	02/24/21 15:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.16	mg/L	0.10	02/16/21 01:58	
92521151008	**MW-28D FILTERED**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.54	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00054J	mg/L	0.0030	02/24/21 15:11	
EPA 6020B	Arsenic	0.0014J	mg/L	0.0050	02/24/21 15:11	
EPA 6020B	Barium	0.25	mg/L	0.010	02/24/21 15:11	
EPA 6020B	Cadmium	0.00021J	mg/L	0.0025	02/24/21 15:11	
EPA 6020B	Lithium	0.0083J	mg/L	0.030	02/24/21 15:11	
EPA 6020B	Molybdenum	0.018	mg/L	0.010	02/24/21 15:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	02/16/21 02:12	
92521151009	**MW-20**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	6.93	Std. Units		02/24/21 07:44	
EPA 6020B	Arsenic	0.00094J	mg/L	0.0050	02/24/21 15:39	
EPA 6020B	Barium	0.093	mg/L	0.010	02/24/21 15:39	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92521151009	**MW-20**					
EPA 6020B	Lead	0.000039J	mg/L	0.0050	02/24/21 15:39	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	02/24/21 15:39	
92521151010	**HGWC-11**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.27	Std. Units		02/24/21 07:44	
EPA 6020B	Arsenic	0.0020J	mg/L	0.0050	02/24/21 16:08	
EPA 6020B	Barium	0.039	mg/L	0.010	02/24/21 16:08	
EPA 6020B	Molybdenum	0.023	mg/L	0.010	02/24/21 16:08	
EPA 6020B	Selenium	0.0079J	mg/L	0.010	02/24/21 16:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	02/16/21 22:15	
92521151011	**HGWC-12**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	6.23	Std. Units		02/24/21 07:44	
EPA 6020B	Arsenic	0.0045J	mg/L	0.0050	02/24/21 16:14	
EPA 6020B	Barium	0.090	mg/L	0.010	02/24/21 16:14	
EPA 6020B	Cobalt	0.0012J	mg/L	0.0050	02/24/21 16:14	
EPA 6020B	Lead	0.000067J	mg/L	0.0050	02/24/21 16:14	
EPA 6020B	Lithium	0.0094J	mg/L	0.030	02/24/21 16:14	
EPA 6020B	Molybdenum	0.048	mg/L	0.010	02/24/21 16:14	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	02/20/21 15:05	
92521151012	**MW-19**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	6.36	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.051	mg/L	0.010	02/24/21 16:19	
EPA 6020B	Cadmium	0.00020J	mg/L	0.0025	02/24/21 16:19	
EPA 6020B	Chromium	0.00059J	mg/L	0.010	02/24/21 16:19	
EPA 6020B	Cobalt	0.037	mg/L	0.0050	02/24/21 16:19	
EPA 6020B	Lead	0.000071J	mg/L	0.0050	02/24/21 16:19	
EPA 6020B	Lithium	0.012J	mg/L	0.030	02/24/21 16:19	
EPA 6020B	Molybdenum	0.046	mg/L	0.010	02/24/21 16:19	
EPA 6020B	Selenium	0.0021J	mg/L	0.010	02/24/21 16:19	
EPA 6020B	Thallium	0.00019J	mg/L	0.0010	02/24/21 16:19	
EPA 300.0 Rev 2.1 1993	Fluoride	0.16	mg/L	0.10	02/20/21 15:21	
92521151013	**DUP-1**					
EPA 6020B	Barium	0.049	mg/L	0.010	02/24/21 16:25	
EPA 6020B	Cadmium	0.00015J	mg/L	0.0025	02/24/21 16:25	
EPA 6020B	Cobalt	0.036	mg/L	0.0050	02/24/21 16:25	
EPA 6020B	Lead	0.000071J	mg/L	0.0050	02/24/21 16:25	
EPA 6020B	Lithium	0.011J	mg/L	0.030	02/24/21 16:25	
EPA 6020B	Molybdenum	0.046	mg/L	0.010	02/24/21 16:25	
EPA 6020B	Selenium	0.0028J	mg/L	0.010	02/24/21 16:25	
EPA 6020B	Thallium	0.00019J	mg/L	0.0010	02/24/21 16:25	
EPA 300.0 Rev 2.1 1993	Fluoride	0.16	mg/L	0.10	02/20/21 15:37	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92521151014	**MW-25D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.77	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.46	mg/L	0.010	02/24/21 16:31	
EPA 6020B	Lithium	0.045	mg/L	0.030	02/24/21 16:31	
EPA 300.0 Rev 2.1 1993	Fluoride	1.6	mg/L	0.10	02/20/21 15:53	
92521151017	**HGWC-10**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	6.83	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00065J	mg/L	0.0030	03/04/21 17:27	
EPA 6020B	Barium	0.060	mg/L	0.0050	03/04/21 17:27	
EPA 6020B	Selenium	0.0028J	mg/L	0.0050	03/04/21 17:27	
EPA 300.0 Rev 2.1 1993	Fluoride	0.080J	mg/L	0.10	02/20/21 18:14	
92521151018	**MW-7**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	6.77	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.0021J	mg/L	0.0030	03/04/21 17:50	
EPA 6020B	Barium	0.048	mg/L	0.0050	03/04/21 17:50	
EPA 6020B	Chromium	0.0015J	mg/L	0.0050	03/04/21 17:50	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	03/04/21 17:50	
92521151019	**MW-29**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.09	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00094J	mg/L	0.0030	03/04/21 17:56	
EPA 6020B	Barium	0.081	mg/L	0.0050	03/04/21 17:56	
EPA 6020B	Cobalt	0.00097J	mg/L	0.0050	03/04/21 17:56	
EPA 6020B	Lead	0.000052J	mg/L	0.0010	03/04/21 17:56	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	03/04/21 17:56	
EPA 6020B	Molybdenum	0.0029J	mg/L	0.010	03/04/21 17:56	
92521151020	**HGWC-8**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.16	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00064J	mg/L	0.0030	03/04/21 18:01	
EPA 6020B	Barium	0.069	mg/L	0.0050	03/04/21 18:01	
EPA 6020B	Beryllium	0.000071J	mg/L	0.00050	03/04/21 18:01	
EPA 6020B	Cadmium	0.00037J	mg/L	0.00050	03/04/21 18:01	
EPA 6020B	Cobalt	0.0020J	mg/L	0.0050	03/04/21 18:01	
EPA 6020B	Lead	0.000086J	mg/L	0.0010	03/04/21 18:01	
EPA 6020B	Lithium	0.0027J	mg/L	0.030	03/04/21 18:01	
EPA 6020B	Molybdenum	0.46	mg/L	0.010	03/04/21 18:01	
EPA 300.0 Rev 2.1 1993	Fluoride	0.47	mg/L	0.10	02/20/21 18:59	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92521151021	**HGWC-9**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.26	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00043J	mg/L	0.0030	03/04/21 18:07	
EPA 6020B	Barium	0.11	mg/L	0.0050	03/04/21 18:07	
EPA 6020B	Chromium	0.00067J	mg/L	0.0050	03/04/21 18:07	
EPA 6020B	Cobalt	0.00061J	mg/L	0.0050	03/04/21 18:07	
EPA 6020B	Lead	0.00020J	mg/L	0.0010	03/04/21 18:07	
EPA 6020B	Lithium	0.0045J	mg/L	0.030	03/04/21 18:07	
EPA 6020B	Molybdenum	0.035	mg/L	0.010	03/04/21 18:07	
EPA 300.0 Rev 2.1 1993	Fluoride	0.096J	mg/L	0.10	02/20/21 19:44	
92521151022	**MW-5**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	5.95	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.050	mg/L	0.0050	03/04/21 18:24	
EPA 6020B	Chromium	0.0032J	mg/L	0.0050	03/04/21 18:24	
EPA 6020B	Selenium	0.0035J	mg/L	0.0050	03/04/21 18:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.10	02/20/21 19:59	
92521151023	**MW-6**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.00	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.085	mg/L	0.0050	03/04/21 18:30	
EPA 6020B	Cobalt	0.00045J	mg/L	0.0050	03/04/21 18:30	
EPA 6020B	Lead	0.000084J	mg/L	0.0010	03/04/21 18:30	
EPA 6020B	Molybdenum	0.0025J	mg/L	0.010	03/04/21 18:30	
EPA 300.0 Rev 2.1 1993	Fluoride	0.059J	mg/L	0.10	02/20/21 20:14	
92521151024	**MW-24D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.69	Std. Units		02/24/21 07:44	
EPA 6020B	Barium	0.062	mg/L	0.0050	03/04/21 18:36	
EPA 6020B	Lead	0.00012J	mg/L	0.0010	03/04/21 18:36	
EPA 6020B	Lithium	0.0028J	mg/L	0.030	03/04/21 18:36	
EPA 6020B	Molybdenum	0.00096J	mg/L	0.010	03/04/21 18:36	
92521151025	**MW-26D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.27	Std. Units		02/24/21 07:44	
EPA 6020B	Arsenic	0.00080J	mg/L	0.0050	03/04/21 18:42	
EPA 6020B	Barium	0.093	mg/L	0.0050	03/04/21 18:42	
EPA 6020B	Chromium	0.0010J	mg/L	0.0050	03/04/21 18:42	
EPA 6020B	Cobalt	0.00045J	mg/L	0.0050	03/04/21 18:42	
EPA 6020B	Lead	0.000080J	mg/L	0.0010	03/04/21 18:42	
EPA 6020B	Lithium	0.0038J	mg/L	0.030	03/04/21 18:42	

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92521151025	**MW-26D**					
EPA 6020B	Molybdenum	0.022	mg/L	0.010	03/04/21 18:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.10	02/20/21 20:43	
92521151026	**MW-27D**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.96	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00038J	mg/L	0.0030	03/04/21 18:47	
EPA 6020B	Arsenic	0.0010J	mg/L	0.0050	03/04/21 18:47	
EPA 6020B	Barium	1.0	mg/L	0.025	03/05/21 14:35	
EPA 6020B	Chromium	0.00082J	mg/L	0.0050	03/04/21 18:47	
EPA 6020B	Cobalt	0.00040J	mg/L	0.0050	03/04/21 18:47	
EPA 6020B	Lead	0.00043J	mg/L	0.0010	03/04/21 18:47	
EPA 6020B	Lithium	0.0078J	mg/L	0.030	03/04/21 18:47	
EPA 6020B	Molybdenum	0.0019J	mg/L	0.010	03/04/21 18:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.25	mg/L	0.10	02/20/21 21:28	
92521151027	**MW-27D FILTERED**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.96	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00038J	mg/L	0.0030	03/04/21 18:53	
EPA 6020B	Barium	1.1	mg/L	0.025	03/05/21 14:41	
EPA 6020B	Lithium	0.0084J	mg/L	0.030	03/04/21 18:53	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	03/04/21 18:53	
EPA 300.0 Rev 2.1 1993	Fluoride	0.25	mg/L	0.10	02/20/21 21:43	
92521151028	**HGWC-13**					
	Performed by	CUSTOMER			02/24/21 07:44	
	pH	7.27	Std. Units		02/24/21 07:44	
EPA 6020B	Antimony	0.00047J	mg/L	0.0030	03/04/21 18:59	
EPA 6020B	Arsenic	0.45	mg/L	0.0050	03/04/21 18:59	
EPA 6020B	Barium	0.061	mg/L	0.0050	03/04/21 18:59	
EPA 6020B	Beryllium	0.000097J	mg/L	0.00050	03/04/21 18:59	
EPA 6020B	Cobalt	0.0030J	mg/L	0.0050	03/04/21 18:59	
EPA 6020B	Lead	0.00018J	mg/L	0.0010	03/04/21 18:59	
EPA 6020B	Lithium	0.032	mg/L	0.030	03/04/21 18:59	
EPA 6020B	Molybdenum	0.036	mg/L	0.010	03/04/21 18:59	
EPA 6020B	Thallium	0.00030J	mg/L	0.0010	03/04/21 18:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.55	mg/L	0.10	03/08/21 11:46	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWA-1 **Lab ID: 92521151001** Collected: 02/08/21 16:13 Received: 02/09/21 12:33 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.11**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 11:55	02/23/21 18:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 11:55	02/23/21 18:06	7440-38-2	
Barium	**0.032**	mg/L	0.010	0.00071	1	02/23/21 11:55	02/23/21 18:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 11:55	02/23/21 18:06	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 11:55	02/23/21 18:06	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 11:55	02/23/21 18:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 11:55	02/23/21 18:06	7440-48-4	
Lead	**0.000058J**	mg/L	0.0050	0.000036	1	02/23/21 11:55	02/23/21 18:06	7439-92-1	
Lithium	**0.00086J**	mg/L	0.030	0.00081	1	02/23/21 11:55	02/23/21 18:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 11:55	02/23/21 18:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 11:55	02/23/21 18:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 11:55	02/23/21 18:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/17/21 15:30	02/18/21 12:38	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.078J**	mg/L	0.10	0.050	1		02/10/21 17:59	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWA-2 **Lab ID: 92521151002** Collected: 02/09/21 10:38 Received: 02/10/21 09:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**5.42**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00062J**	mg/L	0.0030	0.00028	1	02/23/21 11:55	02/23/21 18:41	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 11:55	02/23/21 18:41	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00071	1	02/23/21 11:55	02/23/21 18:41	7440-39-3	
Beryllium	**0.00014J**	mg/L	0.0030	0.000046	1	02/23/21 11:55	02/23/21 18:41	7440-41-7	
Cadmium	**0.00016J**	mg/L	0.0025	0.00012	1	02/23/21 11:55	02/23/21 18:41	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 11:55	02/23/21 18:41	7440-47-3	
Cobalt	**0.020**	mg/L	0.0050	0.00038	1	02/23/21 11:55	02/23/21 18:41	7440-48-4	
Lead	**0.000094J**	mg/L	0.0050	0.000036	1	02/23/21 11:55	02/23/21 18:41	7439-92-1	
Lithium	**0.0012J**	mg/L	0.030	0.00081	1	02/23/21 11:55	02/23/21 18:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 11:55	02/23/21 18:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 11:55	02/23/21 18:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 11:55	02/23/21 18:41	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/17/21 15:30	02/18/21 12:57	7439-97-6	
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		02/11/21 17:28	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWA-3 **Lab ID: 92521151003** Collected: 02/09/21 11:56 Received: 02/10/21 09:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.23**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00031J**	mg/L	0.0030	0.00028	1	02/23/21 11:55	02/23/21 18:46	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 11:55	02/23/21 18:46	7440-38-2	
Barium	**0.13**	mg/L	0.010	0.00071	1	02/23/21 11:55	02/23/21 18:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 11:55	02/23/21 18:46	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 11:55	02/23/21 18:46	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 11:55	02/23/21 18:46	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 11:55	02/23/21 18:46	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	02/23/21 11:55	02/23/21 18:46	7439-92-1	
Lithium	**0.0032J**	mg/L	0.030	0.00081	1	02/23/21 11:55	02/23/21 18:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 11:55	02/23/21 18:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 11:55	02/23/21 18:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 11:55	02/23/21 18:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/17/21 15:30	02/18/21 12:59	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.074J**	mg/L	0.10	0.050	1		02/11/21 18:16	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWA-43D **Lab ID: 92521151004** Collected: 02/09/21 17:58 Received: 02/10/21 09:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.44**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00037J**	mg/L	0.0030	0.00028	1	02/23/21 11:55	02/23/21 19:15	7440-36-0	B
Arsenic	**0.0017J**	mg/L	0.0050	0.00078	1	02/23/21 11:55	02/23/21 19:15	7440-38-2	B
Barium	**0.34**	mg/L	0.010	0.00071	1	02/23/21 11:55	02/23/21 19:15	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 11:55	02/23/21 19:15	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 11:55	02/23/21 19:15	7440-43-9	
Chromium	**0.00095J**	mg/L	0.010	0.00055	1	02/23/21 11:55	02/23/21 19:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 11:55	02/23/21 19:15	7440-48-4	
Lead	**0.00029J**	mg/L	0.0050	0.000036	1	02/23/21 11:55	02/23/21 19:15	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00081	1	02/23/21 11:55	02/23/21 19:15	7439-93-2	
Molybdenum	**0.0045J**	mg/L	0.010	0.00069	1	02/23/21 11:55	02/23/21 19:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 11:55	02/23/21 19:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 11:55	02/23/21 19:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/17/21 15:30	02/18/21 13:06	7439-97-6	
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		02/11/21 19:36	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWA-44D **Lab ID: 92521151005** Collected: 02/09/21 13:09 Received: 02/10/21 09:56 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.84**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00042J**	mg/L	0.0030	0.00028	1	02/23/21 11:55	02/23/21 19:21	7440-36-0	B
Arsenic	**0.00083J**	mg/L	0.0050	0.00078	1	02/23/21 11:55	02/23/21 19:21	7440-38-2	B
Barium	**0.46**	mg/L	0.010	0.00071	1	02/23/21 11:55	02/23/21 19:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 11:55	02/23/21 19:21	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 11:55	02/23/21 19:21	7440-43-9	
Chromium	**0.00066J**	mg/L	0.010	0.00055	1	02/23/21 11:55	02/23/21 19:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 11:55	02/23/21 19:21	7440-48-4	
Lead	**0.00010J**	mg/L	0.0050	0.000036	1	02/23/21 11:55	02/23/21 19:21	7439-92-1	
Lithium	**0.026J**	mg/L	0.030	0.00081	1	02/23/21 11:55	02/23/21 19:21	7439-93-2	
Molybdenum	**0.0038J**	mg/L	0.010	0.00069	1	02/23/21 11:55	02/23/21 19:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 11:55	02/23/21 19:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 11:55	02/23/21 19:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/17/21 15:30	02/18/21 13:09	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.44**	mg/L	0.10	0.050	1		02/11/21 19:52	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-7 **Lab ID: 92521151006** Collected: 02/10/21 12:11 Received: 02/11/21 09:19 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.29**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 14:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 14:42	7440-38-2	
Barium	**0.069**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 14:42	7440-39-3	
Beryllium	**0.000081J**	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 14:42	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 14:42	7440-43-9	
Chromium	**0.0014J**	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 14:42	7440-47-3	
Cobalt	**0.00081J**	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 14:42	7440-48-4	
Lead	**0.00056J**	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 14:42	7439-92-1	
Lithium	**0.0032J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 14:42	7439-93-2	
Molybdenum	**0.051**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 14:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 14:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 14:42	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:19	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.085J**	mg/L	0.10	0.050	1		02/16/21 01:43	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-28D **Lab ID: 92521151007** Collected: 02/10/21 17:31 Received: 02/11/21 09:19 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.54**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0019J**	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 15:05	7440-36-0	
Arsenic	**0.0011J**	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 15:05	7440-38-2	
Barium	**0.26**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 15:05	7440-39-3	
Beryllium	**0.000054J**	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 15:05	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 15:05	7440-43-9	
Chromium	**0.0014J**	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 15:05	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 15:05	7440-48-4	
Lead	**0.00044J**	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 15:05	7439-92-1	
Lithium	**0.0092J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 15:05	7439-93-2	
Molybdenum	**0.020**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 15:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 15:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 15:05	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:21	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.16**	mg/L	0.10	0.050	1		02/16/21 01:58	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-28D FILTERED **Lab ID: 92521151008** Collected: 02/10/21 17:31 Received: 02/11/21 09:19 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.54**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00054J**	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 15:11	7440-36-0	
Arsenic	**0.0014J**	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 15:11	7440-38-2	
Barium	**0.25**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 15:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 15:11	7440-41-7	
Cadmium	**0.00021J**	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 15:11	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 15:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 15:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 15:11	7439-92-1	
Lithium	**0.0083J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 15:11	7439-93-2	
Molybdenum	**0.018**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 15:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 15:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 15:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:24	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.15**	mg/L	0.10	0.050	1		02/16/21 02:12	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-20 **Lab ID: 92521151009** Collected: 02/11/21 11:59 Received: 02/12/21 09:36 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**6.93**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 15:39	7440-36-0	
Arsenic	**0.00094J**	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 15:39	7440-38-2	
Barium	**0.093**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 15:39	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 15:39	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 15:39	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 15:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 15:39	7440-48-4	
Lead	**0.000039J**	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 15:39	7439-92-1	
Lithium	**0.0010J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 15:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 15:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 15:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 15:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:26	7439-97-6	
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		02/16/21 18:01	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-11 **Lab ID: 92521151010** Collected: 02/12/21 12:45 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.27**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 16:08	7440-36-0	
Arsenic	**0.0020J**	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 16:08	7440-38-2	
Barium	**0.039**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 16:08	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 16:08	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 16:08	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 16:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 16:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 16:08	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 16:08	7439-93-2	
Molybdenum	**0.023**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 16:08	7439-98-7	
Selenium	**0.0079J**	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 16:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 16:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:29	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.17**	mg/L	0.10	0.050	1		02/16/21 22:15	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-12 **Lab ID: 92521151011** Collected: 02/12/21 14:51 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**6.23**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 16:14	7440-36-0	
Arsenic	**0.0045J**	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 16:14	7440-38-2	
Barium	**0.090**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 16:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 16:14	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 16:14	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 16:14	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 16:14	7440-48-4	
Lead	**0.000067J**	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 16:14	7439-92-1	
Lithium	**0.0094J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 16:14	7439-93-2	
Molybdenum	**0.048**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 16:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 16:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 16:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:31	7439-97-6	
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		02/20/21 15:05	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-19 **Lab ID: 92521151012** Collected: 02/12/21 13:40 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**6.36**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 16:19	7440-38-2	
Barium	**0.051**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 16:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 16:19	7440-41-7	
Cadmium	**0.00020J**	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 16:19	7440-43-9	
Chromium	**0.00059J**	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 16:19	7440-47-3	
Cobalt	**0.037**	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 16:19	7440-48-4	
Lead	**0.000071J**	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 16:19	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 16:19	7439-93-2	
Molybdenum	**0.046**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 16:19	7439-98-7	
Selenium	**0.0021J**	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 16:19	7782-49-2	
Thallium	**0.00019J**	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 16:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:33	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.16**	mg/L	0.10	0.050	1		02/20/21 15:21	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: DUP-1 **Lab ID: 92521151013** Collected: 02/12/21 00:00 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 16:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 16:25	7440-38-2	
Barium	**0.049**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 16:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 16:25	7440-41-7	
Cadmium	**0.00015J**	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 16:25	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 16:25	7440-47-3	
Cobalt	**0.036**	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 16:25	7440-48-4	
Lead	**0.000071J**	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 16:25	7439-92-1	
Lithium	**0.011J**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 16:25	7439-93-2	
Molybdenum	**0.046**	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 16:25	7439-98-7	
Selenium	**0.0028J**	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 16:25	7782-49-2	
Thallium	**0.00019J**	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 16:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:36	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.16**	mg/L	0.10	0.050	1		02/20/21 15:37	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-25D **Lab ID: 92521151014** Collected: 02/12/21 10:31 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.77**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 16:31	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 16:31	7440-38-2	
Barium	**0.46**	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 16:31	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 16:31	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 16:31	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 16:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 16:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 16:31	7439-92-1	
Lithium	**0.045**	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 16:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 16:31	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 16:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 16:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:43	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**1.6**	mg/L	0.10	0.050	1		02/20/21 15:53	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: FB-1 **Lab ID: 92521151015** Collected: 02/12/21 15:30 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 17:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 17:20	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 17:20	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 17:20	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 17:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 17:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 17:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 17:20	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 17:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 17:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 17:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 17:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 02:15	02/23/21 13:45	7439-97-6	
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		02/20/21 16:09	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: EB-1 **Lab ID: 92521151016** Collected: 02/12/21 15:35 Received: 02/15/21 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	02/23/21 13:13	02/24/21 16:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	02/23/21 13:13	02/24/21 16:02	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	02/23/21 13:13	02/24/21 16:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	02/23/21 13:13	02/24/21 16:02	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	02/23/21 13:13	02/24/21 16:02	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	02/23/21 13:13	02/24/21 16:02	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	02/23/21 13:13	02/24/21 16:02	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	02/23/21 13:13	02/24/21 16:02	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	02/23/21 13:13	02/24/21 16:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	02/23/21 13:13	02/24/21 16:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	02/23/21 13:13	02/24/21 16:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/23/21 13:13	02/24/21 16:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 09:50	02/22/21 13:46	7439-97-6	
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		02/16/21 21:15	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-10 **Lab ID: 92521151017** Collected: 02/15/21 13:31 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**6.83**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00065J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 17:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 17:27	7440-38-2	
Barium	**0.060**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 17:27	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 17:27	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 17:27	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 17:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 17:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 17:27	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 17:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 17:27	7439-98-7	
Selenium	**0.0028J**	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 17:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 17:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 09:50	02/22/21 14:10	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.080J**	mg/L	0.10	0.050	1		02/20/21 18:14	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-7 **Lab ID: 92521151018** Collected: 02/15/21 17:17 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**6.77**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0021J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 17:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 17:50	7440-38-2	
Barium	**0.048**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 17:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 17:50	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 17:50	7440-43-9	
Chromium	**0.0015J**	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 17:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 17:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 17:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 17:50	7439-93-2	
Molybdenum	**0.0015J**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 17:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 17:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 17:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 09:50	02/22/21 14:13	7439-97-6	
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		02/20/21 18:29	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-29 **Lab ID: 92521151019** Collected: 02/15/21 14:45 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.09**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00094J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 17:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 17:56	7440-38-2	
Barium	**0.081**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 17:56	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 17:56	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 17:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 17:56	7440-47-3	
Cobalt	**0.00097J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 17:56	7440-48-4	
Lead	**0.000052J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 17:56	7439-92-1	
Lithium	**0.0024J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 17:56	7439-93-2	
Molybdenum	**0.0029J**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 17:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 17:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 17:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 09:50	02/22/21 14:15	7439-97-6	
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		02/20/21 18:44	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-8 **Lab ID: 92521151020** Collected: 02/16/21 15:05 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.16**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00064J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:01	7440-38-2	
Barium	**0.069**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:01	7440-39-3	
Beryllium	**0.000071J**	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:01	7440-41-7	
Cadmium	**0.00037J**	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:01	7440-47-3	
Cobalt	**0.0020J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:01	7440-48-4	
Lead	**0.000086J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:01	7439-92-1	
Lithium	**0.0027J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:01	7439-93-2	
Molybdenum	**0.46**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/22/21 09:50	02/22/21 14:17	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.47**	mg/L	0.10	0.050	1		02/20/21 18:59	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-9 **Lab ID: 92521151021** Collected: 02/16/21 18:39 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.26**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00043J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:07	7440-38-2	
Barium	**0.11**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:07	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:07	7440-43-9	
Chromium	**0.00067J**	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:07	7440-47-3	
Cobalt	**0.00061J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:07	7440-48-4	
Lead	**0.00020J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:07	7439-92-1	
Lithium	**0.0045J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:07	7439-93-2	
Molybdenum	**0.035**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:32	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.096J**	mg/L	0.10	0.050	1		02/20/21 19:44	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-5 **Lab ID: 92521151022** Collected: 02/16/21 16:27 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**5.95**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:24	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:24	7440-38-2	
Barium	**0.050**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:24	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:24	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:24	7440-43-9	
Chromium	**0.0032J**	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:24	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:24	7439-98-7	
Selenium	**0.0035J**	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:24	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:42	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.051J**	mg/L	0.10	0.050	1		02/20/21 19:59	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-6 **Lab ID: 92521151023** Collected: 02/16/21 15:12 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.00**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:30	7440-38-2	
Barium	**0.085**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:30	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:30	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:30	7440-47-3	
Cobalt	**0.00045J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:30	7440-48-4	
Lead	**0.000084J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:30	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:30	7439-93-2	
Molybdenum	**0.0025J**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:30	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:30	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:44	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.059J**	mg/L	0.10	0.050	1		02/20/21 20:14	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-24D **Lab ID: 92521151024** Collected: 02/16/21 12:44 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.69**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:36	7440-38-2	
Barium	**0.062**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:36	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:36	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:36	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:36	7440-48-4	
Lead	**0.00012J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:36	7439-92-1	
Lithium	**0.0028J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:36	7439-93-2	
Molybdenum	**0.00096J**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:36	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:46	7439-97-6	
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		02/20/21 20:28	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-26D **Lab ID: 92521151025** Collected: 02/16/21 18:03 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.27**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:42	7440-36-0	
Arsenic	**0.00080J**	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:42	7440-38-2	
Barium	**0.093**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:42	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:42	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:42	7440-43-9	
Chromium	**0.0010J**	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:42	7440-47-3	
Cobalt	**0.00045J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:42	7440-48-4	
Lead	**0.000080J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:42	7439-92-1	
Lithium	**0.0038J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:42	7439-93-2	
Molybdenum	**0.022**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:42	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:42	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:49	7439-97-6	
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		02/20/21 20:43	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-27D **Lab ID: 92521151026** Collected: 02/16/21 11:11 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.96**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00038J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:47	7440-36-0	
Arsenic	**0.0010J**	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:47	7440-38-2	
Barium	**1.0**	mg/L	0.025	0.0036	5	03/03/21 10:21	03/05/21 14:35	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:47	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:47	7440-43-9	
Chromium	**0.00082J**	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:47	7440-47-3	
Cobalt	**0.00040J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:47	7440-48-4	
Lead	**0.00043J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:47	7439-92-1	
Lithium	**0.0078J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:47	7439-93-2	
Molybdenum	**0.0019J**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:47	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:47	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:56	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.25**	mg/L	0.10	0.050	1		02/20/21 21:28	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: MW-27D FILTERED **Lab ID: 92521151027** Collected: 02/16/21 11:11 Received: 02/17/21 11:54 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.96**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00038J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:53	7440-38-2	
Barium	**1.1**	mg/L	0.025	0.0036	5	03/03/21 10:21	03/05/21 14:41	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:53	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:53	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:53	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:53	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:53	7439-92-1	
Lithium	**0.0084J**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:53	7439-93-2	
Molybdenum	**0.0015J**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:53	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 08:00	02/24/21 12:58	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.25**	mg/L	0.10	0.050	1		02/20/21 21:43	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Sample: HGWC-13 **Lab ID: 92521151028** Collected: 02/22/21 13:54 Received: 02/23/21 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/24/21 07:44		
pH	**7.27**	Std. Units			1		02/24/21 07:44		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00047J**	mg/L	0.0030	0.00028	1	03/03/21 10:21	03/04/21 18:59	7440-36-0	
Arsenic	**0.45**	mg/L	0.0050	0.00078	1	03/03/21 10:21	03/04/21 18:59	7440-38-2	
Barium	**0.061**	mg/L	0.0050	0.00071	1	03/03/21 10:21	03/04/21 18:59	7440-39-3	
Beryllium	**0.000097J**	mg/L	0.00050	0.000046	1	03/03/21 10:21	03/04/21 18:59	7440-41-7	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/03/21 10:21	03/04/21 18:59	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/03/21 10:21	03/04/21 18:59	7440-47-3	
Cobalt	**0.0030J**	mg/L	0.0050	0.00038	1	03/03/21 10:21	03/04/21 18:59	7440-48-4	
Lead	**0.00018J**	mg/L	0.0010	0.000036	1	03/03/21 10:21	03/04/21 18:59	7439-92-1	
Lithium	**0.032**	mg/L	0.030	0.00081	1	03/03/21 10:21	03/04/21 18:59	7439-93-2	
Molybdenum	**0.036**	mg/L	0.010	0.00069	1	03/03/21 10:21	03/04/21 18:59	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/03/21 10:21	03/04/21 18:59	7782-49-2	
Thallium	**0.00030J**	mg/L	0.0010	0.00014	1	03/03/21 10:21	03/04/21 18:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	02/24/21 15:10	02/25/21 11:18	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.55**	mg/L	0.10	0.050	1		03/08/21 11:46	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 601892
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151001, 92521151002, 92521151003, 92521151004, 92521151005

METHOD BLANK: 3171327 Matrix: Water
Associated Lab Samples: 92521151001, 92521151002, 92521151003, 92521151004, 92521151005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00030J	0.0030	0.00028	02/23/21 17:55	
Arsenic	mg/L	0.00094J	0.0050	0.00078	02/23/21 17:55	
Barium	mg/L	ND	0.010	0.00071	02/23/21 17:55	
Beryllium	mg/L	ND	0.0030	0.000046	02/23/21 17:55	
Cadmium	mg/L	ND	0.0025	0.00012	02/23/21 17:55	
Chromium	mg/L	ND	0.010	0.00055	02/23/21 17:55	
Cobalt	mg/L	ND	0.0050	0.00038	02/23/21 17:55	
Lead	mg/L	ND	0.0050	0.000036	02/23/21 17:55	
Lithium	mg/L	ND	0.030	0.00081	02/23/21 17:55	
Molybdenum	mg/L	ND	0.010	0.00069	02/23/21 17:55	
Selenium	mg/L	ND	0.010	0.0016	02/23/21 17:55	
Thallium	mg/L	ND	0.0010	0.00014	02/23/21 17:55	

LABORATORY CONTROL SAMPLE: 3171328

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3171329 3171330

Parameter	Units	92521143002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	108	104	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.093	97	93	75-125	5	20	
Barium	mg/L	0.040	0.1	0.1	0.14	0.14	99	96	75-125	2	20	
Beryllium	mg/L	0.00023J	0.1	0.1	0.095	0.090	95	90	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3171329 3171330

Parameter	Units	92521143002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	3	20	
Cobalt	mg/L	0.00074J	0.1	0.1	0.10	0.098	100	97	75-125	3	20	
Lead	mg/L	0.00024J	0.1	0.1	0.10	0.098	101	98	75-125	3	20	
Lithium	mg/L	0.0013J	0.1	0.1	0.094	0.091	93	89	75-125	4	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.099	103	99	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.093	0.091	93	91	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 601924
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151006, 92521151007, 92521151008, 92521151009, 92521151010, 92521151011, 92521151012, 92521151013, 92521151014, 92521151015, 92521151016

METHOD BLANK: 3171451 Matrix: Water
Associated Lab Samples: 92521151006, 92521151007, 92521151008, 92521151009, 92521151010, 92521151011, 92521151012, 92521151013, 92521151014, 92521151015, 92521151016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	02/24/21 14:31	
Arsenic	mg/L	ND	0.0050	0.00078	02/24/21 14:31	
Barium	mg/L	ND	0.010	0.00071	02/24/21 14:31	
Beryllium	mg/L	ND	0.0030	0.000046	02/24/21 14:31	
Cadmium	mg/L	ND	0.0025	0.00012	02/24/21 14:31	
Chromium	mg/L	ND	0.010	0.00055	02/24/21 14:31	
Cobalt	mg/L	ND	0.0050	0.00038	02/24/21 14:31	
Lead	mg/L	ND	0.0050	0.000036	02/24/21 14:31	
Lithium	mg/L	ND	0.030	0.00081	02/24/21 14:31	
Molybdenum	mg/L	ND	0.010	0.00069	02/24/21 14:31	
Selenium	mg/L	ND	0.010	0.0016	02/24/21 14:31	
Thallium	mg/L	ND	0.0010	0.00014	02/24/21 14:31	

LABORATORY CONTROL SAMPLE: 3171452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.094	94	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3171453 3171454

Parameter	Units	92521151006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.10	98	101	75-125	3	20	
Barium	mg/L	0.069	0.1	0.1	0.16	0.17	95	96	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3171453 3171454

Parameter	Units	92521151006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	0.000081J	0.1	0.1	0.093	0.096	93	96	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	101	75-125	4	20	
Chromium	mg/L	0.0014J	0.1	0.1	0.099	0.10	98	99	75-125	1	20	
Cobalt	mg/L	0.00081J	0.1	0.1	0.096	0.099	95	98	75-125	2	20	
Lead	mg/L	0.00056J	0.1	0.1	0.095	0.096	95	95	75-125	1	20	
Lithium	mg/L	0.0032J	0.1	0.1	0.098	0.10	95	98	75-125	3	20	
Molybdenum	mg/L	0.051	0.1	0.1	0.15	0.15	101	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.093	0.098	92	98	75-125	6	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 603830
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151017, 92521151018, 92521151019, 92521151020, 92521151021, 92521151022, 92521151023, 92521151024, 92521151025, 92521151026, 92521151027, 92521151028

METHOD BLANK: 3180953 Matrix: Water
Associated Lab Samples: 92521151017, 92521151018, 92521151019, 92521151020, 92521151021, 92521151022, 92521151023, 92521151024, 92521151025, 92521151026, 92521151027, 92521151028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	03/04/21 17:16	
Arsenic	mg/L	ND	0.0050	0.00078	03/04/21 17:16	
Barium	mg/L	ND	0.0050	0.00071	03/04/21 17:16	
Beryllium	mg/L	ND	0.00050	0.000046	03/04/21 17:16	
Cadmium	mg/L	ND	0.00050	0.00012	03/04/21 17:16	
Chromium	mg/L	ND	0.0050	0.00055	03/04/21 17:16	
Cobalt	mg/L	ND	0.0050	0.00038	03/04/21 17:16	
Lead	mg/L	ND	0.0010	0.000036	03/04/21 17:16	
Lithium	mg/L	ND	0.030	0.00081	03/04/21 17:16	
Molybdenum	mg/L	ND	0.010	0.00069	03/04/21 17:16	
Selenium	mg/L	ND	0.0050	0.0016	03/04/21 17:16	
Thallium	mg/L	ND	0.0010	0.00014	03/04/21 17:16	

LABORATORY CONTROL SAMPLE: 3180954

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	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.11	107	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3180955 3180956

Parameter	Units	92521151017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00065J	0.1	0.1	0.11	0.11	111	110	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	104	104	75-125	0	20	
Barium	mg/L	0.060	0.1	0.1	0.17	0.16	107	103	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3180955 3180956

Parameter	Units	92521151017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20	
Lithium	mg/L	ND	0.1	0.1	0.096	0.095	95	95	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Selenium	mg/L	0.0028J	0.1	0.1	0.11	0.11	107	104	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 600377
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151001, 92521151002, 92521151003, 92521151004, 92521151005

METHOD BLANK: 3164783 Matrix: Water
Associated Lab Samples: 92521151001, 92521151002, 92521151003, 92521151004, 92521151005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	02/18/21 12:33	

LABORATORY CONTROL SAMPLE: 3164784

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: 3164785 3164786

Parameter	Units	92521143001 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	0.0025	0.0026	99	104	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 601295
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151006, 92521151007, 92521151008, 92521151009, 92521151010, 92521151011, 92521151012, 92521151013, 92521151014, 92521151015

METHOD BLANK: 3168813 Matrix: Water
Associated Lab Samples: 92521151006, 92521151007, 92521151008, 92521151009, 92521151010, 92521151011, 92521151012, 92521151013, 92521151014, 92521151015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	02/23/21 13:14	

LABORATORY CONTROL SAMPLE: 3168814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3168815 3168816

Parameter	Units	92521578011 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	0.0022	0.0022	88	89	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 601590
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151016, 92521151017, 92521151018, 92521151019, 92521151020

METHOD BLANK: 3170068 Matrix: Water
Associated Lab Samples: 92521151016, 92521151017, 92521151018, 92521151019, 92521151020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	02/22/21 13:27	

LABORATORY CONTROL SAMPLE: 3170069

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: 3170070 3170071

Parameter	Units	92521143021 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	0.0022	0.0023	85	90	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 601883 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151021, 92521151022, 92521151023, 92521151024, 92521151025, 92521151026, 92521151027

METHOD BLANK: 3171311 Matrix: Water
Associated Lab Samples: 92521151021, 92521151022, 92521151023, 92521151024, 92521151025, 92521151026, 92521151027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	02/24/21 12:27	

LABORATORY CONTROL SAMPLE: 3171312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3171313 3171314

Parameter	Units	92521151021 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	0.0025	0.0025	100	100	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 602268
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92521151028

METHOD BLANK: 3173354 Matrix: Water
Associated Lab Samples: 92521151028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	02/25/21 10:11	

LABORATORY CONTROL SAMPLE: 3173355

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: 3173356 3173357

Parameter	Units	92523277011 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	0.0025	0.0024	97	94	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 598903
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151001

METHOD BLANK: 3157390 Matrix: Water
Associated Lab Samples: 92521151001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/10/21 16:04	

LABORATORY CONTROL SAMPLE: 3157391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3157392 3157393

Parameter	Units	92520887002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.42	2.5	2.5	2.9	2.9	100	98	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3157394 3157395

Parameter	Units	92521223018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.2	2.2	85	88	90-110	2	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 599257
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151002, 92521151003, 92521151004, 92521151005

METHOD BLANK: 3159217 Matrix: Water
Associated Lab Samples: 92521151002, 92521151003, 92521151004, 92521151005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/11/21 13:11	

LABORATORY CONTROL SAMPLE: 3159218

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3159221 3159222

Parameter	Units	92521143004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.3	2.4	93	96	90-110	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3159223 3159224

Parameter	Units	92521359001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	2.1	2.5	2.5	4.4	4.4	92	91	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 599863
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151006, 92521151007, 92521151008

METHOD BLANK: 3162426 Matrix: Water
Associated Lab Samples: 92521151006, 92521151007, 92521151008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/15/21 22:21	

LABORATORY CONTROL SAMPLE: 3162427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3162428 3162429

Parameter	Units	92521957001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.41	2.5	2.5	2.7	2.8	93	95	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3162430 3162431

Parameter	Units	92521151008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.15	2.5	2.5	2.7	2.6	102	97	90-110	5	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 600235
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151009, 92521151010, 92521151016

METHOD BLANK: 3164171 Matrix: Water
Associated Lab Samples: 92521151009, 92521151010, 92521151016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/16/21 14:16	

LABORATORY CONTROL SAMPLE: 3164172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3164173 3164174

Parameter	Units	92522138001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	95	97	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3164175 3164176

Parameter	Units	92521578011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.068J	2.5	2.5	2.6	2.6	100	100	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 600783
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151011, 92521151012, 92521151013, 92521151014, 92521151015

METHOD BLANK: 3166590 Matrix: Water
Associated Lab Samples: 92521151011, 92521151012, 92521151013, 92521151014, 92521151015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/20/21 11:54	

LABORATORY CONTROL SAMPLE: 3166591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.6	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3166592 3166593

Parameter	Units	92522456002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.34	2.5	2.5	3.1	3.0	108	105	90-110	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3166594 3166595

Parameter	Units	92521151015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.7	2.5	106	101	90-110	5	10	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 601397
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151017, 92521151018, 92521151019, 92521151020, 92521151021, 92521151022, 92521151023, 92521151024, 92521151025, 92521151026, 92521151027

METHOD BLANK: 3169354 Matrix: Water
Associated Lab Samples: 92521151017, 92521151018, 92521151019, 92521151020, 92521151021, 92521151022, 92521151023, 92521151024, 92521151025, 92521151026, 92521151027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/20/21 16:44	

LABORATORY CONTROL SAMPLE: 3169355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3169356 3169357

Parameter	Units	92521143022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	104	105	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3169358 3169359

Parameter	Units	92521151025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.071J	2.5	2.5	2.4	2.4	95	95	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

QC Batch: 604773
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92521151028

METHOD BLANK: 3186355 Matrix: Water
Associated Lab Samples: 92521151028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	03/08/21 05:16	

LABORATORY CONTROL SAMPLE: 3186356

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3186357 3186358

Parameter	Units	92526098004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	ND	ND	0	0	90-110		10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3186359 3186360

Parameter	Units	92526099009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	3.2	2.8	129	113	90-110	13	10	M1,R1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92521151001	**HGWA-1**				
92521151002	**HGWA-2**				
92521151003	**HGWA-3**				
92521151004	**HGWA-43D**				
92521151005	**HGWA-44D**				
92521151006	**HGWC-7**				
92521151007	**MW-28D**				
92521151008	**MW-28D FILTERED**				
92521151009	**MW-20**				
92521151010	**HGWC-11**				
92521151011	**HGWC-12**				
92521151012	**MW-19**				
92521151014	**MW-25D**				
92521151017	**HGWC-10**				
92521151018	**MW-7**				
92521151019	**MW-29**				
92521151020	**HGWC-8**				
92521151021	**HGWC-9**				
92521151022	**MW-5**				
92521151023	**MW-6**				
92521151024	**MW-24D**				
92521151025	**MW-26D**				
92521151026	**MW-27D**				
92521151027	**MW-27D FILTERED**				
92521151028	**HGWC-13**				
92521151001	**HGWA-1**	EPA 3005A	601892	EPA 6020B	601999
92521151002	**HGWA-2**	EPA 3005A	601892	EPA 6020B	601999
92521151003	**HGWA-3**	EPA 3005A	601892	EPA 6020B	601999
92521151004	**HGWA-43D**	EPA 3005A	601892	EPA 6020B	601999
92521151005	**HGWA-44D**	EPA 3005A	601892	EPA 6020B	601999
92521151006	**HGWC-7**	EPA 3005A	601924	EPA 6020B	602022
92521151007	**MW-28D**	EPA 3005A	601924	EPA 6020B	602022
92521151008	**MW-28D FILTERED**	EPA 3005A	601924	EPA 6020B	602022
92521151009	**MW-20**	EPA 3005A	601924	EPA 6020B	602022
92521151010	**HGWC-11**	EPA 3005A	601924	EPA 6020B	602022
92521151011	**HGWC-12**	EPA 3005A	601924	EPA 6020B	602022
92521151012	**MW-19**	EPA 3005A	601924	EPA 6020B	602022
92521151013	**DUP-1**	EPA 3005A	601924	EPA 6020B	602022
92521151014	**MW-25D**	EPA 3005A	601924	EPA 6020B	602022
92521151015	**FB-1**	EPA 3005A	601924	EPA 6020B	602022
92521151016	**EB-1**	EPA 3005A	601924	EPA 6020B	602022
92521151017	**HGWC-10**	EPA 3005A	603830	EPA 6020B	603941
92521151018	**MW-7**	EPA 3005A	603830	EPA 6020B	603941
92521151019	**MW-29**	EPA 3005A	603830	EPA 6020B	603941
92521151020	**HGWC-8**	EPA 3005A	603830	EPA 6020B	603941
92521151021	**HGWC-9**	EPA 3005A	603830	EPA 6020B	603941
92521151022	**MW-5**	EPA 3005A	603830	EPA 6020B	603941

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92521151023	**MW-6**	EPA 3005A	603830	EPA 6020B	603941
92521151024	**MW-24D**	EPA 3005A	603830	EPA 6020B	603941
92521151025	**MW-26D**	EPA 3005A	603830	EPA 6020B	603941
92521151026	**MW-27D**	EPA 3005A	603830	EPA 6020B	603941
92521151027	**MW-27D FILTERED**	EPA 3005A	603830	EPA 6020B	603941
92521151028	**HGWC-13**	EPA 3005A	603830	EPA 6020B	603941
92521151001	**HGWA-1**	EPA 7470A	600377	EPA 7470A	600865
92521151002	**HGWA-2**	EPA 7470A	600377	EPA 7470A	600865
92521151003	**HGWA-3**	EPA 7470A	600377	EPA 7470A	600865
92521151004	**HGWA-43D**	EPA 7470A	600377	EPA 7470A	600865
92521151005	**HGWA-44D**	EPA 7470A	600377	EPA 7470A	600865
92521151006	**HGWC-7**	EPA 7470A	601295	EPA 7470A	601814
92521151007	**MW-28D**	EPA 7470A	601295	EPA 7470A	601814
92521151008	**MW-28D FILTERED**	EPA 7470A	601295	EPA 7470A	601814
92521151009	**MW-20**	EPA 7470A	601295	EPA 7470A	601814
92521151010	**HGWC-11**	EPA 7470A	601295	EPA 7470A	601814
92521151011	**HGWC-12**	EPA 7470A	601295	EPA 7470A	601814
92521151012	**MW-19**	EPA 7470A	601295	EPA 7470A	601814
92521151013	**DUP-1**	EPA 7470A	601295	EPA 7470A	601814
92521151014	**MW-25D**	EPA 7470A	601295	EPA 7470A	601814
92521151015	**FB-1**	EPA 7470A	601295	EPA 7470A	601814
92521151016	**EB-1**	EPA 7470A	601590	EPA 7470A	601621
92521151017	**HGWC-10**	EPA 7470A	601590	EPA 7470A	601621
92521151018	**MW-7**	EPA 7470A	601590	EPA 7470A	601621
92521151019	**MW-29**	EPA 7470A	601590	EPA 7470A	601621
92521151020	**HGWC-8**	EPA 7470A	601590	EPA 7470A	601621
92521151021	**HGWC-9**	EPA 7470A	601883	EPA 7470A	602188
92521151022	**MW-5**	EPA 7470A	601883	EPA 7470A	602188
92521151023	**MW-6**	EPA 7470A	601883	EPA 7470A	602188
92521151024	**MW-24D**	EPA 7470A	601883	EPA 7470A	602188
92521151025	**MW-26D**	EPA 7470A	601883	EPA 7470A	602188
92521151026	**MW-27D**	EPA 7470A	601883	EPA 7470A	602188
92521151027	**MW-27D FILTERED**	EPA 7470A	601883	EPA 7470A	602188
92521151028	**HGWC-13**	EPA 7470A	602268	EPA 7470A	602517
92521151001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	598903		
92521151002	**HGWA-2**	EPA 300.0 Rev 2.1 1993	599257		
92521151003	**HGWA-3**	EPA 300.0 Rev 2.1 1993	599257		
92521151004	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	599257		
92521151005	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	599257		
92521151006	**HGWC-7**	EPA 300.0 Rev 2.1 1993	599863		
92521151007	**MW-28D**	EPA 300.0 Rev 2.1 1993	599863		
92521151008	**MW-28D FILTERED**	EPA 300.0 Rev 2.1 1993	599863		
92521151009	**MW-20**	EPA 300.0 Rev 2.1 1993	600235		
92521151010	**HGWC-11**	EPA 300.0 Rev 2.1 1993	600235		

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 APP IV
Pace Project No.: 92521151

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92521151011	**HGWC-12**	EPA 300.0 Rev 2.1 1993	600783		
92521151012	**MW-19**	EPA 300.0 Rev 2.1 1993	600783		
92521151013	**DUP-1**	EPA 300.0 Rev 2.1 1993	600783		
92521151014	**MW-25D**	EPA 300.0 Rev 2.1 1993	600783		
92521151015	**FB-1**	EPA 300.0 Rev 2.1 1993	600783		
92521151016	**EB-1**	EPA 300.0 Rev 2.1 1993	600235		
92521151017	**HGWC-10**	EPA 300.0 Rev 2.1 1993	601397		
92521151018	**MW-7**	EPA 300.0 Rev 2.1 1993	601397		
92521151019	**MW-29**	EPA 300.0 Rev 2.1 1993	601397		
92521151020	**HGWC-8**	EPA 300.0 Rev 2.1 1993	601397		
92521151021	**HGWC-9**	EPA 300.0 Rev 2.1 1993	601397		
92521151022	**MW-5**	EPA 300.0 Rev 2.1 1993	601397		
92521151023	**MW-6**	EPA 300.0 Rev 2.1 1993	601397		
92521151024	**MW-24D**	EPA 300.0 Rev 2.1 1993	601397		
92521151025	**MW-26D**	EPA 300.0 Rev 2.1 1993	601397		
92521151026	**MW-27D**	EPA 300.0 Rev 2.1 1993	601397		
92521151027	**MW-27D FILTERED**	EPA 300.0 Rev 2.1 1993	601397		
92521151028	**HGWC-13**	EPA 300.0 Rev 2.1 1993	604773		

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: October 28, 2020 Page 1 of 1
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

[redacted]

Client Name: Geo Brewery

Project #:

WO# : 92521151

Courier: ☐ Commercial ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other ____

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: PSF 2/9/21

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☐ IR Gun ID: 235

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.6 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): 3.6

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

CLIENT NOTIFICATION/RESOLUTION

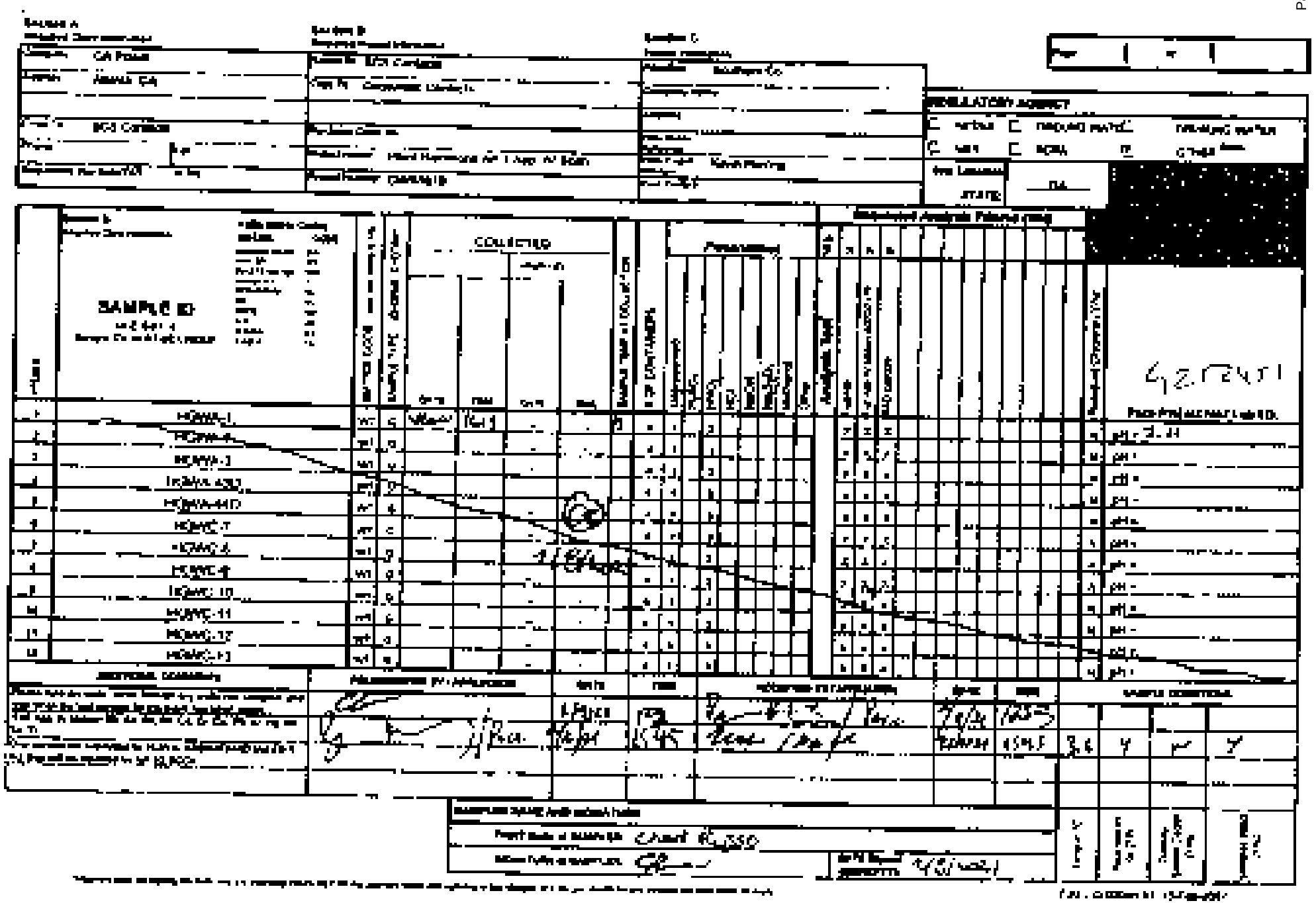
Lot ID of split containers:

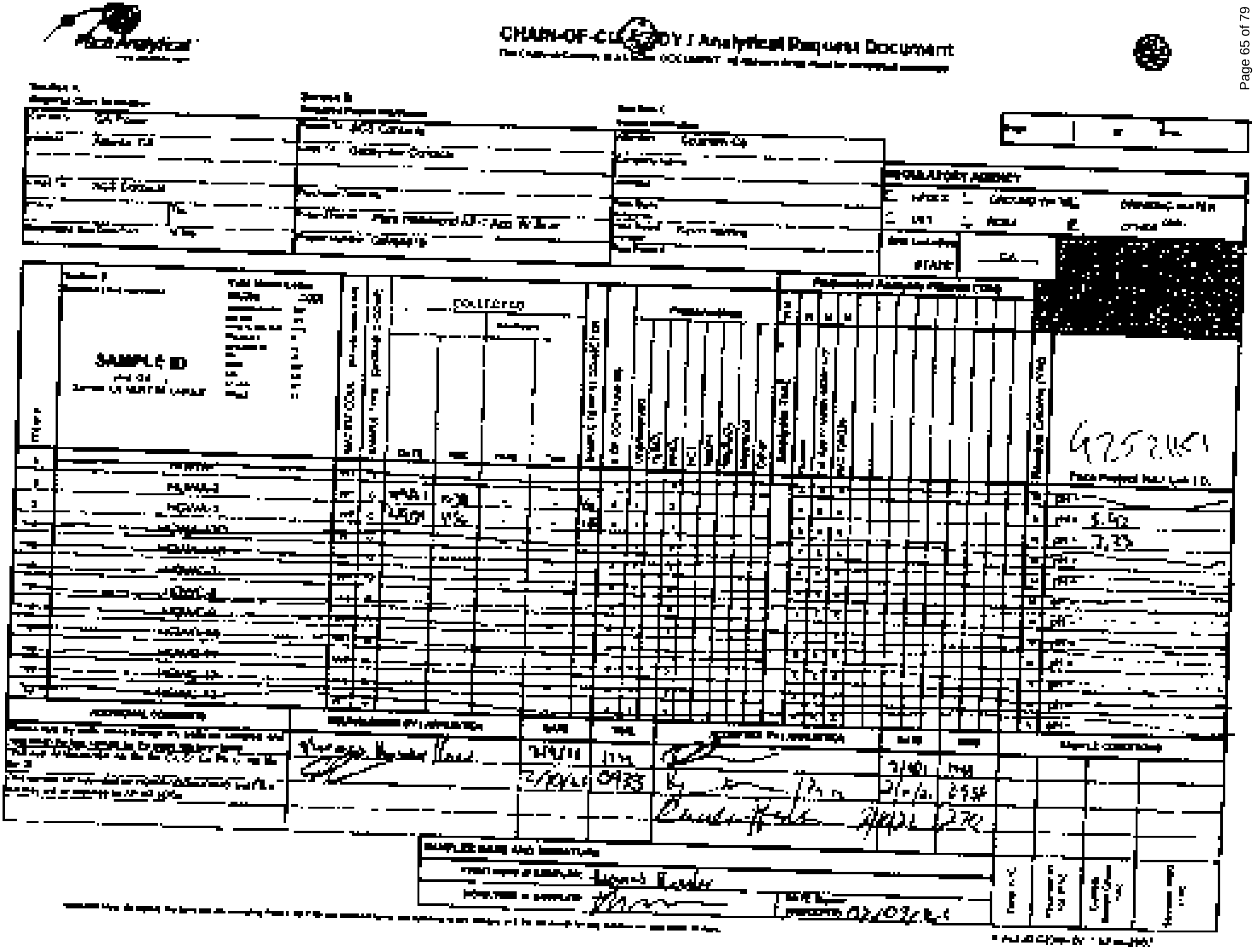
Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

CHAIN-OF-CUSTODY / Analytical Request Document

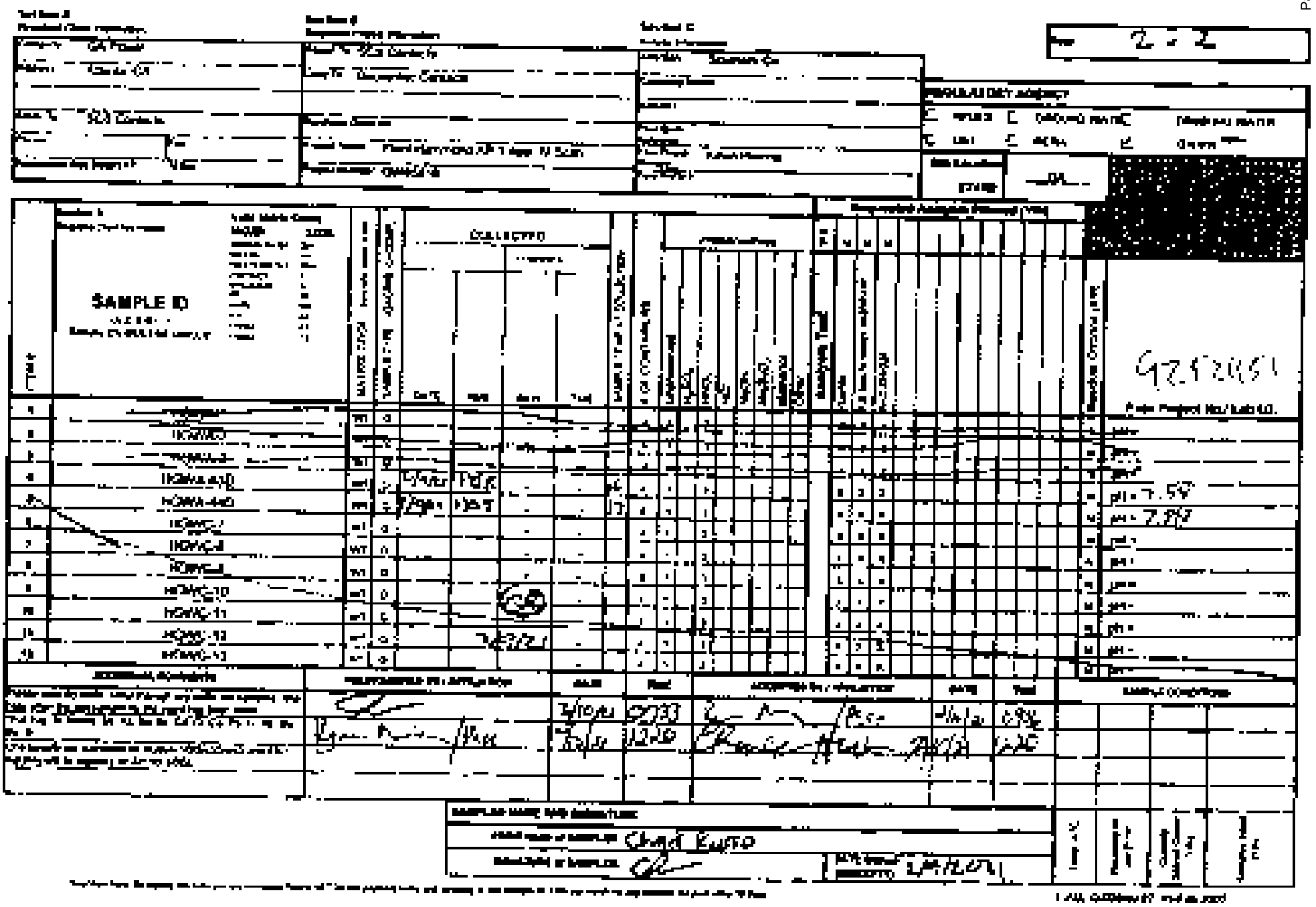



CHAIN-OF-CUSTODY / Analytical Request Document
SAMPLE ID

Pace Analytical

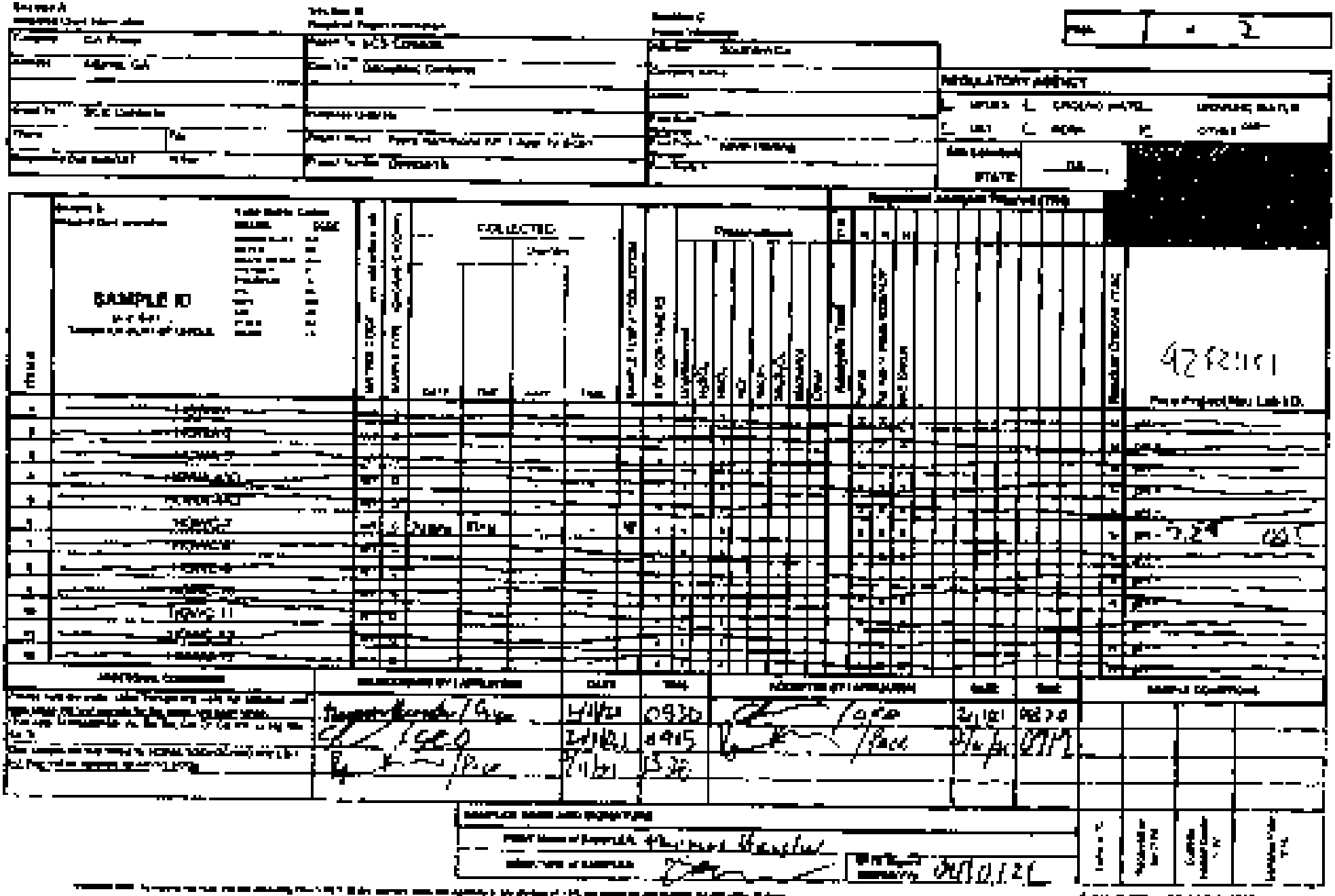
CHAIN-OF-CUSTODY / Analytical Request Document

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



Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document



Pace Analytical

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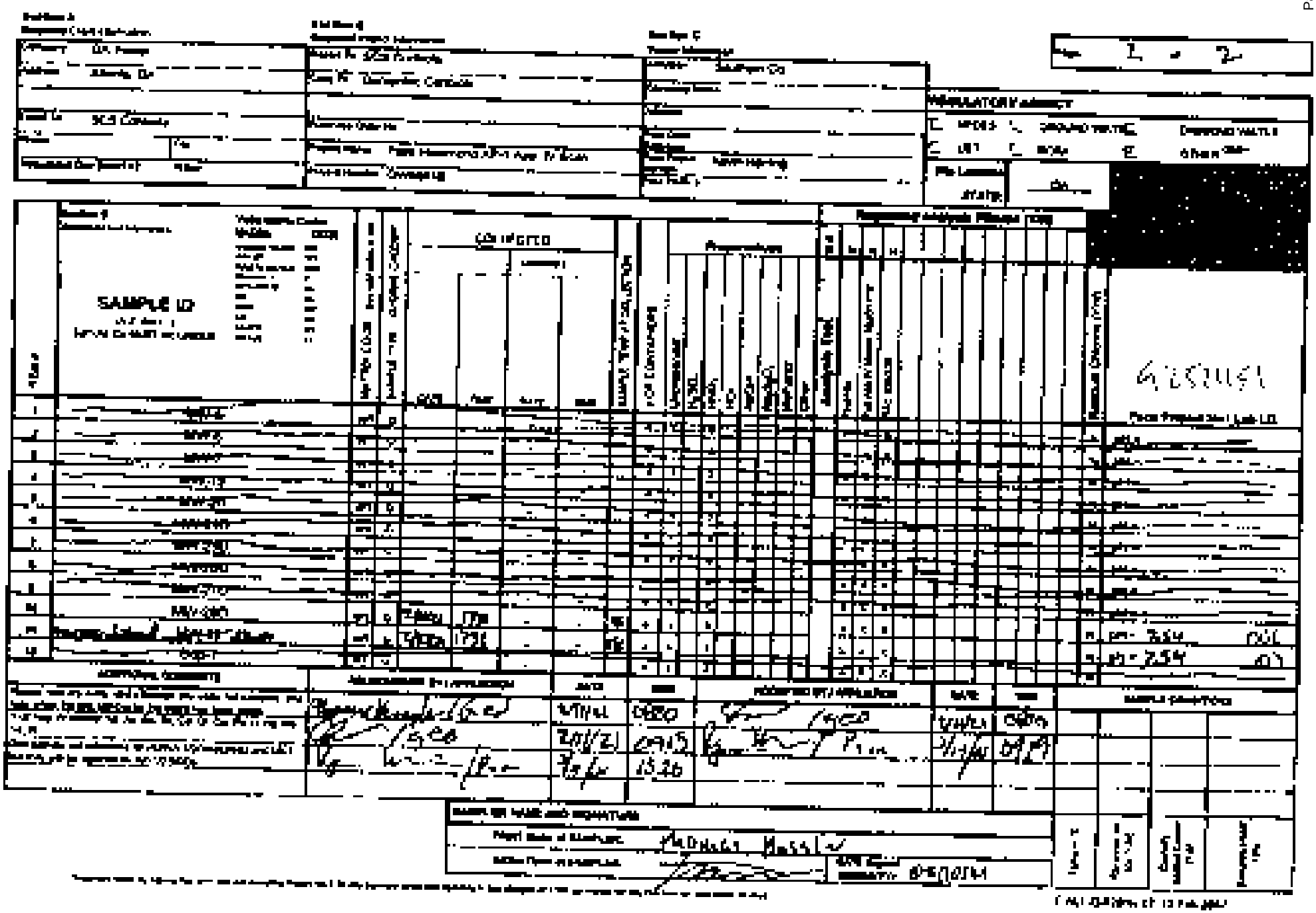

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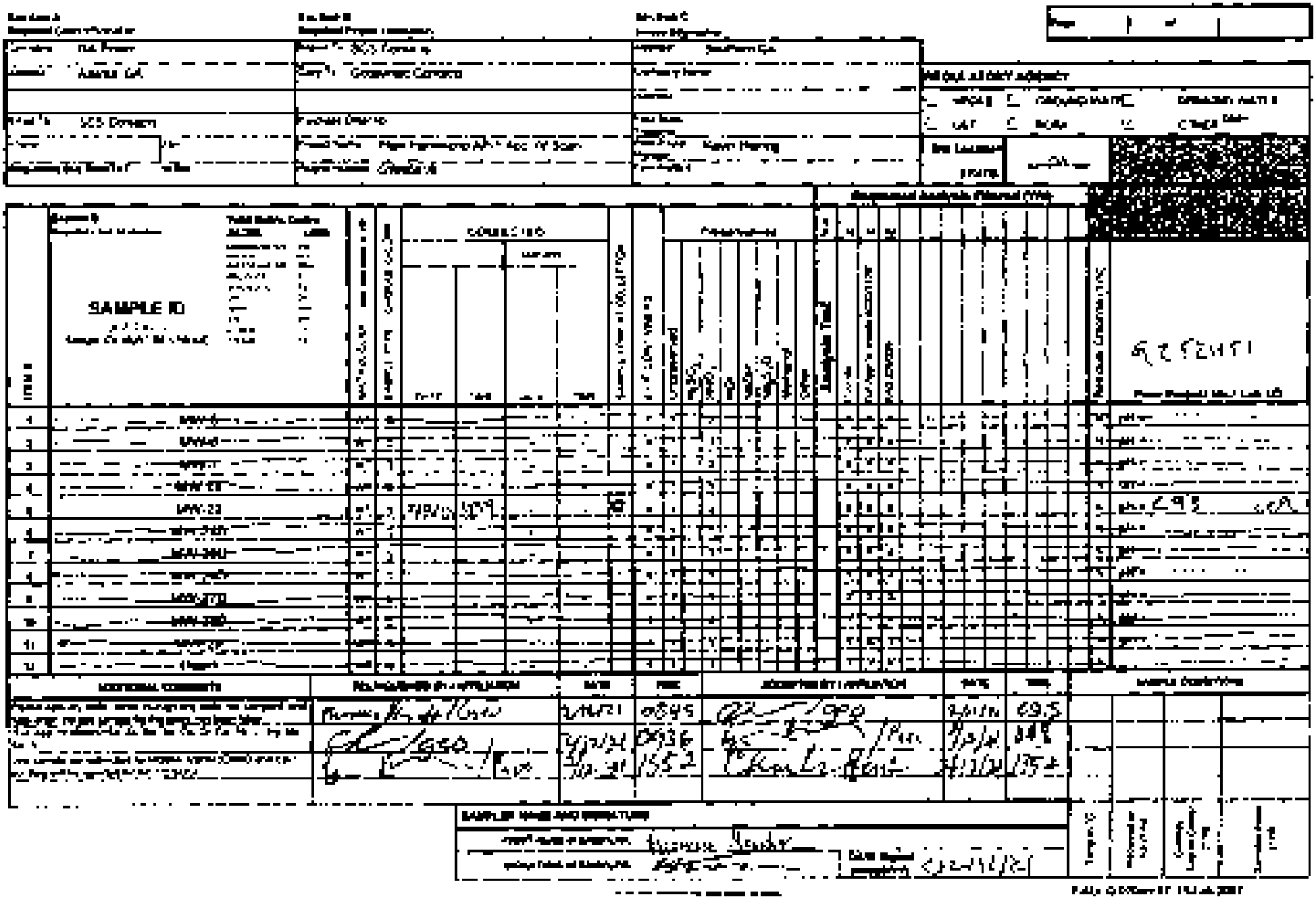


SAMPLE ID

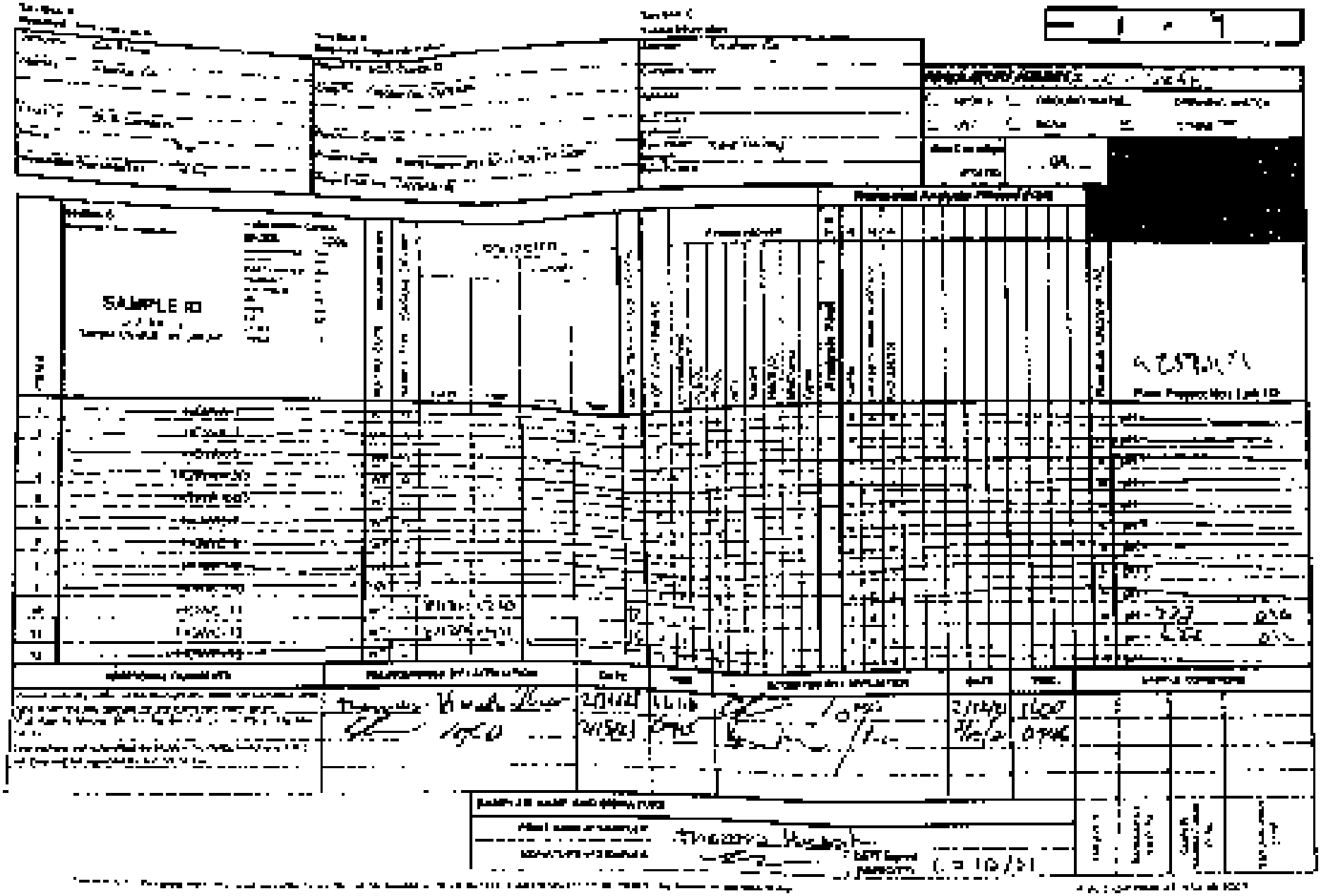
MW-22

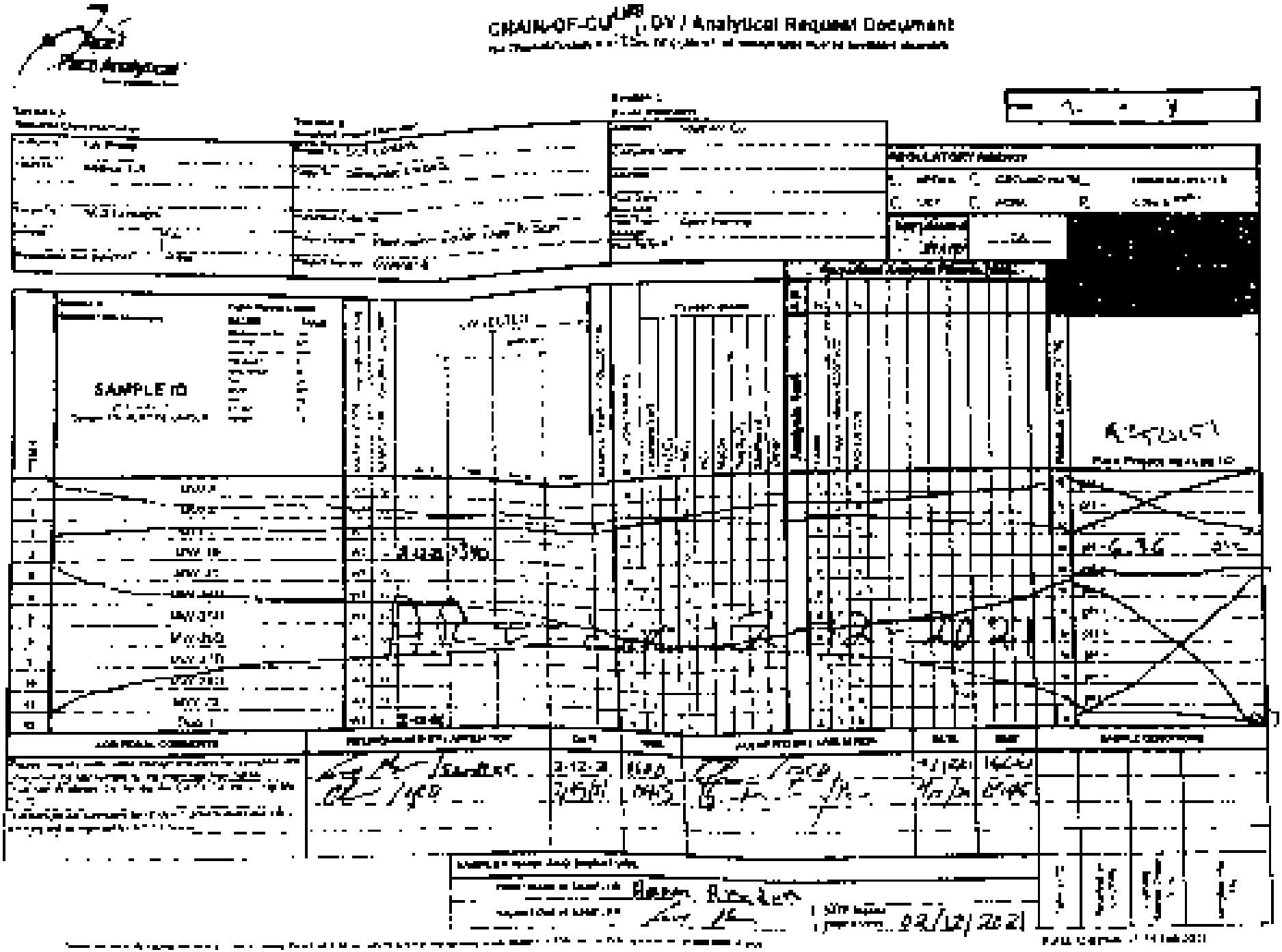
RELINQUISHED BY / AFFILIATION

ACCEPTED BY / AFFILIATION

SAMPLER NAME AND SIGNATURE

CHAIN-OF-CUSTODY | Analytical Request Document

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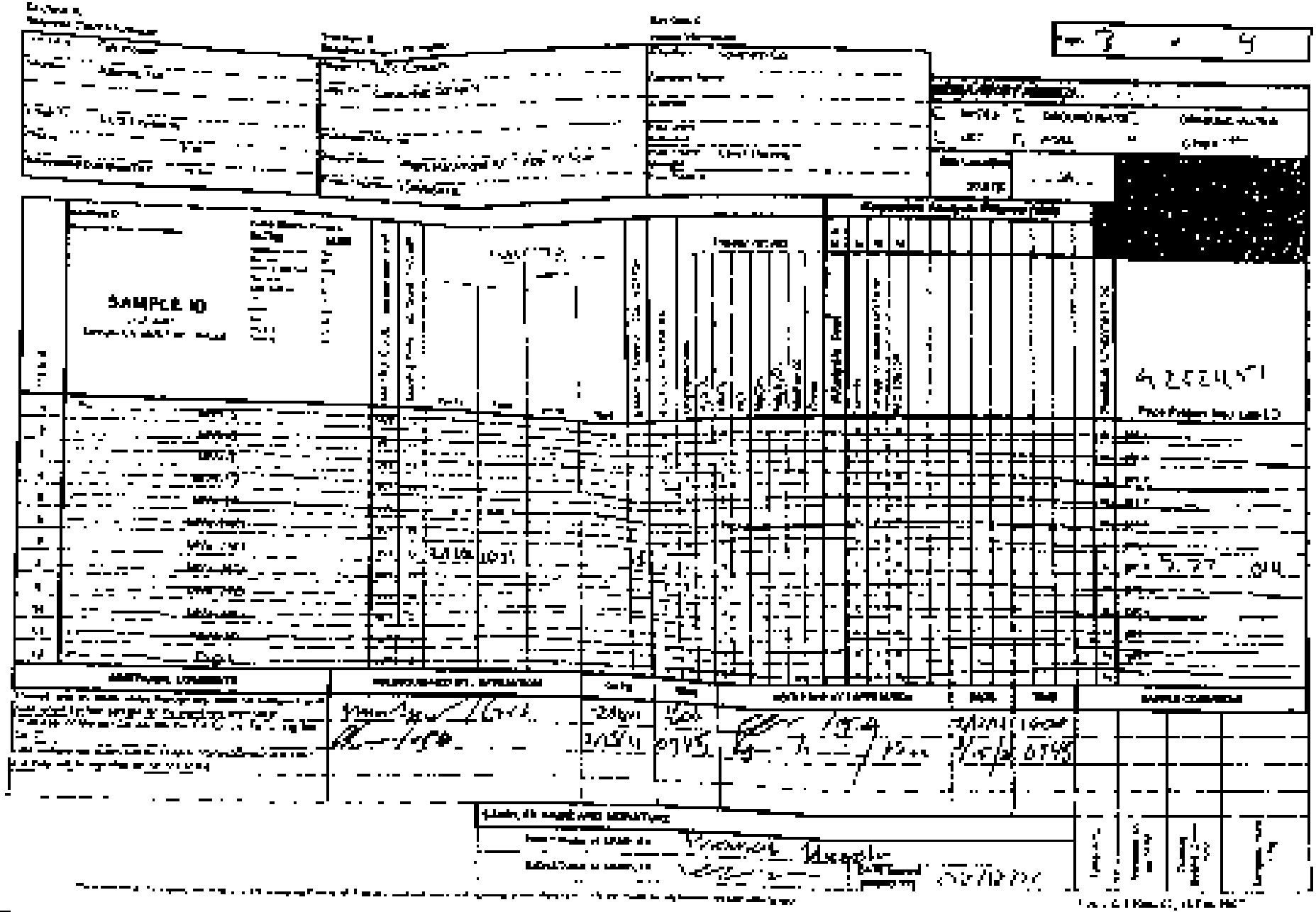
REGULATORY Address
SAMPLE ID

CHAIN-OF-CU[illegible] DY / Analytical Request Document



Alpha Analytical

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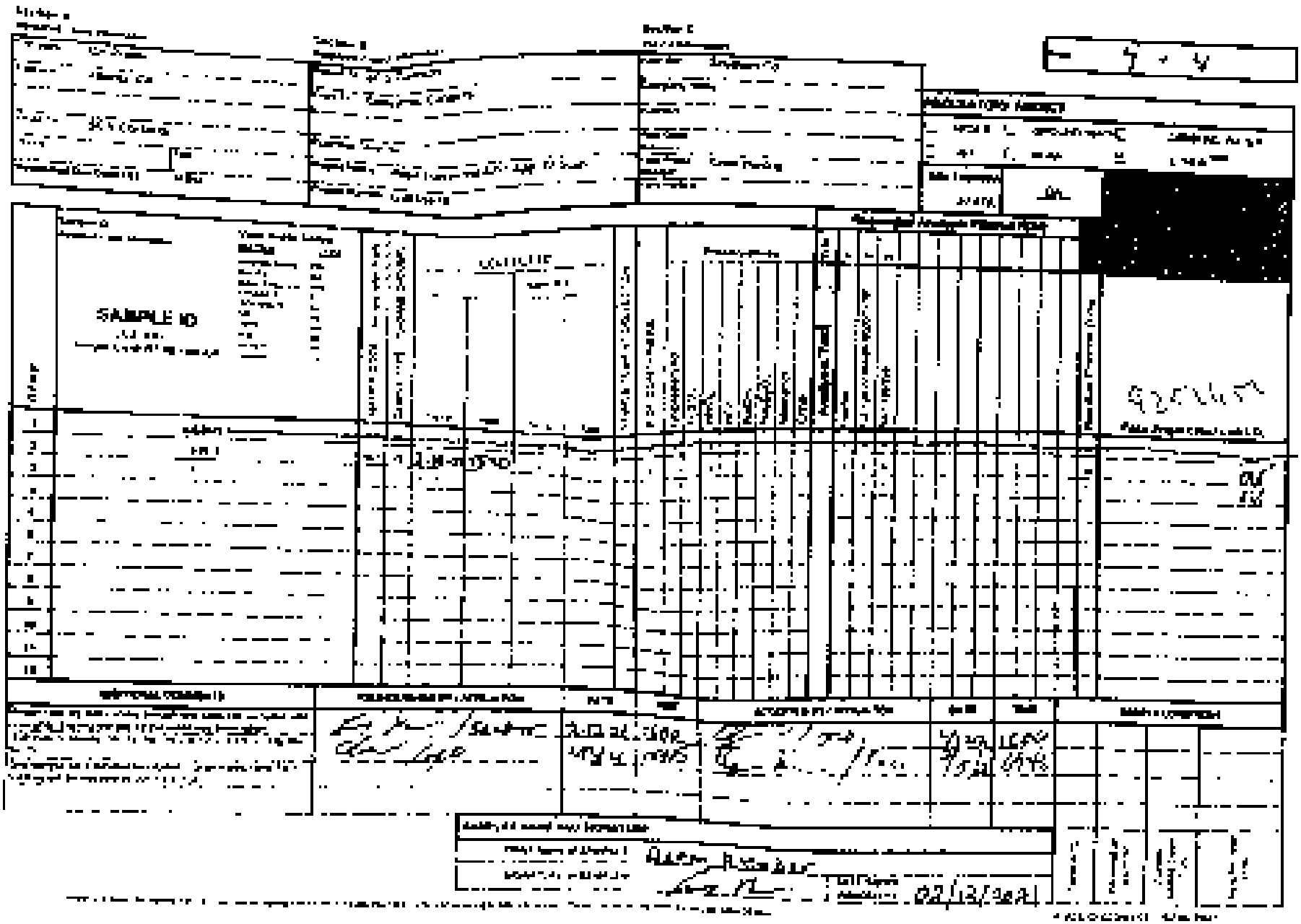

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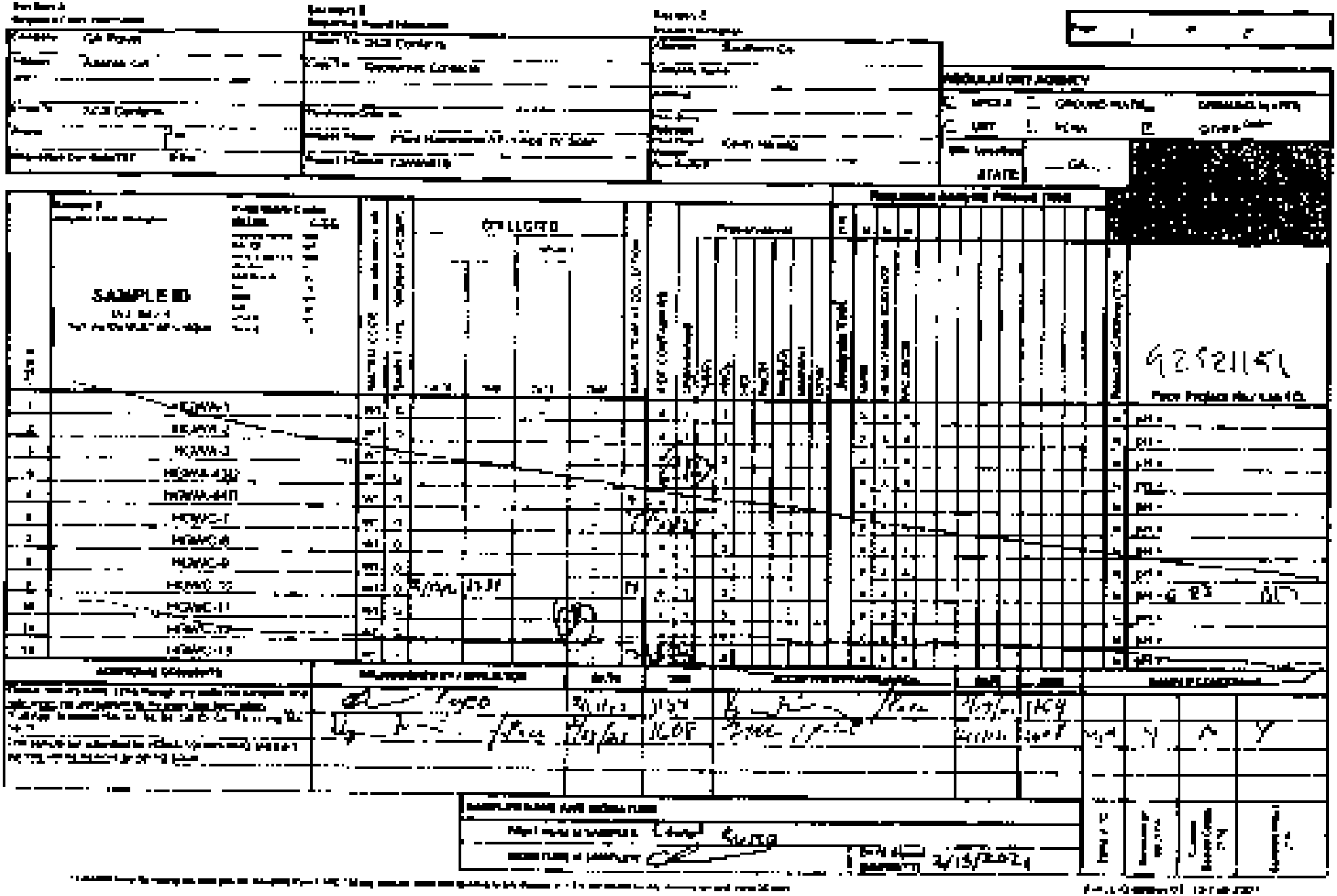

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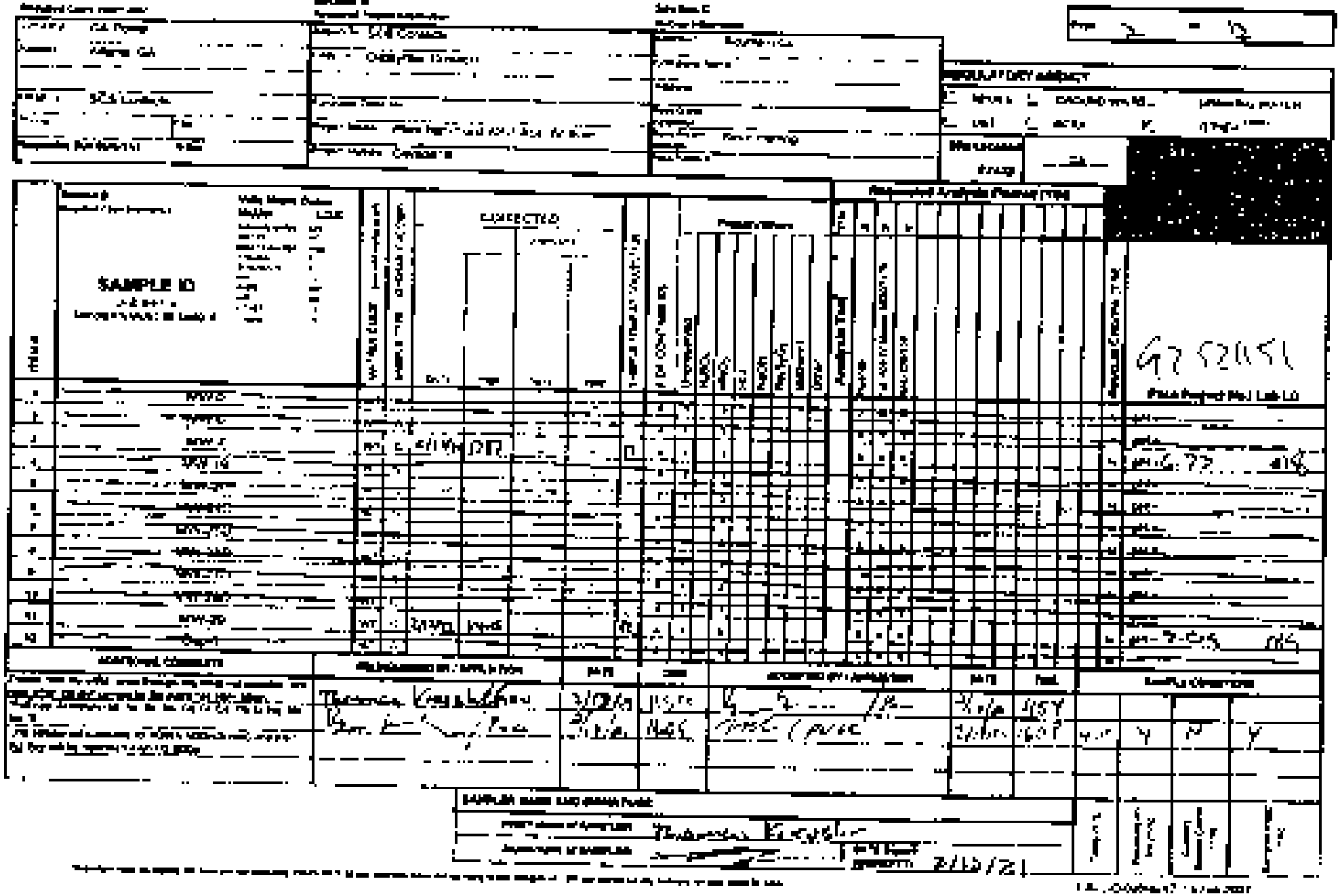

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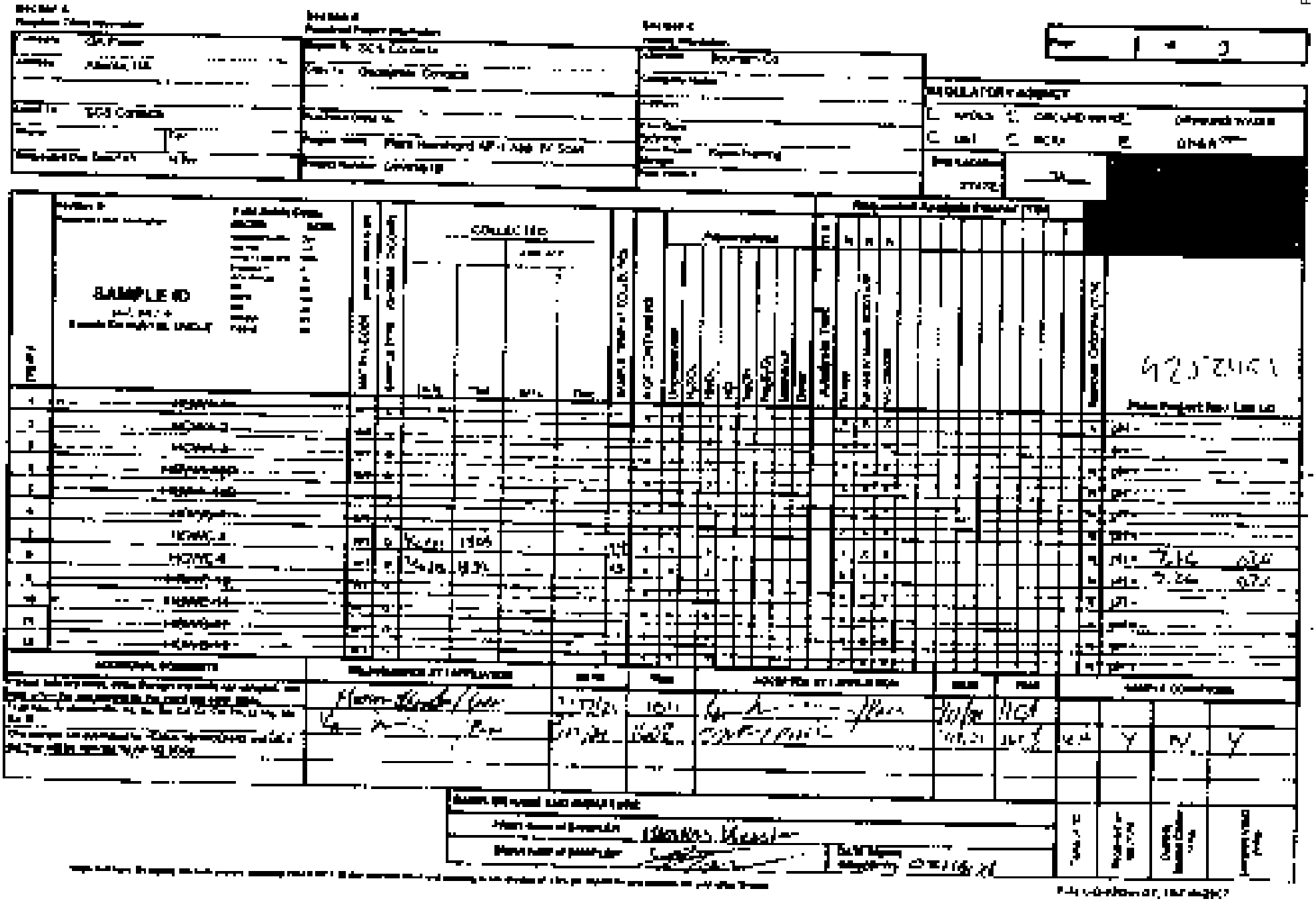
CHAIN-OF-CUSTODY / Analytical Request Document



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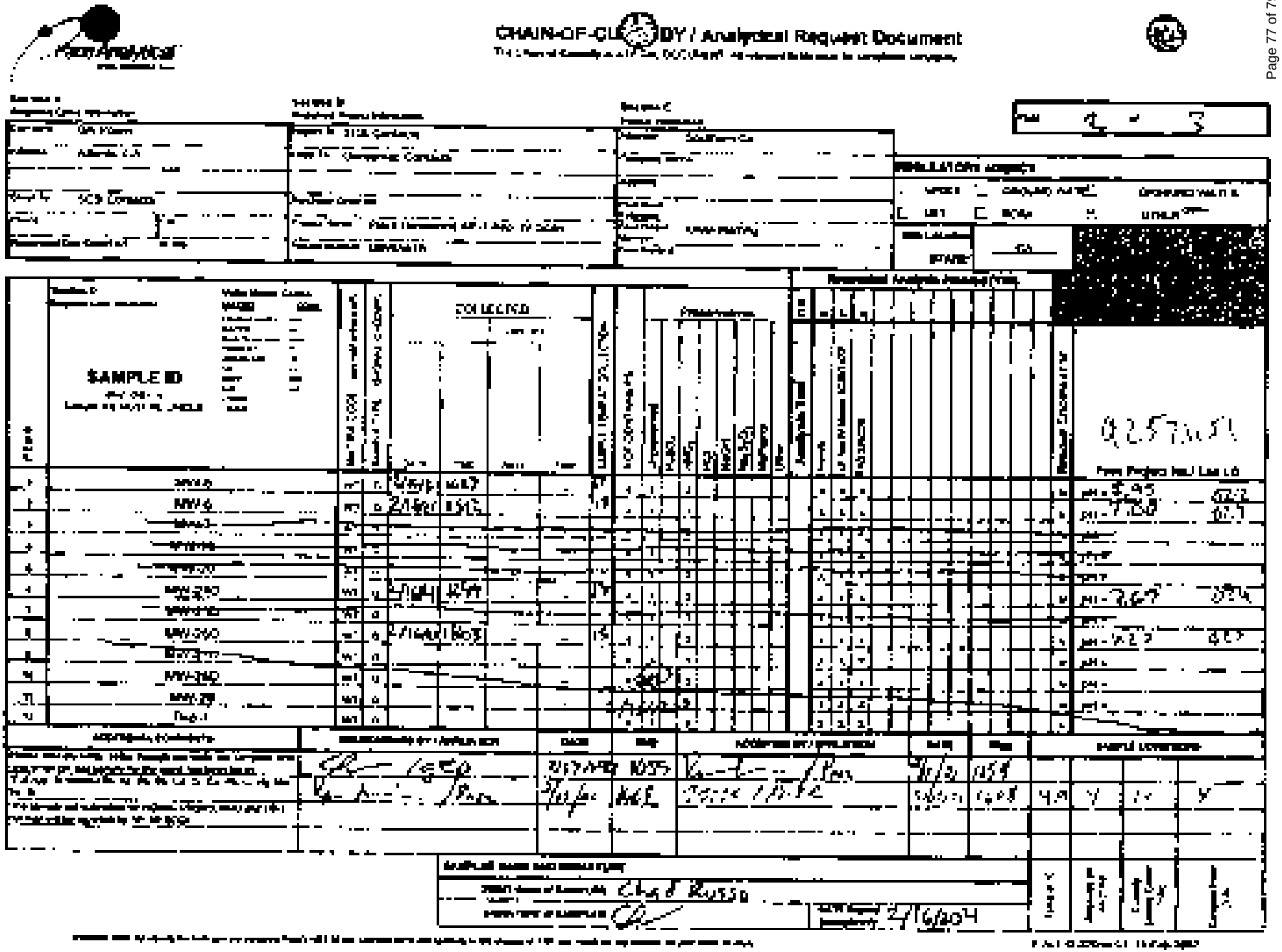

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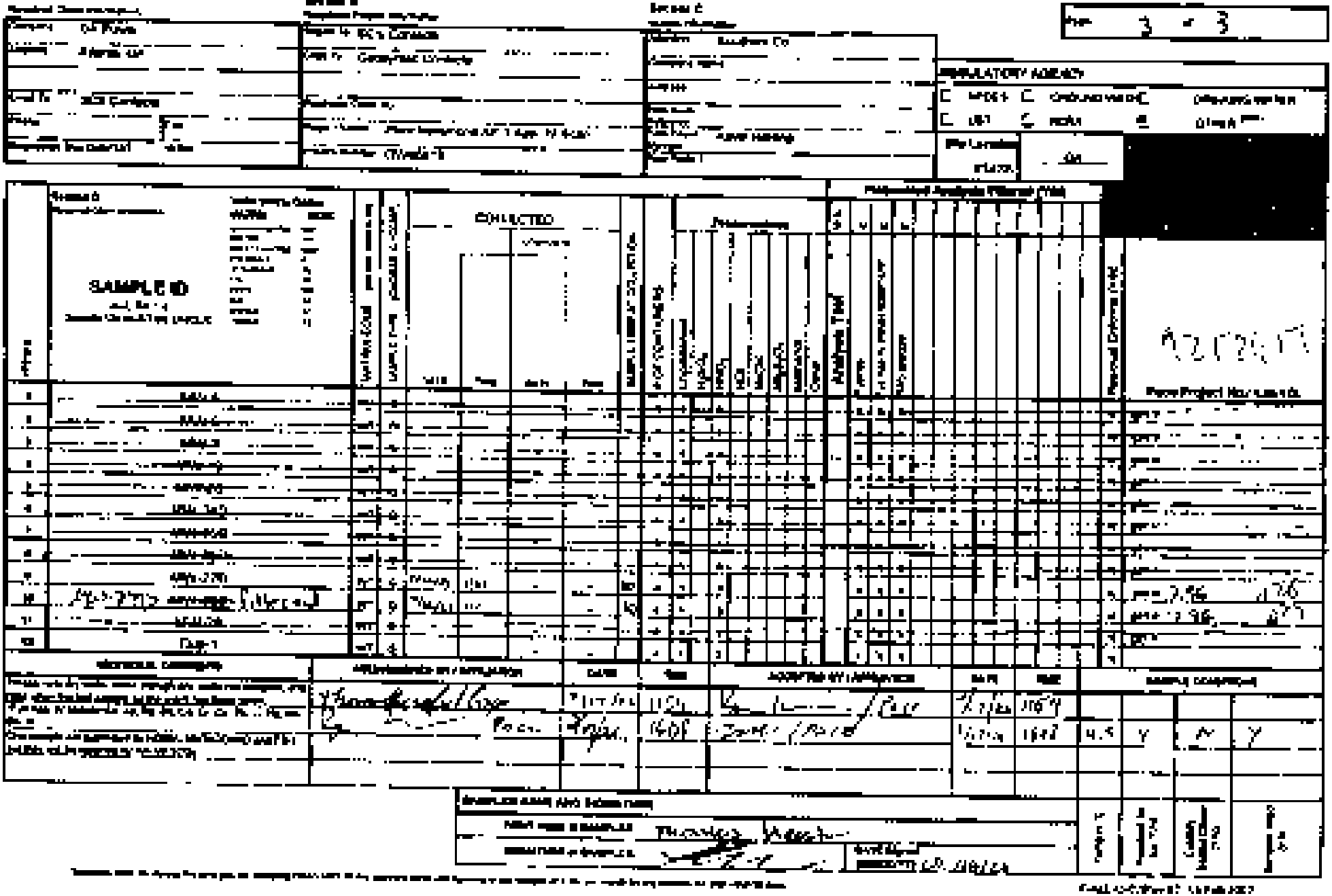

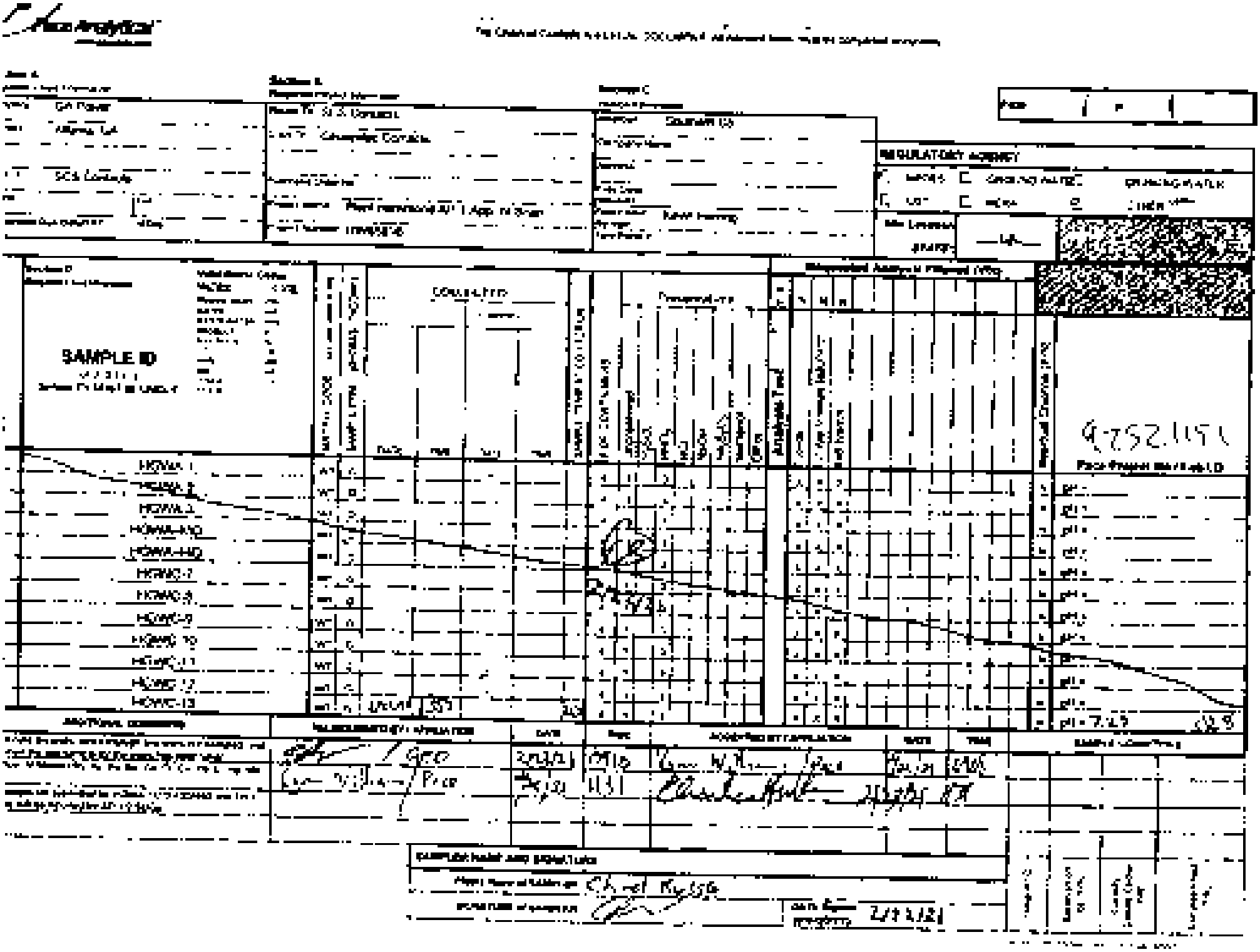
SAMPLE ID
HDWA-1
HDWA-2
HDWA-3
HDWA-MD
HDWA-MD
HDWC-7
HDWC-8
HDWC-9
HDWC-10
HDWC-11
HDWC-12
HDWC-13
pH = 7.45

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 27, 2021

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between March 11, 2021 and March 18, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

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

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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 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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92527268001	**HGWA-1**	Water	03/10/21 16:10	03/11/21 15:55
92527268002	**HGWA-44D**	Water	03/10/21 14:30	03/11/21 15:55
92527268003	**HGWA-2**	Water	03/11/21 09:59	03/12/21 13:43
92527268004	**HGWA-3**	Water	03/11/21 11:25	03/12/21 13:43
92527268005	**HGWA-43D**	Water	03/11/21 09:57	03/12/21 13:43
92527268006	**HGWC-10**	Water	03/12/21 10:11	03/15/21 12:00
92527268007	**MW-27D**	Water	03/12/21 09:47	03/15/21 12:00
92527268008	**HGWC-7 FILTERED**	Water	03/15/21 16:25	03/16/21 13:42
92527268009	**HGWC-7**	Water	03/15/21 16:10	03/16/21 13:42
92527268010	**HGWC-8**	Water	03/15/21 11:00	03/16/21 13:42
92527268011	**MW-7**	Water	03/15/21 12:00	03/16/21 13:42
92527268012	**MW-20**	Water	03/15/21 14:22	03/16/21 13:42
92527268013	**MW-28D**	Water	03/15/21 18:25	03/16/21 13:42
92527268014	**MW-29**	Water	03/15/21 12:52	03/16/21 13:42
92527268015	**HGWC-9**	Water	03/16/21 14:48	03/17/21 13:10
92527268016	**HGWC-11**	Water	03/16/21 09:45	03/17/21 13:10
92527268017	**HGWC-12**	Water	03/16/21 11:12	03/17/21 13:10
92527268018	**MW-5**	Water	03/16/21 16:08	03/17/21 13:10
92527268019	**MW-6**	Water	03/16/21 15:43	03/17/21 13:10
92527268020	**MW-25D**	Water	03/16/21 12:32	03/17/21 13:10
92527268021	**DUP-1**	Water	03/16/21 00:00	03/17/21 13:10
92527268022	**EB-1**	Water	03/16/21 16:40	03/17/21 13:10
92527268023	**FB-1**	Water	03/16/21 16:25	03/17/21 13:10
92527268024	**HGWC-13**	Water	03/17/21 14:58	03/18/21 13:17
92527268025	**MW-19**	Water	03/17/21 10:20	03/18/21 13:17
92527268026	**MW-24D**	Water	03/17/21 16:00	03/18/21 13:17
92527268027	**MW-26D**	Water	03/17/21 08:50	03/18/21 13:17

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92527268001	**HGWA-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268002	**HGWA-44D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268003	**HGWA-2**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268004	**HGWA-3**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268005	**HGWA-43D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268006	**HGWC-10**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268007	**MW-27D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268008	**HGWC-7 FILTERED**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268009	**HGWC-7**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268010	**HGWC-8**	EPA 6010D	DRB	1

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268011	**MW-7**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268012	**MW-20**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268013	**MW-28D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268014	**MW-29**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268015	**HGWC-9**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268016	**HGWC-11**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268017	**HGWC-12**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268018	**MW-5**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268019	**MW-6**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13

Pace Analytical Services, LLC
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268020	**MW-25D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268021	**DUP-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JLH	3
92527268022	**EB-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268023	**FB-1**	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268024	**HGWC-13**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268025	**MW-19**	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268026	**MW-24D**	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92527268027	**MW-26D**	EPA 6010D	DRB	1
		EPA 6020B	KH	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268001	**HGWA-1**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	6.95	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	111	mg/L	1.0	03/19/21 04:13	
EPA 6020B	Barium	0.030	mg/L	0.0050	03/16/21 15:56	
EPA 6020B	Boron	0.015J	mg/L	0.040	03/16/21 15:56	
EPA 6020B	Lithium	0.00090J	mg/L	0.030	03/16/21 15:56	
EPA 6020B	Selenium	0.0047J	mg/L	0.0050	03/16/21 15:56	
SM 2540C-2011	Total Dissolved Solids	348	mg/L	10.0	03/15/21 13:15	
EPA 300.0 Rev 2.1 1993	Chloride	7.4	mg/L	1.0	03/17/21 20:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.079J	mg/L	0.10	03/17/21 20:51	
EPA 300.0 Rev 2.1 1993	Sulfate	49.6	mg/L	1.0	03/17/21 20:51	
92527268002	**HGWA-44D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.92	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	5.9	mg/L	1.0	03/19/21 04:18	
EPA 6020B	Antimony	0.00037J	mg/L	0.0030	03/16/21 16:13	B
EPA 6020B	Barium	0.26	mg/L	0.0050	03/16/21 16:13	
EPA 6020B	Boron	0.39	mg/L	0.040	03/16/21 16:13	
EPA 6020B	Lithium	0.030	mg/L	0.030	03/16/21 16:13	
EPA 6020B	Molybdenum	0.0019J	mg/L	0.010	03/16/21 16:13	
SM 2540C-2011	Total Dissolved Solids	289	mg/L	10.0	03/15/21 13:15	
EPA 300.0 Rev 2.1 1993	Chloride	12.3	mg/L	1.0	03/17/21 22:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.65	mg/L	0.10	03/17/21 22:28	
92527268003	**HGWA-2**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	5.80	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	43.8	mg/L	1.0	03/22/21 20:09	
EPA 6020B	Barium	0.070	mg/L	0.0050	03/19/21 20:54	
EPA 6020B	Beryllium	0.000086J	mg/L	0.00050	03/19/21 20:54	
EPA 6020B	Boron	0.056	mg/L	0.040	03/19/21 20:54	
EPA 6020B	Cobalt	0.013	mg/L	0.0050	03/19/21 20:54	
EPA 6020B	Lead	0.000076J	mg/L	0.0010	03/19/21 20:54	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	03/19/21 20:54	
SM 2540C-2011	Total Dissolved Solids	169	mg/L	10.0	03/16/21 15:08	
EPA 300.0 Rev 2.1 1993	Chloride	5.1	mg/L	1.0	03/19/21 00:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	03/19/21 00:00	
EPA 300.0 Rev 2.1 1993	Sulfate	52.9	mg/L	1.0	03/19/21 00:00	
92527268004	**HGWA-3**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.33	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	83.8	mg/L	1.0	03/22/21 20:29	
EPA 6020B	Barium	0.13	mg/L	0.0050	03/19/21 21:00	
EPA 6020B	Boron	0.015J	mg/L	0.040	03/19/21 21:00	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268004	**HGWA-3**					
EPA 6020B	Lithium	0.0035J	mg/L	0.030	03/19/21 21:00	
SM 2540C-2011	Total Dissolved Solids	267	mg/L	10.0	03/16/21 15:08	
EPA 300.0 Rev 2.1 1993	Chloride	5.9	mg/L	1.0	03/19/21 00:00	
EPA 300.0 Rev 2.1 1993	Sulfate	50.4	mg/L	1.0	03/19/21 00:00	
92527268005	**HGWA-43D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.46	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	59.6	mg/L	1.0	03/22/21 20:33	
EPA 6020B	Antimony	0.00057J	mg/L	0.0030	03/19/21 21:06	
EPA 6020B	Arsenic	0.0013J	mg/L	0.0050	03/19/21 21:06	
EPA 6020B	Barium	0.32	mg/L	0.0050	03/19/21 21:06	
EPA 6020B	Boron	0.060	mg/L	0.040	03/19/21 21:06	
EPA 6020B	Lead	0.000094J	mg/L	0.0010	03/19/21 21:06	
EPA 6020B	Lithium	0.0022J	mg/L	0.030	03/19/21 21:06	
EPA 6020B	Molybdenum	0.0064J	mg/L	0.010	03/19/21 21:06	
SM 2540C-2011	Total Dissolved Solids	279	mg/L	10.0	03/17/21 17:40	
EPA 300.0 Rev 2.1 1993	Chloride	4.5	mg/L	1.0	03/19/21 00:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	03/19/21 00:00	
EPA 300.0 Rev 2.1 1993	Sulfate	38.6	mg/L	1.0	03/19/21 00:00	
92527268006	**HGWC-10**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	6.76	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	146	mg/L	1.0	03/26/21 19:19	M1
EPA 6020B	Barium	0.058	mg/L	0.0050	03/29/21 18:43	
EPA 6020B	Boron	0.64	mg/L	0.040	03/29/21 18:43	
EPA 6020B	Molybdenum	0.00070J	mg/L	0.010	03/29/21 18:43	
SM 2540C-2011	Total Dissolved Solids	490	mg/L	10.0	03/23/21 07:39	H1
EPA 300.0 Rev 2.1 1993	Chloride	35.0	mg/L	1.0	03/21/21 01:09	
EPA 300.0 Rev 2.1 1993	Fluoride	0.054J	mg/L	0.10	03/21/21 01:09	
EPA 300.0 Rev 2.1 1993	Sulfate	120	mg/L	3.0	03/23/21 19:12	
92527268007	**MW-27D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.88	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	28.0	mg/L	1.0	03/26/21 19:48	
EPA 6020B	Barium	1.1	mg/L	0.025	03/30/21 12:03	
EPA 6020B	Boron	0.13	mg/L	0.040	03/29/21 18:48	
EPA 6020B	Lithium	0.0090J	mg/L	0.030	03/29/21 18:48	
EPA 6020B	Molybdenum	0.00080J	mg/L	0.010	03/29/21 18:48	
SM 2540C-2011	Total Dissolved Solids	215	mg/L	10.0	03/23/21 07:39	H1
EPA 300.0 Rev 2.1 1993	Chloride	31.3	mg/L	1.0	03/21/21 01:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.24	mg/L	0.10	03/21/21 01:24	
EPA 300.0 Rev 2.1 1993	Sulfate	7.4	mg/L	1.0	03/21/21 01:24	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268008	**HGWC-7 FILTERED**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.19	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	109	mg/L	1.0	03/26/21 19:53	
EPA 6020B	Barium	0.068	mg/L	0.0050	03/29/21 18:54	
EPA 6020B	Boron	1.1	mg/L	0.040	03/29/21 18:54	
EPA 6020B	Cadmium	0.00021J	mg/L	0.00050	03/29/21 18:54	
EPA 6020B	Cobalt	0.00053J	mg/L	0.0050	03/29/21 18:54	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	03/29/21 18:54	
EPA 6020B	Molybdenum	0.050	mg/L	0.010	03/29/21 18:54	
SM 2540C-2011	Total Dissolved Solids	366	mg/L	10.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	44.4	mg/L	1.0	03/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Fluoride	0.088J	mg/L	0.10	03/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Sulfate	80.6	mg/L	2.0	03/21/21 07:17	
92527268009	**HGWC-7**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.19	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	113	mg/L	1.0	03/26/21 17:13	M1
EPA 6020B	Barium	0.074	mg/L	0.0050	03/29/21 19:00	
EPA 6020B	Beryllium	0.00019J	mg/L	0.00050	03/29/21 19:00	
EPA 6020B	Boron	1.1	mg/L	0.040	03/29/21 19:00	
EPA 6020B	Chromium	0.0021J	mg/L	0.0050	03/29/21 19:00	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	03/29/21 19:00	
EPA 6020B	Lead	0.0013	mg/L	0.0010	03/29/21 19:00	
EPA 6020B	Lithium	0.0038J	mg/L	0.030	03/29/21 19:00	
EPA 6020B	Molybdenum	0.047	mg/L	0.010	03/29/21 19:00	
SM 2540C-2011	Total Dissolved Solids	370	mg/L	10.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	44.5	mg/L	1.0	03/20/21 17:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.086J	mg/L	0.10	03/20/21 17:00	
EPA 300.0 Rev 2.1 1993	Sulfate	107	mg/L	2.0	03/21/21 07:33	
92527268010	**HGWC-8**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.09	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	156	mg/L	1.0	03/26/21 19:58	
EPA 6020B	Barium	0.063	mg/L	0.0050	03/29/21 19:06	
EPA 6020B	Beryllium	0.000078J	mg/L	0.00050	03/29/21 19:06	
EPA 6020B	Boron	1.7	mg/L	0.040	03/29/21 19:06	
EPA 6020B	Cadmium	0.00017J	mg/L	0.00050	03/29/21 19:06	
EPA 6020B	Chromium	0.00082J	mg/L	0.0050	03/29/21 19:06	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	03/29/21 19:06	
EPA 6020B	Lead	0.00011J	mg/L	0.0010	03/29/21 19:06	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	03/29/21 19:06	
EPA 6020B	Molybdenum	0.41	mg/L	0.010	03/29/21 19:06	
SM 2540C-2011	Total Dissolved Solids	614	mg/L	20.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	72.4	mg/L	1.0	03/20/21 17:14	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268010	**HGWC-8**					
EPA 300.0 Rev 2.1 1993	Fluoride	0.51	mg/L	0.10	03/20/21 17:14	
EPA 300.0 Rev 2.1 1993	Sulfate	272	mg/L	6.0	03/21/21 07:47	
92527268011	**MW-7**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	6.66	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	76.9	mg/L	1.0	03/26/21 20:03	
EPA 6020B	Barium	0.053	mg/L	0.0050	03/29/21 19:11	
EPA 6020B	Boron	0.16	mg/L	0.040	03/29/21 19:11	
EPA 6020B	Chromium	0.0018J	mg/L	0.0050	03/29/21 19:11	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	03/29/21 19:11	
EPA 6020B	Selenium	0.0021J	mg/L	0.0050	03/29/21 19:11	B
SM 2540C-2011	Total Dissolved Solids	293	mg/L	10.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	6.8	mg/L	1.0	03/20/21 17:27	
EPA 300.0 Rev 2.1 1993	Sulfate	92.1	mg/L	2.0	03/21/21 08:03	
92527268012	**MW-20**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	6.97	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	121	mg/L	1.0	03/26/21 20:07	
EPA 6020B	Barium	0.096	mg/L	0.0050	03/29/21 19:17	
EPA 6020B	Boron	0.12	mg/L	0.040	03/29/21 19:17	
EPA 6020B	Chromium	0.00068J	mg/L	0.0050	03/29/21 19:17	
EPA 6020B	Lead	0.00010J	mg/L	0.0010	03/29/21 19:17	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	03/29/21 19:17	
SM 2540C-2011	Total Dissolved Solids	406	mg/L	10.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	31.1	mg/L	1.0	03/20/21 17:41	
EPA 300.0 Rev 2.1 1993	Sulfate	109	mg/L	2.0	03/21/21 08:19	
92527268013	**MW-28D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.61	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	66.1	mg/L	1.0	03/26/21 20:12	
EPA 6020B	Barium	0.45	mg/L	0.0050	03/29/21 19:23	
EPA 6020B	Beryllium	0.000048J	mg/L	0.00050	03/29/21 19:23	
EPA 6020B	Boron	0.36	mg/L	0.040	03/29/21 19:23	
EPA 6020B	Chromium	0.00078J	mg/L	0.0050	03/29/21 19:23	
EPA 6020B	Lead	0.00034J	mg/L	0.0010	03/29/21 19:23	
EPA 6020B	Lithium	0.013J	mg/L	0.030	03/29/21 19:23	
EPA 6020B	Molybdenum	0.013	mg/L	0.010	03/29/21 19:23	
SM 2540C-2011	Total Dissolved Solids	293	mg/L	10.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	35.8	mg/L	1.0	03/20/21 18:21	
EPA 300.0 Rev 2.1 1993	Fluoride	0.24	mg/L	0.10	03/20/21 18:21	
EPA 300.0 Rev 2.1 1993	Sulfate	50.1	mg/L	1.0	03/20/21 18:21	

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268014	**MW-29**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.05	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	145	mg/L	1.0	03/26/21 20:17	
EPA 6020B	Barium	0.078	mg/L	0.0050	03/29/21 19:40	
EPA 6020B	Boron	1.2	mg/L	0.040	03/29/21 19:40	
EPA 6020B	Cobalt	0.0011J	mg/L	0.0050	03/29/21 19:40	
EPA 6020B	Lithium	0.0022J	mg/L	0.030	03/29/21 19:40	
EPA 6020B	Molybdenum	0.0031J	mg/L	0.010	03/29/21 19:40	
SM 2540C-2011	Total Dissolved Solids	555	mg/L	10.0	03/22/21 15:10	
EPA 300.0 Rev 2.1 1993	Chloride	73.6	mg/L	1.0	03/20/21 18:35	
EPA 300.0 Rev 2.1 1993	Sulfate	148	mg/L	3.0	03/21/21 08:34	
92527268015	**HGWC-9**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.10	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	182	mg/L	1.0	03/26/21 17:42	
EPA 6020B	Barium	0.11	mg/L	0.0050	03/29/21 19:46	
EPA 6020B	Boron	2.2	mg/L	0.040	03/29/21 19:46	
EPA 6020B	Cobalt	0.00069J	mg/L	0.0050	03/29/21 19:46	
EPA 6020B	Lead	0.00027J	mg/L	0.0010	03/29/21 19:46	
EPA 6020B	Lithium	0.0046J	mg/L	0.030	03/29/21 19:46	
EPA 6020B	Molybdenum	0.035	mg/L	0.010	03/29/21 19:46	
SM 2540C-2011	Total Dissolved Solids	672	mg/L	20.0	03/23/21 07:59	
EPA 300.0 Rev 2.1 1993	Chloride	94.7	mg/L	5.0	03/22/21 09:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.098J	mg/L	0.10	03/22/21 00:11	
EPA 300.0 Rev 2.1 1993	Sulfate	211	mg/L	5.0	03/22/21 09:56	
92527268016	**HGWC-11**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	5.95	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	132	mg/L	1.0	03/26/21 17:47	
EPA 6020B	Arsenic	0.0017J	mg/L	0.0050	03/30/21 18:35	
EPA 6020B	Barium	0.035	mg/L	0.0050	03/30/21 18:35	
EPA 6020B	Beryllium	0.000081J	mg/L	0.00050	03/30/21 18:35	
EPA 6020B	Boron	0.53	mg/L	0.040	03/30/21 18:35	
EPA 6020B	Lead	0.000099J	mg/L	0.0010	03/30/21 18:35	
EPA 6020B	Molybdenum	0.015	mg/L	0.010	03/30/21 18:35	
EPA 6020B	Selenium	0.015	mg/L	0.0050	03/30/21 18:35	
SM 2540C-2011	Total Dissolved Solids	558	mg/L	10.0	03/23/21 07:59	
EPA 300.0 Rev 2.1 1993	Chloride	11.5	mg/L	1.0	03/22/21 00:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	03/22/21 00:51	
EPA 300.0 Rev 2.1 1993	Sulfate	291	mg/L	6.0	03/22/21 10:11	
92527268017	**HGWC-12**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.15	Std. Units		03/22/21 11:58	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268017	**HGWC-12**					
EPA 6010D	Calcium	166	mg/L	1.0	03/26/21 17:52	
EPA 6020B	Arsenic	0.0038J	mg/L	0.0050	03/30/21 18:41	
EPA 6020B	Barium	0.084	mg/L	0.0050	03/30/21 18:41	
EPA 6020B	Boron	1.9	mg/L	0.040	03/30/21 18:41	
EPA 6020B	Cobalt	0.0012J	mg/L	0.0050	03/30/21 18:41	
EPA 6020B	Lead	0.000089J	mg/L	0.0010	03/30/21 18:41	
EPA 6020B	Lithium	0.0081J	mg/L	0.030	03/30/21 18:41	
EPA 6020B	Molybdenum	0.044	mg/L	0.010	03/30/21 18:41	
SM 2540C-2011	Total Dissolved Solids	614	mg/L	20.0	03/23/21 07:59	
EPA 300.0 Rev 2.1 1993	Chloride	56.8	mg/L	1.0	03/22/21 01:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	03/22/21 01:05	
EPA 300.0 Rev 2.1 1993	Sulfate	248	mg/L	5.0	03/22/21 10:25	
92527268018	**MW-5**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	5.78	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	71.8	mg/L	1.0	03/26/21 17:57	
EPA 6020B	Barium	0.046	mg/L	0.0050	03/30/21 18:46	
EPA 6020B	Boron	0.037J	mg/L	0.040	03/30/21 18:46	
EPA 6020B	Chromium	0.0024J	mg/L	0.0050	03/30/21 18:46	B
EPA 6020B	Selenium	0.0026J	mg/L	0.0050	03/30/21 18:46	
SM 2540C-2011	Total Dissolved Solids	333	mg/L	10.0	03/23/21 08:00	
EPA 300.0 Rev 2.1 1993	Chloride	1.4	mg/L	1.0	03/22/21 01:18	
EPA 300.0 Rev 2.1 1993	Sulfate	162	mg/L	4.0	03/22/21 10:40	
92527268019	**MW-6**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	6.96	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	184	mg/L	1.0	03/26/21 18:01	
EPA 6020B	Barium	0.081	mg/L	0.0050	03/30/21 18:52	
EPA 6020B	Boron	0.81	mg/L	0.040	03/30/21 18:52	
EPA 6020B	Cobalt	0.00042J	mg/L	0.0050	03/30/21 18:52	
EPA 6020B	Lead	0.000036J	mg/L	0.0010	03/30/21 18:52	
EPA 6020B	Molybdenum	0.0023J	mg/L	0.010	03/30/21 18:52	
SM 2540C-2011	Total Dissolved Solids	600	mg/L	20.0	03/23/21 08:00	
EPA 300.0 Rev 2.1 1993	Chloride	49.8	mg/L	1.0	03/22/21 01:32	
EPA 300.0 Rev 2.1 1993	Fluoride	0.060J	mg/L	0.10	03/22/21 01:32	
EPA 300.0 Rev 2.1 1993	Sulfate	189	mg/L	4.0	03/22/21 10:55	
92527268020	**MW-25D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.76	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	24.8	mg/L	1.0	03/26/21 18:06	
EPA 6020B	Barium	0.51	mg/L	0.0050	03/30/21 18:58	
EPA 6020B	Boron	0.40	mg/L	0.040	03/30/21 18:58	
EPA 6020B	Lithium	0.049	mg/L	0.030	03/30/21 18:58	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268020	**MW-25D**					
SM 2540C-2011	Total Dissolved Solids	347	mg/L	10.0	03/23/21 08:00	
EPA 300.0 Rev 2.1 1993	Chloride	29.2	mg/L	1.0	03/22/21 01:46	
EPA 300.0 Rev 2.1 1993	Fluoride	1.7	mg/L	0.10	03/22/21 01:46	
EPA 300.0 Rev 2.1 1993	Sulfate	9.4	mg/L	1.0	03/22/21 01:46	
92527268021	**DUP-1**					
EPA 6010D	Calcium	24.8	mg/L	1.0	03/26/21 18:11	
EPA 6020B	Barium	0.51	mg/L	0.0050	03/30/21 19:04	
EPA 6020B	Boron	0.41	mg/L	0.040	03/30/21 19:04	
EPA 6020B	Lithium	0.050	mg/L	0.030	03/30/21 19:04	
SM 2540C-2011	Total Dissolved Solids	351	mg/L	10.0	03/23/21 08:00	
EPA 300.0 Rev 2.1 1993	Chloride	29.7	mg/L	1.0	03/22/21 01:59	
EPA 300.0 Rev 2.1 1993	Fluoride	1.7	mg/L	0.10	03/22/21 01:59	
EPA 300.0 Rev 2.1 1993	Sulfate	9.6	mg/L	1.0	03/22/21 01:59	
92527268022	**EB-1**					
SM 2540C-2011	Total Dissolved Solids	10.0	mg/L	10.0	03/23/21 08:00	
92527268023	**FB-1**					
EPA 6020B	Antimony	0.00029J	mg/L	0.0030	04/02/21 15:31	
92527268024	**HGWC-13**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.33	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	184	mg/L	1.0	03/26/21 18:26	
EPA 6020B	Antimony	0.00049J	mg/L	0.0030	03/29/21 11:47	
EPA 6020B	Arsenic	0.39	mg/L	0.0050	03/29/21 11:47	
EPA 6020B	Barium	0.056	mg/L	0.0050	03/29/21 11:47	
EPA 6020B	Beryllium	0.000090J	mg/L	0.00050	03/29/21 11:47	
EPA 6020B	Boron	0.89	mg/L	0.040	03/29/21 11:47	
EPA 6020B	Cobalt	0.0029J	mg/L	0.0050	03/29/21 11:47	
EPA 6020B	Lead	0.00015J	mg/L	0.0010	03/29/21 11:47	
EPA 6020B	Lithium	0.031	mg/L	0.030	03/29/21 11:47	
EPA 6020B	Molybdenum	0.035	mg/L	0.010	03/29/21 11:47	
EPA 6020B	Thallium	0.00037J	mg/L	0.0010	03/29/21 11:47	
SM 2540C-2011	Total Dissolved Solids	716	mg/L	20.0	03/23/21 08:41	
EPA 300.0 Rev 2.1 1993	Chloride	31.4	mg/L	1.0	03/23/21 09:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.65	mg/L	0.10	03/23/21 09:00	
EPA 300.0 Rev 2.1 1993	Sulfate	384	mg/L	8.0	03/23/21 16:15	
92527268025	**MW-19**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	6.34	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	130	mg/L	1.0	03/26/21 18:40	
EPA 6020B	Barium	0.049	mg/L	0.0050	04/02/21 15:37	
EPA 6020B	Boron	0.69	mg/L	0.040	04/02/21 15:37	
EPA 6020B	Cadmium	0.00016J	mg/L	0.00050	04/02/21 15:37	
EPA 6020B	Chromium	0.0022J	mg/L	0.0050	04/02/21 15:37	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92527268025	**MW-19**					
EPA 6020B	Cobalt	0.037	mg/L	0.0050	04/02/21 15:37	
EPA 6020B	Lead	0.000038J	mg/L	0.0010	04/02/21 15:37	
EPA 6020B	Lithium	0.012J	mg/L	0.030	04/02/21 15:37	
EPA 6020B	Molybdenum	0.043	mg/L	0.010	04/02/21 15:37	
EPA 6020B	Thallium	0.00026J	mg/L	0.0010	04/02/21 15:37	
SM 2540C-2011	Total Dissolved Solids	543	mg/L	10.0	03/23/21 08:41	
EPA 300.0 Rev 2.1 1993	Chloride	19.8	mg/L	1.0	03/23/21 09:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	03/23/21 09:13	
EPA 300.0 Rev 2.1 1993	Sulfate	260	mg/L	5.0	03/23/21 16:30	
92527268026	**MW-24D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.66	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	102	mg/L	1.0	03/26/21 18:45	
EPA 6020B	Barium	0.055	mg/L	0.0050	04/02/21 15:42	
EPA 6020B	Boron	0.49	mg/L	0.040	04/02/21 15:42	
EPA 6020B	Chromium	0.0017J	mg/L	0.0050	04/02/21 15:42	
EPA 6020B	Lead	0.000040J	mg/L	0.0010	04/02/21 15:42	
EPA 6020B	Lithium	0.0027J	mg/L	0.030	04/02/21 15:42	
EPA 6020B	Molybdenum	0.0010J	mg/L	0.010	04/02/21 15:42	
SM 2540C-2011	Total Dissolved Solids	420	mg/L	10.0	03/23/21 08:41	
EPA 300.0 Rev 2.1 1993	Chloride	42.9	mg/L	1.0	03/23/21 09:27	
EPA 300.0 Rev 2.1 1993	Sulfate	137	mg/L	3.0	03/23/21 16:45	
92527268027	**MW-26D**					
	Performed by	CUSTOMER			03/22/21 11:58	
	pH	7.14	Std. Units		03/22/21 11:58	
EPA 6010D	Calcium	175	mg/L	1.0	03/26/21 18:50	
EPA 6020B	Barium	0.094	mg/L	0.0050	04/02/21 15:48	
EPA 6020B	Boron	2.1	mg/L	0.040	04/02/21 15:48	
EPA 6020B	Chromium	0.0015J	mg/L	0.0050	04/02/21 15:48	
EPA 6020B	Cobalt	0.00044J	mg/L	0.0050	04/02/21 15:48	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	04/02/21 15:48	
EPA 6020B	Molybdenum	0.023	mg/L	0.010	04/02/21 15:48	
SM 2540C-2011	Total Dissolved Solids	738	mg/L	20.0	03/23/21 08:41	
EPA 300.0 Rev 2.1 1993	Chloride	95.3	mg/L	4.0	03/23/21 17:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.072J	mg/L	0.10	03/23/21 09:40	
EPA 300.0 Rev 2.1 1993	Sulfate	212	mg/L	4.0	03/23/21 17:29	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWA-1 **Lab ID: 92527268001** Collected: 03/10/21 16:10 Received: 03/11/21 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**6.95**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**111**	mg/L	1.0	0.070	1	03/15/21 14:10	03/19/21 04:13	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	0.00028	1	03/15/21 14:35	03/16/21 15:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/15/21 14:35	03/16/21 15:56	7440-38-2	
Barium	**0.030**	mg/L	0.0050	0.00071	1	03/15/21 14:35	03/16/21 15:56	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/15/21 14:35	03/16/21 15:56	7440-41-7	
Boron	**0.015J**	mg/L	0.040	0.0052	1	03/15/21 14:35	03/16/21 15:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/15/21 14:35	03/16/21 15:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/15/21 14:35	03/16/21 15:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/15/21 14:35	03/16/21 15:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/15/21 14:35	03/16/21 15:56	7439-92-1	
Lithium	**0.00090J**	mg/L	0.030	0.00081	1	03/15/21 14:35	03/16/21 15:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/15/21 14:35	03/16/21 15:56	7439-98-7	
Selenium	**0.0047J**	mg/L	0.0050	0.0016	1	03/15/21 14:35	03/16/21 15:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/15/21 14:35	03/16/21 15:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**348**	mg/L	10.0	10.0	1		03/15/21 13:15		
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		03/17/21 20:51	16887-00-6	
Fluoride	**0.079J**	mg/L	0.10	0.050	1		03/17/21 20:51	16984-48-8	
Sulfate	**49.6**	mg/L	1.0	0.50	1		03/17/21 20:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWA-44D **Lab ID: 92527268002** Collected: 03/10/21 14:30 Received: 03/11/21 15:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.92**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**5.9**	mg/L	1.0	0.070	1	03/15/21 14:10	03/19/21 04:18	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00037J**	mg/L	0.0030	0.00028	1	03/15/21 14:35	03/16/21 16:13	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00078	1	03/15/21 14:35	03/16/21 16:13	7440-38-2	
Barium	**0.26**	mg/L	0.0050	0.00071	1	03/15/21 14:35	03/16/21 16:13	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/15/21 14:35	03/16/21 16:13	7440-41-7	
Boron	**0.39**	mg/L	0.040	0.0052	1	03/15/21 14:35	03/16/21 16:13	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/15/21 14:35	03/16/21 16:13	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/15/21 14:35	03/16/21 16:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/15/21 14:35	03/16/21 16:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/15/21 14:35	03/16/21 16:13	7439-92-1	
Lithium	**0.030**	mg/L	0.030	0.00081	1	03/15/21 14:35	03/16/21 16:13	7439-93-2	
Molybdenum	**0.0019J**	mg/L	0.010	0.00069	1	03/15/21 14:35	03/16/21 16:13	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/15/21 14:35	03/16/21 16:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/15/21 14:35	03/16/21 16:13	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**289**	mg/L	10.0	10.0	1		03/15/21 13:15		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**12.3**	mg/L	1.0	0.60	1		03/17/21 22:28	16887-00-6	
Fluoride	**0.65**	mg/L	0.10	0.050	1		03/17/21 22:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/17/21 22:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWA-2 **Lab ID: 92527268003** Collected: 03/11/21 09:59 Received: 03/12/21 13:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**5.80**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**43.8**	mg/L	1.0	0.070	1	03/22/21 11:22	03/22/21 20:09	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	0.00028	1	03/19/21 12:10	03/19/21 20:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/19/21 12:10	03/19/21 20:54	7440-38-2	
Barium	**0.070**	mg/L	0.0050	0.00071	1	03/19/21 12:10	03/19/21 20:54	7440-39-3	
Beryllium	**0.000086J**	mg/L	0.00050	0.000046	1	03/19/21 12:10	03/19/21 20:54	7440-41-7	
Boron	**0.056**	mg/L	0.040	0.0052	1	03/19/21 12:10	03/19/21 20:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/19/21 12:10	03/19/21 20:54	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/19/21 12:10	03/19/21 20:54	7440-47-3	
Cobalt	**0.013**	mg/L	0.0050	0.00038	1	03/19/21 12:10	03/19/21 20:54	7440-48-4	
Lead	**0.000076J**	mg/L	0.0010	0.000036	1	03/19/21 12:10	03/19/21 20:54	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00081	1	03/19/21 12:10	03/19/21 20:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/19/21 12:10	03/19/21 20:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/19/21 12:10	03/19/21 20:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/19/21 12:10	03/19/21 20:54	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**169**	mg/L	10.0	10.0	1		03/16/21 15:08		
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		03/19/21 00:00	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.050	1		03/19/21 00:00	16984-48-8	
Sulfate	**52.9**	mg/L	1.0	0.50	1		03/19/21 00:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWA-3 **Lab ID: 92527268004** Collected: 03/11/21 11:25 Received: 03/12/21 13:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.33**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**83.8**	mg/L	1.0	0.070	1	03/22/21 11:22	03/22/21 20:29	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	0.00028	1	03/19/21 12:10	03/19/21 21:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/19/21 12:10	03/19/21 21:00	7440-38-2	
Barium	**0.13**	mg/L	0.0050	0.00071	1	03/19/21 12:10	03/19/21 21:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/19/21 12:10	03/19/21 21:00	7440-41-7	
Boron	**0.015J**	mg/L	0.040	0.0052	1	03/19/21 12:10	03/19/21 21:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/19/21 12:10	03/19/21 21:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/19/21 12:10	03/19/21 21:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/19/21 12:10	03/19/21 21:00	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/19/21 12:10	03/19/21 21:00	7439-92-1	
Lithium	**0.0035J**	mg/L	0.030	0.00081	1	03/19/21 12:10	03/19/21 21:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/19/21 12:10	03/19/21 21:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/19/21 12:10	03/19/21 21:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/19/21 12:10	03/19/21 21:00	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**267**	mg/L	10.0	10.0	1		03/16/21 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.9**	mg/L	1.0	0.60	1		03/19/21 00:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/19/21 00:00	16984-48-8	
Sulfate	**50.4**	mg/L	1.0	0.50	1		03/19/21 00:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWA-43D **Lab ID: 92527268005** Collected: 03/11/21 09:57 Received: 03/12/21 13:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.46**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**59.6**	mg/L	1.0	0.070	1	03/22/21 11:22	03/22/21 20:33	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00057J**	mg/L	0.0030	0.00028	1	03/19/21 12:10	03/19/21 21:06	7440-36-0	
Arsenic	**0.0013J**	mg/L	0.0050	0.00078	1	03/19/21 12:10	03/19/21 21:06	7440-38-2	
Barium	**0.32**	mg/L	0.0050	0.00071	1	03/19/21 12:10	03/19/21 21:06	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/19/21 12:10	03/19/21 21:06	7440-41-7	
Boron	**0.060**	mg/L	0.040	0.0052	1	03/19/21 12:10	03/19/21 21:06	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/19/21 12:10	03/19/21 21:06	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/19/21 12:10	03/19/21 21:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/19/21 12:10	03/19/21 21:06	7440-48-4	
Lead	**0.000094J**	mg/L	0.0010	0.000036	1	03/19/21 12:10	03/19/21 21:06	7439-92-1	
Lithium	**0.0022J**	mg/L	0.030	0.00081	1	03/19/21 12:10	03/19/21 21:06	7439-93-2	
Molybdenum	**0.0064J**	mg/L	0.010	0.00069	1	03/19/21 12:10	03/19/21 21:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/19/21 12:10	03/19/21 21:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/19/21 12:10	03/19/21 21:06	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**279**	mg/L	10.0	10.0	1		03/17/21 17:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.5**	mg/L	1.0	0.60	1		03/19/21 00:00	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		03/19/21 00:00	16984-48-8	
Sulfate	**38.6**	mg/L	1.0	0.50	1		03/19/21 00:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-10 **Lab ID: 92527268006** Collected: 03/12/21 10:11 Received: 03/15/21 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**6.76**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**146**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 19:19	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	03/27/21 11:30	03/29/21 18:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 18:43	7440-38-2	
Barium	**0.058**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 18:43	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 18:43	7440-41-7	
Boron	**0.64**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 18:43	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 18:43	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 18:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 18:43	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 18:43	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 18:43	7439-93-2	
Molybdenum	**0.00070J**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 18:43	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 18:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 18:43	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**490**	mg/L	10.0	10.0	1		03/23/21 07:39		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**35.0**	mg/L	1.0	0.60	1		03/21/21 01:09	16887-00-6	
Fluoride	**0.054J**	mg/L	0.10	0.050	1		03/21/21 01:09	16984-48-8	
Sulfate	**120**	mg/L	3.0	1.5	3		03/23/21 19:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-27D **Lab ID: 92527268007** Collected: 03/12/21 09:47 Received: 03/15/21 12:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.88**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**28.0**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 19:48	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	0.00028	1	03/27/21 11:30	03/29/21 18:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 18:48	7440-38-2	
Barium	**1.1**	mg/L	0.025	0.0036	5	03/27/21 11:30	03/30/21 12:03	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 18:48	7440-41-7	
Boron	**0.13**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 18:48	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 18:48	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 18:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 18:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 18:48	7439-92-1	
Lithium	**0.0090J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 18:48	7439-93-2	
Molybdenum	**0.00080J**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 18:48	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 18:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 18:48	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**215**	mg/L	10.0	10.0	1		03/23/21 07:39		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**31.3**	mg/L	1.0	0.60	1		03/21/21 01:24	16887-00-6	
Fluoride	**0.24**	mg/L	0.10	0.050	1		03/21/21 01:24	16984-48-8	
Sulfate	**7.4**	mg/L	1.0	0.50	1		03/21/21 01:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-7 FILTERED **Lab ID: 92527268008** Collected: 03/15/21 16:25 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.19**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**109**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 19:53	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	0.00028	1	03/27/21 11:30	03/29/21 18:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 18:54	7440-38-2	
Barium	**0.068**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 18:54	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 18:54	7440-41-7	
Boron	**1.1**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 18:54	7440-42-8	
Cadmium	**0.00021J**	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 18:54	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 18:54	7440-47-3	
Cobalt	**0.00053J**	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 18:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 18:54	7439-92-1	
Lithium	**0.0020J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 18:54	7439-93-2	
Molybdenum	**0.050**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 18:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 18:54	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**366**	mg/L	10.0	10.0	1		03/22/21 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**44.4**	mg/L	1.0	0.60	1		03/20/21 16:46	16887-00-6	
Fluoride	**0.088J**	mg/L	0.10	0.050	1		03/20/21 16:46	16984-48-8	
Sulfate	**80.6**	mg/L	2.0	1.0	2		03/21/21 07:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-7 **Lab ID: 92527268009** Collected: 03/15/21 16:10 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.19**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**113**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 17:13	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	03/27/21 11:30	03/29/21 19:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:00	7440-38-2	
Barium	**0.074**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:00	7440-39-3	
Beryllium	**0.00019J**	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:00	7440-41-7	
Boron	**1.1**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:00	7440-43-9	
Chromium	**0.0021J**	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:00	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:00	7440-48-4	
Lead	**0.0013**	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:00	7439-92-1	
Lithium	**0.0038J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:00	7439-93-2	
Molybdenum	**0.047**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:00	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**370**	mg/L	10.0	10.0	1		03/22/21 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**44.5**	mg/L	1.0	0.60	1		03/20/21 17:00	16887-00-6	
Fluoride	**0.086J**	mg/L	0.10	0.050	1		03/20/21 17:00	16984-48-8	
Sulfate	**107**	mg/L	2.0	1.0	2		03/21/21 07:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-8 **Lab ID: 92527268010** Collected: 03/15/21 11:00 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.09**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**156**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 19:58	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	0.00028	1	03/27/21 11:30	03/29/21 19:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:06	7440-38-2	
Barium	**0.063**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:06	7440-39-3	
Beryllium	**0.000078J**	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:06	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:06	7440-42-8	
Cadmium	**0.00017J**	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:06	7440-43-9	
Chromium	**0.00082J**	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:06	7440-47-3	
Cobalt	**0.0019J**	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:06	7440-48-4	
Lead	**0.00011J**	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:06	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:06	7439-93-2	
Molybdenum	**0.41**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:06	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**614**	mg/L	20.0	20.0	1		03/22/21 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**72.4**	mg/L	1.0	0.60	1		03/20/21 17:14	16887-00-6	
Fluoride	**0.51**	mg/L	0.10	0.050	1		03/20/21 17:14	16984-48-8	
Sulfate	**272**	mg/L	6.0	3.0	6		03/21/21 07:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-7 **Lab ID: 92527268011** Collected: 03/15/21 12:00 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**6.66**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**76.9**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 20:03	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	0.00028	1	03/27/21 11:30	03/29/21 19:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:11	7440-38-2	
Barium	**0.053**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:11	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:11	7440-41-7	
Boron	**0.16**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:11	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:11	7440-43-9	
Chromium	**0.0018J**	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:11	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:11	7439-93-2	
Molybdenum	**0.0015J**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:11	7439-98-7	
Selenium	**0.0021J**	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:11	7782-49-2	B
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:11	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**293**	mg/L	10.0	10.0	1		03/22/21 15:10		
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		03/20/21 17:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/20/21 17:27	16984-48-8	
Sulfate	**92.1**	mg/L	2.0	1.0	2		03/21/21 08:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-20 **Lab ID: 92527268012** Collected: 03/15/21 14:22 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**6.97**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**121**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 20:07	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	0.00028	1	03/27/21 11:30	03/29/21 19:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:17	7440-38-2	
Barium	**0.096**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:17	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:17	7440-41-7	
Boron	**0.12**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:17	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:17	7440-43-9	
Chromium	**0.00068J**	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:17	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:17	7440-48-4	
Lead	**0.00010J**	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:17	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:17	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:17	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**406**	mg/L	10.0	10.0	1		03/22/21 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**31.1**	mg/L	1.0	0.60	1		03/20/21 17:41	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/20/21 17:41	16984-48-8	
Sulfate	**109**	mg/L	2.0	1.0	2		03/21/21 08:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-28D **Lab ID: 92527268013** Collected: 03/15/21 18:25 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.61**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**66.1**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 20:12	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	0.00028	1	03/27/21 11:30	03/29/21 19:23	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:23	7440-38-2	
Barium	**0.45**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:23	7440-39-3	
Beryllium	**0.000048J**	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:23	7440-41-7	
Boron	**0.36**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:23	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:23	7440-43-9	
Chromium	**0.00078J**	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:23	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:23	7440-48-4	
Lead	**0.00034J**	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:23	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:23	7439-93-2	
Molybdenum	**0.013**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:23	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:23	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**293**	mg/L	10.0	10.0	1		03/22/21 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**35.8**	mg/L	1.0	0.60	1		03/20/21 18:21	16887-00-6	
Fluoride	**0.24**	mg/L	0.10	0.050	1		03/20/21 18:21	16984-48-8	
Sulfate	**50.1**	mg/L	1.0	0.50	1		03/20/21 18:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-29 **Lab ID: 92527268014** Collected: 03/15/21 12:52 Received: 03/16/21 13:42 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.05**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**145**	mg/L	1.0	0.070	1	03/26/21 10:56	03/26/21 20:17	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	0.00028	1	03/27/21 11:30	03/29/21 19:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:40	7440-38-2	
Barium	**0.078**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:40	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:40	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:40	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:40	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:40	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:40	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:40	7439-92-1	
Lithium	**0.0022J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:40	7439-93-2	
Molybdenum	**0.0031J**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:40	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:40	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**555**	mg/L	10.0	10.0	1		03/22/21 15:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**73.6**	mg/L	1.0	0.60	1		03/20/21 18:35	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/20/21 18:35	16984-48-8	
Sulfate	**148**	mg/L	3.0	1.5	3		03/21/21 08:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-9 **Lab ID: 92527268015** Collected: 03/16/21 14:48 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.10**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**182**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 17:42	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	0.00028	1	03/27/21 11:30	03/29/21 19:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:30	03/29/21 19:46	7440-38-2	
Barium	**0.11**	mg/L	0.0050	0.00071	1	03/27/21 11:30	03/29/21 19:46	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:30	03/29/21 19:46	7440-41-7	
Boron	**2.2**	mg/L	0.040	0.0052	1	03/27/21 11:30	03/29/21 19:46	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:30	03/29/21 19:46	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:30	03/29/21 19:46	7440-47-3	
Cobalt	**0.00069J**	mg/L	0.0050	0.00038	1	03/27/21 11:30	03/29/21 19:46	7440-48-4	
Lead	**0.00027J**	mg/L	0.0010	0.000036	1	03/27/21 11:30	03/29/21 19:46	7439-92-1	
Lithium	**0.0046J**	mg/L	0.030	0.00081	1	03/27/21 11:30	03/29/21 19:46	7439-93-2	
Molybdenum	**0.035**	mg/L	0.010	0.00069	1	03/27/21 11:30	03/29/21 19:46	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:30	03/29/21 19:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:30	03/29/21 19:46	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**672**	mg/L	20.0	20.0	1		03/23/21 07:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**94.7**	mg/L	5.0	3.0	5		03/22/21 09:56	16887-00-6	
Fluoride	**0.098J**	mg/L	0.10	0.050	1		03/22/21 00:11	16984-48-8	
Sulfate	**211**	mg/L	5.0	2.5	5		03/22/21 09:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-11 **Lab ID: 92527268016** Collected: 03/16/21 09:45 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**5.95**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**132**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 17:47	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	0.00028	1	03/27/21 11:54	03/30/21 18:35	7440-36-0	
Arsenic	**0.0017J**	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 18:35	7440-38-2	
Barium	**0.035**	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 18:35	7440-39-3	
Beryllium	**0.000081J**	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 18:35	7440-41-7	
Boron	**0.53**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 18:35	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 18:35	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 18:35	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 18:35	7440-48-4	
Lead	**0.000099J**	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 18:35	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 18:35	7439-93-2	
Molybdenum	**0.015**	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 18:35	7439-98-7	
Selenium	**0.015**	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 18:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 18:35	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**558**	mg/L	10.0	10.0	1		03/23/21 07:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**11.5**	mg/L	1.0	0.60	1		03/22/21 00:51	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.050	1		03/22/21 00:51	16984-48-8	
Sulfate	**291**	mg/L	6.0	3.0	6		03/22/21 10:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-12 **Lab ID: 92527268017** Collected: 03/16/21 11:12 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.15**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**166**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 17:52	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	0.00028	1	03/27/21 11:54	03/30/21 18:41	7440-36-0	
Arsenic	**0.0038J**	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 18:41	7440-38-2	
Barium	**0.084**	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 18:41	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 18:41	7440-41-7	
Boron	**1.9**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 18:41	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 18:41	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 18:41	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 18:41	7440-48-4	
Lead	**0.000089J**	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 18:41	7439-92-1	
Lithium	**0.0081J**	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 18:41	7439-93-2	
Molybdenum	**0.044**	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 18:41	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 18:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 18:41	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**614**	mg/L	20.0	20.0	1		03/23/21 07:59		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**56.8**	mg/L	1.0	0.60	1		03/22/21 01:05	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		03/22/21 01:05	16984-48-8	
Sulfate	**248**	mg/L	5.0	2.5	5		03/22/21 10:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-5 **Lab ID: 92527268018** Collected: 03/16/21 16:08 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**5.78**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**71.8**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 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	0.00028	1	03/27/21 11:54	03/30/21 18:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 18:46	7440-38-2	
Barium	**0.046**	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 18:46	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 18:46	7440-41-7	
Boron	**0.037J**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 18:46	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 18:46	7440-43-9	
Chromium	**0.0024J**	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 18:46	7440-47-3	B
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 18:46	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 18:46	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 18:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 18:46	7439-98-7	
Selenium	**0.0026J**	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 18:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 18:46	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**333**	mg/L	10.0	10.0	1		03/23/21 08:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.4**	mg/L	1.0	0.60	1		03/22/21 01:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/22/21 01:18	16984-48-8	
Sulfate	**162**	mg/L	4.0	2.0	4		03/22/21 10:40	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-6 **Lab ID: 92527268019** Collected: 03/16/21 15:43 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**6.96**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**184**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:01	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	0.00028	1	03/27/21 11:54	03/30/21 18:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 18:52	7440-38-2	
Barium	**0.081**	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 18:52	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 18:52	7440-41-7	
Boron	**0.81**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 18:52	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 18:52	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 18:52	7440-47-3	
Cobalt	**0.00042J**	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 18:52	7440-48-4	
Lead	**0.000036J**	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 18:52	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 18:52	7439-93-2	
Molybdenum	**0.0023J**	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 18:52	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 18:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 18:52	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**600**	mg/L	20.0	20.0	1		03/23/21 08:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**49.8**	mg/L	1.0	0.60	1		03/22/21 01:32	16887-00-6	
Fluoride	**0.060J**	mg/L	0.10	0.050	1		03/22/21 01:32	16984-48-8	
Sulfate	**189**	mg/L	4.0	2.0	4		03/22/21 10:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-25D **Lab ID: 92527268020** Collected: 03/16/21 12:32 Received: 03/17/21 13:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.76**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**24.8**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:06	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	0.00028	1	03/27/21 11:54	03/30/21 18:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 18:58	7440-38-2	
Barium	**0.51**	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 18:58	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 18:58	7440-41-7	
Boron	**0.40**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 18:58	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 18:58	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 18:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 18:58	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 18:58	7439-92-1	
Lithium	**0.049**	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 18:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 18:58	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 18:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 18:58	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**347**	mg/L	10.0	10.0	1		03/23/21 08:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.2**	mg/L	1.0	0.60	1		03/22/21 01:46	16887-00-6	
Fluoride	**1.7**	mg/L	0.10	0.050	1		03/22/21 01:46	16984-48-8	
Sulfate	**9.4**	mg/L	1.0	0.50	1		03/22/21 01:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: DUP-1 **Lab ID: 92527268021** Collected: 03/16/21 00:00 Received: 03/17/21 13:10 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								
Calcium	**24.8**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:11	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	0.00028	1	03/27/21 11:54	03/30/21 19:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 19:04	7440-38-2	
Barium	**0.51**	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 19:04	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 19:04	7440-41-7	
Boron	**0.41**	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 19:04	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 19:04	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 19:04	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 19:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 19:04	7439-92-1	
Lithium	**0.050**	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 19:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 19:04	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 19:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 19:04	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**351**	mg/L	10.0	10.0	1		03/23/21 08:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.7**	mg/L	1.0	0.60	1		03/22/21 01:59	16887-00-6	
Fluoride	**1.7**	mg/L	0.10	0.050	1		03/22/21 01:59	16984-48-8	
Sulfate	**9.6**	mg/L	1.0	0.50	1		03/22/21 01:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: EB-1 **Lab ID: 92527268022** Collected: 03/16/21 16:40 Received: 03/17/21 13:10 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								
Calcium	ND	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:16	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	0.00028	1	03/27/21 11:54	03/30/21 19:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:54	03/30/21 19:09	7440-38-2	
Barium	ND	mg/L	0.0050	0.00071	1	03/27/21 11:54	03/30/21 19:09	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:54	03/30/21 19:09	7440-41-7	
Boron	ND	mg/L	0.040	0.0052	1	03/27/21 11:54	03/30/21 19:09	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:54	03/30/21 19:09	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:54	03/30/21 19:09	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:54	03/30/21 19:09	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:54	03/30/21 19:09	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:54	03/30/21 19:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/27/21 11:54	03/30/21 19:09	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:54	03/30/21 19:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:54	03/30/21 19:09	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**10.0**	mg/L	10.0	10.0	1		03/23/21 08:00		
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		03/23/21 02:54	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/23/21 02:54	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/23/21 02:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: FB-1 **Lab ID: 92527268023** Collected: 03/16/21 16:25 Received: 03/17/21 13:10 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								
Calcium	ND	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:21	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00029J**	mg/L	0.0030	0.00028	1	03/27/21 11:00	04/02/21 15:31	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:00	04/02/21 15:31	7440-38-2	
Barium	ND	mg/L	0.0050	0.00071	1	03/27/21 11:00	04/02/21 15:31	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:00	04/02/21 15:31	7440-41-7	
Boron	ND	mg/L	0.040	0.0052	1	03/27/21 11:00	04/02/21 15:31	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:00	04/02/21 15:31	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:00	04/02/21 15:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:00	04/02/21 15:31	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:00	04/02/21 15:31	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	03/27/21 11:00	04/02/21 15:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	03/27/21 11:00	04/02/21 15:31	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:00	04/02/21 15:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:00	04/02/21 15:31	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		03/23/21 08:00		
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		03/23/21 03:35	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/23/21 03:35	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		03/23/21 03:35	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: HGWC-13 **Lab ID: 92527268024** Collected: 03/17/21 14:58 Received: 03/18/21 13:17 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.33**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**184**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:26	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00049J**	mg/L	0.0030	0.00028	1	03/27/21 11:00	03/29/21 11:47	7440-36-0	
Arsenic	**0.39**	mg/L	0.0050	0.00078	1	03/27/21 11:00	03/29/21 11:47	7440-38-2	
Barium	**0.056**	mg/L	0.0050	0.00071	1	03/27/21 11:00	03/29/21 11:47	7440-39-3	
Beryllium	**0.000090J**	mg/L	0.00050	0.000046	1	03/27/21 11:00	03/29/21 11:47	7440-41-7	
Boron	**0.89**	mg/L	0.040	0.0052	1	03/27/21 11:00	03/29/21 11:47	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:00	03/29/21 11:47	7440-43-9	
Chromium	ND	mg/L	0.0050	0.00055	1	03/27/21 11:00	03/29/21 11:47	7440-47-3	
Cobalt	**0.0029J**	mg/L	0.0050	0.00038	1	03/27/21 11:00	03/29/21 11:47	7440-48-4	
Lead	**0.00015J**	mg/L	0.0010	0.000036	1	03/27/21 11:00	03/29/21 11:47	7439-92-1	
Lithium	**0.031**	mg/L	0.030	0.00081	1	03/27/21 11:00	03/29/21 11:47	7439-93-2	
Molybdenum	**0.035**	mg/L	0.010	0.00069	1	03/27/21 11:00	03/29/21 11:47	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:00	03/29/21 11:47	7782-49-2	
Thallium	**0.00037J**	mg/L	0.0010	0.00014	1	03/27/21 11:00	03/29/21 11:47	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**716**	mg/L	20.0	20.0	1		03/23/21 08:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**31.4**	mg/L	1.0	0.60	1		03/23/21 09:00	16887-00-6	
Fluoride	**0.65**	mg/L	0.10	0.050	1		03/23/21 09:00	16984-48-8	
Sulfate	**384**	mg/L	8.0	4.0	8		03/23/21 16:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-19 **Lab ID: 92527268025** Collected: 03/17/21 10:20 Received: 03/18/21 13:17 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**6.34**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**130**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:40	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	0.00028	1	03/27/21 11:00	04/02/21 15:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:00	04/02/21 15:37	7440-38-2	
Barium	**0.049**	mg/L	0.0050	0.00071	1	03/27/21 11:00	04/02/21 15:37	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:00	04/02/21 15:37	7440-41-7	
Boron	**0.69**	mg/L	0.040	0.0052	1	03/27/21 11:00	04/02/21 15:37	7440-42-8	
Cadmium	**0.00016J**	mg/L	0.00050	0.00012	1	03/27/21 11:00	04/02/21 15:37	7440-43-9	
Chromium	**0.0022J**	mg/L	0.0050	0.00055	1	03/27/21 11:00	04/02/21 15:37	7440-47-3	
Cobalt	**0.037**	mg/L	0.0050	0.00038	1	03/27/21 11:00	04/02/21 15:37	7440-48-4	
Lead	**0.000038J**	mg/L	0.0010	0.000036	1	03/27/21 11:00	04/02/21 15:37	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00081	1	03/27/21 11:00	04/02/21 15:37	7439-93-2	
Molybdenum	**0.043**	mg/L	0.010	0.00069	1	03/27/21 11:00	04/02/21 15:37	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:00	04/02/21 15:37	7782-49-2	
Thallium	**0.00026J**	mg/L	0.0010	0.00014	1	03/27/21 11:00	04/02/21 15:37	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**543**	mg/L	10.0	10.0	1		03/23/21 08:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**19.8**	mg/L	1.0	0.60	1		03/23/21 09:13	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.050	1		03/23/21 09:13	16984-48-8	
Sulfate	**260**	mg/L	5.0	2.5	5		03/23/21 16:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-24D **Lab ID: 92527268026** Collected: 03/17/21 16:00 Received: 03/18/21 13:17 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.66**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**102**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:45	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	0.00028	1	03/27/21 11:00	04/02/21 15:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:00	04/02/21 15:42	7440-38-2	
Barium	**0.055**	mg/L	0.0050	0.00071	1	03/27/21 11:00	04/02/21 15:42	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:00	04/02/21 15:42	7440-41-7	
Boron	**0.49**	mg/L	0.040	0.0052	1	03/27/21 11:00	04/02/21 15:42	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:00	04/02/21 15:42	7440-43-9	
Chromium	**0.0017J**	mg/L	0.0050	0.00055	1	03/27/21 11:00	04/02/21 15:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	03/27/21 11:00	04/02/21 15:42	7440-48-4	
Lead	**0.000040J**	mg/L	0.0010	0.000036	1	03/27/21 11:00	04/02/21 15:42	7439-92-1	
Lithium	**0.0027J**	mg/L	0.030	0.00081	1	03/27/21 11:00	04/02/21 15:42	7439-93-2	
Molybdenum	**0.0010J**	mg/L	0.010	0.00069	1	03/27/21 11:00	04/02/21 15:42	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:00	04/02/21 15:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:00	04/02/21 15:42	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**420**	mg/L	10.0	10.0	1		03/23/21 08:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**42.9**	mg/L	1.0	0.60	1		03/23/21 09:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		03/23/21 09:27	16984-48-8	
Sulfate	**137**	mg/L	3.0	1.5	3		03/23/21 16:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Sample: MW-26D **Lab ID: 92527268027** Collected: 03/17/21 08:50 Received: 03/18/21 13:17 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		03/22/21 11:58		
pH	**7.14**	Std. Units			1		03/22/21 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**175**	mg/L	1.0	0.070	1	03/26/21 10:28	03/26/21 18:50	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	0.00028	1	03/27/21 11:00	04/02/21 15:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	03/27/21 11:00	04/02/21 15:48	7440-38-2	
Barium	**0.094**	mg/L	0.0050	0.00071	1	03/27/21 11:00	04/02/21 15:48	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000046	1	03/27/21 11:00	04/02/21 15:48	7440-41-7	
Boron	**2.1**	mg/L	0.040	0.0052	1	03/27/21 11:00	04/02/21 15:48	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00012	1	03/27/21 11:00	04/02/21 15:48	7440-43-9	
Chromium	**0.0015J**	mg/L	0.0050	0.00055	1	03/27/21 11:00	04/02/21 15:48	7440-47-3	
Cobalt	**0.00044J**	mg/L	0.0050	0.00038	1	03/27/21 11:00	04/02/21 15:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.000036	1	03/27/21 11:00	04/02/21 15:48	7439-92-1	
Lithium	**0.0040J**	mg/L	0.030	0.00081	1	03/27/21 11:00	04/02/21 15:48	7439-93-2	
Molybdenum	**0.023**	mg/L	0.010	0.00069	1	03/27/21 11:00	04/02/21 15:48	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0016	1	03/27/21 11:00	04/02/21 15:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/27/21 11:00	04/02/21 15:48	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**738**	mg/L	20.0	20.0	1		03/23/21 08:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**95.3**	mg/L	4.0	2.4	4		03/23/21 17:29	16887-00-6	
Fluoride	**0.072J**	mg/L	0.10	0.050	1		03/23/21 09:40	16984-48-8	
Sulfate	**212**	mg/L	4.0	2.0	4		03/23/21 17:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 606634
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268001, 92527268002

METHOD BLANK: 3196175 Matrix: Water
Associated Lab Samples: 92527268001, 92527268002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	03/19/21 03:10	

LABORATORY CONTROL SAMPLE: 3196176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3196177 3196178

Parameter	Units	92526031001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	207	1	1	209	202	181	-447	75-125	3	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608195
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268003, 92527268004, 92527268005

METHOD BLANK: 3204024 Matrix: Water
Associated Lab Samples: 92527268003, 92527268004, 92527268005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	03/22/21 19:59	

LABORATORY CONTROL SAMPLE: 3204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.95J	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204026 3204027

Parameter	Units	92527256006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	43.8	1	1	44.4	43.0	63	-72	75-125	3	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 609342
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268006, 92527268007, 92527268008, 92527268010, 92527268011, 92527268012, 92527268013, 92527268014

METHOD BLANK: 3209682 Matrix: Water
Associated Lab Samples: 92527268006, 92527268007, 92527268008, 92527268010, 92527268011, 92527268012, 92527268013, 92527268014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	03/26/21 19:09	

LABORATORY CONTROL SAMPLE: 3209683

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3209684 3209685

Parameter	Units	92527268006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	146	1	1	147	153	8	641	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 609345
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268009, 92527268015, 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021, 92527268022, 92527268023, 92527268024, 92527268025, 92527268026, 92527268027

METHOD BLANK: 3209690 Matrix: Water
Associated Lab Samples: 92527268009, 92527268015, 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021, 92527268022, 92527268023, 92527268024, 92527268025, 92527268026, 92527268027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	03/26/21 17:03	

LABORATORY CONTROL SAMPLE: 3209691

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3209692 3209693

Parameter	Units	92527268009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	113	1	1	108	110	-542	-380	75-125	1	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 606644
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268001, 92527268002

METHOD BLANK: 3196234 Matrix: Water
Associated Lab Samples: 92527268001, 92527268002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00035J	0.0030	0.00028	03/16/21 14:38	
Arsenic	mg/L	ND	0.0050	0.00078	03/16/21 14:38	
Barium	mg/L	ND	0.0050	0.00071	03/16/21 14:38	
Beryllium	mg/L	ND	0.00050	0.000046	03/16/21 14:38	
Boron	mg/L	ND	0.040	0.0052	03/16/21 14:38	
Cadmium	mg/L	ND	0.00050	0.00012	03/16/21 14:38	
Chromium	mg/L	ND	0.0050	0.00055	03/16/21 14:38	
Cobalt	mg/L	ND	0.0050	0.00038	03/16/21 14:38	
Lead	mg/L	ND	0.0010	0.000036	03/16/21 14:38	
Lithium	mg/L	ND	0.030	0.00081	03/16/21 14:38	
Molybdenum	mg/L	ND	0.010	0.00069	03/16/21 14:38	
Selenium	mg/L	ND	0.0050	0.0016	03/16/21 14:38	
Thallium	mg/L	ND	0.0010	0.00014	03/16/21 14:38	

LABORATORY CONTROL SAMPLE: 3196235

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.096	96	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.094	94	80-120	
Lithium	mg/L	0.1	0.096	96	80-120	
Molybdenum	mg/L	0.1	0.094	94	80-120	
Selenium	mg/L	0.1	0.090	90	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3196236 3196237

Parameter	Units	92526031002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00079J	0.1	0.1	0.098	0.099	98	98	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3196236 3196237

Parameter	Units	92526031002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.016	0.1	0.1	0.11	0.11	96	95	75-125	1	20	
Beryllium	mg/L	0.000097J	0.1	0.1	0.083	0.080	82	80	75-125	3	20	
Boron	mg/L	0.36	1	1	1.2	1.2	84	83	75-125	1	20	
Cadmium	mg/L	0.017	0.1	0.1	0.11	0.11	96	95	75-125	1	20	
Chromium	mg/L	0.00080J	0.1	0.1	0.092	0.092	92	91	75-125	0	20	
Cobalt	mg/L	0.019	0.1	0.1	0.11	0.11	93	92	75-125	1	20	
Lead	mg/L	0.00017J	0.1	0.1	0.088	0.087	88	86	75-125	2	20	
Lithium	mg/L	0.026J	0.1	0.1	0.11	0.11	82	81	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.093	0.092	93	91	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.097	100	96	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.089	0.087	89	86	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607964
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268003, 92527268004, 92527268005

METHOD BLANK: 3202640 Matrix: Water
Associated Lab Samples: 92527268003, 92527268004, 92527268005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	03/19/21 19:29	
Arsenic	mg/L	ND	0.0050	0.00078	03/19/21 19:29	
Barium	mg/L	ND	0.0050	0.00071	03/19/21 19:29	
Beryllium	mg/L	ND	0.00050	0.000046	03/19/21 19:29	
Boron	mg/L	ND	0.040	0.0052	03/19/21 19:29	
Cadmium	mg/L	ND	0.00050	0.00012	03/19/21 19:29	
Chromium	mg/L	ND	0.0050	0.00055	03/19/21 19:29	
Cobalt	mg/L	ND	0.0050	0.00038	03/19/21 19:29	
Lead	mg/L	ND	0.0010	0.000036	03/19/21 19:29	
Lithium	mg/L	ND	0.030	0.00081	03/19/21 19:29	
Molybdenum	mg/L	ND	0.010	0.00069	03/19/21 19:29	
Selenium	mg/L	ND	0.0050	0.0016	03/19/21 19:29	
Thallium	mg/L	ND	0.0010	0.00014	03/19/21 19:29	

LABORATORY CONTROL SAMPLE: 3202641

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	120	80-120	
Arsenic	mg/L	0.1	0.11	106	80-120	
Barium	mg/L	0.1	0.11	106	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	0.1	0.11	107	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.11	108	80-120	
Lithium	mg/L	0.1	0.11	107	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202642 3202643

Parameter	Units	92526941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.12	0.12	118	118	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.10	107	104	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202642 3202643

Parameter	Units	92526941001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	ND	0.1	0.1	0.11	0.11	107	106	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.11	0.10	107	104	75-125	2	20	
Boron	mg/L	0.0052J	1	1	1.1	1.0	106	102	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	105	104	75-125	1	20	
Chromium	mg/L	0.00062J	0.1	0.1	0.11	0.10	108	103	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.11	0.10	106	101	75-125	5	20	
Lead	mg/L	ND	0.1	0.1	0.11	0.11	107	106	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.10	106	104	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	107	106	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	105	101	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 609688
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268006, 92527268007, 92527268008, 92527268009, 92527268010, 92527268011, 92527268012, 92527268013, 92527268014, 92527268015

METHOD BLANK: 3211367 Matrix: Water
Associated Lab Samples: 92527268006, 92527268007, 92527268008, 92527268009, 92527268010, 92527268011, 92527268012, 92527268013, 92527268014, 92527268015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	03/29/21 18:31	
Arsenic	mg/L	ND	0.0050	0.00078	03/29/21 18:31	
Barium	mg/L	ND	0.0050	0.00071	03/29/21 18:31	
Beryllium	mg/L	ND	0.00050	0.000046	03/29/21 18:31	
Boron	mg/L	ND	0.040	0.0052	03/29/21 18:31	
Cadmium	mg/L	ND	0.00050	0.00012	03/29/21 18:31	
Chromium	mg/L	ND	0.0050	0.00055	03/29/21 18:31	
Cobalt	mg/L	ND	0.0050	0.00038	03/29/21 18:31	
Lead	mg/L	ND	0.0010	0.000036	03/29/21 18:31	
Lithium	mg/L	ND	0.030	0.00081	03/29/21 18:31	
Molybdenum	mg/L	ND	0.010	0.00069	03/29/21 18:31	
Selenium	mg/L	ND	0.0050	0.0016	03/29/21 18:31	
Thallium	mg/L	ND	0.0010	0.00014	03/29/21 18:31	

LABORATORY CONTROL SAMPLE: 3211368

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	0.096	96	80-120	
Barium	mg/L	0.1	0.091	91	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.094	94	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211369 3211370

Parameter	Units	92528826005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	112	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211369 3211370

Parameter	Units	92528826005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.093	0.094	92	93	75-125	1	20	
Barium	mg/L	61.8 ug/L	0.1	0.1	0.16	0.17	98	108	75-125	6	20	
Beryllium	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	2	20	
Boron	mg/L	ND	1	1	0.91	0.92	90	90	75-125	0	20	
Cadmium	mg/L	13.6 ug/L	0.1	0.1	0.11	0.11	100	100	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.095	0.097	94	96	75-125	2	20	
Cobalt	mg/L	3.2 ug/L	0.1	0.1	0.095	0.095	92	92	75-125	0	20	
Lead	mg/L	ND	0.1	0.1	0.091	0.096	91	95	75-125	5	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.11	90	97	75-125	7	20	
Molybdenum	mg/L	ND	0.1	0.1	0.097	0.11	97	105	75-125	8	20	
Selenium	mg/L	ND	0.1	0.1	0.093	0.091	90	88	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.090	0.094	90	94	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 609689
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021, 92527268022

METHOD BLANK: 3211380 Matrix: Water
Associated Lab Samples: 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021, 92527268022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	03/30/21 18:18	
Arsenic	mg/L	ND	0.0050	0.00078	03/30/21 18:18	
Barium	mg/L	ND	0.0050	0.00071	03/30/21 18:18	
Beryllium	mg/L	ND	0.00050	0.000046	03/30/21 18:18	
Boron	mg/L	ND	0.040	0.0052	03/30/21 18:18	
Cadmium	mg/L	ND	0.00050	0.00012	03/30/21 18:18	
Chromium	mg/L	0.0011J	0.0050	0.00055	03/30/21 18:18	
Cobalt	mg/L	ND	0.0050	0.00038	03/30/21 18:18	
Lead	mg/L	ND	0.0010	0.000036	03/30/21 18:18	
Lithium	mg/L	ND	0.030	0.00081	03/30/21 18:18	
Molybdenum	mg/L	ND	0.010	0.00069	03/30/21 18:18	
Selenium	mg/L	ND	0.0050	0.0016	03/30/21 18:18	
Thallium	mg/L	ND	0.0010	0.00014	03/30/21 18:18	

LABORATORY CONTROL SAMPLE: 3211381

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211382 3211383

Parameter	Units	92528827004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	108	102	75-125	6	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.094	97	93	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211382 3211383

Parameter	Units	92528827004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	65.7 ug/L	0.1	0.1	0.17	0.16	105	94	75-125	7	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20	
Boron	mg/L	47.7 ug/L	1	1	1.1	1.0	103	100	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.097	0.096	95	94	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.096	0.092	95	91	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	3	20	
Lithium	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.097	99	96	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.093	94	92	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.094	0.091	94	91	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 609693
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268023, 92527268024, 92527268025, 92527268026, 92527268027

METHOD BLANK: 3211404 Matrix: Water
Associated Lab Samples: 92527268023, 92527268024, 92527268025, 92527268026, 92527268027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	03/29/21 11:36	
Arsenic	mg/L	ND	0.0050	0.00078	03/29/21 11:36	
Barium	mg/L	ND	0.0050	0.00071	03/29/21 11:36	
Beryllium	mg/L	ND	0.00050	0.000046	03/29/21 11:36	
Boron	mg/L	0.0061J	0.040	0.0052	03/29/21 11:36	
Cadmium	mg/L	ND	0.00050	0.00012	03/29/21 11:36	
Chromium	mg/L	ND	0.0050	0.00055	03/29/21 11:36	
Cobalt	mg/L	ND	0.0050	0.00038	03/29/21 11:36	
Lead	mg/L	ND	0.0010	0.000036	03/29/21 11:36	
Lithium	mg/L	ND	0.030	0.00081	03/29/21 11:36	
Molybdenum	mg/L	ND	0.010	0.00069	03/29/21 11:36	
Selenium	mg/L	ND	0.0050	0.0016	03/29/21 11:36	
Thallium	mg/L	ND	0.0010	0.00014	03/29/21 11:36	

LABORATORY CONTROL SAMPLE: 3211405

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	0.091	91	80-120	
Barium	mg/L	0.1	0.092	92	80-120	
Beryllium	mg/L	0.1	0.093	93	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.092	92	80-120	
Chromium	mg/L	0.1	0.096	96	80-120	
Cobalt	mg/L	0.1	0.094	94	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	0.096	96	80-120	
Selenium	mg/L	0.1	0.089	89	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211748 3211749

Parameter	Units	92527268024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00049J	0.1	0.1	0.10	0.098	103	98	75-125	5	20	
Arsenic	mg/L	0.39	0.1	0.1	0.49	0.49	104	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3211748 3211749

Parameter	Units	92527268024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.056	0.1	0.1	0.16	0.15	100	96	75-125	2	20	
Beryllium	mg/L	0.000090J	0.1	0.1	0.095	0.092	95	92	75-125	3	20	
Boron	mg/L	0.89	1	1	1.8	1.8	96	91	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.095	0.092	95	92	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20	
Cobalt	mg/L	0.0029J	0.1	0.1	0.10	0.099	98	96	75-125	2	20	
Lead	mg/L	0.00015J	0.1	0.1	0.098	0.092	98	92	75-125	6	20	
Lithium	mg/L	0.031	0.1	0.1	0.13	0.13	99	98	75-125	1	20	
Molybdenum	mg/L	0.035	0.1	0.1	0.14	0.14	106	103	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.092	0.091	91	91	75-125	1	20	
Thallium	mg/L	0.00037J	0.1	0.1	0.099	0.094	99	94	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 606587
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268001, 92527268002

METHOD BLANK: 3195825 Matrix: Water
Associated Lab Samples: 92527268001, 92527268002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/15/21 13:13	

LABORATORY CONTROL SAMPLE: 3195826

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	362	90	90-111	

SAMPLE DUPLICATE: 3195827

Parameter	Units	92527234005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2120	2390	12	10	D6

SAMPLE DUPLICATE: 3195998

Parameter	Units	92527273001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	223	190	16	10	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607345
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268003, 92527268004, 92527268005

METHOD BLANK: 3199736 Matrix: Water
Associated Lab Samples: 92527268003, 92527268004, 92527268005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/16/21 15:05	

LABORATORY CONTROL SAMPLE: 3199737

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	386	96	90-111	

SAMPLE DUPLICATE: 3213092

Parameter	Units	92527261005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	279	278	0	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608133 | Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268008, 92527268009, 92527268010, 92527268011, 92527268012, 92527268013, 92527268014

METHOD BLANK: 3203640 Matrix: Water
Associated Lab Samples: 92527268008, 92527268009, 92527268010, 92527268011, 92527268012, 92527268013, 92527268014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/22/21 15:08	

LABORATORY CONTROL SAMPLE: 3203641

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	370	92	90-111	

SAMPLE DUPLICATE: 3203642

Parameter	Units	92527261013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	614	640	4	10	

SAMPLE DUPLICATE: 3203644

Parameter	Units	92527234025 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	11.0	18.0	48	10	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608136
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268015, 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021, 92527268022, 92527268023

METHOD BLANK: 3203650 Matrix: Water
Associated Lab Samples: 92527268015, 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021, 92527268022, 92527268023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/23/21 07:58	

LABORATORY CONTROL SAMPLE: 3203651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	414	104	90-111	

SAMPLE DUPLICATE: 3203652

Parameter	Units	92527612006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	99.0	97.0	2	10	

SAMPLE DUPLICATE: 3203653

Parameter	Units	92528339001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	952	1020	7	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608146
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268006, 92527268007

METHOD BLANK: 3203677 Matrix: Water
Associated Lab Samples: 92527268006, 92527268007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/23/21 07:38	

LABORATORY CONTROL SAMPLE: 3203678

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	401	100	90-111	

SAMPLE DUPLICATE: 3203679

Parameter	Units	92527268006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	490	502	2	10	H1

SAMPLE DUPLICATE: 3203680

Parameter	Units	92528629001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	158	72.0	75	10	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608443
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92527268024, 92527268025, 92527268026, 92527268027

METHOD BLANK: 3204949 Matrix: Water
Associated Lab Samples: 92527268024, 92527268025, 92527268026, 92527268027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	03/23/21 08:29	

LABORATORY CONTROL SAMPLE: 3204950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	90-111	

SAMPLE DUPLICATE: 3204951

Parameter	Units	92527612008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	213	225	5	10	

SAMPLE DUPLICATE: 3204952

Parameter	Units	92528787024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	47.0	72.0	42	10	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607170
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268001, 92527268002

METHOD BLANK: 3198670 Matrix: Water
Associated Lab Samples: 92527268001, 92527268002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/17/21 17:51	
Fluoride	mg/L	ND	0.10	0.050	03/17/21 17:51	
Sulfate	mg/L	ND	1.0	0.50	03/17/21 17:51	

LABORATORY CONTROL SAMPLE: 3198671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.3	101	90-110	
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	50	52.7	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3198672 3198673

Parameter	Units	92527256001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	7.4	50	50	59.6	59.8	104	105	90-110	0	10	
Fluoride	mg/L	0.079J	2.5	2.5	2.7	2.7	106	107	90-110	0	10	
Sulfate	mg/L	49.6	50	50	94.1	95.1	89	91	90-110	1	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3198674 3198675

Parameter	Units	92527256002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.9	50	50	54.4	53.4	103	101	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	3.0	2.8	118	112	90-110	6	10	M1
Sulfate	mg/L	1.2	50	50	54.5	53.7	107	105	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607751
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268003, 92527268004, 92527268005

METHOD BLANK: 3201757 Matrix: Water
Associated Lab Samples: 92527268003, 92527268004, 92527268005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/19/21 17:15	
Fluoride	mg/L	ND	0.10	0.050	03/19/21 17:15	
Sulfate	mg/L	ND	1.0	0.50	03/19/21 17:15	

LABORATORY CONTROL SAMPLE: 3201758

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.3	91	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3201759 3201760

Parameter	Units	92528475003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2510	50	50	2520	2520	27	27	90-110	0	10	M6
Fluoride	mg/L	4.6	2.5	2.5	12.1	11.9	302	294	90-110	2	10	M6
Sulfate	mg/L	1530	50	50	1510	1480	-49	-112	90-110	2	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3201761 3201762

Parameter	Units	92527256007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.9	50	50	58.9	57.5	106	103	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.3	2.3	91	90	90-110	1	10	
Sulfate	mg/L	50.4	50	50	102	101	103	101	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607758
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268006, 92527268007

METHOD BLANK: 3201801 Matrix: Water
Associated Lab Samples: 92527268006, 92527268007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/20/21 19:43	
Fluoride	mg/L	ND	0.10	0.050	03/20/21 19:43	
Sulfate	mg/L	ND	1.0	0.50	03/20/21 19:43	

LABORATORY CONTROL SAMPLE: 3201802

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.0	100	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	53.0	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3201803 3201804

Parameter	Units	92526996007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	57.8	58.5	99	101	90-110	1	10	
Fluoride	mg/L	0.058J	2.5	2.5	2.5	2.6	98	100	90-110	2	10	
Sulfate	mg/L	154	50	50	255	259	201	210	90-110	2	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3201805 3201806

Parameter	Units	92527261012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.2	50	50	53.9	53.4	101	100	90-110	1	10	
Fluoride	mg/L	0.83	2.5	2.5	3.5	3.5	107	106	90-110	1	10	
Sulfate	mg/L	166	50	50	183	208	33	84	90-110	13	10	M1,R1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607981
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268008, 92527268009, 92527268010, 92527268011, 92527268012

METHOD BLANK: 3202723 Matrix: Water
Associated Lab Samples: 92527268008, 92527268009, 92527268010, 92527268011, 92527268012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/20/21 10:55	
Fluoride	mg/L	ND	0.10	0.050	03/20/21 10:55	
Sulfate	mg/L	ND	1.0	0.50	03/20/21 10:55	

LABORATORY CONTROL SAMPLE: 3202724

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.1	102	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	51.5	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202725 3202726

Parameter	Units	92528548005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	363	50	50	402	403	79	81	90-110	0	10	M6
Fluoride	mg/L	0.13	2.5	2.5	2.6	2.7	100	101	90-110	1	10	
Sulfate	mg/L	27.1	50	50	76.5	77.1	99	100	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202727 3202728

Parameter	Units	92527261015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.5	50	50	54.6	54.8	104	105	90-110	0	10	
Fluoride	mg/L	0.30	2.5	2.5	2.9	2.9	102	103	90-110	1	10	
Sulfate	mg/L	236	50	50	281	282	90	93	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607982
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268013, 92527268014

METHOD BLANK: 3202733 Matrix: Water
Associated Lab Samples: 92527268013, 92527268014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/20/21 17:54	
Fluoride	mg/L	ND	0.10	0.050	03/20/21 17:54	
Sulfate	mg/L	ND	1.0	0.50	03/20/21 17:54	

LABORATORY CONTROL SAMPLE: 3202734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.7	103	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202737 3202738

Parameter	Units	92528140001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	57.9	50	50	105	105	94	94	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	1.9	2.0	73	74	90-110	2	10	M6
Sulfate	mg/L	17.2	50	50	66.0	66.0	98	98	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3203204 3203205

Parameter	Units	92528440001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	319	50	50	332	332	26	27	90-110	0	10	M6
Fluoride	mg/L	0.34	2.5	2.5	2.6	2.7	90	94	90-110	3	10	
Sulfate	mg/L	132	50	50	178	179	94	94	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 607984
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268015, 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021

METHOD BLANK: 3202745 Matrix: Water
Associated Lab Samples: 92527268015, 92527268016, 92527268017, 92527268018, 92527268019, 92527268020, 92527268021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/21/21 19:26	
Fluoride	mg/L	ND	0.10	0.050	03/21/21 19:26	
Sulfate	mg/L	ND	1.0	0.50	03/21/21 19:26	

LABORATORY CONTROL SAMPLE: 3202746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	
Sulfate	mg/L	50	52.8	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202747 3202748

Parameter	Units	92527234030 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	51.8	50.4	104	101	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	104	101	90-110	3	10	
Sulfate	mg/L	ND	50	50	52.2	50.8	104	102	90-110	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3202749 3202750

Parameter	Units	92527612006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.6	50	50	52.6	51.8	102	100	90-110	1	10	
Fluoride	mg/L	0.18	2.5	2.5	2.7	2.7	99	102	90-110	2	10	
Sulfate	mg/L	7.7	50	50	57.9	57.5	100	100	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608283
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268022, 92527268023

METHOD BLANK: 3204500 Matrix: Water
Associated Lab Samples: 92527268022, 92527268023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/22/21 20:49	
Fluoride	mg/L	ND	0.10	0.050	03/22/21 20:49	
Sulfate	mg/L	ND	1.0	0.50	03/22/21 20:49	

LABORATORY CONTROL SAMPLE: 3204501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.5	105	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	52.9	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204502 3204503

Parameter	Units	92528546001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18.7	50	50	69.8	70.2	102	103	90-110	1	10	
Fluoride	mg/L	10.4	2.5	2.5	12.8	12.8	96	95	90-110	0	10	
Sulfate	mg/L	1220	50	50	1340	1340	237	231	90-110	0	10	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204504 3204505

Parameter	Units	92528730001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.8	50	50	60.7	58.7	104	100	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.5	104	99	90-110	5	10	
Sulfate	mg/L	10.4	50	50	62.6	60.5	104	100	90-110	3	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

QC Batch: 608285
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92527268024, 92527268025, 92527268026, 92527268027

METHOD BLANK: 3204508 Matrix: Water
Associated Lab Samples: 92527268024, 92527268025, 92527268026, 92527268027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/23/21 04:02	
Fluoride	mg/L	ND	0.10	0.050	03/23/21 04:02	
Sulfate	mg/L	ND	1.0	0.50	03/23/21 04:02	

LABORATORY CONTROL SAMPLE: 3204509

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	50	51.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204510 3204511

Parameter	Units	92528339002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	53.4	50	50	91.2	90.1	75	73	90-110	1	10	M6
Fluoride	mg/L	0.74	2.5	2.5	3.3	3.2	102	100	90-110	2	10	
Sulfate	mg/L	457	50	50	503	503	93	93	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3204512 3204513

Parameter	Units	92527612010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.7	50	50	58.1	56.8	107	104	90-110	2	10	
Fluoride	mg/L	0.089J	2.5	2.5	2.8	2.7	107	104	90-110	2	10	
Sulfate	mg/L	28.3	50	50	80.9	79.7	105	103	90-110	2	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92527268001	**HGWA-1**				
92527268002	**HGWA-44D**				
92527268003	**HGWA-2**				
92527268004	**HGWA-3**				
92527268005	**HGWA-43D**				
92527268006	**HGWC-10**				
92527268007	**MW-27D**				
92527268008	**HGWC-7 FILTERED**				
92527268009	**HGWC-7**				
92527268010	**HGWC-8**				
92527268011	**MW-7**				
92527268012	**MW-20**				
92527268013	**MW-28D**				
92527268014	**MW-29**				
92527268015	**HGWC-9**				
92527268016	**HGWC-11**				
92527268017	**HGWC-12**				
92527268018	**MW-5**				
92527268019	**MW-6**				
92527268020	**MW-25D**				
92527268024	**HGWC-13**				
92527268025	**MW-19**				
92527268026	**MW-24D**				
92527268027	**MW-26D**				
92527268001	**HGWA-1**	EPA 3010A	606634	EPA 6010D	606723
92527268002	**HGWA-44D**	EPA 3010A	606634	EPA 6010D	606723
92527268003	**HGWA-2**	EPA 3010A	608195	EPA 6010D	608261
92527268004	**HGWA-3**	EPA 3010A	608195	EPA 6010D	608261
92527268005	**HGWA-43D**	EPA 3010A	608195	EPA 6010D	608261
92527268006	**HGWC-10**	EPA 3010A	609342	EPA 6010D	609604
92527268007	**MW-27D**	EPA 3010A	609342	EPA 6010D	609604
92527268008	**HGWC-7 FILTERED**	EPA 3010A	609342	EPA 6010D	609604
92527268009	**HGWC-7**	EPA 3010A	609345	EPA 6010D	609584
92527268010	**HGWC-8**	EPA 3010A	609342	EPA 6010D	609604
92527268011	**MW-7**	EPA 3010A	609342	EPA 6010D	609604
92527268012	**MW-20**	EPA 3010A	609342	EPA 6010D	609604
92527268013	**MW-28D**	EPA 3010A	609342	EPA 6010D	609604
92527268014	**MW-29**	EPA 3010A	609342	EPA 6010D	609604
92527268015	**HGWC-9**	EPA 3010A	609345	EPA 6010D	609584
92527268016	**HGWC-11**	EPA 3010A	609345	EPA 6010D	609584
92527268017	**HGWC-12**	EPA 3010A	609345	EPA 6010D	609584
92527268018	**MW-5**	EPA 3010A	609345	EPA 6010D	609584
92527268019	**MW-6**	EPA 3010A	609345	EPA 6010D	609584
92527268020	**MW-25D**	EPA 3010A	609345	EPA 6010D	609584
92527268021	**DUP-1**	EPA 3010A	609345	EPA 6010D	609584
92527268022	**EB-1**	EPA 3010A	609345	EPA 6010D	609584

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92527268023	**FB-1**	EPA 3010A	609345	EPA 6010D	609584
92527268024	**HGWC-13**	EPA 3010A	609345	EPA 6010D	609584
92527268025	**MW-19**	EPA 3010A	609345	EPA 6010D	609584
92527268026	**MW-24D**	EPA 3010A	609345	EPA 6010D	609584
92527268027	**MW-26D**	EPA 3010A	609345	EPA 6010D	609584
92527268001	**HGWA-1**	EPA 3005A	606644	EPA 6020B	606712
92527268002	**HGWA-44D**	EPA 3005A	606644	EPA 6020B	606712
92527268003	**HGWA-2**	EPA 3005A	607964	EPA 6020B	608044
92527268004	**HGWA-3**	EPA 3005A	607964	EPA 6020B	608044
92527268005	**HGWA-43D**	EPA 3005A	607964	EPA 6020B	608044
92527268006	**HGWC-10**	EPA 3005A	609688	EPA 6020B	609797
92527268007	**MW-27D**	EPA 3005A	609688	EPA 6020B	609797
92527268008	**HGWC-7 FILTERED**	EPA 3005A	609688	EPA 6020B	609797
92527268009	**HGWC-7**	EPA 3005A	609688	EPA 6020B	609797
92527268010	**HGWC-8**	EPA 3005A	609688	EPA 6020B	609797
92527268011	**MW-7**	EPA 3005A	609688	EPA 6020B	609797
92527268012	**MW-20**	EPA 3005A	609688	EPA 6020B	609797
92527268013	**MW-28D**	EPA 3005A	609688	EPA 6020B	609797
92527268014	**MW-29**	EPA 3005A	609688	EPA 6020B	609797
92527268015	**HGWC-9**	EPA 3005A	609688	EPA 6020B	609797
92527268016	**HGWC-11**	EPA 3005A	609689	EPA 6020B	609798
92527268017	**HGWC-12**	EPA 3005A	609689	EPA 6020B	609798
92527268018	**MW-5**	EPA 3005A	609689	EPA 6020B	609798
92527268019	**MW-6**	EPA 3005A	609689	EPA 6020B	609798
92527268020	**MW-25D**	EPA 3005A	609689	EPA 6020B	609798
92527268021	**DUP-1**	EPA 3005A	609689	EPA 6020B	609798
92527268022	**EB-1**	EPA 3005A	609689	EPA 6020B	609798
92527268023	**FB-1**	EPA 3005A	609693	EPA 6020B	609800
92527268024	**HGWC-13**	EPA 3005A	609693	EPA 6020B	609800
92527268025	**MW-19**	EPA 3005A	609693	EPA 6020B	609800
92527268026	**MW-24D**	EPA 3005A	609693	EPA 6020B	609800
92527268027	**MW-26D**	EPA 3005A	609693	EPA 6020B	609800
92527268001	**HGWA-1**	SM 2540C-2011	606587		
92527268002	**HGWA-44D**	SM 2540C-2011	606587		
92527268003	**HGWA-2**	SM 2540C-2011	607345		
92527268004	**HGWA-3**	SM 2540C-2011	607345		
92527268005	**HGWA-43D**	SM 2540C-2011	607345		
92527268006	**HGWC-10**	SM 2540C-2011	608146		
92527268007	**MW-27D**	SM 2540C-2011	608146		
92527268008	**HGWC-7 FILTERED**	SM 2540C-2011	608133		
92527268009	**HGWC-7**	SM 2540C-2011	608133		
92527268010	**HGWC-8**	SM 2540C-2011	608133		
92527268011	**MW-7**	SM 2540C-2011	608133		
92527268012	**MW-20**	SM 2540C-2011	608133		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1 SEMIANNUAL
Pace Project No.: 92527268

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92527268013	**MW-28D**	SM 2540C-2011	608133		
92527268014	**MW-29**	SM 2540C-2011	608133		
92527268015	**HGWC-9**	SM 2540C-2011	608136		
92527268016	**HGWC-11**	SM 2540C-2011	608136		
92527268017	**HGWC-12**	SM 2540C-2011	608136		
92527268018	**MW-5**	SM 2540C-2011	608136		
92527268019	**MW-6**	SM 2540C-2011	608136		
92527268020	**MW-25D**	SM 2540C-2011	608136		
92527268021	**DUP-1**	SM 2540C-2011	608136		
92527268022	**EB-1**	SM 2540C-2011	608136		
92527268023	**FB-1**	SM 2540C-2011	608136		
92527268024	**HGWC-13**	SM 2540C-2011	608443		
92527268025	**MW-19**	SM 2540C-2011	608443		
92527268026	**MW-24D**	SM 2540C-2011	608443		
92527268027	**MW-26D**	SM 2540C-2011	608443		
92527268001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	607170		
92527268002	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	607170		
92527268003	**HGWA-2**	EPA 300.0 Rev 2.1 1993	607751		
92527268004	**HGWA-3**	EPA 300.0 Rev 2.1 1993	607751		
92527268005	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	607751		
92527268006	**HGWC-10**	EPA 300.0 Rev 2.1 1993	607758		
92527268007	**MW-27D**	EPA 300.0 Rev 2.1 1993	607758		
92527268008	**HGWC-7 FILTERED**	EPA 300.0 Rev 2.1 1993	607981		
92527268009	**HGWC-7**	EPA 300.0 Rev 2.1 1993	607981		
92527268010	**HGWC-8**	EPA 300.0 Rev 2.1 1993	607981		
92527268011	**MW-7**	EPA 300.0 Rev 2.1 1993	607981		
92527268012	**MW-20**	EPA 300.0 Rev 2.1 1993	607981		
92527268013	**MW-28D**	EPA 300.0 Rev 2.1 1993	607982		
92527268014	**MW-29**	EPA 300.0 Rev 2.1 1993	607982		
92527268015	**HGWC-9**	EPA 300.0 Rev 2.1 1993	607984		
92527268016	**HGWC-11**	EPA 300.0 Rev 2.1 1993	607984		
92527268017	**HGWC-12**	EPA 300.0 Rev 2.1 1993	607984		
92527268018	**MW-5**	EPA 300.0 Rev 2.1 1993	607984		
92527268019	**MW-6**	EPA 300.0 Rev 2.1 1993	607984		
92527268020	**MW-25D**	EPA 300.0 Rev 2.1 1993	607984		
92527268021	**DUP-1**	EPA 300.0 Rev 2.1 1993	607984		
92527268022	**EB-1**	EPA 300.0 Rev 2.1 1993	608283		
92527268023	**FB-1**	EPA 300.0 Rev 2.1 1993	608283		
92527268024	**HGWC-13**	EPA 300.0 Rev 2.1 1993	608285		
92527268025	**MW-19**	EPA 300.0 Rev 2.1 1993	608285		
92527268026	**MW-24D**	EPA 300.0 Rev 2.1 1993	608285		
92527268027	**MW-26D**	EPA 300.0 Rev 2.1 1993	608285		

REPORT OF LABORATORY ANALYSIS

Pace Analytical

Document Name: Sample Condition Upon Receipt

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Client Name: GA Power

Project #:

WO#:92527268

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

Custody Seal Present? ☐ Yes ☐ No Seals Intact? ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Thermometer:

Type of Ice: ☑ Wet ☐ Blue ☐ None

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

Cooler Temp Corrected (°C):

USDA Regulated Soil (☐ N/A, water sample)

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

Company	GA Power
Address	Atlanta, GA
Report To	SCS Contacts
Project Name	SCS Contacts
Section C Invoice Information: Attention	Southern Co.
Site Location	GA

ITEM #	SAMPLE ID
1	HGWA-1
2	HGWA-2
3	HGWA-3
4	HGWA-43D
5	HGWA-44D
6	HGWC-7
7	HGWC-8
8	HGWC-9
9	HGWC-10
10	HGWC-11
11	HGWC-12
12	HGWC-13

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

Section A — Required Client Information	Company: GA Power; Address: Atlanta, GA; Report To: SCS Contacts
Section B — Required Project Information	Report To: SCS Contacts; Copy To: Geosyntec Consultants; Project Name: Plant Hammond AP-1 Semiannual
Section C — Invoice Information	Attention: Southern Co.
REGULATORY AGENCY	Site Location STATE: GA

Page: 1 of 1

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	pH
1	HGWA-1	WT				
2	HGWA-2	WT	G	[illegible]	[illegible]	5.86
3	HGWA-3	WT	G	[illegible]	[illegible]	7.57
4	HGWA-43D	WT	G	[illegible]	[illegible]	7.46
5	HGWA-44D	WT	G			
6	HGWC-7	WT	G			
7	HGWC-8	WT	G			
8	HGWC-9	WT	G			
9	HGWC-10	WT	G			
10	HGWC-11	WT	G			
11	HGWC-12	WT	G			
12	HGWC-13	WT	G			

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible signature]	3/17/21	[illegible]	[illegible] / GEO	[illegible]	[illegible]
[illegible] / GEO	3/17/21	1343	[illegible] / Pace	3/17/21	1343
[illegible] / Pace	3-17-21	1639	[illegible signature]	3/17/21	1639

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible handwriting]

SIGNATURE of SAMPLER: [illegible] DATE Signed: 03/17/21

Pace Analytical

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

Page: 2

Section A — Required Client Information

Section B — Required Project Information

Section C — Invoice Information

REGULATORY AGENCY

SAMPLE ID

COLLECTED

Preservatives

Requested Analysis Filtered (Y/N)

Analysis Test

ITEM #	SAMPLE ID
1	HGWA-1
2	HGWA-2
3	HGWA-3
4	HGWA-4
5	HGWA-5
6	HGWC-7
7	HGWC-8
8	HGWC-9
9	HGWC-10
10	HGWC-11
11	HGWC-12
12	HGWC-13

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

Pace Analytical

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

Section A Required Client Information:
Company: SCS Engineers [illegible]
Address: Atlanta, GA
Email To: SCS Contacts

Section B Required Project Information:
Report To: SCS Contacts
Copy To: Cardno/SCS Contacts
Project Name: Plant Hammond AP-1 Semiannual
Project Number: GWS2011

Section C Invoice Information:
Attention: Southern Co.
Pace Profile #: [illegible]

Page: 2 of 2

REGULATORY AGENCY
State / Location: GA

SAMPLE ID

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	# OF CONTAINERS	Pace Project No./ Lab I.D.
1	MW-5	WT	G	[illegible]	[illegible]
2	MW-6	WT	G	[illegible]	[illegible]
3	MW-7	WT	G	[illegible]	[illegible]
4	MW-19	WT	G	[illegible]	[illegible]
5	MW-23	WT	G	[illegible]	[illegible]
6	MW-24D	WT	G	[illegible]	[illegible]
7	MW-25D	WT	G	[illegible]	[illegible]
8	MW-26D	WT	G	[illegible]	[illegible]
9	MW-27D	WT	G	[illegible]	[illegible]
10	MW-28D	WT	G	[illegible]	[illegible]
11	MW-29	WT	G	[illegible]	[illegible]
12	Dup-1	WT	G	[illegible]	[illegible]

ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

Section A — Required Client Information: Company: GA Power; Address: Atlanta, GA; Email To: SCS Contacts

Section B — Required Project Information: Report To: SCS Contacts; Copy To: Geosyntec Consultants; Project Name: Plant Hammond AP; Project Number:

Section C — Invoice Information: Attention: Southern Co; Pace Project Manager: Kevin Herring

REGULATORY AGENCY: GROUND WATER; Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-5	WT	G			N	pH =
2	MW-6	WT	G			N	pH =
3	MW-7	WT	G	3/1/21	1204	N	pH = 6.66
4	MW-19	WT	G			N	pH =
5	MW-20	WT	G	3/1/21	1122	N	pH = 6.97
6	MW-24D	WT	G			N	pH =
7	MW-25D	WT	G			N	pH =
8	MW-26D	WT	G			N	pH =
9	MW-27D	WT	G			N	pH =
10	MW-28D	WT	G	3/1/21	1325	N	pH = 7.61
11	MW-29	WT	G	3/1/21	1252	N	pH = 7.03
12	Dup-1						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature]	3/1/21	1340	[signature] / Pace	3/1/21	1340	
	[signature] / Pace	3/1/21	1632	[signature]	3/1/21	1632	3.3 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [signature]

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 3/1/21

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical

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:
		Address:
Email To: SCS Contacts	Purchase Order No.:	Pace Quote:
Phone:	Project Name: Plant Hammond AP-1 Deemed	Pace Project Manager: Betsy Hoping
Requested Due Date/TAT:	Project Number: GW6416	Pace Profile #: 10/2413

Page: 1 of 3

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Pace Project No./ Lab I.D.
1	HGWA-1	WT	G					pH =
2	HGWA-2	WT	G					pH =
3	HGWA-3	WT	G					pH =
4	HGWA-43D	WT	G					pH =
5	HGWA-44D	WT	G					pH =
6	HGWC-7	WT	G					pH =
7	HGWC-8	WT	G					pH =
8	HGWC-9	WT	G	[illegible]	[illegible]	17		pH = 7.10
9	HGWC-10	WT	G					pH =
10	HGWC-11	WT	G	3/4/21	[illegible]	15		pH = 5.95
11	HGWC-12	WT	G	3/4/21	[illegible]	17		pH = 7.16
12	HGWC-13	WT	G					pH =

Analyses: Appendix III Metals, App. III & IV Metals, Rad 226/228, TDS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
[illegible]	[illegible]	3/4/21	1510	[illegible]	3/4/21	1510	
	[illegible]	3/4/21	1510	[illegible]	[illegible]	[illegible]	[illegible]

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed (MM/DD/YY): 3/06/21

CHAIN-OF-CUSTODY / Analytical Request Document

Page: 2 of 3

Section A — Required Client Information

Company: Southern Co.

Section B — Required Project Information

Section C — Invoice Information

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER | UST | RCRA | OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-5	WT	G	N	pH = 5.78
2	MW-6	WT	G	N	pH = 5.95
3	MW-7	WT	G		pH =
4	MW-10	WT	G		pH =
5	MW-20D	WT	G		pH =
6	MW-24D	WT	G		pH =
7	MW-25D	WT	G	N	pH = 7.76
8	MW-26D	WT	G		pH =
9	MW-27D	WT	G		pH =
10	MW-28D	WT	G		pH =
11	MW-29	WT	G		pH =
12	Dup-1	WT	G	N	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
						1410	
			1630				

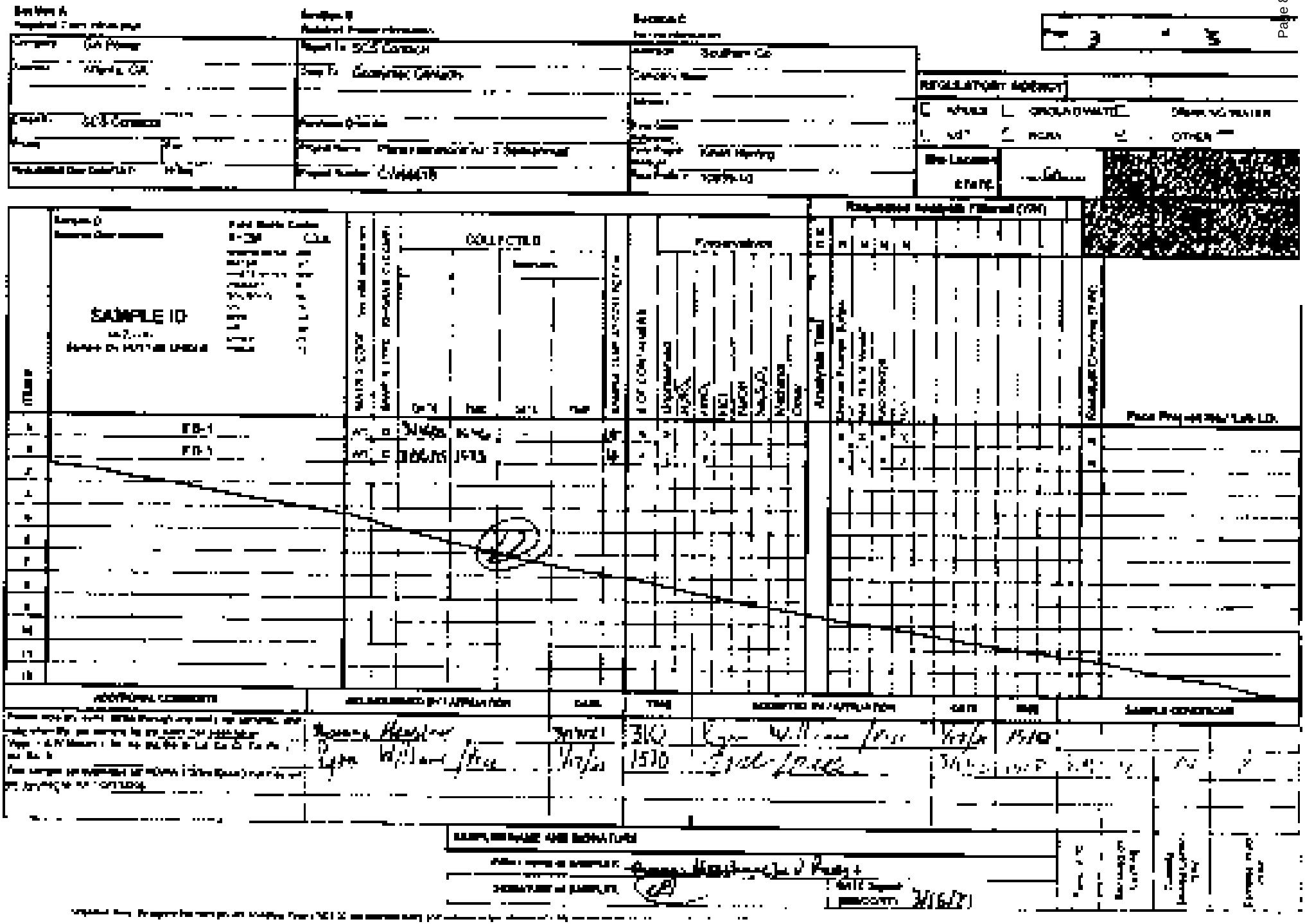
SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

CHAIN-OF-CUSTODY / Analytical Request Document



Pace Analytical

Section A — Company: [illegible] Power; Atlanta, GA; SCS Contacts

Section B — Report To: [illegible] Contacts; Project Name: Plant [illegible]

Section C — Southern Co

Page: 1 of 2

REGULATORY AGENCY

Site Location STATE: GA

SAMPLE ID

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	Residual Chlorine (Y/N)	pH
1	HGWA-1	WT	G	[illegible]	pH =
2	HGWA-2	WT	G	[illegible]	pH =
3	HGWA-3	WT	G	[illegible]	pH =
4	HGWA-45D	WT	G	[illegible]	pH =
5	HGWA-44D	WT	G	[illegible]	pH =
6	HGWC-7	WT	G	[illegible]	pH =
7	HGWC-8	WT	G	[illegible]	pH =
8	HGWC-9	WT	G	[illegible]	pH =
9	HGWC-10	WT	G	[illegible]	pH =
10	HGWC-11	WT	G	[illegible]	pH =
11	HGWC-12	WT	G	[illegible]	pH =
12	HGWC-13	WT	G	[illegible]	pH = 7.33

ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

Pace Analytical

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Requested Due Date/TAT:	[illegible]

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	[illegible]
Project Name:	Plant Hammond AP 1 [illegible]
Project Number:	[illegible]

Section C — Invoice Information

Attention:	Southern Co
Pace Project Manager:	Kevin Herring
Pace Profile #:	[illegible]

REGULATORY AGENCY

Site Location STATE: GA

Section D — Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	pH
1	MW-5	WT	G	pH =
2	MW-6	WT	G	pH =
3	[illegible]	WT	G	pH =
4	MW-19	WT	G	pH = 6.54
5	[illegible] ARD-2 MD	WT	G	pH = 7.66
6	[illegible]	WT	G	pH =
7	[illegible]	WT	G	pH =
8	MW-20[illegible]	WT	G	pH = 7.14
9	[illegible]	WT	G	pH =
10	MW-20[illegible]	WT	G	pH =
11	MW-2[illegible]	WT	G	pH =
12	Dup-1	WT	G	pH =

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[illegible]	[illegible]	1317	[illegible] / Pace	[illegible]	1317
[illegible] / Pace	[illegible]	1521	[illegible]	[illegible]	1521

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible]

DATE Signed: [illegible]

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 14, 2021

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1
Pace Project No.: 92555945

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between August 17, 2021 and August 20, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

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

Sincerely,

Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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 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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92555945001	**MW-29**	Water	08/16/21 17:06	08/17/21 11:25
92555945002	**HGWC-7**	Water	08/16/21 17:20	08/17/21 11:25
92555945003	**MW-7**	Water	08/17/21 14:59	08/18/21 14:00
92555945004	**MW-20**	Water	08/17/21 12:58	08/18/21 14:00
92555945005	**MW-5**	Water	08/17/21 09:50	08/18/21 14:00
92555945006	**HGWC-10**	Water	08/17/21 15:08	08/18/21 14:00
92555945007	**HGWC-9**	Water	08/17/21 12:15	08/18/21 14:00
92555945008	**MW-26D**	Water	08/17/21 11:05	08/18/21 14:00
92555945009	**MW-6**	Water	08/17/21 09:35	08/18/21 14:00
92555945010	**MW-27D**	Water	08/17/21 16:07	08/18/21 14:00
92555945011	**MW-19**	Water	08/18/21 15:10	08/19/21 12:40
92555945012	**HGWC-11**	Water	08/18/21 16:58	08/19/21 12:40
92555945013	**HGWC-12**	Water	08/18/21 15:07	08/19/21 12:40
92555945014	**MW-28D**	Water	08/18/21 13:30	08/19/21 12:40
92555945015	**HGWC-8**	Water	08/18/21 10:37	08/19/21 12:40
92555945016	**HGWC-13**	Water	08/19/21 10:43	08/20/21 12:15
92555945017	**MW-25D**	Water	08/19/21 14:44	08/20/21 12:15
92555945018	**MW-24D**	Water	08/19/21 12:37	08/20/21 12:15
92555945019	**DUP-1**	Water	08/19/21 00:00	08/20/21 12:15
92555945020	**EB-1**	Water	08/19/21 12:55	08/20/21 12:15
92555945021	**FB-1**	Water	08/19/21 12:50	08/20/21 12:15

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92555945001	**MW-29**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945002	**HGWC-7**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945003	**MW-7**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92555945004	**MW-20**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92555945005	**MW-5**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92555945006	**HGWC-10**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945007	**HGWC-9**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945008	**MW-26D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945009	**MW-6**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945010	**MW-27D**	EPA 6010D	DRB	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945011	**MW-19**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945012	**HGWC-11**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945013	**HGWC-12**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945014	**MW-28D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945015	**HGWC-8**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945016	**HGWC-13**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945017	**MW-25D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945018	**MW-24D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945019	**DUP-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945020	**EB-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92555945021	**FB-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92555945001	**MW-29**					
	Performed by	CUSTOMER			08/17/21 16:35	
	pH	7.08	Std. Units		08/17/21 16:35	
EPA 6010D	Calcium	140	mg/L	1.0	08/25/21 16:13	
EPA 6020B	Barium	0.074	mg/L	0.0050	08/25/21 17:40	
EPA 6020B	Boron	1.1	mg/L	0.040	08/25/21 17:40	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	08/25/21 17:40	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	08/25/21 17:40	
EPA 6020B	Molybdenum	0.0027J	mg/L	0.010	08/25/21 17:40	
SM 2540C-2011	Total Dissolved Solids	512	mg/L	20.0	08/20/21 16:40	
EPA 300.0 Rev 2.1 1993	Chloride	68.0	mg/L	1.0	08/23/21 02:46	
EPA 300.0 Rev 2.1 1993	Sulfate	136	mg/L	3.0	08/23/21 14:45	
92555945002	**HGWC-7**					
	Performed by	CUSTOMER			08/17/21 16:35	
	pH	7.12	Std. Units		08/17/21 16:35	
EPA 6010D	Calcium	112	mg/L	1.0	08/25/21 16:43	M1
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	08/25/21 18:04	
EPA 6020B	Barium	0.068	mg/L	0.0050	08/25/21 18:04	
EPA 6020B	Boron	1.1	mg/L	0.040	08/25/21 18:04	
EPA 6020B	Cobalt	0.0012J	mg/L	0.0050	08/25/21 18:04	
EPA 6020B	Lithium	0.0025J	mg/L	0.030	08/25/21 18:04	
EPA 6020B	Molybdenum	0.045	mg/L	0.010	08/25/21 18:04	
SM 2540C-2011	Total Dissolved Solids	407	mg/L	10.0	08/20/21 16:40	
EPA 300.0 Rev 2.1 1993	Chloride	40.3	mg/L	1.0	08/23/21 03:01	
EPA 300.0 Rev 2.1 1993	Fluoride	0.084J	mg/L	0.10	08/23/21 03:01	
EPA 300.0 Rev 2.1 1993	Sulfate	98.1	mg/L	2.0	08/23/21 15:01	
92555945003	**MW-7**					
	Performed by	CUSTOMER			08/18/21 16:34	
	pH	6.88	Std. Units		08/18/21 16:34	
EPA 6010D	Calcium	90.7	mg/L	1.0	08/25/21 17:02	
EPA 6020B	Barium	0.057	mg/L	0.0050	08/25/21 18:10	
EPA 6020B	Boron	0.20	mg/L	0.040	08/25/21 18:10	
EPA 6020B	Molybdenum	0.0030J	mg/L	0.010	08/25/21 18:10	
SM 2540C-2011	Total Dissolved Solids	344	mg/L	10.0	08/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Chloride	8.9	mg/L	1.0	08/23/21 16:34	
EPA 300.0 Rev 2.1 1993	Sulfate	105	mg/L	2.0	08/24/21 00:06	
92555945004	**MW-20**					
	Performed by	CUSTOMER			08/18/21 16:34	
	pH	7.05	Std. Units		08/18/21 16:34	
EPA 6010D	Calcium	123	mg/L	1.0	08/25/21 17:07	
EPA 6020B	Barium	0.089	mg/L	0.0050	08/25/21 18:16	
EPA 6020B	Boron	0.11	mg/L	0.040	08/25/21 18:16	
EPA 6020B	Lithium	0.00091J	mg/L	0.030	08/25/21 18:16	
SM 2540C-2011	Total Dissolved Solids	437	mg/L	10.0	08/20/21 16:46	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92555945004	**MW-20**					
EPA 300.0 Rev 2.1 1993	Chloride	28.3	mg/L	1.0	08/23/21 17:25	
EPA 300.0 Rev 2.1 1993	Sulfate	98.6	mg/L	2.0	08/24/21 00:23	
92555945005	**MW-5**					
	Performed by	CUSTOMER			08/18/21 16:34	
	pH	5.99	Std. Units		08/18/21 16:34	
EPA 6010D	Calcium	73.3	mg/L	1.0	08/25/21 17:12	
EPA 6020B	Barium	0.045	mg/L	0.0050	08/25/21 18:22	
EPA 6020B	Boron	0.026J	mg/L	0.040	08/25/21 18:22	
EPA 6020B	Chromium	0.0018J	mg/L	0.0050	08/25/21 18:22	
EPA 6020B	Selenium	0.0017J	mg/L	0.0050	08/25/21 18:22	
SM 2540C-2011	Total Dissolved Solids	339	mg/L	10.0	08/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Chloride	1.4	mg/L	1.0	08/23/21 17:42	
EPA 300.0 Rev 2.1 1993	Sulfate	154	mg/L	3.0	08/24/21 00:39	
92555945006	**HGWC-10**					
	Performed by	CUSTOMER			08/18/21 16:35	
	pH	6.75	Std. Units		08/18/21 16:35	
EPA 6010D	Calcium	153	mg/L	1.0	08/25/21 17:17	
EPA 6020B	Barium	0.055	mg/L	0.0050	08/26/21 17:32	
EPA 6020B	Boron	0.88	mg/L	0.040	08/26/21 17:32	
EPA 6020B	Molybdenum	0.0012J	mg/L	0.010	08/26/21 17:32	
SM 2540C-2011	Total Dissolved Solids	496	mg/L	20.0	08/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Chloride	28.3	mg/L	1.0	08/25/21 04:52	
EPA 300.0 Rev 2.1 1993	Sulfate	156	mg/L	4.0	08/25/21 19:46	
92555945007	**HGWC-9**					
	Performed by	CUSTOMER			08/18/21 16:35	
	pH	7.10	Std. Units		08/18/21 16:35	
EPA 6010D	Calcium	183	mg/L	1.0	08/25/21 17:21	
EPA 6020B	Barium	0.095	mg/L	0.0050	08/26/21 17:38	
EPA 6020B	Boron	2.3	mg/L	0.040	08/26/21 17:38	
EPA 6020B	Cobalt	0.00045J	mg/L	0.0050	08/26/21 17:38	
EPA 6020B	Lithium	0.0040J	mg/L	0.030	08/26/21 17:38	
EPA 6020B	Molybdenum	0.035	mg/L	0.010	08/26/21 17:38	
SM 2540C-2011	Total Dissolved Solids	704	mg/L	20.0	08/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Chloride	88.6	mg/L	1.0	08/25/21 05:09	
EPA 300.0 Rev 2.1 1993	Fluoride	0.095J	mg/L	0.10	08/25/21 05:09	
EPA 300.0 Rev 2.1 1993	Sulfate	207	mg/L	5.0	08/25/21 20:02	
92555945008	**MW-26D**					
	Performed by	CUSTOMER			08/18/21 16:35	
	pH	7.14	Std. Units		08/18/21 16:35	
EPA 6010D	Calcium	177	mg/L	1.0	08/25/21 17:26	
EPA 6020B	Barium	0.072	mg/L	0.0050	08/26/21 17:44	
EPA 6020B	Boron	2.2	mg/L	0.040	08/26/21 17:44	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92555945008	**MW-26D**					
EPA 6020B	Cobalt	0.00045J	mg/L	0.0050	08/26/21 17:44	
EPA 6020B	Lithium	0.0036J	mg/L	0.030	08/26/21 17:44	
EPA 6020B	Molybdenum	0.024	mg/L	0.010	08/26/21 17:44	
SM 2540C-2011	Total Dissolved Solids	746	mg/L	20.0	08/20/21 16:46	
EPA 300.0 Rev 2.1 1993	Chloride	89.2	mg/L	1.0	08/25/21 05:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.075J	mg/L	0.10	08/25/21 05:26	
EPA 300.0 Rev 2.1 1993	Sulfate	194	mg/L	4.0	08/25/21 20:19	
92555945009	**MW-6**					
	Performed by	CUSTOMER			08/18/21 16:35	
	pH	6.86	Std. Units		08/18/21 16:35	
EPA 6010D	Calcium	181	mg/L	1.0	08/25/21 17:41	
EPA 6020B	Barium	0.081	mg/L	0.0050	08/26/21 17:50	
EPA 6020B	Boron	0.85	mg/L	0.040	08/26/21 17:50	
EPA 6020B	Molybdenum	0.0027J	mg/L	0.010	08/26/21 17:50	
SM 2540C-2011	Total Dissolved Solids	656	mg/L	20.0	08/20/21 16:47	
EPA 300.0 Rev 2.1 1993	Chloride	43.5	mg/L	1.0	08/25/21 05:43	
EPA 300.0 Rev 2.1 1993	Fluoride	0.055J	mg/L	0.10	08/25/21 05:43	
EPA 300.0 Rev 2.1 1993	Sulfate	194	mg/L	4.0	08/25/21 21:09	
92555945010	**MW-27D**					
	Performed by	CUSTOMER			08/18/21 16:35	
	pH	7.75	Std. Units		08/18/21 16:35	
EPA 6010D	Calcium	28.5	mg/L	1.0	08/25/21 17:46	
EPA 6020B	Barium	1.1	mg/L	0.025	08/26/21 18:02	
EPA 6020B	Boron	0.14	mg/L	0.040	08/26/21 17:56	
EPA 6020B	Lithium	0.0079J	mg/L	0.030	08/26/21 17:56	
EPA 6020B	Molybdenum	0.0016J	mg/L	0.010	08/26/21 17:56	
SM 2540C-2011	Total Dissolved Solids	239	mg/L	10.0	08/20/21 16:47	
EPA 300.0 Rev 2.1 1993	Chloride	30.0	mg/L	1.0	08/25/21 06:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.24	mg/L	0.10	08/25/21 06:00	
EPA 300.0 Rev 2.1 1993	Sulfate	8.2	mg/L	1.0	08/25/21 06:00	
92555945011	**MW-19**					
	Performed by	CUSTOMER			08/19/21 17:04	
	pH	6.28	Std. Units		08/19/21 17:04	
EPA 6010D	Calcium	125	mg/L	1.0	08/25/21 17:51	
EPA 6020B	Barium	0.045	mg/L	0.0050	08/26/21 18:08	
EPA 6020B	Beryllium	0.000058J	mg/L	0.00050	08/26/21 18:08	
EPA 6020B	Boron	0.55	mg/L	0.040	08/26/21 18:08	
EPA 6020B	Cadmium	0.00027J	mg/L	0.00050	08/26/21 18:08	
EPA 6020B	Cobalt	0.039	mg/L	0.0050	08/26/21 18:08	
EPA 6020B	Lithium	0.014J	mg/L	0.030	08/26/21 18:08	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	08/26/21 18:08	
EPA 6020B	Selenium	0.0026J	mg/L	0.0050	08/26/21 18:08	
EPA 6020B	Thallium	0.00023J	mg/L	0.0010	08/26/21 18:08	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92555945011	**MW-19**					
SM 2540C-2011	Total Dissolved Solids	464	mg/L	20.0	08/25/21 19:26	
EPA 300.0 Rev 2.1 1993	Chloride	14.3	mg/L	1.0	08/26/21 05:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	08/26/21 05:08	
EPA 300.0 Rev 2.1 1993	Sulfate	219	mg/L	5.0	08/31/21 18:07	M1, R1
92555945012	**HGWC-11**					
	Performed by	CUSTOMER			08/19/21 17:05	
	pH	6.10	Std. Units		08/19/21 17:05	
EPA 6010D	Calcium	128	mg/L	1.0	08/25/21 17:56	
EPA 6020B	Barium	0.040	mg/L	0.0050	08/26/21 18:14	
EPA 6020B	Boron	0.91	mg/L	0.040	08/26/21 18:14	
EPA 6020B	Molybdenum	0.038	mg/L	0.010	08/26/21 18:14	
EPA 6020B	Selenium	0.0033J	mg/L	0.0050	08/26/21 18:14	
SM 2540C-2011	Total Dissolved Solids	566	mg/L	20.0	08/25/21 19:26	
EPA 300.0 Rev 2.1 1993	Chloride	19.9	mg/L	1.0	08/26/21 05:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	08/26/21 05:56	
EPA 300.0 Rev 2.1 1993	Sulfate	237	mg/L	5.0	08/31/21 18:23	
92555945013	**HGWC-12**					
	Performed by	CUSTOMER			08/19/21 17:05	
	pH	6.89	Std. Units		08/19/21 17:05	
EPA 6010D	Calcium	163	mg/L	1.0	08/25/21 18:00	
EPA 6020B	Arsenic	0.0028J	mg/L	0.0050	08/26/21 18:20	B
EPA 6020B	Barium	0.083	mg/L	0.0050	08/26/21 18:20	
EPA 6020B	Boron	1.9	mg/L	0.040	08/26/21 18:20	
EPA 6020B	Cobalt	0.0012J	mg/L	0.0050	08/26/21 18:20	
EPA 6020B	Lithium	0.0099J	mg/L	0.030	08/26/21 18:20	
EPA 6020B	Molybdenum	0.045	mg/L	0.010	08/26/21 18:20	
SM 2540C-2011	Total Dissolved Solids	600	mg/L	20.0	08/25/21 19:26	
EPA 300.0 Rev 2.1 1993	Chloride	47.3	mg/L	1.0	08/26/21 06:44	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	08/26/21 06:44	
EPA 300.0 Rev 2.1 1993	Sulfate	226	mg/L	5.0	08/31/21 18:38	
92555945014	**MW-28D**					
	Performed by	CUSTOMER			08/19/21 17:05	
	pH	7.16	Std. Units		08/19/21 17:05	
EPA 6010D	Calcium	82.8	mg/L	1.0	08/25/21 18:05	
EPA 6020B	Barium	0.53	mg/L	0.0050	08/26/21 18:26	
EPA 6020B	Boron	0.72	mg/L	0.040	08/26/21 18:26	
EPA 6020B	Lithium	0.0086J	mg/L	0.030	08/26/21 18:26	
EPA 6020B	Molybdenum	0.022	mg/L	0.010	08/26/21 18:26	
SM 2540C-2011	Total Dissolved Solids	396	mg/L	10.0	08/31/21 16:52	H1
EPA 300.0 Rev 2.1 1993	Chloride	33.7	mg/L	1.0	08/26/21 07:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14	mg/L	0.10	08/26/21 07:00	
EPA 300.0 Rev 2.1 1993	Sulfate	82.1	mg/L	1.0	08/26/21 07:00	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92555945015	**HGWC-8**					
	Performed by	CUSTOMER			08/19/21 17:05	
	pH	7.02	Std. Units		08/19/21 17:05	
EPA 6010D	Calcium	147	mg/L	1.0	08/25/21 18:10	
EPA 6020B	Barium	0.062	mg/L	0.0050	08/26/21 18:44	
EPA 6020B	Beryllium	0.000087J	mg/L	0.00050	08/26/21 18:44	
EPA 6020B	Boron	1.8	mg/L	0.040	08/26/21 18:44	
EPA 6020B	Cadmium	0.00020J	mg/L	0.00050	08/26/21 18:44	
EPA 6020B	Cobalt	0.0020J	mg/L	0.0050	08/26/21 18:44	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	08/26/21 18:44	
EPA 6020B	Molybdenum	0.48	mg/L	0.010	08/26/21 18:44	
SM 2540C-2011	Total Dissolved Solids	620	mg/L	20.0	08/25/21 19:26	
EPA 300.0 Rev 2.1 1993	Chloride	50.9	mg/L	1.0	08/26/21 07:16	
EPA 300.0 Rev 2.1 1993	Fluoride	0.41	mg/L	0.10	08/26/21 07:16	
EPA 300.0 Rev 2.1 1993	Sulfate	245	mg/L	5.0	08/31/21 18:54	
92555945016	**HGWC-13**					
	Performed by	CUSTOMER			08/20/21 15:34	
	pH	7.38	Std. Units		08/20/21 15:34	
EPA 6010D	Calcium	179	mg/L	1.0	08/25/21 18:15	
EPA 6020B	Arsenic	0.31	mg/L	0.0050	08/26/21 18:49	
EPA 6020B	Barium	0.049	mg/L	0.0050	08/26/21 18:49	
EPA 6020B	Beryllium	0.000073J	mg/L	0.00050	08/26/21 18:49	
EPA 6020B	Boron	0.73	mg/L	0.040	08/26/21 18:49	
EPA 6020B	Cobalt	0.0024J	mg/L	0.0050	08/26/21 18:49	
EPA 6020B	Lithium	0.028J	mg/L	0.030	08/26/21 18:49	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	08/26/21 18:49	
EPA 6020B	Thallium	0.00020J	mg/L	0.0010	08/26/21 18:49	
SM 2540C-2011	Total Dissolved Solids	726	mg/L	20.0	08/26/21 18:47	
EPA 300.0 Rev 2.1 1993	Chloride	24.4	mg/L	1.0	08/27/21 15:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.53	mg/L	0.10	08/27/21 15:00	
EPA 300.0 Rev 2.1 1993	Sulfate	339	mg/L	8.0	08/27/21 22:07	
92555945017	**MW-25D**					
	Performed by	CUSTOMER			08/20/21 15:34	
	pH	7.69	Std. Units		08/20/21 15:34	
EPA 6010D	Calcium	23.8	mg/L	1.0	08/25/21 18:20	
EPA 6020B	Barium	0.58	mg/L	0.0050	08/26/21 18:55	
EPA 6020B	Boron	0.40	mg/L	0.040	08/26/21 18:55	
EPA 6020B	Lithium	0.046	mg/L	0.030	08/26/21 18:55	
SM 2540C-2011	Total Dissolved Solids	373	mg/L	10.0	08/26/21 18:47	
EPA 300.0 Rev 2.1 1993	Chloride	30.8	mg/L	1.0	08/27/21 15:16	
EPA 300.0 Rev 2.1 1993	Fluoride	1.5	mg/L	0.10	08/27/21 15:16	
EPA 300.0 Rev 2.1 1993	Sulfate	4.1	mg/L	1.0	08/27/21 15:16	
92555945018	**MW-24D**					
	Performed by	CUSTOMER			08/20/21 15:34	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92555945018	**MW-24D**					
	pH	7.61	Std. Units		08/20/21 15:34	
EPA 6010D	Calcium	99.5	mg/L	1.0	08/25/21 18:35	
EPA 6020B	Barium	0.048	mg/L	0.0050	08/26/21 19:01	
EPA 6020B	Boron	0.52	mg/L	0.040	08/26/21 19:01	
EPA 6020B	Lithium	0.0027J	mg/L	0.030	08/26/21 19:01	
EPA 6020B	Molybdenum	0.00087J	mg/L	0.010	08/26/21 19:01	
SM 2540C-2011	Total Dissolved Solids	420	mg/L	10.0	08/26/21 18:47	
EPA 300.0 Rev 2.1 1993	Chloride	37.2	mg/L	1.0	08/27/21 15:31	
EPA 300.0 Rev 2.1 1993	Sulfate	130	mg/L	3.0	08/27/21 22:22	
92555945019	**DUP-1**					
EPA 6010D	Calcium	179	mg/L	1.0	08/25/21 18:44	
EPA 6020B	Arsenic	0.31	mg/L	0.0050	08/26/21 19:07	
EPA 6020B	Barium	0.050	mg/L	0.0050	08/26/21 19:07	
EPA 6020B	Beryllium	0.000071J	mg/L	0.00050	08/26/21 19:07	
EPA 6020B	Boron	0.76	mg/L	0.040	08/26/21 19:07	
EPA 6020B	Cobalt	0.0024J	mg/L	0.0050	08/26/21 19:07	
EPA 6020B	Lithium	0.029J	mg/L	0.030	08/26/21 19:07	
EPA 6020B	Molybdenum	0.031	mg/L	0.010	08/26/21 19:07	
EPA 6020B	Thallium	0.00021J	mg/L	0.0010	08/26/21 19:07	
SM 2540C-2011	Total Dissolved Solids	740	mg/L	20.0	08/26/21 18:48	
EPA 300.0 Rev 2.1 1993	Chloride	24.4	mg/L	1.0	08/27/21 15:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.52	mg/L	0.10	08/27/21 15:47	
EPA 300.0 Rev 2.1 1993	Sulfate	346	mg/L	8.0	08/27/21 23:08	
92555945020	**EB-1**					
EPA 6010D	Calcium	0.18J	mg/L	1.0	08/25/21 18:49	
92555945021	**FB-1**					
SM 2540C-2011	Total Dissolved Solids	11.0	mg/L	10.0	08/26/21 18:48	

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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-29 **Lab ID: 92555945001** Collected: 08/16/21 17:06 Received: 08/17/21 11:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/17/21 16:35		
pH	**7.08**	Std. Units			1		08/17/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**140**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 16:13	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	0.00078	1	08/25/21 10:14	08/25/21 17:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 17:40	7440-38-2	
Barium	**0.074**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/25/21 17:40	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/25/21 17:40	7440-41-7	
Boron	**1.1**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/25/21 17:40	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/25/21 17:40	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 17:40	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/25/21 17:40	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/25/21 17:40	7439-92-1	
Lithium	**0.0021J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/25/21 17:40	7439-93-2	
Molybdenum	**0.0027J**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/25/21 17:40	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/25/21 17:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/25/21 17:40	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**512**	mg/L	20.0	20.0	1		08/20/21 16:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**68.0**	mg/L	1.0	0.60	1		08/23/21 02:46	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/23/21 02:46	16984-48-8	
Sulfate	**136**	mg/L	3.0	1.5	3		08/23/21 14:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-7 **Lab ID: 92555945002** Collected: 08/16/21 17:20 Received: 08/17/21 11:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/17/21 16:35		
pH	**7.12**	Std. Units			1		08/17/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**112**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 16:43	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0017J**	mg/L	0.0030	0.00078	1	08/25/21 10:14	08/25/21 18:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:04	7440-38-2	
Barium	**0.068**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/25/21 18:04	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/25/21 18:04	7440-41-7	
Boron	**1.1**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/25/21 18:04	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/25/21 18:04	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:04	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/25/21 18:04	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/25/21 18:04	7439-92-1	
Lithium	**0.0025J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/25/21 18:04	7439-93-2	
Molybdenum	**0.045**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/25/21 18:04	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/25/21 18:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/25/21 18:04	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**407**	mg/L	10.0	10.0	1		08/20/21 16:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**40.3**	mg/L	1.0	0.60	1		08/23/21 03:01	16887-00-6	
Fluoride	**0.084J**	mg/L	0.10	0.050	1		08/23/21 03:01	16984-48-8	
Sulfate	**98.1**	mg/L	2.0	1.0	2		08/23/21 15:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-7 **Lab ID: 92555945003** Collected: 08/17/21 14:59 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:34		
pH	**6.88**	Std. Units			1		08/18/21 16:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**90.7**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:02	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	0.00078	1	08/25/21 10:14	08/25/21 18:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:10	7440-38-2	
Barium	**0.057**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/25/21 18:10	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/25/21 18:10	7440-41-7	
Boron	**0.20**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/25/21 18:10	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/25/21 18:10	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/25/21 18:10	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/25/21 18:10	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/25/21 10:14	08/25/21 18:10	7439-93-2	
Molybdenum	**0.0030J**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/25/21 18:10	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/25/21 18:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/25/21 18:10	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**344**	mg/L	10.0	10.0	1		08/20/21 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.9**	mg/L	1.0	0.60	1		08/23/21 16:34	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/23/21 16:34	16984-48-8	
Sulfate	**105**	mg/L	2.0	1.0	2		08/24/21 00:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-20 **Lab ID: 92555945004** Collected: 08/17/21 12:58 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:34		
pH	**7.05**	Std. Units			1		08/18/21 16:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**123**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:07	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	0.00078	1	08/25/21 10:14	08/25/21 18:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:16	7440-38-2	
Barium	**0.089**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/25/21 18:16	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/25/21 18:16	7440-41-7	
Boron	**0.11**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/25/21 18:16	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/25/21 18:16	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:16	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/25/21 18:16	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/25/21 18:16	7439-92-1	
Lithium	**0.00091J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/25/21 18:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/25/21 10:14	08/25/21 18:16	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/25/21 18:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/25/21 18:16	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**437**	mg/L	10.0	10.0	1		08/20/21 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.3**	mg/L	1.0	0.60	1		08/23/21 17:25	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/23/21 17:25	16984-48-8	
Sulfate	**98.6**	mg/L	2.0	1.0	2		08/24/21 00:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-5 **Lab ID: 92555945005** Collected: 08/17/21 09:50 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:34		
pH	**5.99**	Std. Units			1		08/18/21 16:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**73.3**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:12	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	0.00078	1	08/25/21 10:14	08/25/21 18:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:22	7440-38-2	
Barium	**0.045**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/25/21 18:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/25/21 18:22	7440-41-7	
Boron	**0.026J**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/25/21 18:22	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/25/21 18:22	7440-43-9	
Chromium	**0.0018J**	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/25/21 18:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/25/21 18:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/25/21 18:22	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/25/21 10:14	08/25/21 18:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/25/21 10:14	08/25/21 18:22	7439-98-7	
Selenium	**0.0017J**	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/25/21 18:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/25/21 18:22	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**339**	mg/L	10.0	10.0	1		08/20/21 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.4**	mg/L	1.0	0.60	1		08/23/21 17:42	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/23/21 17:42	16984-48-8	
Sulfate	**154**	mg/L	3.0	1.5	3		08/24/21 00:39	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-10 **Lab ID: 92555945006** Collected: 08/17/21 15:08 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:35		
pH	**6.75**	Std. Units			1		08/18/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**153**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 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	0.00078	1	08/25/21 10:14	08/26/21 17:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:32	7440-38-2	
Barium	**0.055**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 17:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 17:32	7440-41-7	
Boron	**0.88**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 17:32	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 17:32	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 17:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 17:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 17:32	7439-93-2	
Molybdenum	**0.0012J**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 17:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 17:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 17:32	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**496**	mg/L	20.0	20.0	1		08/20/21 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.3**	mg/L	1.0	0.60	1		08/25/21 04:52	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/25/21 04:52	16984-48-8	
Sulfate	**156**	mg/L	4.0	2.0	4		08/25/21 19:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-9 **Lab ID: 92555945007** Collected: 08/17/21 12:15 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:35		
pH	**7.10**	Std. Units			1		08/18/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**183**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:21	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	0.00078	1	08/25/21 10:14	08/26/21 17:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:38	7440-38-2	
Barium	**0.095**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 17:38	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 17:38	7440-41-7	
Boron	**2.3**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 17:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 17:38	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:38	7440-47-3	
Cobalt	**0.00045J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 17:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 17:38	7439-92-1	
Lithium	**0.0040J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 17:38	7439-93-2	
Molybdenum	**0.035**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 17:38	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 17:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 17:38	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**704**	mg/L	20.0	20.0	1		08/20/21 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**88.6**	mg/L	1.0	0.60	1		08/25/21 05:09	16887-00-6	
Fluoride	**0.095J**	mg/L	0.10	0.050	1		08/25/21 05:09	16984-48-8	
Sulfate	**207**	mg/L	5.0	2.5	5		08/25/21 20:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-26D **Lab ID: 92555945008** Collected: 08/17/21 11:05 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:35		
pH	**7.14**	Std. Units			1		08/18/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**177**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:26	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	0.00078	1	08/25/21 10:14	08/26/21 17:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:44	7440-38-2	
Barium	**0.072**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 17:44	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 17:44	7440-41-7	
Boron	**2.2**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 17:44	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 17:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:44	7440-47-3	
Cobalt	**0.00045J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 17:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 17:44	7439-92-1	
Lithium	**0.0036J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 17:44	7439-93-2	
Molybdenum	**0.024**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 17:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 17:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 17:44	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**746**	mg/L	20.0	20.0	1		08/20/21 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**89.2**	mg/L	1.0	0.60	1		08/25/21 05:26	16887-00-6	
Fluoride	**0.075J**	mg/L	0.10	0.050	1		08/25/21 05:26	16984-48-8	
Sulfate	**194**	mg/L	4.0	2.0	4		08/25/21 20:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-6 **Lab ID: 92555945009** Collected: 08/17/21 09:35 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:35		
pH	**6.86**	Std. Units			1		08/18/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**181**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:41	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	0.00078	1	08/25/21 10:14	08/26/21 17:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:50	7440-38-2	
Barium	**0.081**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 17:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 17:50	7440-41-7	
Boron	**0.85**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 17:50	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 17:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 17:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 17:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 17:50	7439-93-2	
Molybdenum	**0.0027J**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 17:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 17:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 17:50	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**656**	mg/L	20.0	20.0	1		08/20/21 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**43.5**	mg/L	1.0	0.60	1		08/25/21 05:43	16887-00-6	
Fluoride	**0.055J**	mg/L	0.10	0.050	1		08/25/21 05:43	16984-48-8	
Sulfate	**194**	mg/L	4.0	2.0	4		08/25/21 21:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-27D **Lab ID: 92555945010** Collected: 08/17/21 16:07 Received: 08/18/21 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/18/21 16:35		
pH	**7.75**	Std. Units			1		08/18/21 16:35		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**28.5**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:46	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	0.00078	1	08/25/21 10:14	08/26/21 17:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:56	7440-38-2	
Barium	**1.1**	mg/L	0.025	0.0034	5	08/25/21 10:14	08/26/21 18:02	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 17:56	7440-41-7	
Boron	**0.14**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 17:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 17:56	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 17:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 17:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 17:56	7439-92-1	
Lithium	**0.0079J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 17:56	7439-93-2	
Molybdenum	**0.0016J**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 17:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 17:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 17:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**239**	mg/L	10.0	10.0	1		08/20/21 16:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**30.0**	mg/L	1.0	0.60	1		08/25/21 06:00	16887-00-6	
Fluoride	**0.24**	mg/L	0.10	0.050	1		08/25/21 06:00	16984-48-8	
Sulfate	**8.2**	mg/L	1.0	0.50	1		08/25/21 06:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-19 **Lab ID: 92555945011** Collected: 08/18/21 15:10 Received: 08/19/21 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/19/21 17:04		
pH	**6.28**	Std. Units			1		08/19/21 17:04		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**125**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:51	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	0.00078	1	08/25/21 10:14	08/26/21 18:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:08	7440-38-2	
Barium	**0.045**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:08	7440-39-3	
Beryllium	**0.000058J**	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:08	7440-41-7	
Boron	**0.55**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:08	7440-42-8	
Cadmium	**0.00027J**	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:08	7440-47-3	
Cobalt	**0.039**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:08	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:08	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:08	7439-98-7	
Selenium	**0.0026J**	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:08	7782-49-2	
Thallium	**0.00023J**	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:08	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**464**	mg/L	20.0	20.0	1		08/25/21 19:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**14.3**	mg/L	1.0	0.60	1		08/26/21 05:08	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		08/26/21 05:08	16984-48-8	
Sulfate	**219**	mg/L	5.0	2.5	5		08/31/21 18:07	14808-79-8	M1,R1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-11 **Lab ID: 92555945012** Collected: 08/18/21 16:58 Received: 08/19/21 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/19/21 17:05		
pH	**6.10**	Std. Units			1		08/19/21 17:05		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**128**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 17:56	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	0.00078	1	08/25/21 10:14	08/26/21 18:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:14	7440-38-2	
Barium	**0.040**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:14	7440-41-7	
Boron	**0.91**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:14	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:14	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:14	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:14	7439-93-2	
Molybdenum	**0.038**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:14	7439-98-7	
Selenium	**0.0033J**	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:14	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**566**	mg/L	20.0	20.0	1		08/25/21 19:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**19.9**	mg/L	1.0	0.60	1		08/26/21 05:56	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.050	1		08/26/21 05:56	16984-48-8	
Sulfate	**237**	mg/L	5.0	2.5	5		08/31/21 18:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-12 **Lab ID: 92555945013** Collected: 08/18/21 15:07 Received: 08/19/21 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/19/21 17:05		
pH	**6.89**	Std. Units			1		08/19/21 17:05		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**163**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:00	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	0.00078	1	08/25/21 10:14	08/26/21 18:20	7440-36-0	
Arsenic	**0.0028J**	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:20	7440-38-2	B
Barium	**0.083**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:20	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:20	7440-41-7	
Boron	**1.9**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:20	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:20	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:20	7440-47-3	
Cobalt	**0.0012J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:20	7439-92-1	
Lithium	**0.0099J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:20	7439-93-2	
Molybdenum	**0.045**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:20	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:20	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**600**	mg/L	20.0	20.0	1		08/25/21 19:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**47.3**	mg/L	1.0	0.60	1		08/26/21 06:44	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.050	1		08/26/21 06:44	16984-48-8	
Sulfate	**226**	mg/L	5.0	2.5	5		08/31/21 18:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-28D **Lab ID: 92555945014** Collected: 08/18/21 13:30 Received: 08/19/21 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/19/21 17:05		
pH	**7.16**	Std. Units			1		08/19/21 17:05		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**82.8**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:05	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	0.00078	1	08/25/21 10:14	08/26/21 18:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:26	7440-38-2	
Barium	**0.53**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:26	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:26	7440-41-7	
Boron	**0.72**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:26	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:26	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:26	7439-92-1	
Lithium	**0.0086J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:26	7439-93-2	
Molybdenum	**0.022**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:26	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**396**	mg/L	10.0	10.0	1		08/31/21 16:52		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**33.7**	mg/L	1.0	0.60	1		08/26/21 07:00	16887-00-6	
Fluoride	**0.14**	mg/L	0.10	0.050	1		08/26/21 07:00	16984-48-8	
Sulfate	**82.1**	mg/L	1.0	0.50	1		08/26/21 07:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-8 **Lab ID: 92555945015** Collected: 08/18/21 10:37 Received: 08/19/21 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/19/21 17:05		
pH	**7.02**	Std. Units			1		08/19/21 17:05		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**147**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:10	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	0.00078	1	08/25/21 10:14	08/26/21 18:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:44	7440-38-2	
Barium	**0.062**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:44	7440-39-3	
Beryllium	**0.000087J**	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:44	7440-41-7	
Boron	**1.8**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:44	7440-42-8	
Cadmium	**0.00020J**	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:44	7440-47-3	
Cobalt	**0.0020J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:44	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:44	7439-93-2	
Molybdenum	**0.48**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:44	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**620**	mg/L	20.0	20.0	1		08/25/21 19:26		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**50.9**	mg/L	1.0	0.60	1		08/26/21 07:16	16887-00-6	
Fluoride	**0.41**	mg/L	0.10	0.050	1		08/26/21 07:16	16984-48-8	
Sulfate	**245**	mg/L	5.0	2.5	5		08/31/21 18:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: HGWC-13 **Lab ID: 92555945016** Collected: 08/19/21 10:43 Received: 08/20/21 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/20/21 15:34		
pH	**7.38**	Std. Units			1		08/20/21 15:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**179**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:15	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	0.00078	1	08/25/21 10:14	08/26/21 18:49	7440-36-0	
Arsenic	**0.31**	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:49	7440-38-2	
Barium	**0.049**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:49	7440-39-3	
Beryllium	**0.000073J**	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:49	7440-41-7	
Boron	**0.73**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:49	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:49	7440-47-3	
Cobalt	**0.0024J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:49	7439-92-1	
Lithium	**0.028J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:49	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:49	7782-49-2	
Thallium	**0.00020J**	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:49	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**726**	mg/L	20.0	20.0	1		08/26/21 18:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**24.4**	mg/L	1.0	0.60	1		08/27/21 15:00	16887-00-6	
Fluoride	**0.53**	mg/L	0.10	0.050	1		08/27/21 15:00	16984-48-8	
Sulfate	**339**	mg/L	8.0	4.0	8		08/27/21 22:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-25D **Lab ID: 92555945017** Collected: 08/19/21 14:44 Received: 08/20/21 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/20/21 15:34		
pH	**7.69**	Std. Units			1		08/20/21 15:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**23.8**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:20	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	0.00078	1	08/25/21 10:14	08/26/21 18:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:55	7440-38-2	
Barium	**0.58**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 18:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 18:55	7440-41-7	
Boron	**0.40**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 18:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 18:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 18:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 18:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 18:55	7439-92-1	
Lithium	**0.046**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 18:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 18:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 18:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 18:55	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**373**	mg/L	10.0	10.0	1		08/26/21 18:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**30.8**	mg/L	1.0	0.60	1		08/27/21 15:16	16887-00-6	
Fluoride	**1.5**	mg/L	0.10	0.050	1		08/27/21 15:16	16984-48-8	
Sulfate	**4.1**	mg/L	1.0	0.50	1		08/27/21 15:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: MW-24D **Lab ID: 92555945018** Collected: 08/19/21 12:37 Received: 08/20/21 12:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/20/21 15:34		
pH	**7.61**	Std. Units			1		08/20/21 15:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**99.5**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:35	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	0.00078	1	08/25/21 10:14	08/26/21 19:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 19:01	7440-38-2	
Barium	**0.048**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 19:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 19:01	7440-41-7	
Boron	**0.52**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 19:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 19:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 19:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 19:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 19:01	7439-92-1	
Lithium	**0.0027J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 19:01	7439-93-2	
Molybdenum	**0.00087J**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 19:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 19:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 19:01	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**420**	mg/L	10.0	10.0	1		08/26/21 18:47		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**37.2**	mg/L	1.0	0.60	1		08/27/21 15:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/27/21 15:31	16984-48-8	
Sulfate	**130**	mg/L	3.0	1.5	3		08/27/21 22:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: DUP-1 **Lab ID: 92555945019** Collected: 08/19/21 00:00 Received: 08/20/21 12:15 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								
Calcium	**179**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:44	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	0.00078	1	08/25/21 10:14	08/26/21 19:07	7440-36-0	
Arsenic	**0.31**	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 19:07	7440-38-2	
Barium	**0.050**	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 19:07	7440-39-3	
Beryllium	**0.000071J**	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 19:07	7440-41-7	
Boron	**0.76**	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 19:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 19:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 19:07	7440-47-3	
Cobalt	**0.0024J**	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 19:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 19:07	7439-92-1	
Lithium	**0.029J**	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 19:07	7439-93-2	
Molybdenum	**0.031**	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 19:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 19:07	7782-49-2	
Thallium	**0.00021J**	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 19:07	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**740**	mg/L	20.0	20.0	1		08/26/21 18:48		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**24.4**	mg/L	1.0	0.60	1		08/27/21 15:47	16887-00-6	
Fluoride	**0.52**	mg/L	0.10	0.050	1		08/27/21 15:47	16984-48-8	
Sulfate	**346**	mg/L	8.0	4.0	8		08/27/21 23:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: EB-1 **Lab ID: 92555945020** Collected: 08/19/21 12:55 Received: 08/20/21 12:15 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								
Calcium	**0.18J**	mg/L	1.0	0.12	1	08/25/21 10:15	08/25/21 18:49	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	0.00078	1	08/25/21 10:14	08/26/21 19:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 19:13	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	08/25/21 10:14	08/26/21 19:13	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/25/21 10:14	08/26/21 19:13	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/25/21 10:14	08/26/21 19:13	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/25/21 10:14	08/26/21 19:13	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/25/21 10:14	08/26/21 19:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/25/21 10:14	08/26/21 19:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/25/21 10:14	08/26/21 19:13	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/25/21 10:14	08/26/21 19:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/25/21 10:14	08/26/21 19:13	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/25/21 10:14	08/26/21 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/25/21 10:14	08/26/21 19:13	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		08/26/21 18:48		
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		08/27/21 16:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/27/21 16:02	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		08/27/21 16:02	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92555945

Sample: FB-1 **Lab ID: 92555945021** Collected: 08/19/21 12:50 Received: 08/20/21 12:15 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								
Calcium	ND	mg/L	1.0	0.12	1	08/26/21 09:58	08/26/21 13:40	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	0.00078	1	08/26/21 09:56	08/31/21 15:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	08/26/21 09:56	08/31/21 15:25	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	08/26/21 09:56	08/31/21 15:25	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/26/21 09:56	08/31/21 15:25	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/26/21 09:56	08/31/21 15:25	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/26/21 09:56	08/31/21 15:25	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/26/21 09:56	08/31/21 15:25	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/26/21 09:56	08/31/21 15:25	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/26/21 09:56	08/31/21 15:25	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/26/21 09:56	08/31/21 15:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/26/21 09:56	08/31/21 15:25	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/26/21 09:56	08/31/21 15:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/26/21 09:56	08/31/21 15:25	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**11.0**	mg/L	10.0	10.0	1		08/26/21 18:48		
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		08/27/21 16:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		08/27/21 16:17	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		08/27/21 16:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642818
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945001, 92555945002, 92555945003, 92555945004, 92555945005, 92555945006, 92555945007, 92555945008, 92555945009, 92555945010, 92555945011, 92555945012, 92555945013, 92555945014, 92555945015, 92555945016, 92555945017, 92555945018, 92555945019, 92555945020

METHOD BLANK: 3373153 Matrix: Water
Associated Lab Samples: 92555945001, 92555945002, 92555945003, 92555945004, 92555945005, 92555945006, 92555945007, 92555945008, 92555945009, 92555945010, 92555945011, 92555945012, 92555945013, 92555945014, 92555945015, 92555945016, 92555945017, 92555945018, 92555945019, 92555945020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/25/21 16:04	

LABORATORY CONTROL SAMPLE: 3373154

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3373155 3373156

Parameter	Units	92555945002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	112	1	1	113	114	76	243	75-125	1	20	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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 643161
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945021

METHOD BLANK: 3374851 Matrix: Water
Associated Lab Samples: 92555945021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/26/21 12:37	

LABORATORY CONTROL SAMPLE: 3374852

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3374853 3374854

Parameter	Units	92555938008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	139	1	1	137	134	-232	-508	75-125	2	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642817
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945001, 92555945002, 92555945003, 92555945004, 92555945005, 92555945006, 92555945007, 92555945008, 92555945009, 92555945010, 92555945011, 92555945012, 92555945013, 92555945014, 92555945015, 92555945016, 92555945017, 92555945018, 92555945019, 92555945020

METHOD BLANK: 3373149 Matrix: Water
Associated Lab Samples: 92555945001, 92555945002, 92555945003, 92555945004, 92555945005, 92555945006, 92555945007, 92555945008, 92555945009, 92555945010, 92555945011, 92555945012, 92555945013, 92555945014, 92555945015, 92555945016, 92555945017, 92555945018, 92555945019, 92555945020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/25/21 17:28	
Arsenic	mg/L	0.0028J	0.0050	0.0011	08/25/21 17:28	
Barium	mg/L	ND	0.0050	0.00067	08/25/21 17:28	
Beryllium	mg/L	ND	0.00050	0.000054	08/25/21 17:28	
Boron	mg/L	ND	0.040	0.0086	08/25/21 17:28	
Cadmium	mg/L	ND	0.00050	0.00011	08/25/21 17:28	
Chromium	mg/L	ND	0.0050	0.0011	08/25/21 17:28	
Cobalt	mg/L	ND	0.0050	0.00039	08/25/21 17:28	
Lead	mg/L	ND	0.0010	0.00089	08/25/21 17:28	
Lithium	mg/L	ND	0.030	0.00073	08/25/21 17:28	
Molybdenum	mg/L	ND	0.010	0.00074	08/25/21 17:28	
Selenium	mg/L	ND	0.0050	0.0014	08/25/21 17:28	
Thallium	mg/L	ND	0.0010	0.00018	08/25/21 17:28	

LABORATORY CONTROL SAMPLE: 3373150

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.094	94	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3373151 3373152

Parameter	Units	92555945001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Barium	mg/L	0.074	0.1	0.1	0.18	0.18	110	111	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.095	0.096	95	95	75-125	0	20	
Boron	mg/L	1.1	1	1	2.2	2.3	110	117	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	98	101	75-125	3	20	
Cobalt	mg/L	0.0014J	0.1	0.1	0.097	0.099	96	97	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.091	0.090	91	90	75-125	1	20	
Lithium	mg/L	0.0021J	0.1	0.1	0.10	0.099	97	97	75-125	0	20	
Molybdenum	mg/L	0.0027J	0.1	0.1	0.10	0.10	101	98	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.092	93	92	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 643162
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92555945021

METHOD BLANK: 3374855 Matrix: Water
Associated Lab Samples: 92555945021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/31/21 14:14	
Arsenic	mg/L	ND	0.0050	0.0011	08/31/21 14:14	
Barium	mg/L	ND	0.0050	0.00067	08/31/21 14:14	
Beryllium	mg/L	ND	0.00050	0.000054	08/31/21 14:14	
Boron	mg/L	ND	0.040	0.0086	08/31/21 14:14	
Cadmium	mg/L	ND	0.00050	0.00011	08/31/21 14:14	
Chromium	mg/L	ND	0.0050	0.0011	08/31/21 14:14	
Cobalt	mg/L	ND	0.0050	0.00039	08/31/21 14:14	
Lead	mg/L	ND	0.0010	0.00089	08/31/21 14:14	
Lithium	mg/L	ND	0.030	0.00073	08/31/21 14:14	
Molybdenum	mg/L	ND	0.010	0.00074	08/31/21 14:14	
Selenium	mg/L	ND	0.0050	0.0014	08/31/21 14:14	
Thallium	mg/L	ND	0.0010	0.00018	08/31/21 14:14	

LABORATORY CONTROL SAMPLE: 3374856

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	0.099	99	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3374857 3374858

Parameter	Units	92555938008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3374857 3374858

Parameter	Units	92555938008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.27	0.1	0.1	0.36	0.35	89	86	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.090	0.093	90	93	75-125	3	20	
Boron	mg/L	0.011J	1	1	0.90	0.92	89	91	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	101	105	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20	
Lithium	mg/L	0.0032J	0.1	0.1	0.096	0.099	93	96	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.099	0.098	98	97	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642065
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945001, 92555945002

METHOD BLANK: 3369958 Matrix: Water
Associated Lab Samples: 92555945001, 92555945002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/20/21 16:39	

LABORATORY CONTROL SAMPLE: 3369959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3369960

Parameter	Units	92555938001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	626	678	8	10	

SAMPLE DUPLICATE: 3369961

Parameter	Units	92555948005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	298	314	5	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642067
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945003, 92555945004, 92555945005, 92555945006, 92555945007, 92555945008, 92555945009, 92555945010

METHOD BLANK: 3369965 Matrix: Water
Associated Lab Samples: 92555945003, 92555945004, 92555945005, 92555945006, 92555945007, 92555945008, 92555945009, 92555945010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/20/21 16:46	

LABORATORY CONTROL SAMPLE: 3369966

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	383	96	90-111	

SAMPLE DUPLICATE: 3369967

Parameter	Units	92555895001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	533	566	6	10	

SAMPLE DUPLICATE: 3369968

Parameter	Units	92556790001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	38.0	52.0	31	10	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642673
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945011, 92555945012, 92555945013, 92555945015

METHOD BLANK: 3372850 Matrix: Water
Associated Lab Samples: 92555945011, 92555945012, 92555945013, 92555945015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/25/21 19:25	

LABORATORY CONTROL SAMPLE: 3372851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	392	98	90-111	

SAMPLE DUPLICATE: 3372852

Parameter	Units	92555504010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2390	2610	9	10	

SAMPLE DUPLICATE: 3372853

Parameter	Units	92555948008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	666	696	4	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 643140 — Analysis Method: SM 2540C-2011
QC Batch Method: SM 2540C-2011 — Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945016, 92555945017, 92555945018, 92555945019, 92555945020, 92555945021

METHOD BLANK: 3374769 — Matrix: Water
Associated Lab Samples: 92555945016, 92555945017, 92555945018, 92555945019, 92555945020, 92555945021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/26/21 18:46	

LABORATORY CONTROL SAMPLE: 3374770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	90-111	

SAMPLE DUPLICATE: 3374771

Parameter	Units	92555504015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	816	876	7	10	

SAMPLE DUPLICATE: 3374772

Parameter	Units	92555938012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 644074
QC Batch Method: SM 2540C-2011
Analysis Method: SM 2540C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92555945014

METHOD BLANK: 3379370 Matrix: Water
Associated Lab Samples: 92555945014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/31/21 16:50	

LABORATORY CONTROL SAMPLE: 3379371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	405	101	90-111	

SAMPLE DUPLICATE: 3379372

Parameter	Units	92558254005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	123	128	4	10	

SAMPLE DUPLICATE: 3379373

Parameter	Units	92558251001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	150	151	1	10	

SAMPLE DUPLICATE: 3380417

Parameter	Units	92555945014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	396	414	4	10	H1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642138
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92555945001, 92555945002

METHOD BLANK: 3370171 Matrix: Water
Associated Lab Samples: 92555945001, 92555945002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/22/21 20:47	
Fluoride	mg/L	ND	0.10	0.050	08/22/21 20:47	
Sulfate	mg/L	ND	1.0	0.50	08/22/21 20:47	

LABORATORY CONTROL SAMPLE: 3370172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.1	98	90-110	
Fluoride	mg/L	2.5	2.4	98	90-110	
Sulfate	mg/L	50	48.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3370173 3370174

Parameter	Units	92555535001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.0	50	50	65.0	66.6	102	105	90-110	2	10	
Fluoride	mg/L	0.19	2.5	2.5	2.7	2.8	102	104	90-110	2	10	
Sulfate	mg/L	35.2	50	50	84.4	85.9	98	101	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3370177 3370178

Parameter	Units	92555938002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.4	50	50	54.7	55.6	104	106	90-110	2	10	
Fluoride	mg/L	0.39	2.5	2.5	3.0	3.0	104	106	90-110	2	10	
Sulfate	mg/L	211	50	50	255	257	88	92	90-110	1	10	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642141
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92555945003, 92555945004, 92555945005

METHOD BLANK: 3370192 Matrix: Water
Associated Lab Samples: 92555945003, 92555945004, 92555945005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/23/21 08:57	
Fluoride	mg/L	ND	0.10	0.050	08/23/21 08:57	
Sulfate	mg/L	ND	1.0	0.50	08/23/21 08:57	

LABORATORY CONTROL SAMPLE: 3370193

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	46.3	93	90-110	
Fluoride	mg/L	2.5	2.3	94	90-110	
Sulfate	mg/L	50	47.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3370194 3370195

Parameter	Units	92554680004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.3	50	50	50.4	51.2	98	100	90-110	2	10	
Fluoride	mg/L	0.28	2.5	2.5	2.8	2.8	100	102	90-110	2	10	
Sulfate	mg/L	19.7	50	50	70.7	71.7	102	104	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3370196 3370197

Parameter	Units	92554680014 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	53.3	54.4	99	101	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	99	101	90-110	2	10	
Sulfate	mg/L	1.8	50	50	52.5	53.8	101	104	90-110	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642667
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92555945006, 92555945007, 92555945008, 92555945009, 92555945010

METHOD BLANK: 3372760 Matrix: Water
Associated Lab Samples: 92555945006, 92555945007, 92555945008, 92555945009, 92555945010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/24/21 21:33	
Fluoride	mg/L	ND	0.10	0.050	08/24/21 21:33	
Sulfate	mg/L	ND	1.0	0.50	08/24/21 21:33	

LABORATORY CONTROL SAMPLE: 3372761

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.4	97	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3372762 3372763

Parameter	Units	92557183003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	18300	50	50	9240	18400	-18100	132	90-110	66	10	M1,R1
Fluoride	mg/L	ND	2.5	2.5	5.5J	11.0J	-132	88	90-110		10	M1
Sulfate	mg/L	1050	50	50	554	1100	-999	100	90-110	66	10	M1,R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3372764 3372765

Parameter	Units	92556844010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	214	50	50	255	257	81	86	90-110	1	10	M1
Fluoride	mg/L	3.8	2.5	2.5	4.1	4.4	11	20	90-110	5	10	M1
Sulfate	mg/L	98.0	50	50	141	143	86	90	90-110	1	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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 642990
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92555945011, 92555945012, 92555945013, 92555945014, 92555945015

METHOD BLANK: 3374032 Matrix: Water
Associated Lab Samples: 92555945011, 92555945012, 92555945013, 92555945014, 92555945015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/26/21 00:53	
Fluoride	mg/L	ND	0.10	0.050	08/26/21 00:53	
Sulfate	mg/L	ND	1.0	0.50	08/26/21 00:53	

LABORATORY CONTROL SAMPLE: 3374033

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	100	90-110	
Sulfate	mg/L	50	48.4	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3374034 3374035

Parameter	Units	92557349005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	248	50	50	144	155	-207	-187	90-110	7	10	M1
Fluoride	mg/L	8.9	2.5	2.5	5.4	5.7	-139	-128	90-110	5	10	M1
Sulfate	mg/L	1040	50	50	1040	1090	-16	89	90-110	5	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3374036 3374037

Parameter	Units	92555945011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.3	50	50	65.1	67.7	101	107	90-110	4	10	
Fluoride	mg/L	0.12	2.5	2.5	2.4	2.5	91	97	90-110	6	10	
Sulfate	mg/L	219	50	50	321	254	204	68	90-110	24	10	M1,R1

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92555945

QC Batch: 643306
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92555945016, 92555945017, 92555945018, 92555945019, 92555945020, 92555945021

METHOD BLANK: 3375691 Matrix: Water
Associated Lab Samples: 92555945016, 92555945017, 92555945018, 92555945019, 92555945020, 92555945021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/27/21 07:35	
Fluoride	mg/L	ND	0.10	0.050	08/27/21 07:35	
Sulfate	mg/L	ND	1.0	0.50	08/27/21 07:35	

LABORATORY CONTROL SAMPLE: 3375692

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.1	94	90-110	
Fluoride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	50	47.6	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3375693 3375694

Parameter	Units	92555504012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	118	50	50	160	160	84	85	90-110	0	10	M1
Fluoride	mg/L	ND	2.5	2.5	2.3	2.4	92	94	90-110	2	10	
Sulfate	mg/L	412	50	50	453	454	84	85	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3375695 3375696

Parameter	Units	92555938009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.5	50	50	52.3	52.6	96	96	90-110	1	10	
Fluoride	mg/L	0.17	2.5	2.5	2.5	2.6	95	96	90-110	1	10	
Sulfate	mg/L	264	50	50	305	306	82	83	90-110	0	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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1
Pace Project No.: 92555945

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

B	Analyte was detected in the associated method blank.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555945001	**MW-29**				
92555945002	**HGWC-7**				
92555945003	**MW-7**				
92555945004	**MW-20**				
92555945005	**MW-5**				
92555945006	**HGWC-10**				
92555945007	**HGWC-9**				
92555945008	**MW-26D**				
92555945009	**MW-6**				
92555945010	**MW-27D**				
92555945011	**MW-19**				
92555945012	**HGWC-11**				
92555945013	**HGWC-12**				
92555945014	**MW-28D**				
92555945015	**HGWC-8**				
92555945016	**HGWC-13**				
92555945017	**MW-25D**				
92555945018	**MW-24D**				
92555945001	**MW-29**	EPA 3010A	642818	EPA 6010D	642904
92555945002	**HGWC-7**	EPA 3010A	642818	EPA 6010D	642904
92555945003	**MW-7**	EPA 3010A	642818	EPA 6010D	642904
92555945004	**MW-20**	EPA 3010A	642818	EPA 6010D	642904
92555945005	**MW-5**	EPA 3010A	642818	EPA 6010D	642904
92555945006	**HGWC-10**	EPA 3010A	642818	EPA 6010D	642904
92555945007	**HGWC-9**	EPA 3010A	642818	EPA 6010D	642904
92555945008	**MW-26D**	EPA 3010A	642818	EPA 6010D	642904
92555945009	**MW-6**	EPA 3010A	642818	EPA 6010D	642904
92555945010	**MW-27D**	EPA 3010A	642818	EPA 6010D	642904
92555945011	**MW-19**	EPA 3010A	642818	EPA 6010D	642904
92555945012	**HGWC-11**	EPA 3010A	642818	EPA 6010D	642904
92555945013	**HGWC-12**	EPA 3010A	642818	EPA 6010D	642904
92555945014	**MW-28D**	EPA 3010A	642818	EPA 6010D	642904
92555945015	**HGWC-8**	EPA 3010A	642818	EPA 6010D	642904
92555945016	**HGWC-13**	EPA 3010A	642818	EPA 6010D	642904
92555945017	**MW-25D**	EPA 3010A	642818	EPA 6010D	642904
92555945018	**MW-24D**	EPA 3010A	642818	EPA 6010D	642904
92555945019	**DUP-1**	EPA 3010A	642818	EPA 6010D	642904
92555945020	**EB-1**	EPA 3010A	642818	EPA 6010D	642904
92555945021	**FB-1**	EPA 3010A	643161	EPA 6010D	643227
92555945001	**MW-29**	EPA 3005A	642817	EPA 6020B	642932
92555945002	**HGWC-7**	EPA 3005A	642817	EPA 6020B	642932
92555945003	**MW-7**	EPA 3005A	642817	EPA 6020B	642932
92555945004	**MW-20**	EPA 3005A	642817	EPA 6020B	642932
92555945005	**MW-5**	EPA 3005A	642817	EPA 6020B	642932
92555945006	**HGWC-10**	EPA 3005A	642817	EPA 6020B	642932
92555945007	**HGWC-9**	EPA 3005A	642817	EPA 6020B	642932
92555945008	**MW-26D**	EPA 3005A	642817	EPA 6020B	642932

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555945009	**MW-6**	EPA 3005A	642817	EPA 6020B	642932
92555945010	**MW-27D**	EPA 3005A	642817	EPA 6020B	642932
92555945011	**MW-19**	EPA 3005A	642817	EPA 6020B	642932
92555945012	**HGWC-11**	EPA 3005A	642817	EPA 6020B	642932
92555945013	**HGWC-12**	EPA 3005A	642817	EPA 6020B	642932
92555945014	**MW-28D**	EPA 3005A	642817	EPA 6020B	642932
92555945015	**HGWC-8**	EPA 3005A	642817	EPA 6020B	642932
92555945016	**HGWC-13**	EPA 3005A	642817	EPA 6020B	642932
92555945017	**MW-25D**	EPA 3005A	642817	EPA 6020B	642932
92555945018	**MW-24D**	EPA 3005A	642817	EPA 6020B	642932
92555945019	**DUP-1**	EPA 3005A	642817	EPA 6020B	642932
92555945020	**EB-1**	EPA 3005A	642817	EPA 6020B	642932
92555945021	**FB-1**	EPA 3005A	643162	EPA 6020B	643244
92555945001	**MW-29**	SM 2540C-2011	642065		
92555945002	**HGWC-7**	SM 2540C-2011	642065		
92555945003	**MW-7**	SM 2540C-2011	642067		
92555945004	**MW-20**	SM 2540C-2011	642067		
92555945005	**MW-5**	SM 2540C-2011	642067		
92555945006	**HGWC-10**	SM 2540C-2011	642067		
92555945007	**HGWC-9**	SM 2540C-2011	642067		
92555945008	**MW-26D**	SM 2540C-2011	642067		
92555945009	**MW-6**	SM 2540C-2011	642067		
92555945010	**MW-27D**	SM 2540C-2011	642067		
92555945011	**MW-19**	SM 2540C-2011	642673		
92555945012	**HGWC-11**	SM 2540C-2011	642673		
92555945013	**HGWC-12**	SM 2540C-2011	642673		
92555945014	**MW-28D**	SM 2540C-2011	644074		
92555945015	**HGWC-8**	SM 2540C-2011	642673		
92555945016	**HGWC-13**	SM 2540C-2011	643140		
92555945017	**MW-25D**	SM 2540C-2011	643140		
92555945018	**MW-24D**	SM 2540C-2011	643140		
92555945019	**DUP-1**	SM 2540C-2011	643140		
92555945020	**EB-1**	SM 2540C-2011	643140		
92555945021	**FB-1**	SM 2540C-2011	643140		
92555945001	**MW-29**	EPA 300.0 Rev 2.1 1993	642138		
92555945002	**HGWC-7**	EPA 300.0 Rev 2.1 1993	642138		
92555945003	**MW-7**	EPA 300.0 Rev 2.1 1993	642141		
92555945004	**MW-20**	EPA 300.0 Rev 2.1 1993	642141		
92555945005	**MW-5**	EPA 300.0 Rev 2.1 1993	642141		
92555945006	**HGWC-10**	EPA 300.0 Rev 2.1 1993	642667		
92555945007	**HGWC-9**	EPA 300.0 Rev 2.1 1993	642667		
92555945008	**MW-26D**	EPA 300.0 Rev 2.1 1993	642667		
92555945009	**MW-6**	EPA 300.0 Rev 2.1 1993	642667		
92555945010	**MW-27D**	EPA 300.0 Rev 2.1 1993	642667		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92555945

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92555945011	**MW-19**	EPA 300.0 Rev 2.1 1993	642990		
92555945012	**HGWC-11**	EPA 300.0 Rev 2.1 1993	642990		
92555945013	**HGWC-12**	EPA 300.0 Rev 2.1 1993	642990		
92555945014	**MW-28D**	EPA 300.0 Rev 2.1 1993	642990		
92555945015	**HGWC-8**	EPA 300.0 Rev 2.1 1993	642990		
92555945016	**HGWC-13**	EPA 300.0 Rev 2.1 1993	643306		
92555945017	**MW-25D**	EPA 300.0 Rev 2.1 1993	643306		
92555945018	**MW-24D**	EPA 300.0 Rev 2.1 1993	643306		
92555945019	**DUP-1**	EPA 300.0 Rev 2.1 1993	643306		
92555945020	**EB-1**	EPA 300.0 Rev 2.1 1993	643306		
92555945021	**FB-1**	EPA 300.0 Rev 2.1 1993	643306		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92555945

92555945

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

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: [illegible]

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☒ IR Gun ID: THR230

Type of Ice: ☒ Wet ☐ Blue ☐ None

Cooler Temp: 1.7 **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): 1.6

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

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

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:** ______

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

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

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

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

Project #

WO# : 92555945

PM: NMG Due Date: 08/31/21

CLIENT: GA-GA Power

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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VG9U-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1 ✓																						
2		1	1			1 ✓																						
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

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:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Hammond AP-1	Pace Project Manager:	Kevin Herring
Requested Due Date/TAT:	10 Day	Project Number:		Pace Profile #:	10829

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA ✓ / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	Sb, As, Ba, Be, B, Cd, Ca	Cr, Co, Pb, Li, Mo, Se, Tl	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-29	WT	G	8/16/21	17:06	21	5	2		3						x	x	x	x	x		pH = 7.08
2	HGWC-7	WT	G	8/16/21	17:20	21	5	2		3						x	x	x	x	x		pH = 7.12
3																						
4																						
5																						
6																						TJ
7																						8/18/2021
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Please note any wells, strike through any wells not sampled and note when the last sample for the event has been taken.	[illegible] / GSC	8/17/21	1135	Ryan Williams / Pace	8/17/21	1135	
	Ryan Williams / Pace	8/17/21	1500	[illegible]	8/17/21	1500	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible] DATE Signed (MM/DD/YY): 8/16/2021

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-ALL-Q-020rev.07, 12-Feb-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving sample:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Gift Power

Project #: **WO# : 92555945**

PM: NMG Due Date: 08/31/21

CLIENT: GA-GA Power

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

Custody Seal Present? ☐ Yes ☐ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/28/21 KEO

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☐ IR Gun ID: T1625 ☐ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 24 | 3.8 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): 25 | 3.7

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, HI, 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?	☐ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☐ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☐ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☐ No	☐ N/A	4. 10 Days
Sufficient Volume?	☐ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☐ Yes	☐ No	☐ N/A	6.
Pace Containers Used?	☐ Yes	☐ No	☐ N/A	
Containers Intact?	☐ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☐ N/A	8.
Sample Labels Match COC?	☐ Yes	☐ No	☐ N/A	9.
Includes: Date/Time/ID/Analysis Matrix: WW				
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☐ N/A	10
Trip Blank Present?	☐ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ 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:

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 2 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

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

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

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

Project **WO# : 92555945**

PM: NMG Due Date: 08/31/21

CLIENT: GA-GA Power

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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	NPR	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			✓																						
2		1	1			✓																						
3		1	1			✓																						
4		1	1			✓																						
5		1	1			✓																						
6		1	1			✓																						
7		1	1			✓																						
8		1	1			✓																						
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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

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:
		Address:
Email To: SCS Contacts	Purchase Order No.:	Pace Quote Reference:
Phone: / Fax:	Project Name: [illegible]	Pace Project Manager: [illegible]
Requested Due Date/TAT: 10 Day	Project Number:	Pace Profile #: [illegible]

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA ✓ / OTHER

Site Location STATE: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	Chloride, Fluoride, Sulfate	[illegible]	[illegible]	[illegible]	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-7	WT	G	8/17/21	14:59	20	5	2		3							X	X	X	X	X		pH = 6.90
2	MW-20	WT	G	8/17/21	12:50	19	5	2		3							X	X	X	X	X		pH = 7.05
3	MW-5	WT	G	8/17/21	4:05	19	5	2		3							X	X	X	X	X		pH = 3.50
4	HGWC-10	WT	G	8/17/21	15:05	22	5	2		3							X	X	X	X	X		pH = 6.75
5	HGWC-9	WT	G	8/17/21	11:11	22	5	2		3							X	X	X	X	X		pH = 7.10
6	MW-28D	WT	G	8/17/21	11:45	22	5	2		3							X	X	X	X	X		pH = 7.14
7	MW-6	WT	G	8/17/21	4:35	21	5	2		3							X	X	X	X	X		pH = 6.46
8	MW-27D	WT	G	8/17/21	14:07	22	5	2		3							X	X	X	X	X		pH = 7.75
9																							
10																							TJ
11																							8/17/2021
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
[illegible]	Terrance Hoole / Geo	8/18/21	0800	Connor Cain / GEO	8/18/21	1000	
	Connor Cain / GEO	8/18/21	1349	Ashley Ramsey / GEO	8/18/21	1450	
	Ashley Ramsey / GEO	8/18/21	1400	Ryan W[illegible] / Pace	8/18/21	1400	
	Ryan Williams / Pace	8/18/21	1548	[illegible] / Pace	8/18/21	1548	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Terrance Hoole, Ashley Ramsey, Connor Cain

SIGNATURE of SAMPLER: [signatures] DATE Signed: 8/17/2021

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

[illegible footnote]

F-ALL-Q-020rev.07, [illegible]

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: CA Plume

Project #:

Courier: ☐ Commercial ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☑ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/19/20 CW

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 083 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 1.8 Correction Factor: Add/Subtract (°C): 0.0

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 1.8

☐ 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

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

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 2 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

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

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

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

Project #

Item#	BP1U-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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BPN	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			✓ 1																		✓ 1				
2		1	1			✓ 1																		✓ 1				
3		1	1			✓ 1																		✓ 1				
4		1	1			✓ 1																		✓ 1				
5		1	1			✓ 1																		✓ 1				
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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 DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A – Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	BCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 day

Section B – Required Project Information

Report To:	BCS Contacts
Copy To:	Geosyntec Consultants
Purchase Order No.:	
Project Name:	Hammond AP-1
Project Number:	

Section C – Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Herring
Pace Profile #:	10839

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER ✓

Site Location STATE: GA

Section D – Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Boron, Fluoride, Sulfate	Sb, As, Be, Ba, B, Cd, Co	Cr, CO, Pb, Li, Mo, Se, Tl	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-16	WT	G	8/16/21	10:10	22	5	2		3						X	X	X	X	X		pH = 6.22
2	HGWC-11	WT	G	8/16/21	10:54	22	5	2		3						X	X	X	X	X		pH = 6.13
3	HGWC-12	WT	G	8/16/21	12:07	22	5	2		3						X	X	X	X	X		pH = 5.80
4	MW-26D	WT	G	8/16/21	13:30	22	5	2		3						X	X	X	X	X		pH = 7.10
5	HGWC-8	WT	G	8/16/21	15:27	22	5	2		3						X	X	X	X	X		pH = 7.22
6																						
7																						
8																						
9																						TJ
10																						8/18/2021
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Please note dry wells, wells through wet wells not sampled, and note when the last sample for the event has been taken.	Connor Cam / Geo	8/16/21	1600	Heather Hessler / Geo	8/16/21	1600	
	Heather Hessler / Geo	8/17/21	1340	Ryan Williams / Pace	8/17/21	1240	
	Ryan Williams / Pace	8/18/21	1600	[illegible]	8/18/21	1600	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Connor Cam, Ashley Ramsey

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/17/2021

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: October 28, [illegible] Page 1 of 2
	Document No.: F-CAT-CI-033-Rev.07	Issuing Authority: Pace Central Regional Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Client Name: CA Nevada

Project #:

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Commercial ☑ Pace ☐ Other

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: 10/31/21

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Present? ☐ Yes ☑ No ☐ N/A

Thermometer: ☐ IR Gun ID: 053 Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.4 Correction Factor: Add/Subtract (°C): +0

Cooler Temp Corrected (°C): 4.4

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples affected: [illegible] 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

				Comments/Discrepancy
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5
Correct Containers Used? -Pace Containers Used?	☑ Yes ☑ Yes	☐ No ☐ No	☐ N/A ☐ N/A	6
Containers Intact?	☑ Yes	☐ No	☐ N/A	7
Dissolved analysis: Samples Field Filtered?	☐ Yes	☑ No	☐ N/A	8
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9
-Includes Date/Time/ID/Analysis Matrix:	WT			10
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	11
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	12
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ 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:

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: October 28, 2020 Page 2 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

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

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

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

Project #

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)	BP4C-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)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	8011	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			✓ 1																		✓ 1				
2		1	1			✓ 1																		✓ 1				
3		1	1			✓ 1																		✓ 1				
4		1	1			✓ 1																		✓ 1				
5		1	1			✓ 1																		✓ 1				
6		1	1			✓ 1																		✓ 1				
7																												
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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 DEHNR 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.

Pace Analytical

Page: 1 of 1

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:
		Address:
Email To: SCS Contacts	Purchase Order No.:	Pace Quote Reference:
Phone: / Fax:	Project Name: Hammond AP-1	Pace Project Manager: Kevin Herring
Requested Due Date/TAT: 10 day	Project Number:	Pace Profile #: 10039

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA ✓ / OTHER

Site Location STATE: GA

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	Sb, As, Ba, Be, B, Cd, Ca	Cr, Co, Pb, Li, Mo, Se, Tl	Ra-226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWC-13	WT	G	8/16/21	10:43	21	5	2		3						X	X	X	X	X		pH = 7.38
2	MW-25D	WT	G	8/16/21	14:44	22	5	2		3						X	X	X	X	X		pH = 7.09
3	MW-24D	WT	G	8/16/21	13:37	22	5	2		3						X	X	X	X	X		pH = 7.81
4	DUP-1	WT	G	8/16/21	4:05	22	5	2		3						X	X	X	X	X		N/A
5	EB-1	WT	G	8/16/21	15:30	22	5	2		3						X	X	X	X	X		N/A
6	FB-1	WT	G	8/16/21	15:30	21	5	2		3						X	X	X	X	X		N/A
7																						Last Sample
8																						
9																						
10																						TJ
11																						8/19/2021
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Connor Cox / Geo	8/18/21	1400	Hunter Hamilton / Geo	8/18/21	1400				
	Hunter Hamilton / Geo	8/20/21	1215	Ryan Williams / Pace	8/20/21	1215				
	Ryan Williams / Pace	8/20/21	1330	[illegible]	8/20/21	1330	4.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Connor Cox

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 8/19/21

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

F-ALL-Q-020rev.07, 15-Feb-2007

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

March 22, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-1
Pace Project No.: 92587319

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 03, 2022 and February 11, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

Revision 1: This revision was issued on 3/22/22 to include an update COC.

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

Sincerely,

Nicole D'Oleo
nicole.d'oleo@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Anna Bottum, ERM
Andrea Brazell, ERM
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Lacy Smith, ERM
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Caitlin Tillema, ERM
Christine Weaver, ERM
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Pace Analytical Services Charlotte
South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92587319001	**MW-7**	Water	02/08/22 17:05	02/09/22 12:40
92587319002	**HGWA-44D**	Water	02/01/22 13:35	02/03/22 12:32
92587319003	**HGWA-2**	Water	02/01/22 11:52	02/03/22 12:32
92587319004	**HGWA-3**	Water	02/01/22 09:58	02/03/22 12:32
92587319005	**HGWA-1**	Water	02/01/22 12:13	02/03/22 12:32
92587319006	**HGWA-43D**	Water	02/01/22 10:28	02/03/22 12:32
92587319007	**HGWC-9**	Water	02/09/22 11:06	02/11/22 11:35
92587319008	**HGWC-10**	Water	02/09/22 15:37	02/11/22 11:35
92587319009	**HGWC-11**	Water	02/09/22 10:02	02/11/22 11:35
92587319010	**HGWC-12**	Water	02/09/22 11:38	02/11/22 11:35
92587319011	**MW-5**	Water	02/09/22 12:33	02/11/22 11:35
92587319012	**MW-6**	Water	02/09/22 14:13	02/11/22 11:35
92587319013	**MW-19**	Water	02/09/22 16:25	02/11/22 11:35
92587319014	**MW-25D**	Water	02/09/22 14:00	02/11/22 11:35
92587319015	**MW-26D**	Water	02/09/22 09:54	02/11/22 11:35
92587319016	**DUP-1**	Water	02/09/22 00:00	02/11/22 11:35
92587319017	**HGWC-7**	Water	02/10/22 12:12	02/11/22 11:35
92587319018	**HGWC-8**	Water	02/10/22 15:45	02/11/22 11:35
92587319019	**HGWC-13**	Water	02/10/22 14:55	02/11/22 11:35
92587319020	**MW-20**	Water	02/10/22 11:33	02/11/22 11:35
92587319021	**MW-24D**	Water	02/10/22 13:32	02/11/22 11:35
92587319022	**MW-27D**	Water	02/10/22 15:40	02/11/22 11:35
92587319023	**MW-28D**	Water	02/10/22 14:29	02/11/22 11:35
92587319024	**MW-29**	Water	02/10/22 09:44	02/11/22 11:35
92587319025	**EB-1**	Water	02/10/22 15:59	02/11/22 11:35
92587319026	**FB-1**	Water	02/10/22 15:50	02/11/22 11:35

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92587319001	**MW-7**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587319002	**HGWA-44D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587319003	**HGWA-2**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587319004	**HGWA-3**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587319005	**HGWA-1**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587319006	**HGWA-43D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92587319007	**HGWC-9**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319008	**HGWC-10**	EPA 6010D	KH	1
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319009	**HGWC-11**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319010	**HGWC-12**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319011	**MW-5**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319012	**MW-6**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319013	**MW-19**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319014	**MW-25D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319015	**MW-26D**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319016	**DUP-1**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319017	**HGWC-7**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319018	**HGWC-8**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319019	**HGWC-13**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319020	**MW-20**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319021	**MW-24D**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319022	**MW-27D**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319023	**MW-28D**	EPA 6010D	KH	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319024	**MW-29**	EPA 6010D	KH	1
		EPA 6020B	CW1, KH	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319025	**EB-1**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92587319026	**FB-1**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319001	**MW-7**					
	Performed by	CUSTOMER			02/09/22 17:14	
	pH	6.73	Std. Units		02/09/22 17:14	
EPA 6010D	Calcium	73.3	mg/L	1.0	02/25/22 00:59	M1
EPA 6020B	Barium	0.053	mg/L	0.0050	02/24/22 17:54	
EPA 6020B	Boron	0.19	mg/L	0.040	02/24/22 17:54	
EPA 6020B	Chromium	0.0016J	mg/L	0.0050	02/24/22 17:54	
EPA 6020B	Molybdenum	0.0012J	mg/L	0.010	02/24/22 17:54	
EPA 6020B	Selenium	0.0015J	mg/L	0.0050	02/24/22 17:54	
SM 2540C-2015	Total Dissolved Solids	290	mg/L	10.0	02/15/22 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	6.9	mg/L	1.0	02/16/22 09:15	
EPA 300.0 Rev 2.1 1993	Sulfate	80.4	mg/L	1.0	02/16/22 09:15	
92587319002	**HGWA-44D**					
	Performed by	CUSTOMER			02/09/22 17:13	
	pH	8.25	Std. Units		02/09/22 17:13	
EPA 6010D	Calcium	24.8	mg/L	1.0	02/17/22 16:48	
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	02/18/22 17:43	
EPA 6020B	Arsenic	0.0025J	mg/L	0.0050	02/18/22 17:43	
EPA 6020B	Barium	0.23	mg/L	0.0050	02/18/22 17:43	
EPA 6020B	Boron	0.44	mg/L	0.040	02/18/22 17:43	
EPA 6020B	Chromium	0.0013J	mg/L	0.0050	02/18/22 17:43	
EPA 6020B	Lithium	0.048	mg/L	0.030	02/18/22 17:43	
EPA 6020B	Molybdenum	0.0055J	mg/L	0.010	02/18/22 17:43	
SM 2540C-2015	Total Dissolved Solids	444	mg/L	10.0	02/07/22 16:43	
EPA 300.0 Rev 2.1 1993	Chloride	44.8	mg/L	1.0	02/08/22 12:23	
EPA 300.0 Rev 2.1 1993	Fluoride	0.96	mg/L	0.10	02/08/22 12:23	
EPA 300.0 Rev 2.1 1993	Sulfate	56.3	mg/L	1.0	02/08/22 12:23	
92587319003	**HGWA-2**					
	Performed by	CUSTOMER			02/09/22 17:14	
	pH	5.24	Std. Units		02/09/22 17:14	
EPA 6010D	Calcium	27.2	mg/L	1.0	02/17/22 16:53	
EPA 6020B	Arsenic	0.0023J	mg/L	0.0050	02/18/22 17:49	
EPA 6020B	Barium	0.13	mg/L	0.0050	02/18/22 17:49	
EPA 6020B	Beryllium	0.00020J	mg/L	0.00050	02/18/22 17:49	
EPA 6020B	Boron	0.056	mg/L	0.040	02/18/22 17:49	
EPA 6020B	Cadmium	0.00017J	mg/L	0.00050	02/18/22 17:49	
EPA 6020B	Cobalt	0.025	mg/L	0.0050	02/18/22 17:49	
EPA 6020B	Lithium	0.0017J	mg/L	0.030	02/18/22 17:49	
SM 2540C-2015	Total Dissolved Solids	156	mg/L	10.0	02/07/22 16:43	H3
EPA 300.0 Rev 2.1 1993	Chloride	7.0	mg/L	1.0	02/08/22 13:36	
EPA 300.0 Rev 2.1 1993	Sulfate	67.1	mg/L	1.0	02/08/22 13:36	
92587319004	**HGWA-3**					
	Performed by	CUSTOMER			02/09/22 17:14	
	pH	7.45	Std. Units		02/09/22 17:14	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319004	**HGWA-3**					
EPA 6010D	Calcium	85.1	mg/L	1.0	02/17/22 16:58	
EPA 6020B	Arsenic	0.0024J	mg/L	0.0050	02/18/22 17:55	
EPA 6020B	Barium	0.12	mg/L	0.0050	02/18/22 17:55	
EPA 6020B	Boron	0.011J	mg/L	0.040	02/18/22 17:55	
EPA 6020B	Lithium	0.0037J	mg/L	0.030	02/18/22 17:55	
SM 2540C-2015	Total Dissolved Solids	350	mg/L	10.0	02/07/22 16:43	
EPA 300.0 Rev 2.1 1993	Chloride	5.7	mg/L	1.0	02/08/22 13:50	
EPA 300.0 Rev 2.1 1993	Sulfate	46.0	mg/L	1.0	02/08/22 13:50	
92587319005	**HGWA-1**					
	Performed by	CUSTOMER			02/09/22 17:14	
	pH	7.19	Std. Units		02/09/22 17:14	
EPA 6010D	Calcium	106	mg/L	1.0	02/17/22 17:02	
EPA 6020B	Arsenic	0.0016J	mg/L	0.0050	02/18/22 18:01	
EPA 6020B	Barium	0.031	mg/L	0.0050	02/18/22 18:01	
EPA 6020B	Boron	0.016J	mg/L	0.040	02/18/22 18:01	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	02/18/22 18:01	
SM 2540C-2015	Total Dissolved Solids	270	mg/L	10.0	02/07/22 16:44	
EPA 300.0 Rev 2.1 1993	Chloride	7.5	mg/L	1.0	02/08/22 14:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.10	02/08/22 14:03	
EPA 300.0 Rev 2.1 1993	Sulfate	43.7	mg/L	1.0	02/08/22 14:03	
92587319006	**HGWA-43D**					
	Performed by	CUSTOMER			02/09/22 17:14	
	pH	7.52	Std. Units		02/09/22 17:14	
EPA 6010D	Calcium	55.9	mg/L	1.0	02/17/22 17:07	
EPA 6020B	Arsenic	0.0036J	mg/L	0.0050	02/18/22 18:07	
EPA 6020B	Barium	0.29	mg/L	0.0050	02/18/22 18:07	
EPA 6020B	Boron	0.050	mg/L	0.040	02/18/22 18:07	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	02/18/22 18:07	
EPA 6020B	Molybdenum	0.0036J	mg/L	0.010	02/18/22 18:07	
SM 2540C-2015	Total Dissolved Solids	156	mg/L	10.0	02/07/22 16:44	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	02/08/22 14:17	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	02/08/22 14:17	
EPA 300.0 Rev 2.1 1993	Sulfate	37.5	mg/L	1.0	02/08/22 14:17	
92587319007	**HGWC-9**					
	Performed by	CUSTOMER			02/11/22 16:06	
	pH	7.30	Std. Units		02/11/22 16:06	
EPA 6010D	Calcium	183	mg/L	1.0	02/25/22 01:47	
EPA 6020B	Arsenic	0.0021J	mg/L	0.0050	02/24/22 19:06	B
EPA 6020B	Barium	0.096	mg/L	0.0050	02/24/22 19:06	
EPA 6020B	Boron	2.3	mg/L	0.040	02/24/22 19:06	
EPA 6020B	Chromium	0.0011J	mg/L	0.0050	02/24/22 19:06	
EPA 6020B	Cobalt	0.00051J	mg/L	0.0050	02/24/22 19:06	
EPA 6020B	Lithium	0.0041J	mg/L	0.030	02/24/22 19:06	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319007	**HGWC-9**					
EPA 6020B	Molybdenum	0.034	mg/L	0.010	02/24/22 19:06	
SM 2540C-2015	Total Dissolved Solids	756	mg/L	20.0	02/16/22 13:54	
EPA 300.0 Rev 2.1 1993	Chloride	84.4	mg/L	1.0	02/17/22 14:56	M1
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	02/17/22 14:56	
EPA 300.0 Rev 2.1 1993	Sulfate	224	mg/L	5.0	02/18/22 01:08	
92587319008	**HGWC-10**					
	Performed by	CUSTOMER			02/11/22 16:06	
	pH	7.00	Std. Units		02/11/22 16:06	
EPA 6010D	Calcium	76.8	mg/L	1.0	02/25/22 01:52	
EPA 6020B	Barium	0.042	mg/L	0.0050	02/24/22 19:12	
EPA 6020B	Boron	0.10	mg/L	0.040	02/24/22 19:12	
EPA 6020B	Chromium	0.0011J	mg/L	0.0050	02/24/22 19:12	
EPA 6020B	Selenium	0.0031J	mg/L	0.0050	02/24/22 19:12	
SM 2540C-2015	Total Dissolved Solids	250	mg/L	10.0	02/16/22 13:54	
EPA 300.0 Rev 2.1 1993	Chloride	1.2	mg/L	1.0	02/17/22 15:41	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	02/17/22 15:41	
EPA 300.0 Rev 2.1 1993	Sulfate	49.2	mg/L	1.0	02/17/22 15:41	
92587319009	**HGWC-11**					
	Performed by	CUSTOMER			02/11/22 16:06	
	pH	6.55	Std. Units		02/11/22 16:06	
EPA 6010D	Calcium	144	mg/L	1.0	02/25/22 01:56	
EPA 6020B	Arsenic	0.0047J	mg/L	0.0050	02/24/22 19:18	B
EPA 6020B	Barium	0.042	mg/L	0.0050	02/24/22 19:18	
EPA 6020B	Boron	1.0	mg/L	0.040	02/24/22 19:18	
EPA 6020B	Molybdenum	0.030	mg/L	0.010	02/24/22 19:18	
EPA 6020B	Selenium	0.0035J	mg/L	0.0050	02/24/22 19:18	
SM 2540C-2015	Total Dissolved Solids	544	mg/L	20.0	02/16/22 13:54	
EPA 300.0 Rev 2.1 1993	Chloride	20.4	mg/L	1.0	02/17/22 15:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	02/17/22 15:56	
EPA 300.0 Rev 2.1 1993	Sulfate	276	mg/L	6.0	02/18/22 01:52	
92587319010	**HGWC-12**					
	Performed by	CUSTOMER			02/11/22 16:06	
	pH	7.23	Std. Units		02/11/22 16:06	
EPA 6010D	Calcium	172	mg/L	1.0	02/25/22 02:01	
EPA 6020B	Arsenic	0.0053	mg/L	0.0050	02/24/22 19:24	B
EPA 6020B	Barium	0.075	mg/L	0.0050	02/24/22 19:24	
EPA 6020B	Boron	2.0	mg/L	0.040	02/24/22 19:24	
EPA 6020B	Cobalt	0.0013J	mg/L	0.0050	02/24/22 19:24	
EPA 6020B	Lithium	0.010J	mg/L	0.030	02/24/22 19:24	
EPA 6020B	Molybdenum	0.042	mg/L	0.010	02/24/22 19:24	
SM 2540C-2015	Total Dissolved Solids	678	mg/L	20.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	46.8	mg/L	1.0	02/17/22 16:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.20	mg/L	0.10	02/17/22 16:11	

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319010	**HGWC-12**					
EPA 300.0 Rev 2.1 1993	Sulfate	252	mg/L	5.0	02/18/22 02:07	
92587319011	**MW-5**					
	Performed by	CUSTOMER			02/11/22 16:06	
	pH	6.13	Std. Units		02/11/22 16:06	
EPA 6010D	Calcium	68.1	mg/L	1.0	02/25/22 02:06	
EPA 6020B	Arsenic	0.0013J	mg/L	0.0050	02/24/22 19:30	B
EPA 6020B	Barium	0.042	mg/L	0.0050	02/24/22 19:30	
EPA 6020B	Boron	0.042	mg/L	0.040	02/24/22 19:30	
EPA 6020B	Chromium	0.0031J	mg/L	0.0050	02/24/22 19:30	
EPA 6020B	Selenium	0.0027J	mg/L	0.0050	02/24/22 19:30	
SM 2540C-2015	Total Dissolved Solids	314	mg/L	10.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	0.74J	mg/L	1.0	02/17/22 16:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.056J	mg/L	0.10	02/17/22 16:26	
EPA 300.0 Rev 2.1 1993	Sulfate	123	mg/L	3.0	02/18/22 03:23	
92587319012	**MW-6**					
	Performed by	CUSTOMER			02/11/22 16:07	
	pH	7.01	Std. Units		02/11/22 16:07	
EPA 6010D	Calcium	178	mg/L	1.0	02/25/22 02:11	
EPA 6020B	Arsenic	0.0034J	mg/L	0.0050	02/24/22 19:36	B
EPA 6020B	Barium	0.074	mg/L	0.0050	02/24/22 19:36	
EPA 6020B	Boron	0.96	mg/L	0.040	02/24/22 19:36	
EPA 6020B	Cobalt	0.00059J	mg/L	0.0050	02/24/22 19:36	
EPA 6020B	Molybdenum	0.0026J	mg/L	0.010	02/24/22 19:36	
SM 2540C-2015	Total Dissolved Solids	652	mg/L	20.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	37.9	mg/L	1.0	02/17/22 16:41	
EPA 300.0 Rev 2.1 1993	Fluoride	0.059J	mg/L	0.10	02/17/22 16:41	
EPA 300.0 Rev 2.1 1993	Sulfate	197	mg/L	4.0	02/18/22 03:38	
92587319013	**MW-19**					
	Performed by	CUSTOMER			02/11/22 16:07	
	pH	6.28	Std. Units		02/11/22 16:07	
EPA 6010D	Calcium	97.6	mg/L	1.0	02/25/22 02:16	
EPA 6020B	Barium	0.042	mg/L	0.0050	02/24/22 19:42	
EPA 6020B	Boron	0.49	mg/L	0.040	02/24/22 19:42	
EPA 6020B	Cadmium	0.0011	mg/L	0.00050	02/24/22 19:42	
EPA 6020B	Cobalt	0.030	mg/L	0.0050	02/24/22 19:42	
EPA 6020B	Lithium	0.0067J	mg/L	0.030	02/24/22 19:42	
EPA 6020B	Molybdenum	0.011	mg/L	0.010	02/24/22 19:42	
EPA 6020B	Selenium	0.0036J	mg/L	0.0050	02/24/22 19:42	
SM 2540C-2015	Total Dissolved Solids	503	mg/L	10.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	10.2	mg/L	1.0	02/17/22 16:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.076J	mg/L	0.10	02/17/22 16:56	
EPA 300.0 Rev 2.1 1993	Sulfate	221	mg/L	5.0	02/18/22 03:53	

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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319014	**MW-25D**					
	Performed by	CUSTOMER			02/11/22 16:07	
	pH	7.82	Std. Units		02/11/22 16:07	
EPA 6010D	Calcium	23.5	mg/L	1.0	02/25/22 02:20	
EPA 6020B	Barium	0.60	mg/L	0.0050	02/24/22 20:00	
EPA 6020B	Boron	0.43	mg/L	0.040	02/24/22 20:00	
EPA 6020B	Lithium	0.048	mg/L	0.030	02/24/22 20:00	
SM 2540C-2015	Total Dissolved Solids	364	mg/L	10.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	26.5	mg/L	1.0	02/17/22 17:11	
EPA 300.0 Rev 2.1 1993	Fluoride	1.7	mg/L	0.10	02/17/22 17:11	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	02/17/22 17:11	
92587319015	**MW-26D**					
	Performed by	CUSTOMER			02/11/22 16:07	
	pH	7.32	Std. Units		02/11/22 16:07	
EPA 6010D	Calcium	176	mg/L	1.0	02/25/22 02:35	
EPA 6020B	Arsenic	0.0017J	mg/L	0.0050	02/24/22 20:18	B
EPA 6020B	Barium	0.066	mg/L	0.0050	02/24/22 20:18	
EPA 6020B	Boron	2.3	mg/L	0.040	02/24/22 20:18	
EPA 6020B	Cobalt	0.00059J	mg/L	0.0050	02/24/22 20:18	
EPA 6020B	Lithium	0.0039J	mg/L	0.030	02/24/22 20:18	
EPA 6020B	Molybdenum	0.028	mg/L	0.010	02/24/22 20:18	
SM 2540C-2015	Total Dissolved Solids	734	mg/L	20.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	85.7	mg/L	1.0	02/17/22 17:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.092J	mg/L	0.10	02/17/22 17:56	
EPA 300.0 Rev 2.1 1993	Sulfate	224	mg/L	5.0	02/18/22 04:08	
92587319016	**DUP-1**					
EPA 6010D	Calcium	85.0	mg/L	1.0	02/25/22 02:40	
EPA 6020B	Barium	0.043	mg/L	0.0050	02/24/22 20:24	
EPA 6020B	Boron	0.18	mg/L	0.040	02/24/22 20:24	
EPA 6020B	Selenium	0.0025J	mg/L	0.0050	02/24/22 20:24	
SM 2540C-2015	Total Dissolved Solids	292	mg/L	10.0	02/16/22 13:55	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	02/17/22 18:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11	mg/L	0.10	02/17/22 18:11	
EPA 300.0 Rev 2.1 1993	Sulfate	61.6	mg/L	1.0	02/17/22 18:11	
92587319017	**HGWC-7**					
	Performed by	CUSTOMER			02/11/22 16:07	
	pH	7.22	Std. Units		02/11/22 16:07	
EPA 6010D	Calcium	108	mg/L	1.0	02/25/22 17:40	
EPA 6020B	Barium	0.063	mg/L	0.0050	02/24/22 20:30	
EPA 6020B	Boron	1.3	mg/L	0.040	02/24/22 20:30	
EPA 6020B	Cobalt	0.0011J	mg/L	0.0050	02/24/22 20:30	
EPA 6020B	Lithium	0.0022J	mg/L	0.030	02/24/22 20:30	
EPA 6020B	Molybdenum	0.045	mg/L	0.010	02/24/22 20:30	
SM 2540C-2015	Total Dissolved Solids	414	mg/L	10.0	02/16/22 14:18	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319017	**HGWC-7**					
EPA 300.0 Rev 2.1 1993	Chloride	39.8	mg/L	1.0	02/17/22 16:16	
EPA 300.0 Rev 2.1 1993	Fluoride	0.083J	mg/L	0.10	02/17/22 16:16	
EPA 300.0 Rev 2.1 1993	Sulfate	97.5	mg/L	2.0	02/18/22 03:55	
92587319018	**HGWC-8**					
	Performed by	CUSTOMER			02/11/22 16:07	
	pH	6.99	Std. Units		02/11/22 16:07	
EPA 6010D	Calcium	153	mg/L	1.0	02/28/22 21:32	
EPA 6020B	Arsenic	0.0020J	mg/L	0.0050	02/24/22 20:35	B
EPA 6020B	Barium	0.056	mg/L	0.0050	02/24/22 20:35	
EPA 6020B	Beryllium	0.000071J	mg/L	0.00050	02/24/22 20:35	
EPA 6020B	Boron	1.7	mg/L	0.040	02/24/22 20:35	
EPA 6020B	Cadmium	0.00029J	mg/L	0.00050	02/24/22 20:35	
EPA 6020B	Cobalt	0.0021J	mg/L	0.0050	02/24/22 20:35	
EPA 6020B	Lithium	0.0030J	mg/L	0.030	02/24/22 20:35	
EPA 6020B	Molybdenum	0.34	mg/L	0.010	02/24/22 20:35	
SM 2540C-2015	Total Dissolved Solids	578	mg/L	20.0	02/16/22 14:18	
EPA 300.0 Rev 2.1 1993	Chloride	48.2	mg/L	1.0	02/17/22 16:30	
EPA 300.0 Rev 2.1 1993	Fluoride	0.42	mg/L	0.10	02/17/22 16:30	
EPA 300.0 Rev 2.1 1993	Sulfate	224	mg/L	5.0	02/18/22 04:09	
92587319019	**HGWC-13**					
	Performed by	CUSTOMER			02/11/22 16:08	
	pH	7.54	Std. Units		02/11/22 16:08	
EPA 6010D	Calcium	206	mg/L	1.0	02/28/22 21:37	
EPA 6020B	Arsenic	0.38	mg/L	0.0050	02/25/22 19:20	
EPA 6020B	Barium	0.053	mg/L	0.0050	02/25/22 19:20	
EPA 6020B	Boron	1.0	mg/L	0.040	02/28/22 19:53	
EPA 6020B	Cobalt	0.0026J	mg/L	0.0050	02/25/22 19:20	
EPA 6020B	Lithium	0.031	mg/L	0.030	02/28/22 19:53	
EPA 6020B	Molybdenum	0.033	mg/L	0.010	02/25/22 19:20	
SM 2540C-2015	Total Dissolved Solids	814	mg/L	10.0	02/16/22 14:18	
EPA 300.0 Rev 2.1 1993	Chloride	17.4	mg/L	1.0	02/17/22 16:44	
EPA 300.0 Rev 2.1 1993	Fluoride	0.53	mg/L	0.10	02/17/22 16:44	
EPA 300.0 Rev 2.1 1993	Sulfate	371	mg/L	9.0	02/18/22 04:22	
92587319020	**MW-20**					
	Performed by	CUSTOMER			02/11/22 16:08	
	pH	7.19	Std. Units		02/11/22 16:08	
EPA 6010D	Calcium	123	mg/L	1.0	02/25/22 18:04	
EPA 6020B	Barium	0.082	mg/L	0.0050	02/25/22 19:25	
EPA 6020B	Boron	0.13	mg/L	0.040	02/28/22 19:59	
EPA 6020B	Lithium	0.00099J	mg/L	0.030	02/25/22 19:25	
SM 2540C-2015	Total Dissolved Solids	459	mg/L	10.0	02/16/22 14:18	
EPA 300.0 Rev 2.1 1993	Chloride	31.4	mg/L	1.0	02/17/22 16:58	
EPA 300.0 Rev 2.1 1993	Sulfate	95.9	mg/L	2.0	02/18/22 04:37	M1

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319021	**MW-24D**					
	Performed by	CUSTOMER			02/11/22 16:08	
	pH	7.82	Std. Units		02/11/22 16:08	
EPA 6010D	Calcium	110	mg/L	1.0	02/25/22 18:08	
EPA 6020B	Barium	0.048	mg/L	0.0050	02/25/22 19:31	
EPA 6020B	Boron	0.55	mg/L	0.20	02/28/22 20:05	
EPA 6020B	Lithium	0.0029J	mg/L	0.030	02/25/22 19:31	
EPA 6020B	Molybdenum	0.00080J	mg/L	0.010	02/25/22 19:31	
SM 2540C-2015	Total Dissolved Solids	412	mg/L	10.0	02/16/22 14:18	
EPA 300.0 Rev 2.1 1993	Chloride	38.2	mg/L	1.0	02/17/22 17:40	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.10	02/17/22 17:40	
EPA 300.0 Rev 2.1 1993	Sulfate	127	mg/L	3.0	02/18/22 05:21	
92587319022	**MW-27D**					
	Performed by	CUSTOMER			02/11/22 16:08	
	pH	7.96	Std. Units		02/11/22 16:08	
EPA 6010D	Calcium	31.4	mg/L	1.0	02/25/22 18:13	
EPA 6020B	Barium	0.99	mg/L	0.0050	02/25/22 19:49	
EPA 6020B	Boron	0.13	mg/L	0.040	02/28/22 20:11	
EPA 6020B	Lithium	0.0086J	mg/L	0.030	02/25/22 19:49	
EPA 6020B	Molybdenum	0.0017J	mg/L	0.010	02/25/22 19:49	
SM 2540C-2015	Total Dissolved Solids	242	mg/L	10.0	02/16/22 14:19	
EPA 300.0 Rev 2.1 1993	Chloride	31.4	mg/L	1.0	02/17/22 17:54	
EPA 300.0 Rev 2.1 1993	Fluoride	0.25	mg/L	0.10	02/17/22 17:54	
EPA 300.0 Rev 2.1 1993	Sulfate	13.2	mg/L	1.0	02/17/22 17:54	
92587319023	**MW-28D**					
	Performed by	CUSTOMER			02/11/22 16:08	
	pH	7.59	Std. Units		02/11/22 16:08	
EPA 6010D	Calcium	58.5	mg/L	1.0	02/25/22 18:18	
EPA 6020B	Barium	0.76	mg/L	0.0050	02/25/22 19:55	
EPA 6020B	Boron	0.23	mg/L	0.040	03/01/22 16:00	
EPA 6020B	Chromium	0.0011J	mg/L	0.0050	02/25/22 19:55	
EPA 6020B	Lithium	0.014J	mg/L	0.030	02/25/22 19:55	
EPA 6020B	Molybdenum	0.0031J	mg/L	0.010	02/25/22 19:55	
SM 2540C-2015	Total Dissolved Solids	299	mg/L	10.0	02/17/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	29.0	mg/L	1.0	02/17/22 18:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	02/17/22 18:08	
EPA 300.0 Rev 2.1 1993	Sulfate	32.5	mg/L	1.0	02/17/22 18:08	
92587319024	**MW-29**					
	Performed by	CUSTOMER			02/11/22 16:09	
	pH	7.27	Std. Units		02/11/22 16:09	
EPA 6010D	Calcium	156	mg/L	5.0	02/25/22 18:28	
EPA 6020B	Barium	0.072	mg/L	0.0050	02/25/22 20:01	
EPA 6020B	Boron	1.4	mg/L	0.20	02/28/22 20:17	
EPA 6020B	Cobalt	0.00089J	mg/L	0.0050	02/25/22 20:01	

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SUMMARY OF DETECTION

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92587319024	**MW-29**					
EPA 6020B	Lithium	0.0023J	mg/L	0.030	02/25/22 20:01	
EPA 6020B	Molybdenum	0.0036J	mg/L	0.010	02/25/22 20:01	
SM 2540C-2015	Total Dissolved Solids	508	mg/L	20.0	02/17/22 16:05	
EPA 300.0 Rev 2.1 1993	Chloride	66.0	mg/L	1.0	02/17/22 18:50	
EPA 300.0 Rev 2.1 1993	Sulfate	141	mg/L	3.0	02/18/22 06:04	
92587319025	**EB-1**					
EPA 6020B	Barium	0.0026J	mg/L	0.0050	02/25/22 20:13	
92587319026	**FB-1**					
EPA 6020B	Barium	0.0027J	mg/L	0.0050	02/25/22 20:19	

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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-7 **Lab ID: 92587319001** Collected: 02/08/22 17:05 Received: 02/09/22 12:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:14		
pH	**6.73**	Std. Units			1		02/09/22 17:14		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**73.3**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 00:59	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/24/22 12:07	02/24/22 17:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 17:54	7440-38-2	
Barium	**0.053**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 17:54	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 17:54	7440-41-7	
Boron	**0.19**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 17:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 17:54	7440-43-9	
Chromium	**0.0016J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 17:54	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 17:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 17:54	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 17:54	7439-93-2	
Molybdenum	**0.0012J**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 17:54	7439-98-7	
Selenium	**0.0015J**	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 17:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 17:54	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	02/25/22 08:00	02/25/22 11:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**290**	mg/L	10.0	10.0	1		02/15/22 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**6.9**	mg/L	1.0	0.60	1		02/16/22 09:15	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/16/22 09:15	16984-48-8	
Sulfate	**80.4**	mg/L	1.0	0.50	1		02/16/22 09:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWA-44D **Lab ID: 92587319002** Collected: 02/01/22 13:35 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:13		
pH	**8.25**	Std. Units			1		02/09/22 17:13		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**24.8**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 16:48	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0013J**	mg/L	0.0030	0.00078	1	02/17/22 09:52	02/18/22 17:43	7440-36-0	
Arsenic	**0.0025J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:43	7440-38-2	
Barium	**0.23**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 17:43	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 17:43	7440-41-7	
Boron	**0.44**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 17:43	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 17:43	7440-43-9	
Chromium	**0.0013J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:43	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 17:43	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 17:43	7439-92-1	
Lithium	**0.048**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 17:43	7439-93-2	
Molybdenum	**0.0055J**	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 17:43	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 17:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 17:43	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	02/15/22 08:00	02/15/22 13:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**444**	mg/L	10.0	10.0	1		02/07/22 16:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**44.8**	mg/L	1.0	0.60	1		02/08/22 12:23	16887-00-6	
Fluoride	**0.96**	mg/L	0.10	0.050	1		02/08/22 12:23	16984-48-8	
Sulfate	**56.3**	mg/L	1.0	0.50	1		02/08/22 12:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWA-2 **Lab ID: 92587319003** Collected: 02/01/22 11:52 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:14		
pH	**5.24**	Std. Units			1		02/09/22 17:14		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**27.2**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 16:53	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	0.00078	1	02/17/22 09:52	02/18/22 17:49	7440-36-0	
Arsenic	**0.0023J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:49	7440-38-2	
Barium	**0.13**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 17:49	7440-39-3	
Beryllium	**0.00020J**	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 17:49	7440-41-7	
Boron	**0.056**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 17:49	7440-42-8	
Cadmium	**0.00017J**	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 17:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:49	7440-47-3	
Cobalt	**0.025**	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 17:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 17:49	7439-92-1	
Lithium	**0.0017J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 17:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 17:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 17:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 17:49	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	02/15/22 08:00	02/15/22 13:27	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**156**	mg/L	10.0	10.0	1		02/07/22 16:43		H3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7.0**	mg/L	1.0	0.60	1		02/08/22 13:36	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/08/22 13:36	16984-48-8	
Sulfate	**67.1**	mg/L	1.0	0.50	1		02/08/22 13:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWA-3 **Lab ID: 92587319004** Collected: 02/01/22 09:58 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:14		
pH	**7.45**	Std. Units			1		02/09/22 17:14		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**85.1**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 16:58	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	0.00078	1	02/17/22 09:52	02/18/22 17:55	7440-36-0	
Arsenic	**0.0024J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:55	7440-38-2	
Barium	**0.12**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 17:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 17:55	7440-41-7	
Boron	**0.011J**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 17:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 17:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 17:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 17:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 17:55	7439-92-1	
Lithium	**0.0037J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 17:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 17:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 17:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 17:55	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	02/15/22 15:15	02/16/22 10:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**350**	mg/L	10.0	10.0	1		02/07/22 16:43		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.7**	mg/L	1.0	0.60	1		02/08/22 13:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/08/22 13:50	16984-48-8	
Sulfate	**46.0**	mg/L	1.0	0.50	1		02/08/22 13:50	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWA-1 **Lab ID: 92587319005** Collected: 02/01/22 12:13 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:14		
pH	**7.19**	Std. Units			1		02/09/22 17:14		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**106**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 17:02	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	0.00078	1	02/17/22 09:52	02/18/22 18:01	7440-36-0	
Arsenic	**0.0016J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:01	7440-38-2	
Barium	**0.031**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 18:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 18:01	7440-41-7	
Boron	**0.016J**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 18:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 18:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 18:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 18:01	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 18:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 18:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 18:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 18:01	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	02/15/22 15:15	02/16/22 11:04	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**270**	mg/L	10.0	10.0	1		02/07/22 16:44		
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		02/08/22 14:03	16887-00-6	
Fluoride	**0.064J**	mg/L	0.10	0.050	1		02/08/22 14:03	16984-48-8	
Sulfate	**43.7**	mg/L	1.0	0.50	1		02/08/22 14:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWA-43D **Lab ID: 92587319006** Collected: 02/01/22 10:28 Received: 02/03/22 12:32 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/09/22 17:14		
pH	**7.52**	Std. Units			1		02/09/22 17:14		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**55.9**	mg/L	1.0	0.12	1	02/17/22 10:31	02/17/22 17:07	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	0.00078	1	02/17/22 09:52	02/18/22 18:07	7440-36-0	
Arsenic	**0.0036J**	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:07	7440-38-2	
Barium	**0.29**	mg/L	0.0050	0.00067	1	02/17/22 09:52	02/18/22 18:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/17/22 09:52	02/18/22 18:07	7440-41-7	
Boron	**0.050**	mg/L	0.040	0.0086	1	02/17/22 09:52	02/18/22 18:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/17/22 09:52	02/18/22 18:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/17/22 09:52	02/18/22 18:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/17/22 09:52	02/18/22 18:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/17/22 09:52	02/18/22 18:07	7439-92-1	
Lithium	**0.0024J**	mg/L	0.030	0.00073	1	02/17/22 09:52	02/18/22 18:07	7439-93-2	
Molybdenum	**0.0036J**	mg/L	0.010	0.00074	1	02/17/22 09:52	02/18/22 18:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/17/22 09:52	02/18/22 18:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/17/22 09:52	02/18/22 18:07	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	02/15/22 15:15	02/16/22 11:06	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**156**	mg/L	10.0	10.0	1		02/07/22 16:44		
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		02/08/22 14:17	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		02/08/22 14:17	16984-48-8	
Sulfate	**37.5**	mg/L	1.0	0.50	1		02/08/22 14:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-9 **Lab ID: 92587319007** Collected: 02/09/22 11:06 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:06		
pH	**7.30**	Std. Units			1		02/11/22 16:06		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**183**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 01:47	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	0.00078	1	02/24/22 12:07	02/24/22 19:06	7440-36-0	
Arsenic	**0.0021J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:06	7440-38-2	B
Barium	**0.096**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:06	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:06	7440-41-7	
Boron	**2.3**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:06	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:06	7440-43-9	
Chromium	**0.0011J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:06	7440-47-3	
Cobalt	**0.00051J**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:06	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:06	7439-92-1	
Lithium	**0.0041J**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:06	7439-93-2	
Molybdenum	**0.034**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:06	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	02/25/22 08:00	02/25/22 11:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**756**	mg/L	20.0	20.0	1		02/16/22 13:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**84.4**	mg/L	1.0	0.60	1		02/17/22 14:56	16887-00-6	M1
Fluoride	**0.10**	mg/L	0.10	0.050	1		02/17/22 14:56	16984-48-8	
Sulfate	**224**	mg/L	5.0	2.5	5		02/18/22 01:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-10 **Lab ID: 92587319008** Collected: 02/09/22 15:37 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:06		
pH	**7.00**	Std. Units			1		02/11/22 16:06		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**76.8**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 01:52	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	0.00078	1	02/24/22 12:07	02/24/22 19:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:12	7440-38-2	
Barium	**0.042**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:12	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:12	7440-41-7	
Boron	**0.10**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:12	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:12	7440-43-9	
Chromium	**0.0011J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:12	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:12	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:12	7439-98-7	
Selenium	**0.0031J**	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:12	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	02/25/22 08:00	02/25/22 11:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**250**	mg/L	10.0	10.0	1		02/16/22 13:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**1.2**	mg/L	1.0	0.60	1		02/17/22 15:41	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		02/17/22 15:41	16984-48-8	
Sulfate	**49.2**	mg/L	1.0	0.50	1		02/17/22 15:41	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-11 **Lab ID: 92587319009** Collected: 02/09/22 10:02 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:06		
pH	**6.55**	Std. Units			1		02/11/22 16:06		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**144**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 01:56	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	0.00078	1	02/24/22 12:07	02/24/22 19:18	7440-36-0	
Arsenic	**0.0047J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:18	7440-38-2	B
Barium	**0.042**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:18	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:18	7440-41-7	
Boron	**1.0**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:18	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:18	7439-98-7	
Selenium	**0.0035J**	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:18	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	02/25/22 08:00	02/25/22 11:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**544**	mg/L	20.0	20.0	1		02/16/22 13:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**20.4**	mg/L	1.0	0.60	1		02/17/22 15:56	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		02/17/22 15:56	16984-48-8	
Sulfate	**276**	mg/L	6.0	3.0	6		02/18/22 01:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-12 **Lab ID: 92587319010** Collected: 02/09/22 11:38 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:06		
pH	**7.23**	Std. Units			1		02/11/22 16:06		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**172**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:01	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	0.00078	1	02/24/22 12:07	02/24/22 19:24	7440-36-0	
Arsenic	**0.0053**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:24	7440-38-2	B
Barium	**0.075**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:24	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:24	7440-41-7	
Boron	**2.0**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:24	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:24	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:24	7440-47-3	
Cobalt	**0.0013J**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:24	7439-92-1	
Lithium	**0.010J**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:24	7439-93-2	
Molybdenum	**0.042**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:24	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:24	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	02/25/22 08:00	02/25/22 11:29	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**678**	mg/L	20.0	20.0	1		02/16/22 13:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**46.8**	mg/L	1.0	0.60	1		02/17/22 16:11	16887-00-6	
Fluoride	**0.20**	mg/L	0.10	0.050	1		02/17/22 16:11	16984-48-8	
Sulfate	**252**	mg/L	5.0	2.5	5		02/18/22 02:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-5 **Lab ID: 92587319011** Collected: 02/09/22 12:33 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:06		
pH	**6.13**	Std. Units			1		02/11/22 16:06		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**68.1**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:06	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	0.00078	1	02/24/22 12:07	02/24/22 19:30	7440-36-0	
Arsenic	**0.0013J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:30	7440-38-2	B
Barium	**0.042**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:30	7440-41-7	
Boron	**0.042**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:30	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:30	7440-43-9	
Chromium	**0.0031J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:30	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:30	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:30	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:30	7439-98-7	
Selenium	**0.0027J**	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:30	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	02/25/22 08:00	02/25/22 11:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**314**	mg/L	10.0	10.0	1		02/16/22 13:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**0.74J**	mg/L	1.0	0.60	1		02/17/22 16:26	16887-00-6	
Fluoride	**0.056J**	mg/L	0.10	0.050	1		02/17/22 16:26	16984-48-8	
Sulfate	**123**	mg/L	3.0	1.5	3		02/18/22 03:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-6 **Lab ID: 92587319012** Collected: 02/09/22 14:13 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:07		
pH	**7.01**	Std. Units			1		02/11/22 16:07		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**178**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:11	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	0.00078	1	02/24/22 12:07	02/24/22 19:36	7440-36-0	
Arsenic	**0.0034J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:36	7440-38-2	B
Barium	**0.074**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:36	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:36	7440-41-7	
Boron	**0.96**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:36	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:36	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:36	7440-47-3	
Cobalt	**0.00059J**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:36	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:36	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:36	7439-93-2	
Molybdenum	**0.0026J**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:36	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:36	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	02/25/22 08:00	02/25/22 11:39	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**652**	mg/L	20.0	20.0	1		02/16/22 13:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**37.9**	mg/L	1.0	0.60	1		02/17/22 16:41	16887-00-6	
Fluoride	**0.059J**	mg/L	0.10	0.050	1		02/17/22 16:41	16984-48-8	
Sulfate	**197**	mg/L	4.0	2.0	4		02/18/22 03:38	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-19 **Lab ID: 92587319013** Collected: 02/09/22 16:25 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:07		
pH	**6.28**	Std. Units			1		02/11/22 16:07		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**97.6**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:16	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	0.00078	1	02/24/22 12:07	02/24/22 19:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:42	7440-38-2	
Barium	**0.042**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 19:42	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 19:42	7440-41-7	
Boron	**0.49**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 19:42	7440-42-8	
Cadmium	**0.0011**	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 19:42	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 19:42	7440-47-3	
Cobalt	**0.030**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 19:42	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 19:42	7439-92-1	
Lithium	**0.0067J**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 19:42	7439-93-2	
Molybdenum	**0.011**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 19:42	7439-98-7	
Selenium	**0.0036J**	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 19:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 19:42	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	02/25/22 08:00	02/25/22 11:42	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**503**	mg/L	10.0	10.0	1		02/16/22 13:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**10.2**	mg/L	1.0	0.60	1		02/17/22 16:56	16887-00-6	
Fluoride	**0.076J**	mg/L	0.10	0.050	1		02/17/22 16:56	16984-48-8	
Sulfate	**221**	mg/L	5.0	2.5	5		02/18/22 03:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-25D **Lab ID: 92587319014** Collected: 02/09/22 14:00 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:07		
pH	**7.82**	Std. Units			1		02/11/22 16:07		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**23.5**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:20	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	0.00078	1	02/24/22 12:07	02/24/22 20:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:00	7440-38-2	
Barium	**0.60**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 20:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 20:00	7440-41-7	
Boron	**0.43**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 20:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 20:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 20:00	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 20:00	7439-92-1	
Lithium	**0.048**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 20:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 20:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 20:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 20:00	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	02/25/22 08:00	02/25/22 11:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**364**	mg/L	10.0	10.0	1		02/16/22 13:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**26.5**	mg/L	1.0	0.60	1		02/17/22 17:11	16887-00-6	
Fluoride	**1.7**	mg/L	0.10	0.050	1		02/17/22 17:11	16984-48-8	
Sulfate	**1.7**	mg/L	1.0	0.50	1		02/17/22 17:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-26D **Lab ID: 92587319015** Collected: 02/09/22 09:54 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:07		
pH	**7.32**	Std. Units			1		02/11/22 16:07		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**176**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:35	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	0.00078	1	02/24/22 12:07	02/24/22 20:18	7440-36-0	
Arsenic	**0.0017J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:18	7440-38-2	B
Barium	**0.066**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 20:18	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 20:18	7440-41-7	
Boron	**2.3**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 20:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 20:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:18	7440-47-3	
Cobalt	**0.00059J**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 20:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 20:18	7439-92-1	
Lithium	**0.0039J**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 20:18	7439-93-2	
Molybdenum	**0.028**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 20:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 20:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 20:18	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	02/25/22 08:00	02/25/22 11:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**734**	mg/L	20.0	20.0	1		02/16/22 13:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**85.7**	mg/L	1.0	0.60	1		02/17/22 17:56	16887-00-6	
Fluoride	**0.092J**	mg/L	0.10	0.050	1		02/17/22 17:56	16984-48-8	
Sulfate	**224**	mg/L	5.0	2.5	5		02/18/22 04:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: DUP-1 **Lab ID: 92587319016** Collected: 02/09/22 00:00 Received: 02/11/22 11:35 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								
Calcium	**85.0**	mg/L	1.0	0.12	1	02/24/22 10:47	02/25/22 02:40	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	0.00078	1	02/24/22 12:07	02/24/22 20:24	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:24	7440-38-2	
Barium	**0.043**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 20:24	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 20:24	7440-41-7	
Boron	**0.18**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 20:24	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 20:24	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 20:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 20:24	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 20:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 20:24	7439-98-7	
Selenium	**0.0025J**	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 20:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 20:24	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	02/25/22 08:00	02/25/22 11:50	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**292**	mg/L	10.0	10.0	1		02/16/22 13:55		
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		02/17/22 18:11	16887-00-6	
Fluoride	**0.11**	mg/L	0.10	0.050	1		02/17/22 18:11	16984-48-8	
Sulfate	**61.6**	mg/L	1.0	0.50	1		02/17/22 18:11	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-7 **Lab ID: 92587319017** Collected: 02/10/22 12:12 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:07		
pH	**7.22**	Std. Units			1		02/11/22 16:07		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**108**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 17:40	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	0.00078	1	02/24/22 12:07	02/24/22 20:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:30	7440-38-2	
Barium	**0.063**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 20:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 20:30	7440-41-7	
Boron	**1.3**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 20:30	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 20:30	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:30	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 20:30	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 20:30	7439-92-1	
Lithium	**0.0022J**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 20:30	7439-93-2	
Molybdenum	**0.045**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 20:30	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 20:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 20:30	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	02/25/22 08:00	02/25/22 11:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**414**	mg/L	10.0	10.0	1		02/16/22 14:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**39.8**	mg/L	1.0	0.60	1		02/17/22 16:16	16887-00-6	
Fluoride	**0.083J**	mg/L	0.10	0.050	1		02/17/22 16:16	16984-48-8	
Sulfate	**97.5**	mg/L	2.0	1.0	2		02/18/22 03:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-8 **Lab ID: 92587319018** Collected: 02/10/22 15:45 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:07		
pH	**6.99**	Std. Units			1		02/11/22 16:07		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**153**	mg/L	1.0	0.12	1	02/25/22 07:39	02/28/22 21:32	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	0.00078	1	02/24/22 12:07	02/24/22 20:35	7440-36-0	
Arsenic	**0.0020J**	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:35	7440-38-2	B
Barium	**0.056**	mg/L	0.0050	0.00067	1	02/24/22 12:07	02/24/22 20:35	7440-39-3	
Beryllium	**0.000071J**	mg/L	0.00050	0.000054	1	02/24/22 12:07	02/24/22 20:35	7440-41-7	
Boron	**1.7**	mg/L	0.040	0.0086	1	02/24/22 12:07	02/24/22 20:35	7440-42-8	
Cadmium	**0.00029J**	mg/L	0.00050	0.00011	1	02/24/22 12:07	02/24/22 20:35	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/24/22 12:07	02/24/22 20:35	7440-47-3	
Cobalt	**0.0021J**	mg/L	0.0050	0.00039	1	02/24/22 12:07	02/24/22 20:35	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/24/22 12:07	02/24/22 20:35	7439-92-1	
Lithium	**0.0030J**	mg/L	0.030	0.00073	1	02/24/22 12:07	02/24/22 20:35	7439-93-2	
Molybdenum	**0.34**	mg/L	0.010	0.00074	1	02/24/22 12:07	02/24/22 20:35	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/24/22 12:07	02/24/22 20:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/24/22 12:07	02/24/22 20:35	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	02/25/22 08:00	02/25/22 11:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**578**	mg/L	20.0	20.0	1		02/16/22 14:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**48.2**	mg/L	1.0	0.60	1		02/17/22 16:30	16887-00-6	
Fluoride	**0.42**	mg/L	0.10	0.050	1		02/17/22 16:30	16984-48-8	
Sulfate	**224**	mg/L	5.0	2.5	5		02/18/22 04:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: HGWC-13 **Lab ID: 92587319019** Collected: 02/10/22 14:55 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:08		
pH	**7.54**	Std. Units			1		02/11/22 16:08		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**206**	mg/L	1.0	0.12	1	02/25/22 07:39	02/28/22 21:37	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	0.00078	1	02/25/22 07:37	02/25/22 19:20	7440-36-0	
Arsenic	**0.38**	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:20	7440-38-2	
Barium	**0.053**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:20	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 19:20	7440-41-7	
Boron	**1.0**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/28/22 19:53	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:20	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:20	7440-47-3	
Cobalt	**0.0026J**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:20	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:20	7439-92-1	
Lithium	**0.031**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/28/22 19:53	7439-93-2	
Molybdenum	**0.033**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:20	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:20	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	02/25/22 08:00	02/25/22 11:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**814**	mg/L	10.0	10.0	1		02/16/22 14:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**17.4**	mg/L	1.0	0.60	1		02/17/22 16:44	16887-00-6	
Fluoride	**0.53**	mg/L	0.10	0.050	1		02/17/22 16:44	16984-48-8	
Sulfate	**371**	mg/L	9.0	4.5	9		02/18/22 04:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-20 **Lab ID: 92587319020** Collected: 02/10/22 11:33 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:08		
pH	**7.19**	Std. Units			1		02/11/22 16:08		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**123**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:04	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	0.00078	1	02/25/22 07:37	02/25/22 19:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:25	7440-38-2	
Barium	**0.082**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:25	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 19:25	7440-41-7	
Boron	**0.13**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/28/22 19:59	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:25	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:25	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:25	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:25	7439-92-1	
Lithium	**0.00099J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:25	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:25	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	02/25/22 08:00	02/25/22 12:00	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**459**	mg/L	10.0	10.0	1		02/16/22 14:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**31.4**	mg/L	1.0	0.60	1		02/17/22 16:58	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 16:58	16984-48-8	
Sulfate	**95.9**	mg/L	2.0	1.0	2		02/18/22 04:37	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-24D **Lab ID: 92587319021** Collected: 02/10/22 13:32 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:08		
pH	**7.82**	Std. Units			1		02/11/22 16:08		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**110**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:08	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	0.00078	1	02/25/22 07:37	02/25/22 19:31	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:31	7440-38-2	
Barium	**0.048**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:31	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 19:31	7440-41-7	
Boron	**0.55**	mg/L	0.20	0.043	5	02/25/22 07:37	02/28/22 20:05	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:31	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:31	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:31	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:31	7439-93-2	
Molybdenum	**0.00080J**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:31	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:31	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	02/25/22 08:00	02/25/22 12:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**412**	mg/L	10.0	10.0	1		02/16/22 14:18		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**38.2**	mg/L	1.0	0.60	1		02/17/22 17:40	16887-00-6	
Fluoride	**0.051J**	mg/L	0.10	0.050	1		02/17/22 17:40	16984-48-8	
Sulfate	**127**	mg/L	3.0	1.5	3		02/18/22 05:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-27D **Lab ID: 92587319022** Collected: 02/10/22 15:40 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:08		
pH	**7.96**	Std. Units			1		02/11/22 16:08		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**31.4**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:13	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	0.00078	1	02/25/22 07:37	02/25/22 19:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:49	7440-38-2	
Barium	**0.99**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:49	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 19:49	7440-41-7	
Boron	**0.13**	mg/L	0.040	0.0086	1	02/25/22 07:37	02/28/22 20:11	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:49	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:49	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:49	7439-92-1	
Lithium	**0.0086J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:49	7439-93-2	
Molybdenum	**0.0017J**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:49	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:49	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	02/25/22 08:00	02/25/22 12:11	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**242**	mg/L	10.0	10.0	1		02/16/22 14:19		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**31.4**	mg/L	1.0	0.60	1		02/17/22 17:54	16887-00-6	
Fluoride	**0.25**	mg/L	0.10	0.050	1		02/17/22 17:54	16984-48-8	
Sulfate	**13.2**	mg/L	1.0	0.50	1		02/17/22 17:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-28D **Lab ID: 92587319023** Collected: 02/10/22 14:29 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:08		
pH	**7.59**	Std. Units			1		02/11/22 16:08		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**58.5**	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:18	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	0.00078	1	02/25/22 07:37	02/25/22 19:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:55	7440-38-2	
Barium	**0.76**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 19:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 19:55	7440-41-7	
Boron	**0.23**	mg/L	0.040	0.0086	1	02/25/22 07:37	03/01/22 16:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 19:55	7440-43-9	
Chromium	**0.0011J**	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 19:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 19:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 19:55	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 19:55	7439-93-2	
Molybdenum	**0.0031J**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 19:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 19:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 19:55	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	02/25/22 08:00	02/25/22 12:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**299**	mg/L	10.0	10.0	1		02/17/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**29.0**	mg/L	1.0	0.60	1		02/17/22 18:08	16887-00-6	
Fluoride	**0.22**	mg/L	0.10	0.050	1		02/17/22 18:08	16984-48-8	
Sulfate	**32.5**	mg/L	1.0	0.50	1		02/17/22 18:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: MW-29 **Lab ID: 92587319024** Collected: 02/10/22 09:44 Received: 02/11/22 11:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		02/11/22 16:09		
pH	**7.27**	Std. Units			1		02/11/22 16:09		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**156**	mg/L	5.0	0.61	5	02/25/22 07:39	02/25/22 18:28	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	0.00078	1	02/25/22 07:37	02/25/22 20:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 20:01	7440-38-2	
Barium	**0.072**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 20:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 20:01	7440-41-7	
Boron	**1.4**	mg/L	0.20	0.043	5	02/25/22 07:37	02/28/22 20:17	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 20:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 20:01	7440-47-3	
Cobalt	**0.00089J**	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 20:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.0044	5	02/25/22 07:37	02/28/22 20:17	7439-92-1	D3
Lithium	**0.0023J**	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 20:01	7439-93-2	
Molybdenum	**0.0036J**	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 20:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 20:01	7782-49-2	
Thallium	ND	mg/L	0.0050	0.00090	5	02/25/22 07:37	02/28/22 20:17	7440-28-0	D3
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	02/25/22 08:00	02/25/22 12:16	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**508**	mg/L	20.0	20.0	1		02/17/22 16:05		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**66.0**	mg/L	1.0	0.60	1		02/17/22 18:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 18:50	16984-48-8	
Sulfate	**141**	mg/L	3.0	1.5	3		02/18/22 06:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: EB-1 **Lab ID: 92587319025** Collected: 02/10/22 15:59 Received: 02/11/22 11:35 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								
Calcium	ND	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:33	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	0.00078	1	02/25/22 07:37	02/25/22 20:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 20:13	7440-38-2	
Barium	**0.0026J**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 20:13	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 20:13	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 20:13	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 20:13	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 20:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 20:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 20:13	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 20:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 20:13	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 20:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 20:13	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	02/25/22 08:00	02/25/22 12:19	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/17/22 16:05		
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		02/17/22 19:04	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 19:04	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/17/22 19:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-1
Pace Project No.: 92587319

Sample: FB-1 **Lab ID: 92587319026** Collected: 02/10/22 15:50 Received: 02/11/22 11:35 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								
Calcium	ND	mg/L	1.0	0.12	1	02/25/22 07:39	02/25/22 18:48	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	0.00078	1	02/25/22 07:37	02/25/22 20:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 20:19	7440-38-2	
Barium	**0.0027J**	mg/L	0.0050	0.00067	1	02/25/22 07:37	02/25/22 20:19	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/25/22 07:37	02/25/22 20:19	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/25/22 07:37	02/25/22 20:19	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/25/22 07:37	02/25/22 20:19	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/25/22 07:37	02/25/22 20:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/25/22 07:37	02/25/22 20:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/25/22 07:37	02/25/22 20:19	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/25/22 07:37	02/25/22 20:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/25/22 07:37	02/25/22 20:19	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/25/22 07:37	02/25/22 20:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/25/22 07:37	02/25/22 20:19	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	02/28/22 10:30	02/28/22 14:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/17/22 16:06		
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		02/17/22 19:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/17/22 19:18	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/17/22 19:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678931
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

METHOD BLANK: 3552812 Matrix: Water
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/17/22 15:21	

LABORATORY CONTROL SAMPLE: 3552813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552814 3552815

Parameter	Units	92586342002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	51.3	1	1	53.1	51.0	177	-37	75-125	4	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 680603 — Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A — Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319001, 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016

METHOD BLANK: 3560577 — Matrix: Water
Associated Lab Samples: 92587319001, 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	0.25J	1.0	0.12	02/25/22 00:50	

LABORATORY CONTROL SAMPLE: 3560578

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560579 3560580

Parameter	Units	92587319001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	73.3	1	1	76.6	76.5	326	322	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 680760 | Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A | Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025, 92587319026

METHOD BLANK: 3561423 Matrix: Water
Associated Lab Samples: 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025, 92587319026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/25/22 16:35	

LABORATORY CONTROL SAMPLE: 3561424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3561425 3561426

Parameter	Units	92587322003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	53.4	1	1	57.1	57.3	367	381	75-125	0	20	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678928
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

METHOD BLANK: 3552808 Matrix: Water
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/17/22 21:50	
Arsenic	mg/L	ND	0.0050	0.0011	02/17/22 21:50	
Barium	mg/L	ND	0.0050	0.00067	02/17/22 21:50	
Beryllium	mg/L	ND	0.00050	0.000054	02/17/22 21:50	
Boron	mg/L	ND	0.040	0.0086	02/17/22 21:50	
Cadmium	mg/L	ND	0.00050	0.00011	02/17/22 21:50	
Chromium	mg/L	ND	0.0050	0.0011	02/17/22 21:50	
Cobalt	mg/L	ND	0.0050	0.00039	02/17/22 21:50	
Lead	mg/L	ND	0.0010	0.00089	02/17/22 21:50	
Lithium	mg/L	ND	0.030	0.00073	02/18/22 16:01	
Molybdenum	mg/L	ND	0.010	0.00074	02/17/22 21:50	
Selenium	mg/L	ND	0.0050	0.0014	02/17/22 21:50	
Thallium	mg/L	ND	0.0010	0.00018	02/17/22 21:50	

LABORATORY CONTROL SAMPLE: 3552809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	119	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	0.10	102	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.11	107	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.11	106	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.11	109	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552810 3552811

Parameter	Units	92586342001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.12	0.13	122	125	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	110	108	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552810 3552811

Parameter	Units	92586342001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.035	0.1	0.1	0.14	0.14	108	107	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20	
Boron	mg/L	0.17	1	1	1.1	1.1	90	89	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.11	108	109	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.11	104	106	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.11	102	106	75-125	4	20	
Molybdenum	mg/L	0.0020J	0.1	0.1	0.12	0.12	116	116	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.11	0.11	111	110	75-125	0	20	
Thallium	mg/L	ND	0.1	0.1	0.11	0.11	109	109	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 680607
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319001, 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016, 92587319017, 92587319018

METHOD BLANK: 3560596 Matrix: Water
Associated Lab Samples: 92587319001, 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016, 92587319017, 92587319018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/24/22 17:42	
Arsenic	mg/L	0.0021J	0.0050	0.0011	02/24/22 17:42	
Barium	mg/L	ND	0.0050	0.00067	02/24/22 17:42	
Beryllium	mg/L	ND	0.00050	0.000054	02/24/22 17:42	
Boron	mg/L	ND	0.040	0.0086	02/24/22 17:42	
Cadmium	mg/L	ND	0.00050	0.00011	02/24/22 17:42	
Chromium	mg/L	ND	0.0050	0.0011	02/24/22 17:42	
Cobalt	mg/L	ND	0.0050	0.00039	02/24/22 17:42	
Lead	mg/L	ND	0.0010	0.00089	02/24/22 17:42	
Lithium	mg/L	ND	0.030	0.00073	02/24/22 17:42	
Molybdenum	mg/L	ND	0.010	0.00074	02/24/22 17:42	
Selenium	mg/L	ND	0.0050	0.0014	02/24/22 17:42	
Thallium	mg/L	ND	0.0010	0.00018	02/24/22 17:42	

LABORATORY CONTROL SAMPLE: 3560597

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	106	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.11	106	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560598 3560599

Parameter	Units	92587319001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	105	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560598 3560599

Parameter	Units	92587319001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	4	20	
Barium	mg/L	0.053	0.1	0.1	0.16	0.16	103	110	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.097	0.10	97	102	75-125	5	20	
Boron	mg/L	0.19	1	1	1.2	1.2	100	105	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	102	75-125	5	20	
Chromium	mg/L	0.0016J	0.1	0.1	0.10	0.11	100	104	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.094	0.098	94	98	75-125	4	20	
Molybdenum	mg/L	0.0012J	0.1	0.1	0.095	0.10	94	100	75-125	6	20	
Selenium	mg/L	0.0015J	0.1	0.1	0.098	0.099	97	98	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 680757
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025, 92587319026

METHOD BLANK: 3561407 Matrix: Water
Associated Lab Samples: 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025, 92587319026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/25/22 16:19	
Arsenic	mg/L	ND	0.0050	0.0011	02/25/22 16:19	
Barium	mg/L	ND	0.0050	0.00067	02/25/22 16:19	
Beryllium	mg/L	ND	0.00050	0.000054	02/25/22 16:19	
Boron	mg/L	ND	0.040	0.0086	02/25/22 16:19	
Cadmium	mg/L	ND	0.00050	0.00011	02/25/22 16:19	
Chromium	mg/L	ND	0.0050	0.0011	02/25/22 16:19	
Cobalt	mg/L	ND	0.0050	0.00039	02/25/22 16:19	
Lead	mg/L	ND	0.0010	0.00089	02/25/22 16:19	
Lithium	mg/L	ND	0.030	0.00073	02/25/22 16:19	
Molybdenum	mg/L	ND	0.010	0.00074	02/25/22 16:19	
Selenium	mg/L	ND	0.0050	0.0014	02/25/22 16:19	
Thallium	mg/L	ND	0.0010	0.00018	02/25/22 16:19	

LABORATORY CONTROL SAMPLE: 3561408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.095	95	80-120	
Arsenic	mg/L	0.1	0.091	91	80-120	
Barium	mg/L	0.1	0.087	87	80-120	
Beryllium	mg/L	0.1	0.091	91	80-120	
Boron	mg/L	1	0.95	95	80-120	
Cadmium	mg/L	0.1	0.091	91	80-120	
Chromium	mg/L	0.1	0.091	91	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
Lead	mg/L	0.1	0.088	88	80-120	
Lithium	mg/L	0.1	0.090	90	80-120	
Molybdenum	mg/L	0.1	0.094	94	80-120	
Selenium	mg/L	0.1	0.090	90	80-120	
Thallium	mg/L	0.1	0.088	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3561409 3561410

Parameter	Units	92587322002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.091	102	91	75-125	12	20	

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3561409 3561410

Parameter	Units	92587322002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.098	0.090	98	90	75-125	8	20	
Barium	mg/L	0.038	0.1	0.1	0.14	0.13	105	89	75-125	12	20	
Beryllium	mg/L	ND	0.1	0.1	0.094	0.087	94	87	75-125	8	20	
Boron	mg/L	ND	1	1	0.94	0.92	94	91	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.097	0.089	97	89	75-125	9	20	
Chromium	mg/L	ND	0.1	0.1	0.098	0.090	97	89	75-125	8	20	
Cobalt	mg/L	0.00055J	0.1	0.1	0.093	0.088	92	88	75-125	5	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.083	95	83	75-125	14	20	
Lithium	mg/L	0.0029J	0.1	0.1	0.097	0.088	94	85	75-125	10	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.088	97	88	75-125	10	20	
Selenium	mg/L	ND	0.1	0.1	0.096	0.089	96	89	75-125	8	20	
Thallium	mg/L	ND	0.1	0.1	0.093	0.084	93	84	75-125	10	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678094
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319002, 92587319003

METHOD BLANK: 3548852 Matrix: Water
Associated Lab Samples: 92587319002, 92587319003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/15/22 12:00	

LABORATORY CONTROL SAMPLE: 3548853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3548854 3548855

Parameter	Units	92585561007 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	0.0024	96	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678396
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319004, 92587319005, 92587319006

METHOD BLANK: 3550157 Matrix: Water
Associated Lab Samples: 92587319004, 92587319005, 92587319006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/16/22 10:48	

LABORATORY CONTROL SAMPLE: 3550158

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3550159 3550160

Parameter	Units	92586342010 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	0.0021	0.0023	85	92	75-125	8	20	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 680659
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319001, 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016, 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025

METHOD BLANK: 3560812
Matrix: Water
Associated Lab Samples: 92587319001, 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016, 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/25/22 11:04	

LABORATORY CONTROL SAMPLE: 3560813

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3560814 3560815

Parameter	Units	92587319001 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	0.0022	94	88	75-125	7	20	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 681261
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319026

METHOD BLANK: 3564035 Matrix: Water
Associated Lab Samples: 92587319026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/28/22 14:00	

LABORATORY CONTROL SAMPLE: 3564036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3564037 3564038

Parameter	Units	92588620001 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	0.0025	0.0025	97	97	75-125	0	20	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 677215
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

METHOD BLANK: 3544557 Matrix: Water
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/07/22 16:40	

LABORATORY CONTROL SAMPLE: 3544558

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	375	94	80-120	

SAMPLE DUPLICATE: 3544559

Parameter	Units	92587319003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	156	171	9	25	H3

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678369
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319001

METHOD BLANK: 3550014 Matrix: Water
Associated Lab Samples: 92587319001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/15/22 16:02	

LABORATORY CONTROL SAMPLE: 3550015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	80-120	

SAMPLE DUPLICATE: 3550016

Parameter	Units	92587091003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	151	152	1	25	

SAMPLE DUPLICATE: 3550017

Parameter	Units	92587322007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1160	1080	7	25	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678705
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016

METHOD BLANK: 3551645 Matrix: Water
Associated Lab Samples: 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/16/22 13:52	

LABORATORY CONTROL SAMPLE: 3551646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	377	94	80-120	

SAMPLE DUPLICATE: 3551647

Parameter	Units	92587096008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		25	

SAMPLE DUPLICATE: 3551648

Parameter	Units	92587319007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	756	708	7	25	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678707
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022

METHOD BLANK: 3551650 Matrix: Water
Associated Lab Samples: 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/16/22 14:16	

LABORATORY CONTROL SAMPLE: 3551651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	376	94	80-120	

SAMPLE DUPLICATE: 3551652

Parameter	Units	92587881001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	229	228	0	25	

SAMPLE DUPLICATE: 3551653

Parameter	Units	92587855001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	94.0	95.0	1	25	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 679091
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92587319023, 92587319024, 92587319025, 92587319026

METHOD BLANK: 3553375 Matrix: Water
Associated Lab Samples: 92587319023, 92587319024, 92587319025, 92587319026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/17/22 16:05	

LABORATORY CONTROL SAMPLE: 3553376

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	374	94	80-120	

SAMPLE DUPLICATE: 3553377

Parameter	Units	92587319023 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	299	300	0	25	

SAMPLE DUPLICATE: 3553378

Parameter	Units	92587089012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	190	186	2	25	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 676561
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

METHOD BLANK: 3541395 Matrix: Water
Associated Lab Samples: 92587319002, 92587319003, 92587319004, 92587319005, 92587319006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/08/22 06:35	
Fluoride	mg/L	ND	0.10	0.050	02/08/22 06:35	
Sulfate	mg/L	ND	1.0	0.50	02/08/22 06:35	

LABORATORY CONTROL SAMPLE: 3541396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.6	103	90-110	
Fluoride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	50	50.8	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541397 3541398

Parameter	Units	92585561005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.1	50	50	56.9	57.4	105	106	90-110	1	10	
Fluoride	mg/L	0.086J	2.5	2.5	2.5	2.6	98	99	90-110	2	10	
Sulfate	mg/L	25.5	50	50	77.5	78.0	104	105	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541399 3541400

Parameter	Units	92586342003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.5	50	50	55.3	55.0	106	105	90-110	1	10	
Fluoride	mg/L	0.36	2.5	2.5	2.9	2.9	100	100	90-110	0	10	
Sulfate	mg/L	201	50	50	246	243	91	84	90-110	1	10	M1

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678309
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587319001

METHOD BLANK: 3549772 Matrix: Water
Associated Lab Samples: 92587319001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/16/22 07:00	
Fluoride	mg/L	ND	0.10	0.050	02/16/22 07:00	
Sulfate	mg/L	ND	1.0	0.50	02/16/22 07:00	

LABORATORY CONTROL SAMPLE: 3549773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.2	98	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	48.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549774 3549775

Parameter	Units	92586613018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.70J	50	50	51.9	51.3	102	101	90-110	1	10	
Fluoride	mg/L	0.082J	2.5	2.5	2.7	2.6	104	103	90-110	1	10	
Sulfate	mg/L	13.0	50	50	64.4	63.7	103	102	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549776 3549777

Parameter	Units	92587322007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	117	50	50	163	162	92	90	90-110	1	10	
Fluoride	mg/L	0.055J	2.5	2.5	2.7	2.7	106	104	90-110	1	10	
Sulfate	mg/L	364	50	50	407	406	87	84	90-110	0	10	M1

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678880
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016

METHOD BLANK: 3552686 Matrix: Water
Associated Lab Samples: 92587319007, 92587319008, 92587319009, 92587319010, 92587319011, 92587319012, 92587319013, 92587319014, 92587319015, 92587319016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/17/22 11:56	
Fluoride	mg/L	ND	0.10	0.050	02/17/22 11:56	
Sulfate	mg/L	ND	1.0	0.50	02/17/22 11:56	

LABORATORY CONTROL SAMPLE: 3552687

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	2.4	95	90-110	
Sulfate	mg/L	50	47.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552688 3552689

Parameter	Units	92586225004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.5	50	50	63.1	63.2	101	101	90-110	0	10	
Fluoride	mg/L	0.15	2.5	2.5	2.7	2.7	102	104	90-110	1	10	
Sulfate	mg/L	967	50	50	1000	1000	73	76	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552690 3552691

Parameter	Units	92587319007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	84.4	50	50	125	125	81	82	90-110	0	10	M1
Fluoride	mg/L	0.10	2.5	2.5	2.7	2.7	103	105	90-110	2	10	
Sulfate	mg/L	224	50	50	270	270	94	93	90-110	0	10	

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QUALITY CONTROL DATA

Project: HAMMOND AP-1
Pace Project No.: 92587319

QC Batch: 678978
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025, 92587319026

METHOD BLANK: 3552932 Matrix: Water
Associated Lab Samples: 92587319017, 92587319018, 92587319019, 92587319020, 92587319021, 92587319022, 92587319023, 92587319024, 92587319025, 92587319026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/17/22 13:15	
Fluoride	mg/L	ND	0.10	0.050	02/17/22 13:15	
Sulfate	mg/L	ND	1.0	0.50	02/17/22 13:15	

LABORATORY CONTROL SAMPLE: 3552933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.5	101	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	49.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552934 3552935

Parameter	Units	92586338001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10	50	50	63.3	64.5	107	109	90-110	2	10	
Fluoride	mg/L	0.054J	2.5	2.5	2.7	2.7	104	107	90-110	3	10	
Sulfate	mg/L	ND	50	50	53.5	54.6	106	108	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3552936 3552937

Parameter	Units	92587319020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	31.4	50	50	84.4	85.8	106	109	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	105	108	90-110	3	10	
Sulfate	mg/L	95.9	50	50	140	142	88	91	90-110	1	10	M1

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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: HAMMOND AP-1
Pace Project No.: 92587319

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

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
H3	Sample was received or analysis requested beyond the recognized method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587319001	**MW-7**				
92587319002	**HGWA-44D**				
92587319003	**HGWA-2**				
92587319004	**HGWA-3**				
92587319005	**HGWA-1**				
92587319006	**HGWA-43D**				
92587319007	**HGWC-9**				
92587319008	**HGWC-10**				
92587319009	**HGWC-11**				
92587319010	**HGWC-12**				
92587319011	**MW-5**				
92587319012	**MW-6**				
92587319013	**MW-19**				
92587319014	**MW-25D**				
92587319015	**MW-26D**				
92587319017	**HGWC-7**				
92587319018	**HGWC-8**				
92587319019	**HGWC-13**				
92587319020	**MW-20**				
92587319021	**MW-24D**				
92587319022	**MW-27D**				
92587319023	**MW-28D**				
92587319024	**MW-29**				
92587319001	**MW-7**	EPA 3010A	680603	EPA 6010D	680696
92587319002	**HGWA-44D**	EPA 3010A	678931	EPA 6010D	679039
92587319003	**HGWA-2**	EPA 3010A	678931	EPA 6010D	679039
92587319004	**HGWA-3**	EPA 3010A	678931	EPA 6010D	679039
92587319005	**HGWA-1**	EPA 3010A	678931	EPA 6010D	679039
92587319006	**HGWA-43D**	EPA 3010A	678931	EPA 6010D	679039
92587319007	**HGWC-9**	EPA 3010A	680603	EPA 6010D	680696
92587319008	**HGWC-10**	EPA 3010A	680603	EPA 6010D	680696
92587319009	**HGWC-11**	EPA 3010A	680603	EPA 6010D	680696
92587319010	**HGWC-12**	EPA 3010A	680603	EPA 6010D	680696
92587319011	**MW-5**	EPA 3010A	680603	EPA 6010D	680696
92587319012	**MW-6**	EPA 3010A	680603	EPA 6010D	680696
92587319013	**MW-19**	EPA 3010A	680603	EPA 6010D	680696
92587319014	**MW-25D**	EPA 3010A	680603	EPA 6010D	680696
92587319015	**MW-26D**	EPA 3010A	680603	EPA 6010D	680696
92587319016	**DUP-1**	EPA 3010A	680603	EPA 6010D	680696
92587319017	**HGWC-7**	EPA 3010A	680760	EPA 6010D	680944
92587319018	**HGWC-8**	EPA 3010A	680760	EPA 6010D	680944
92587319019	**HGWC-13**	EPA 3010A	680760	EPA 6010D	680944
92587319020	**MW-20**	EPA 3010A	680760	EPA 6010D	680944
92587319021	**MW-24D**	EPA 3010A	680760	EPA 6010D	680944
92587319022	**MW-27D**	EPA 3010A	680760	EPA 6010D	680944
92587319023	**MW-28D**	EPA 3010A	680760	EPA 6010D	680944
92587319024	**MW-29**	EPA 3010A	680760	EPA 6010D	680944

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587319025	**EB-1**	EPA 3010A	680760	EPA 6010D	680944
92587319026	**FB-1**	EPA 3010A	680760	EPA 6010D	680944
92587319001	**MW-7**	EPA 3005A	680607	EPA 6020B	680745
92587319002	**HGWA-44D**	EPA 3005A	678928	EPA 6020B	679033
92587319003	**HGWA-2**	EPA 3005A	678928	EPA 6020B	679033
92587319004	**HGWA-3**	EPA 3005A	678928	EPA 6020B	679033
92587319005	**HGWA-1**	EPA 3005A	678928	EPA 6020B	679033
92587319006	**HGWA-43D**	EPA 3005A	678928	EPA 6020B	679033
92587319007	**HGWC-9**	EPA 3005A	680607	EPA 6020B	680745
92587319008	**HGWC-10**	EPA 3005A	680607	EPA 6020B	680745
92587319009	**HGWC-11**	EPA 3005A	680607	EPA 6020B	680745
92587319010	**HGWC-12**	EPA 3005A	680607	EPA 6020B	680745
92587319011	**MW-5**	EPA 3005A	680607	EPA 6020B	680745
92587319012	**MW-6**	EPA 3005A	680607	EPA 6020B	680745
92587319013	**MW-19**	EPA 3005A	680607	EPA 6020B	680745
92587319014	**MW-25D**	EPA 3005A	680607	EPA 6020B	680745
92587319015	**MW-26D**	EPA 3005A	680607	EPA 6020B	680745
92587319016	**DUP-1**	EPA 3005A	680607	EPA 6020B	680745
92587319017	**HGWC-7**	EPA 3005A	680607	EPA 6020B	680745
92587319018	**HGWC-8**	EPA 3005A	680607	EPA 6020B	680745
92587319019	**HGWC-13**	EPA 3005A	680757	EPA 6020B	680941
92587319020	**MW-20**	EPA 3005A	680757	EPA 6020B	680941
92587319021	**MW-24D**	EPA 3005A	680757	EPA 6020B	680941
92587319022	**MW-27D**	EPA 3005A	680757	EPA 6020B	680941
92587319023	**MW-28D**	EPA 3005A	680757	EPA 6020B	680941
92587319024	**MW-29**	EPA 3005A	680757	EPA 6020B	680941
92587319025	**EB-1**	EPA 3005A	680757	EPA 6020B	680941
92587319026	**FB-1**	EPA 3005A	680757	EPA 6020B	680941
92587319001	**MW-7**	EPA 7470A	680659	EPA 7470A	680885
92587319002	**HGWA-44D**	EPA 7470A	678094	EPA 7470A	678301
92587319003	**HGWA-2**	EPA 7470A	678094	EPA 7470A	678301
92587319004	**HGWA-3**	EPA 7470A	678396	EPA 7470A	678613
92587319005	**HGWA-1**	EPA 7470A	678396	EPA 7470A	678613
92587319006	**HGWA-43D**	EPA 7470A	678396	EPA 7470A	678613
92587319007	**HGWC-9**	EPA 7470A	680659	EPA 7470A	680885
92587319008	**HGWC-10**	EPA 7470A	680659	EPA 7470A	680885
92587319009	**HGWC-11**	EPA 7470A	680659	EPA 7470A	680885
92587319010	**HGWC-12**	EPA 7470A	680659	EPA 7470A	680885
92587319011	**MW-5**	EPA 7470A	680659	EPA 7470A	680885
92587319012	**MW-6**	EPA 7470A	680659	EPA 7470A	680885
92587319013	**MW-19**	EPA 7470A	680659	EPA 7470A	680885
92587319014	**MW-25D**	EPA 7470A	680659	EPA 7470A	680885
92587319015	**MW-26D**	EPA 7470A	680659	EPA 7470A	680885
92587319016	**DUP-1**	EPA 7470A	680659	EPA 7470A	680885
92587319017	**HGWC-7**	EPA 7470A	680659	EPA 7470A	680885

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587319018	**HGWC-8**	EPA 7470A	680659	EPA 7470A	680885
92587319019	**HGWC-13**	EPA 7470A	680659	EPA 7470A	680885
92587319020	**MW-20**	EPA 7470A	680659	EPA 7470A	680885
92587319021	**MW-24D**	EPA 7470A	680659	EPA 7470A	680885
92587319022	**MW-27D**	EPA 7470A	680659	EPA 7470A	680885
92587319023	**MW-28D**	EPA 7470A	680659	EPA 7470A	680885
92587319024	**MW-29**	EPA 7470A	680659	EPA 7470A	680885
92587319025	**EB-1**	EPA 7470A	680659	EPA 7470A	680885
92587319026	**FB-1**	EPA 7470A	681261	EPA 7470A	681332
92587319001	**MW-7**	SM 2540C-2015	678369		
92587319002	**HGWA-44D**	SM 2540C-2015	677215		
92587319003	**HGWA-2**	SM 2540C-2015	677215		
92587319004	**HGWA-3**	SM 2540C-2015	677215		
92587319005	**HGWA-1**	SM 2540C-2015	677215		
92587319006	**HGWA-43D**	SM 2540C-2015	677215		
92587319007	**HGWC-9**	SM 2540C-2015	678705		
92587319008	**HGWC-10**	SM 2540C-2015	678705		
92587319009	**HGWC-11**	SM 2540C-2015	678705		
92587319010	**HGWC-12**	SM 2540C-2015	678705		
92587319011	**MW-5**	SM 2540C-2015	678705		
92587319012	**MW-6**	SM 2540C-2015	678705		
92587319013	**MW-19**	SM 2540C-2015	678705		
92587319014	**MW-25D**	SM 2540C-2015	678705		
92587319015	**MW-26D**	SM 2540C-2015	678705		
92587319016	**DUP-1**	SM 2540C-2015	678705		
92587319017	**HGWC-7**	SM 2540C-2015	678707		
92587319018	**HGWC-8**	SM 2540C-2015	678707		
92587319019	**HGWC-13**	SM 2540C-2015	678707		
92587319020	**MW-20**	SM 2540C-2015	678707		
92587319021	**MW-24D**	SM 2540C-2015	678707		
92587319022	**MW-27D**	SM 2540C-2015	678707		
92587319023	**MW-28D**	SM 2540C-2015	679091		
92587319024	**MW-29**	SM 2540C-2015	679091		
92587319025	**EB-1**	SM 2540C-2015	679091		
92587319026	**FB-1**	SM 2540C-2015	679091		
92587319001	**MW-7**	EPA 300.0 Rev 2.1 1993	678309		
92587319002	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	676561		
92587319003	**HGWA-2**	EPA 300.0 Rev 2.1 1993	676561		
92587319004	**HGWA-3**	EPA 300.0 Rev 2.1 1993	676561		
92587319005	**HGWA-1**	EPA 300.0 Rev 2.1 1993	676561		
92587319006	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	676561		
92587319007	**HGWC-9**	EPA 300.0 Rev 2.1 1993	678880		
92587319008	**HGWC-10**	EPA 300.0 Rev 2.1 1993	678880		
92587319009	**HGWC-11**	EPA 300.0 Rev 2.1 1993	678880		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-1
Pace Project No.: 92587319

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92587319010	**HGWC-12**	EPA 300.0 Rev 2.1 1993	678880		
92587319011	**MW-5**	EPA 300.0 Rev 2.1 1993	678880		
92587319012	**MW-6**	EPA 300.0 Rev 2.1 1993	678880		
92587319013	**MW-19**	EPA 300.0 Rev 2.1 1993	678880		
92587319014	**MW-25D**	EPA 300.0 Rev 2.1 1993	678880		
92587319015	**MW-26D**	EPA 300.0 Rev 2.1 1993	678880		
92587319016	**DUP-1**	EPA 300.0 Rev 2.1 1993	678880		
92587319017	**HGWC-7**	EPA 300.0 Rev 2.1 1993	678978		
92587319018	**HGWC-8**	EPA 300.0 Rev 2.1 1993	678978		
92587319019	**HGWC-13**	EPA 300.0 Rev 2.1 1993	678978		
92587319020	**MW-20**	EPA 300.0 Rev 2.1 1993	678978		
92587319021	**MW-24D**	EPA 300.0 Rev 2.1 1993	678978		
92587319022	**MW-27D**	EPA 300.0 Rev 2.1 1993	678978		
92587319023	**MW-28D**	EPA 300.0 Rev 2.1 1993	678978		
92587319024	**MW-29**	EPA 300.0 Rev 2.1 1993	678978		
92587319025	**EB-1**	EPA 300.0 Rev 2.1 1993	678978		
92587319026	**FB-1**	EPA 300.0 Rev 2.1 1993	678978		

Pace Analytical

Document Name:
Sample Condition Upon Receipt (SCUR)
Document No.:
F-CAR-CS-033-Rev.08

Document Revised: November 15, 2021
Page 1 of 2
Issuing Authority:
Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92587319

92587319

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

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: WG 2/18/22

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Thermometer: 083 ☐ IR Gun ID:

Type of Ice: ☑ Wet ☐ Blue ☐ None

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Cooler Temp: 2.4

Correction Factor Add/Subtract (°C): +.2

Cooler Temp Corrected (°C): 2.6

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

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

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

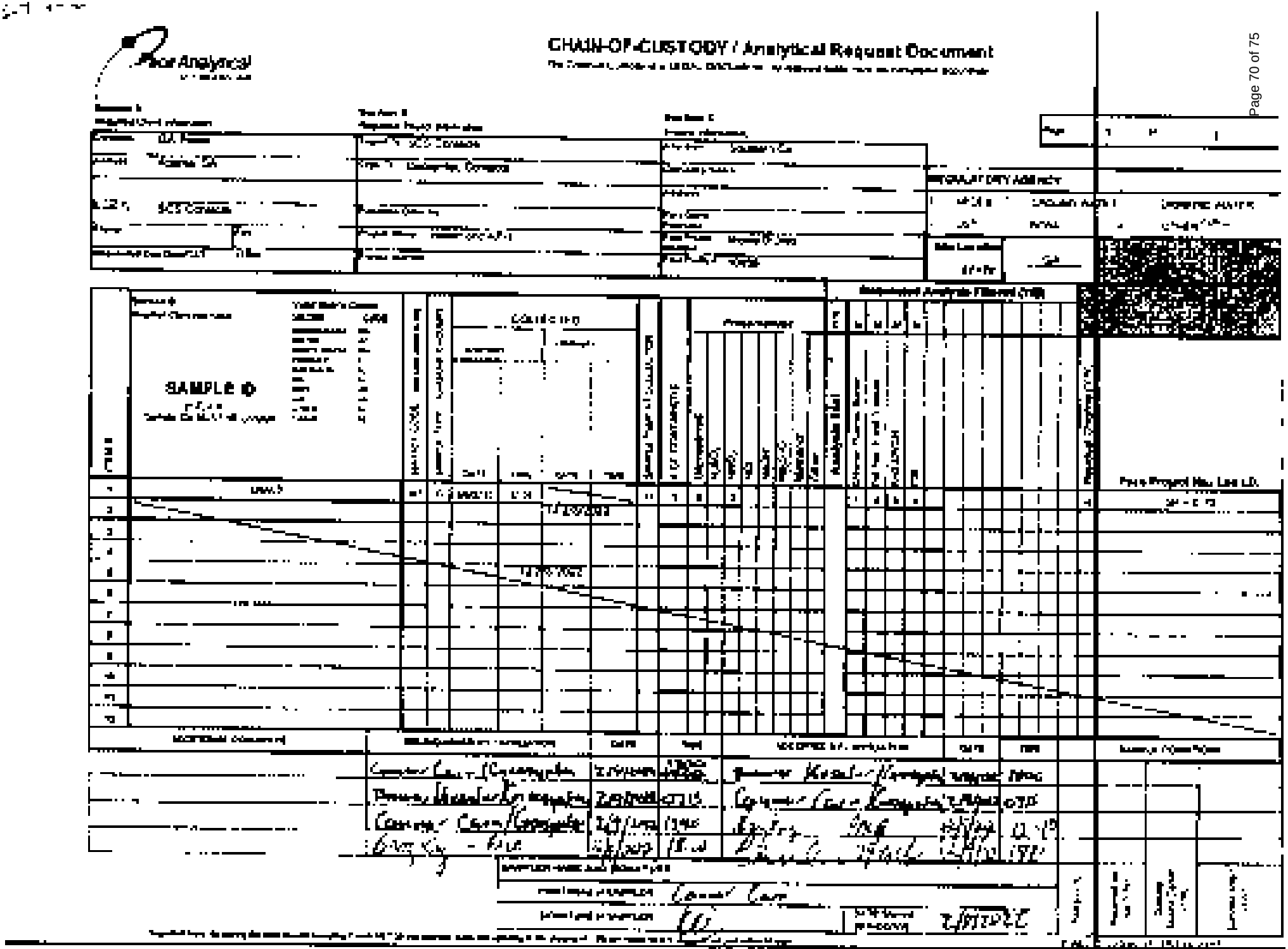
CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

CHAIN-OF-CUSTODY / Analytical Request Document



Pace Analytical	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: November 15, 2021 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.08	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92586342

92586342

Courier: ☐ Commercial ☑ FedEx ☐ UPS ☐ USPS ☐ Client ☐ Other

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 2/3/22 JM

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 230 ☑ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 2.4 Correction Factor: Add/Subtract (°C) +0.2

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

Cooler Temp Corrected (°C): 2.6

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?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples field filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ 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:

CHAIN-OF-CUSTODY / Analytical Request Document

PaceAnalytical

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
Phone:
Fax:
Requested Due Date/TAT: 10 Day

Section B – Required Project Information:
Report To: SCS Contacts
Copy To: Geosyntec Contacts
Purchase Order No.:
Project Name: Plant Hammond Pooled Upgradient
Project Number:

Section C – Invoice Information:
Attention: Southern Co.
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Nicole D'Oleo
Pace Profile #: 12639

Page: 1 of 1

REGULATORY AGENCY: NPDES / GROUND WATER / DRINKING WATER / UST / RCRA / OTHER CCR

Site Location STATE: GA

Section D – Required Client Information

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-44D	WT	G	2/1/2022	10:30	17	5	2		3						X	X	X	X	N	pH = 6.35
2	HGWA-2	WT	G	2/1/2022	11:02	17	5	2		3						X	X	X	X	N	pH = 5.34
3	HGWA-3	WT	G	2/1/2022	9:58	16	5	2		3						X	X	X	X	N	pH = 7.45
4	HGWA-1	WT	G	2/1/2022	12:14	17	5	2		3						X	X	X	X	N	pH = 7.19
5	HGWA-43D	WT	G	2/1/2022	10:30	17	5	2		3						X	X	X	X	N	pH = 7.52
6																					
7																					
8																					
9																					
10																					TJ 2/1/2022
11																					
12																					

Requested Analysis Filtered (Y/N): N

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Freeman Kessler / Geosyntec	2/1/2022	1232	Ryan Williams / Pace	2/1/2022	1232	
	Ryan Williams / Pace	2/1/22	1517	[illegible] Harden	2/1/22	1517	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: [illegible]
SIGNATURE of SAMPLER: [illegible]
DATE Signed (MM/DD/YY): 02/01/2022

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

Document Name: Sample Condition Upon Receipt (SCUR)
Document Revised: [illegible]
Page 1 of 2
Document No.: F-CAR-CS-033-Rev.08
Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt
Client Name: GA Power
Project #: WO#: 92587319
PM: HMG Due Date: 02/17/22
CLIENT: GA-GA Power

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☑ No

Date/Initials Person Examining Contents: [illegible]

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☐ IR Gun ID: 0?? Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 4.2 Correction Factor: Add/Subtract (°C): +0.2

Cooler Temp Corrected (°C): 4.4

USDA Regulated Soil (☐ N/A, water sample)

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

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

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical

REGULATORY AGENCY

Site Location STATE: GA

ITEM #	SAMPLE ID	Pace Project No./Lab I.D.
1	HGWC-9	pH = 7.30
2	HGWC-10	pH = 7.20
3	HGWC-11	[illegible]
4	HGWC-12	pH = 7.33
5	MW-5	[illegible]
6	MW-8	[illegible]
7	MW-14	[illegible]
8	MW-25D	[illegible]
9	MW-26	[illegible]
10	DUP-1	NA
11		
12		

TJ 2/9/2022

ADDITIONAL COMMENTS | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME | SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

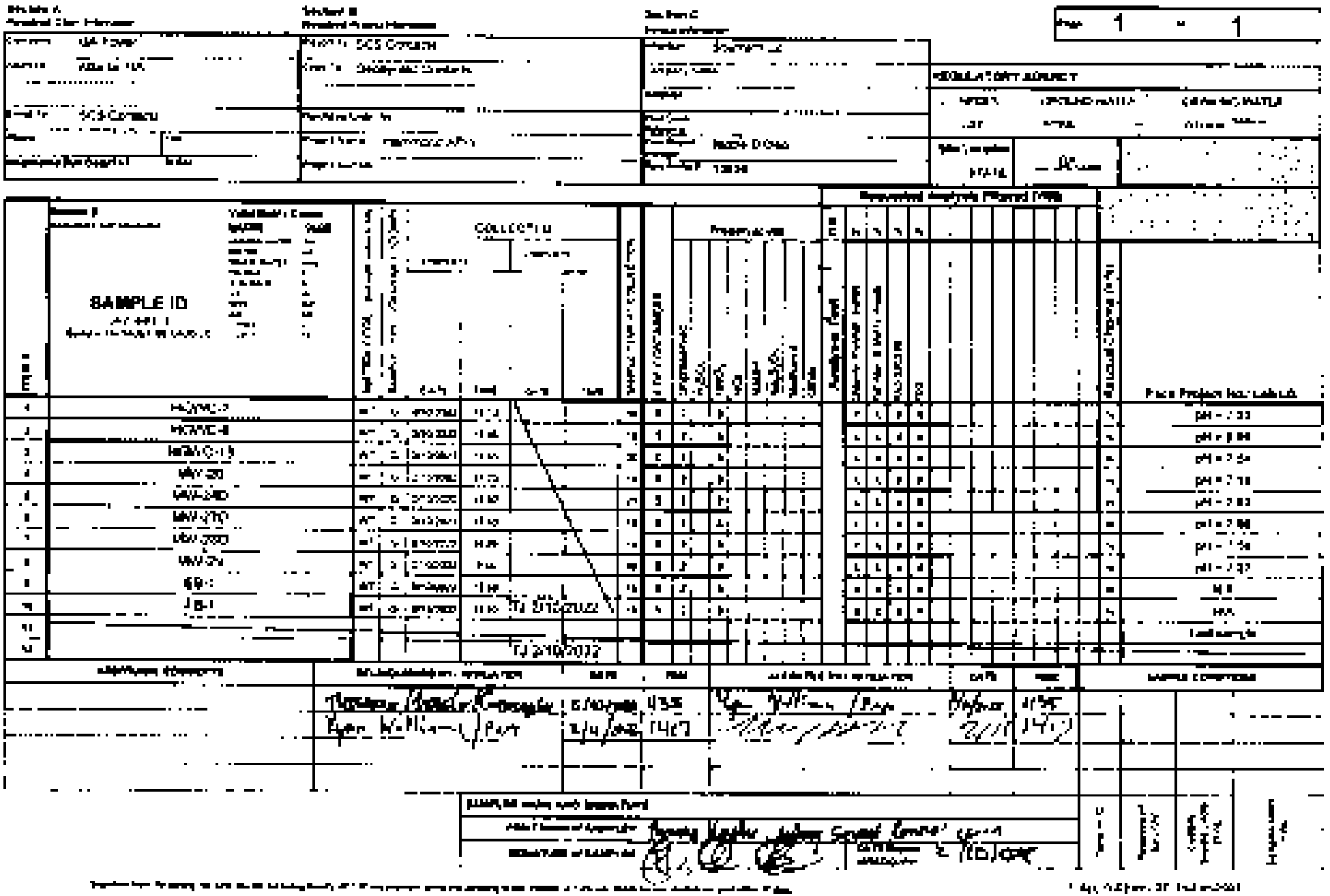
PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document



APPENDIX B

SiREM Laboratory Sorption and Desorption Treatability Study and Site Material Characterization Report

Prepared for:

Geosyntec Consultants, Inc.
1255 Roberts Blvd, Suite 200
Kennesaw, Georgia 30144

FINAL

Laboratory Sorption and Desorption Treatability Study and Site Material Characterization

Hammond Ash Pond-1, Floyd County, Georgia

Prepared by:

130 Stone Rd W
Guelph, Ontario N1G 3Z2

SiREM Ref: GW6581B

27 January 2022
Revised: 10 August 2022

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LIST OF ABBREVIATIONS

%	percent
°C	degrees Celsius
µg/g	micrograms per gram
µm	micrometers
AEC	anion exchange capacity
AP	Ash Pond
As	arsenic
CEC	cation exchange capacity
CO_2	carbon dioxide
EDXA	energy dispersive X-ray analysis
g	grams
g/L	grams per liter
g/mL	grams per milliliter
Geosyntec	Geosyntec Consultants, Inc.
H_2	hydrogen
HDPE	high density polyethylene
ICP-MS	inductively coupled plasma-mass spectrometry
Li	lithium
meq/100g	milliequivalents per 100 grams
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
min	minutes
mL	milliliter
Mo	molybdenum
mV	millivolts
N_2	nitrogen
ORP	oxidation-reduction potential
RPM	revolutions per minute
SEM	scanning electron microscopy
SEP	sequential extraction procedure
SGS	SGS Environmental
SiREM	SiREM Laboratory
TOC	total organic carbon
XRD	X-ray diffraction

1. INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) retained SiREM Laboratory (SiREM) to characterize geologic materials and perform sorption and desorption treatability studies for arsenic (As), lithium (Li) and molybdenum (Mo) in groundwater and geologic materials from the Hammond Ash Pond (AP)-1 site in Floyd County, GA (the Site).

The geologic materials were collected by Geosyntec personnel on 4 October 2018, 4 August 2020, 5 August 2020 and 28 January 2021 and were received by SiREM on 21 September 2020, 23 March 2021 and 2 June 2021, respectively. The groundwater labelled HGWA-1, which is groundwater from a background well, was collected by Geosyntec personnel on 26 May 2021 and was received by SiREM on 1 June 2021. Upon arrival at SiREM, geological material and groundwater were stored at 4 degrees Celsius (°C) until required for reactor construction. Geological material samples were submitted for baseline characterization prior to the sorption and desorption tests and locations for testing were selected based on the baseline characterization results. The chain of custodies received with these samples are provided in Appendix A.

The remainder of this report is divided into two sections. Section 2 presents the experimental materials and methods and Section 3 presents the results.

2. MATERIALS AND METHODS

The following sections describe the materials and methods used for geologic material baseline characterization (Section 2.1), sorption test reactor construction and incubation (Section 2.2), desorption test reactor construction and incubation (Section 2.3), and sorption and desorption test sampling and analysis (Section 2.4).

2.1 Site Geologic Material Baseline Characterization

Geologic material baseline characterization was completed through SiREMNA™ testing and included anion exchange capacity (AEC), cation exchange capacity (CEC), total sulfur, total sulfide, total organic carbon (TOC) content, total metals, X-ray diffraction (XRD), scanning electron microscopy (SEM) with energy dispersive X-ray analysis (EDXA) and a follow up sequential extraction procedure (SEP) on select aquifer solid samples.

On 24 September 2020, geologic material samples were individually homogenized and subsampled in a chemical fume hood. The samples were shipped to external laboratories for analysis as outlined in the summary table below. Prior to performing the XRD analysis, SGS Environmental (SGS) in Lakefield, ON performed whole rock analysis on the samples to have as a reference for the mineral identification by XRD.

On 25 March 2021 geologic material samples received on 23 March 2021 was homogenized and subsampled in a chemical fume hood. The samples were shipped to external laboratories for analysis as outlined in the summary table below. Prior to performing the XRD analysis, SGS performed whole rock analysis on the samples to have as a reference for the mineral identification by XRD

On 15 and 16 June 2021, geologic material samples received on 2 June 2021 were homogenized with respective samples received on 21 September 2020. After homogenization, samples from the locations labelled DPT02_AP1_080420_12-22 and DPT06_AP1_080520_15-23 were shipped to Eurofins TestAmerica (Knoxville, TN) for SEP analysis.

On 11 August 2021 geologic material samples from the sample labelled DPT04XRF_AP1_100418_40-45 was homogenized and subsampled in a chemical fume hood. The samples were shipped to external laboratories for analysis as outlined in the summary table below. Prior to performing the XRD analysis, SGS performed whole rock analysis on the samples to have as a reference for the mineral identification by XRD.

Parameter	Method	Laboratory
Total sulfur, total sulfide and TOC content	ASTM E1915-13	SGS, Lakefield, Ontario
Total metals	EPA 200.8	
Whole Rock Analysis	Borate Fusion and Xray Fluorescence Spectrometry	
XRD	Rietveld refinement method	
SEM and EDXA	SGS Internal method	
CEC	EPA method SW9081	SGS, Guelph, Ontario
AEC	Modified EPA method SW9081	Specialty Analytical, Clackamas, Oregon
Sequential extraction procedure	Methods SW846, 6010B and 3010A for SEP Steps 1-7	Eurofins TestAmerica, Knoxville, Tennessee

2.2 Sorption Test Reactor Construction and Incubation

One sample location of geological material was selected from the Hammond AP-1 Site to be tested for the sorption test. On 17 June 2021 the material from the DPT06 (15-23) location received on 21 September 2020 was homogenized by manually mixing with additional material received on 2 June 2021 for reproducibility between replicates. Reactors were constructed by filling 250 milliliter (mL) (nominal volume) high density polyethylene (HDPE) Nalgene® bottles (Systems Plus, New Hamburg, ON) with 100 grams (g) of homogenized geologic material. Reactors were constructed in duplicate with an additional set of duplicate reactors constructed to be used for sampling at Time 0.

After adding geologic material to enough reactors to represent six testing concentration conditions, six separate volumes of HGWA-1 Site groundwater were spiked with As, Li and Mo to target the concentration levels for the sorption test as listed in Table 1A. For each concentration level, 800 mL of Site groundwater was spiked with arsenic as a 3 gram per liter (g/L) sodium arsenate heptahydrate (Sigma-Aldrich, Oakville, ON) stock solution, lithium as a 1 g/L lithium chloride (Sigma-Aldrich, Oakville, ON) stock solution and molybdenum as a 2 g/L sodium molybdate dihydrate (Sigma-Aldrich, Oakville, ON) stock solution. Once the groundwater for each concentration level was spiked, the reactors containing geologic material were each amended with 150 mL of the appropriately spiked groundwater. Note that “target” spiked concentrations and “actual concentrations” (as determined by subsequent laboratory analyses) may not be exactly the same. However, the sorption calculations used the measured spiked concentrations and not the target concentrations.

After construction on 29 June 2021 and 30 June 2021, the reactors were placed on an end-over-end tumbler at room temperature and mixed for a period of 7 days. Table 1A summarizes the details of reactor construction, incubation, amendments, sampling schedule and parameters of the sorption test reactors.

2.3 Desorption Test Reactor Construction and Incubation

Two sample locations from Hammond AP-1 were selected to be tested for the desorption test. On 15 June 2021 the materials from the DPT02 (12-22) location received on 21 September 2020 were homogenized by manually mixing with additional materials received on 2 June 2021 for reproducibility between replicates. These materials were used to evaluate desorption of Mo from aquifer materials collected in the vicinity of a Mo-impacted well. The materials labelled DPT04XRF (40-45) received on 2 June 2021 were manually homogenized prior to reactor construction for reproducibility between replicates. These materials were used to evaluate desorption of As from aquifer materials collected in the vicinity of an As-impacted well. Reactors were constructed by filling 250 mL (nominal volume) HDPE Nalgene® bottles (Systems Plus, New Hamburg, ON) with 100 g of geologic material and 150 mL of HGWA-1 Site groundwater.

Reactors were constructed in duplicate with an additional set of duplicate reactors constructed to be used for sampling at Time 0. One set of reactors were constructed using materials from DPT02 to be incubated at laboratory atmospheric (i.e., ambient) conditions to evaluate desorption of Mo. Two sets of desorption test reactors were constructed using material from DPT04XRF to evaluate desorption of As, one to be incubated under laboratory atmospheric conditions and one to be incubated under reducing conditions and amended with hydrogen gas (H_2).

After construction on 30 August 2021 and 7 September 2021, laboratory atmospheric condition reactors were placed on an end-over-end tumbler at room temperature and continually mixed for 7 days. Reactors incubated under reducing conditions were transferred to an anaerobic chamber (Coy Laboratory Products, Grass Lake, MI) filled with an atmosphere of approximately 80 percent (%) nitrogen (N_2), 10% carbon dioxide (CO_2) and 10% H_2 (Linde Gases, Guelph, ON) and incubated for a period of 14 days at room temperature. Throughout the 14 day incubation period, the reducing treatment reactors were amended with 5 mL of H_2 gas five times a week to chemically react with dissolved O_2 with the goal of creating anoxic conditions as per the chemical reaction:

$$O_{2(aq)} + 2H_{2(aq)} \rightarrow 2H_2O_{(l)} \quad (1)$$

The hydrogen gas was added in excess to have enough hydrogen present to react with the oxygen in the reactors. It was assumed that the water in the reactors was fully saturated with oxygen, which at standard temperature and pressure is equal to a concentration of approximately 8 mg/L (or 0.0375 mmol of oxygen per reactor). Using the equation above, the amount of H_2 gas required to react with 0.0375 mmol of oxygen is 0.075 mmol. The regular H_2 gas additions provided approximately 50 mL (2.1 mmol) of H_2 per reactor over the incubation period equal to a stoichiometric safety factor of 28, ensuring the H_2 was added in excess. However, after 14 days of incubation under anaerobic conditions and with the regular amendment with H_2 gas, the reactors did not appear to achieve reducing conditions based on the measured ORP at the end of the incubation period.

During incubation, the reducing condition reactors were inverted once a day to increase the contact between the geologic material and groundwater. Table 1B summarizes the reactor construction, incubation, amendments, sampling schedule and parameters of the desorption test reactors.

2.4 Sorption and Desorption Test Sampling and Analysis

2.4.1 Reactor Sampling

Aqueous samples were collected from the sorption test reactors at Time 0 and after 7 days of incubation. Aqueous samples from the spiked Site groundwater from each concentration level which had not been combined with Site geological material was also sampled at Time 0. Aqueous samples were collected from the desorption test reactors at time 0, after 7 days of incubation for the laboratory atmospheric condition reactors and after 14 days of incubation for the H_2 amended reducing condition reactors. Both sorption and desorption test reactors and the groundwater sampled at baseline were sampled for analysis of pH, oxidation-reduction potential (ORP), and dissolved metals.

Prior to sampling, contents of the reactors were transferred to 250 mL centrifuge bottles and centrifuged for 5 minutes (min) at 5,000 revolutions per minute (RPM) to separate the solid and aqueous phases. Once separated, the supernatant was sampled using 30 mL HDPE plastic syringes (Fisher Scientific, Whitby, ON).

The sampling and analytical methods employed by SiREM and SGS are described in Sections 2.3.2 to 2.3.4.

2.4.2 Analysis of pH

The pH measurements were performed using an Oakton pH spear with a combination pH electrode (Oakton, Vernon Hills, IL). A 0.5 mL sample was collected and placed into a 1.5 mL micro-centrifuge tube. The pH was measured on the lab bench. The pH spear was calibrated at each sampling event according to the manufacturer's instructions using pH 4.0, 7.0 and 10 standards.

2.4.3 Analysis of ORP

The ORP measurements performed using an Omega PHH-127 Multi-Parameter Water Quality Monitor with ORP Probe (Omega, Laval, QC). A 1.2 mL sample was collected and placed in a 5 mL Thermo-Fisher vial. The ORP was measured on the lab bench immediately after sampling. The ORP probe was tested at each sampling event according to the manufacturer's instructions using Zobell's solution.

2.4.4 Analysis of Dissolved Metals at SGS Environmental

Analysis of dissolved metals was completed at SGS Environmental (SGS) in Lakefield, ON using an inductively coupled plasma-mass spectrometer (ICP-MS) based on Standard Method 3030B, EPA Method 200.8 and NIOSH 7300 Issue 2.

A 30 mL sample was collected and filtered through a 0.45 micrometer (µm) nylon syringe filter (Mandel Scientific, Guelph, ON) into a 30 mL HDPE bottle with a nitric acid preservative. Once collected, the samples were packaged on ice in a cooler and shipped overnight to SGS.

3. RESULTS

Appendix B presents the results of the baseline chemical characterization, Appendix C presents the baseline mineralogical results and Appendix D present the SEP results. Appendices E and F present the results of the sorption and desorption tests respectively. The tables in Appendices E and F present results for dissolved metals, pH and ORP as well as the recorded masses of Site geological materials and Site groundwater amended to each respective reactor. AEC and CEC are presented in units of milliequivalents per 100 grams (meq/100g). Total sulfur, total sulfide, TOC, whole rock analysis, XRD are presented as a percentage of the total weight of the geologic material. Bulk metals results are presented in units of micrograms per gram (µg/g). SEP results are presented in milligrams per kilogram (mg/kg). Concentrations of dissolved metals are provided in milligrams per liter (mg/L), ORP results are provided in millivolts (mV) and reactor weights are provided in g. The volume of Site groundwater amended to each reactor was calculated from the measured mass of water added to the reactor using a density of 1 gram per milliliter (g/mL). The external laboratory reports are presented in Appendix G.

TABLES

TABLE 1A: SUMMARY OF SORPTION TEST REACTORS, CONTROLS, TREATMENTS, AND AMENDMENTS
Hammond Ash Plant-1, Floyd County, Georgia

Groundwater Sample ID	Geologic Material Sample ID	Treatment	Number of Reactors	Number of Sacrificial Reactors	Reactor Numbers	Incubation Period and Sampling Frequency	Reactor Contents		Amendments			Analyses	
							Groundwater (L)	Geologic Material (kg)	Arsenic	Lithium	Molybdenum	Dissolved As, Li and Mo	pH/ORP
HGWA-1	DPT06(15-23)	Concentration Level 1	2	2	1 & 2	7 Days (Sampled at Time 0 and on Day 7)	0.150	0.100	Spiked with 0.05 mg/L Arsenic	Spiked with 0.01 mg/L Lithium	Spiked with 0.01 mg/L Molybdenum	4	4
		Concentration Level 2	2	2	3 & 4		0.150	0.100	Spiked with 0.1 mg/L Arsenic	Spiked with 0.02 mg/L Lithium	Spiked with 0.05 mg/L Molybdenum	4	4
		Concentration Level 3	2	2	5 & 6		0.150	0.100	Spiked with 0.25 mg/L Arsenic	Spiked with 0.04 mg/L Lithium	Spiked with 0.1 mg/L Molybdenum	4	4
		Concentration Level 4	2	2	7 & 8		0.150	0.100	Spiked with 0.5 mg/L Arsenic	Spiked with 0.06 mg/L Lithium	Spiked with 0.25 mg/L Molybdenum	4	4
		Concentration Level 5	2	2	9 & 10		0.150	0.100	Spiked with 1 mg/L Arsenic	Spiked with 0.08 mg/L Lithium	Spiked with 0.5 mg/L Molybdenum	4	4
		Concentration Level 6	2	2	11 & 12		0.150	0.100	Spiked with 1.5 mg/L Arsenic	Spiked with 0.1 mg/L Lithium	Spiked with 1 mg/L Molybdenum	4	4

Notes:

-- - not applicable
As - arsenic
ID - identification
kg - kilogram
L - liter
Li - lithium
mg/L - milligrams per liter
Mo - molybdenum
ORP - oxidation-reduction potential

TABLE 1B: SUMMARY OF DESORPTION TEST REACTORS, CONTROLS, TREATMENTS, AND AMENDMENTS
Hammond Ash Pond-1, Floyd County, Georgia

Location	Groundwater Sample ID	Geologic Material Sample ID	Treatment	Number of Reactors	Number of Sacrificial Reactors	Reactor Numbers	Incubation Period and Sampling Frequency	Reactor Contents		Analyses		
								Groundwater (L)	Geologic Material (kg)	Dissolved As, Li and Mo	Target Constituents	pH/ORP
Hammond AP-1	HGWA-1	DPT02(12-22)	Laboratory Atmospheric Conditions	2	2	1 & 2	7 Days (Sampled at Time 0 and on Day 7)	0.150	0.100	4	As, Li, Mo	4
		DPT04XRF(40-45)	Laboratory Atmospheric Conditions	2	2	3 & 4		0.150	0.100	4	As, Li, Mo	4
			Hydrogen Amended	2	0	5 & 6	14 Days (Sampled at Time 0 and on Day 14)	0.150	0.100	4	As, Li, Mo	2

Notes:

-- - not applicable
As - arsenic
ID - identification
kg - kilogram
L - liter
Li - lithium
mL - milliliters
Mo - molybdenum
mV - millivolt
ORP - oxidation-reduction potential

APPENDIX A:
Chain of Custody Documentation

SiREM

Chain-of-Custody Form

siremlab.com

[illegible]

S-6195

Project Name	[illegible]	Project #	[illegible]
Project Manager	[illegible]	Company	[illegible]
E-mail Address	[illegible]		
Address	[illegible]		
City [illegible]	State/Province [illegible]	Country [illegible]	
Phone #	[illegible]		
Sampler's Signature	[illegible]	Sampler's Printed Name	[illegible]

Analyses

Client Sample ID	Sampling Date	Sampling Time	Matrix	# of Containers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Special Instructions
✓ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
✓ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
✓ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
✓ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
✓ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
✓ [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Preservation Key: [illegible]

Shipping Information

[illegible]

Turnaround Time Requested

Standard ☑

Rush ☐

For Lab Use Only

Cooler Condition: Good

Cooler Temperature: 15 °C

Custody Seals: Yes ☑ No ☐

For Lab Use Only

Proposal #: [illegible]

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: [illegible]	Printed Name: Natasha Breen	Printed Name	Printed Name	Printed Name	Printed Name
Firm: [illegible]	Firm: ~~Fed Ex~~ SiREM	Firm	Firm	Firm	Firm
Date/Time: [illegible] 19:30	Date/Time: 21 Sept 20 13:20	Date/Time	Date/Time	Date/Time	Date/Time

[illegible]

SiREM

Chain-of-Custody Form

siremlab.com

[illegible address and phone]

Lab #: S-7677

*Project Name: [illegible] AP1 AP2 AP3 ACM evaluation	*Project #: [illegible]
*Project Manager: Whitney Lee	*Company: [illegible] Consultants
*Email Address: [illegible]	
Address (Street): [illegible]	
City: [illegible]	State/Province: [illegible] / Country: USA
*Phone #: [illegible]	
*Sampler's Signature:	*Sampler's Printed Name:

Analysis (preservation codes: 1, 2, 2, 2, 2, 2, 2)

Client Sample ID	Sampling Date	Sampling Time	Matrix	# of Containers	Anion exchange capacity (AEC)	Cation exchange capacity (CEC)	Total sulfur	Total sulfide	[illegible] carbon [illegible]	[illegible]	Total [illegible]					Other Information
[illegible]_AP1_012821_22:42	1/28/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP2_012721_20:42	01/27/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP2_012821_[illegible]	1/28/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP2_020221_[illegible]	2/1/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP3_012921_[illegible]	1/29/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP3_020121_[illegible]	2/1/21		S	1	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP3_020121_[illegible]	2/1/21		S	1	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP3_020121_13:21	2/1/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP2_012821_20:[illegible]	1/28/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]
[illegible]_AP2_012721_[illegible]	1/27/21		S	2	X	X	X	X	X	X	X					Report total ions for: [illegible]

Preservative Key
0. None
1. HCl
2. Other: [illegible]
3. Other:
4. Other:
5. Other:
6. Other:

Billing Information
P.O. #:
*Bill To: [illegible]

Turnaround Time Requested
Normal ☑
Rush ☐

For Lab Use Only
Cooler Condition: Good
Cooler Temperature: 4°C
Custody Seals: Yes ☐ No ☑

For Lab Use Only
Proposal #:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: [signature]	Signature: [signature]	Signature:	Signature:	Signature:	Signature:
Printed Name: Whitney Lee	Printed Name: Natasha Brent	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: [illegible] Consultants	Firm: SiREM	Firm:	Firm:	Firm:	Firm:
Date/Time: [illegible]	Date/Time: 23 Mar 21 13:55	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: [illegible]
* Mandatory Fields

SiREM

Chain-of-Custody Form

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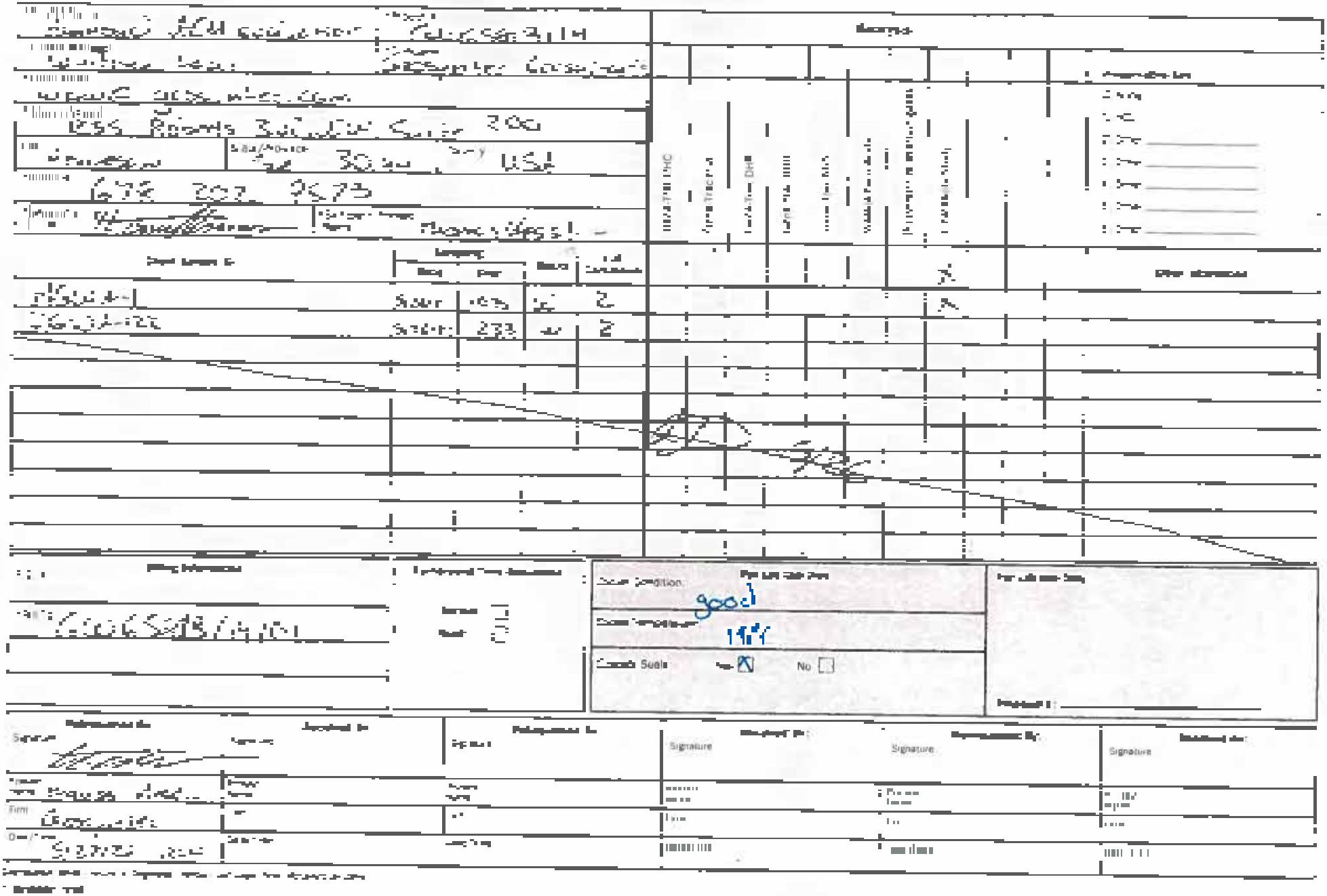
(519) 822-2265

S-8673



SiREM

Chain-of-Custody Form

siremlab.com

Lab # S-[illegible]

* Project Name: [illegible]	* Project #: [illegible]
* Project Manager: [illegible]	* Company: [illegible]
* Email Address: [illegible]	
Address: [illegible]	
City: [illegible]	State/Province: [illegible] / Country: [illegible]
* Phone #: [illegible]	
* Sampler's Signature:	* Sampler's Printed Name:

Analysis

Client Sample ID	Date	Time	Matrix	# of Containers	Other Information
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

Billing Information

Turnaround Time Requested: Standard / Rush

For Lab Use Only: Cooler Condition: Good; Cooler Temperature: [illegible]; Custody Seals: Yes ☐ No ☑

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: [signature]	Signature: [signature]	Signature:	Signature:	Signature:	Signature:
Printed Name: [illegible]	Printed Name: Jordan [illegible]	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: [illegible]	Firm: SiREM	Firm:	Firm:	Firm:	Firm:
Date/Time: [illegible]	Date/Time: [illegible]	Date/Time:	Date/Time:	Date/Time:	Date/Time:

APPENDIX B:
Baseline Chemical Characterization Results

SiREM
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130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results

SiREM File Reference: S-6195, S-7677 & S-8083

Client: Geosyntec Consultants Inc.
Client Project Number: GW6581B/14
Date Samples Received: September 21, 2020, March 23, 2021 and June 21, 2021
Date Samples Analyzed: October 5, 2020 to October 21, 2020, April 4 to 29, 2021, September 16, 2021, October 18, 2021 and November 11, 2021

Client Sample ID	Laboratory Sample ID	Client Sample Date	Anion Exchange Capacity	Cation Exchange Capcity	Total Sulfur	Total Sulfide	Total Organic Carbon
			meq/100g	meq/100g	%	%	%
DPT01(12-17)	S-6195-1	5-Aug-20	8.48	15.80	0.018	< 0.04	0.07
DPT02(12-22)	S-6195-2	4-Aug-20	6.58	19.00	0.008	< 0.04	0.04
DPT03(32-39)	S-6195-3	4-Aug-20	8.09	19.40	0.005	< 0.04	0.16
DPT04(12-18)	S-6195-4	4-Aug-20	7.85	20.20	0.006	< 0.04	0.09
DPT05(15-25)	S-6195-5	4-Aug-20	6.74	15.70	< 0.005	< 0.04	< 0.025
DPT06(15-23)	S-6195-6	5-Aug-20	4.57	5.70	< 0.005	< 0.04	0.12
DPT07_AP1_012821_32-42	S-7677-1	28-Jan-21	5.13	7.83	0.022	< 0.04	0.07
DPT04XRF_AP1_100418_40-45	S-8083-7	4-Oct-18	5.52	3.10	0.007	<0.04	0.05

Comments:
% - percent
< - compound not detected, the associated value is the detection limit
meq/100g - milliequivalents per 100 grams

Analyst:

Kela Ashworth, B.Sc.
Senior Laboratory Technician

Results approved:

Michael Healey, B.Sc.
Laboratory Supervisor I

Date:

19-Nov-21

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results - Total Metals

SiREM File Reference: S-6195, S-7677 & S-8083

Client: Geosyntec Consultants Inc.
Client Project Number: GW6581B/14
Date Samples Received: September 21, 2020, March 23, 2021 and June 21, 2021
Date Samples Analyzed: October 13, 2020, April 15, 2021 and August 19, 2021

Client Sample ID	Laboratory Sample ID	Client Sample Date	Molybdenum	Lithium	Cobalt	Arsenic	Iron	Aluminum	Manganese
			µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g
DPT01(12-17)	S-6195-1	5-Aug-20	1.2	38	12	4.9	26,000	50,000	710
DPT02(12-22)	S-6195-2	4-Aug-20	6.2	33	11	4.7	26,000	33,000	530
DPT03(32-39)	S-6195-3	4-Aug-20	0.54	43	26	12	52,000	55,000	1,100
DPT04(12-18)	S-6195-4	4-Aug-20	1.4	38	19	3.8	42,000	69,000	2,400
DPT05(15-25)	S-6195-5	4-Aug-20	13	36	38	4.6	50,000	75,000	830
DPT06(15-23)	S-6195-6	5-Aug-20	0.40	59	23	4.8	41,000	68,000	1,200
DPT07_AP1_012821_32-42	S-7677-1	28-Jan-21	1	24	7	7.8	20,000	42,000	100
DPT04XRF_AP1_100418_40-45	S-8083-7	4-Oct-18	1.40	12	4	13.0	14,000	13,000	120

Comments:
µg/g - microgram per gram

Analyst:

Kela Ashworth, B.Sc.
Senior Laboratory Technician

Results approved:

Michael Healey, B.Sc.
Laboratory Supervisor I

Date:

19-Nov-21

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results - Whole Rock Analysis

SiREM File Reference: S-6195, S-7677 & S-8083

Client: Geosyntec Consultants Inc.
Client Project Number: GW6581B/14
Date Samples Received: September 21, 2020, March 23, 2021 and June 21, 2021
Date Samples Analyzed: November 3, 2020, April 6, 2021 and October 20, 2021

Client Sample ID	Laboratory Sample ID	Client Sample Date	Quartz (SiO2)	Aluminum Oxide (Al2O3)	Ferric Oxide (Fe2O3)	Magnesium Oxide (MgO)	Calcium Oxide (CaO)	Sodium Oxide (Na2O)	Potassium Oxide (K2O)	Titanium Dioxide (TiO2)	Phosphorous Pentoxide (P2O5)	Manganese Oxide (MnO)	Chromium (III) Oxide (Cr2O3)	Vanadium Oxide (V2O5)	Loss on Ignition
			%	%	%	%	%	%	%	%	%	%	%	%	%
DPT01(12-17)	S-6195-1	5-Aug-20	76.7	9.84	3.73	0.82	0.59	0.36	0.94	0.90	0.11	0.08	< 0.01	0.02	5.66
DPT02(12-22)	S-6195-2	4-Aug-20	84.1	6.43	3.72	0.58	0.34	0.24	0.79	0.39	0.11	0.06	< 0.01	< 0.01	3.69
DPT03(32-39)	S-6195-3	4-Aug-20	64.8	11.8	7.30	2.09	2.36	0.64	1.85	0.50	0.29	0.14	0.01	< 0.01	8.23
DPT04(12-18)	S-6195-4	4-Aug-20	66.7	13.4	5.99	1.63	1.03	0.64	1.95	0.64	0.22	0.29	< 0.01	0.01	7.36
DPT05(15-25)	S-6195-5	4-Aug-20	64.7	14.6	7.24	1.75	0.47	0.15	2.63	0.63	0.13	0.10	0.01	< 0.01	7.98
DPT06(15-23)	S-6195-6	5-Aug-20	52.5	16.3	6.12	1.78	6.37	0.10	2.40	0.70	0.17	0.14	0.01	0.01	13.5
DPT07_AP1_012821_32-42	S-7677-1	28-Jan-21	80.8	9.02	3.21	0.29	0.12	0.10	1.07	0.90	0.04	0.01	< 0.01	0.02	4.02
DPT04XRF_AP1_100418_40-45	S-8083-7	4-Oct-18	91.9	2.69	2.41	0.08	0.08	0.08	0.46	0.38	0.04	0.02	< 0.01	< 0.01	1.5

Comments:
% - percent
< - compound not detected, the associated value is the detection limit

Analyst:

Kela Ashworth, B.Sc.
Senior Laboratory Technician

Results approved:

Michael Healey, B.Sc.
Laboratory Supervisor I

Date: 19-Nov-21

APPENDIX C:
Baseline Mineralogical Results

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results - Rietveld Quantitative X-Ray Diffraction

SiREM File Reference: S-6195, S-7677 & S-8083

Client: Geosyntec Consultants Inc.
Client Project Number: GW6581B/14
Date Samples Received: September 21, 2020, March 23, 2021 and June 21, 2021
Date Samples Analyzed: October 6, 2020, April 16, 2021 and October 30, 2021

Client Sample ID	Laboratory Sample ID	Client Sample Date	Quartz	Albite	Microcline	Muscovite	Mullite	Chlorite	Kaolinite	Anatase	Rutile	Nontronite	Calcite	Goethite
			wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %	wt %
DPT01(12-17)	S-6195-1	5-Aug-20	70.3	4.87	2.07	10.25	-	4.06	5.63	0.68	-	2.15	-	-
DPT02(12-22)	S-6195-2	4-Aug-20	82.0	3.21	1.18	6.96	-	2.46	3.81	0.13	-	0.23	-	-
DPT03(32-39)	S-6195-3	4-Aug-20	64.7	6.0	1.46	13.08	-	6.26	3.37	0.21	-	1.82	3.07	-
DPT04(12-18)	S-6195-4	4-Aug-20	55.8	8.5	3.26	20.46	-	-	7.33	0.58	-	4.09	-	-
DPT05(15-25)	S-6195-5	4-Aug-20	44.9	3.4	7.87	26.07	-	-	-	1.18	-	0.41	-	16.19
DPT06(15-23)	S-6195-6	5-Aug-20	34.4	4.5	4.60	23.98	-	-	-	1.68	-	4.86	15.01	10.9
DPT07_AP1_012821_32-42	S-7677-1	28-Jan-21	68.9	1.8	1.90	10.90	--		15.8	0.20	0.40			
DPT04XRF_AP1_100418_40-45	S-8083-7	4-Oct-18	91.7	-	2.40	3.80	0.30	-	1.80	-	-	-	-	-

Comments:
% - percent
-- not identified by analyst
wt % - weight percent

Analyst:

Kela Ashworth, B.Sc.
Senior Laboratory Technician

Results approved:

Michael Healey, B.Sc.
Laboratory Supervisor I

Date:

19-Nov-21

APPENDIX D:
Sequential Extraction Procedure Results

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results - Sequential Extraction Procedure

SIREM File Reference: S-6195, S-7677 & S-8083

Client: Geosyntec Consultants Inc.
Client Project Number: GW6581B/14
Date Samples Received: September 21, 2020, March 23, 2021 and June 21, 2021
Date Samples Analyzed: November 2, 2021

Client Sample ID	Laboratory Sample ID	Client Sample Date	SEP Step 1			SEP Step 2			SEP Step 3			SEP Step 4			SEP Step 5			SEP Step 6			SEP Step 7			SEP Sum of Steps 1-7			Total		
			Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum	Arsenic	Lithium	Molybdenum
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
DPT02 (15-23)	S-6195-2 & S-8083-2	4-Aug-20	<0.65	<0.75	<0.41	<0.48	<0.56	<0.31	0.42 J	0.52 J	1.6 J	1.5	6.4	1.2 J	<2.4	8.5 J	<1.6	2.1	12	0.21 J	1.2	23.0	<0.10	5.2	50	3.0	5.6	44	3.2
DPT06 (12-22)	S-6195-2 & S-8083-6	5-Aug-20	<0.43	<0.79	<0.43	<0.51	<0.59	<0.32	0.36 J	<0.20	<0.11	0.56 J	4.2	<0.11	<2.5	7.5 J	<1.6	2.2	8.6	<0.13	0.77 J	21.0	<0.11	3.9	41	<0.082	6.6	56	<0.54
DPT04XRF_AP1_100418_40-45	S-8083-7	4-Oct-18	<0.54	<0.62	<0.34	<0.40	<0.46	<0.25	2.20	<0.15	0.46 J	5.7	1.9 J	0.85 J	2.4 J	5.6 J	<1.3	1.5	3	0.13 J	0.46 J	4.9	<0.085	12.0	15	1.4 J	59.0	12	1.5 J

Comments:
< - compound not detected, the associated value is the method detection limit.
J - result is less than the reporting limit, but greater than or equal to the method detection limit and the concentration is an approximate value.
mg/kg - milligram per kilogram

Analyst:

Kela Ashworth, B.Sc.
Senior Laboratory Technician

Results approved:

Michael Healey, B.Sc.
Laboratory Supervisor I

Date:

19-Nov-21

APPENDIX E:
Summary of Sorption Test Dissolved Metals, ORP and pH Results

Groundwater Sample ID	Site Material	Treatment	Date	Day	Replicate	Dissolved Arsenic	Dissolved Molybdenum	Dissolved Lithium	Reactor Weight	Reactor + Soil Weight	Mass Soil	Reactor, Soil + Water Weight	Mass Water	pH	ORP
						mg/L	mg/L	mg/L	g	g	g	g	g		
HGWA-1	DPT06(15-23)	Concentration Level 1	29-Jun-21	0	***Spiked Aqueous Concentration***	***0.0631***	***0.014***	***0.0074***	--	--	--	--	--	--	--
					HAP1DPT06 1a	0.0068	0.00763	0.0048	37.22	137.71	100.49	286.29	148.58	7.44	175
					HAP1DPT06 2a	0.0071	0.00713	0.0049	37.12	137.67	100.55	286.20	148.53	7.41	174
					Average	**0.0070**	**0.00738**	**0.0049**	**37.17**	**137.69**	**100.52**	**286.25**	**148.56**	**7.43**	**175**
			6-Jul-21	7	HAP1DPT06 1b	< 0.0002	0.00024	0.0012	37.15	139.11	101.96	290.05	150.94	7.38	169
					HAP1DPT06 2b	< 0.0002	0.00019	0.0015	37.24	136.89	99.65	284.87	147.98	7.36	172
					Average	**ND**	**0.00022**	**0.0014**	**37.20**	**138.00**	**100.81**	**287.46**	**149.46**	**7.37**	**171**
		Concentration Level 2	29-Jun-21	0	***Spiked Aqueous Concentration***	***0.112***	***0.052***	***0.0131***	--	--	--	--	--	--	--
					HAP1DPT06 3a	0.0260	0.0380	0.0098	37.03	136.86	99.83	283.31	146.45	7.46	199
					HAP1DPT06 4a	0.0097	0.0292	0.0066	37.25	135.98	98.73	280.23	144.25	7.42	198
					Average	**0.0179**	**0.0336**	**0.0082**	**37.14**	**136.42**	**99.28**	**281.77**	**145.35**	**7.44**	**199**
			6-Jul-21	7	HAP1DPT06 3b	< 0.0002	0.00035	0.0013	37.24	138.09	100.85	284.20	146.11	7.39	161
					HAP1DPT06 4b	< 0.0002	0.00034	0.0014	37.00	133.14	96.14	283.67	150.53	7.38	156
					Average	**ND**	**0.00035**	**0.0014**	**37.12**	**135.62**	**98.50**	**283.94**	**148.32**	**7.39**	**159**
		Concentration Level 3	30-Jun-21	0	***Spiked Aqueous Concentration***	***0.280***	***0.105***	***0.0283***	--	--	--	--	--	--	--
					HAP1DPT06 5a	0.0673	0.0709	0.0135	37.02	138.05	101.03	285.09	147.04	7.49	190
					HAP1DPT06 6a	0.0805	0.0759	0.0163	37.16	137.08	99.92	287.09	150.01	7.50	205
					Average	**0.0739**	**0.0734**	**0.0149**	**37.09**	**137.57**	**100.48**	**286.09**	**148.53**	**7.50**	**198**
			7-Jul-21	7	HAP1DPT06 5b	< 0.0002	0.00064	0.0016	37.20	135.89	98.69	278.29	142.40	7.38	182
					HAP1DPT06 6b	< 0.0002	0.00055	0.0016	37.16	135.83	98.67	286.18	150.35	7.44	174
					Average	**ND**	**0.00060**	**0.0016**	**37.18**	**135.86**	**98.68**	**282.24**	**146.38**	**7.41**	**178**
		Concentration Level 4	30-Jun-21	0	***Spiked Aqueous Concentration***	***0.560***	***0.261***	***0.0412***	--	--	--	--	--	--	--
					HAP1DPT06 7a	0.245	0.208	0.0288	37.06	134.75	97.69	284.53	149.78	7.52	203
					HAP1DPT06 8a	0.199	0.196	0.0254	36.89	137.14	100.25	284.48	147.34	7.56	203
					Average	**0.222**	**0.202**	**0.0271**	**36.98**	**135.95**	**98.97**	**284.51**	**148.56**	**7.54**	**203**
			7-Jul-21	7	HAP1DPT06 7b	< 0.0002	0.00157	0.0015	36.90	138.00	101.10	284.34	146.34	7.48	167
					HAP1DPT06 8b	< 0.0002	0.00145	0.0015	37.38	137.72	100.34	284.02	146.30	7.47	162
					Average	**ND**	**0.00151**	**0.0015**	**37.14**	**137.86**	**100.72**	**284.18**	**146.32**	**7.48**	**165**
		Concentration Level 5	30-Jun-21	0	***Spiked Aqueous Concentration***	***1.12***	***0.587***	***0.0569***	--	--	--	--	--	--	--
					HAP1DPT06 9a	0.442	0.421	0.0327	37.02	136.19	99.17	285.94	149.75	7.51	208
					HAP1DPT06 10a	0.456	0.435	0.0332	37.42	137.42	100.00	285.81	148.39	7.55	208
					Average	**0.449**	**0.428**	**0.0330**	**37.22**	**136.81**	**99.59**	**285.88**	**149.07**	**7.53**	**208**
			7-Jul-21	7	HAP1DPT06 9b	< 0.0002	0.00379	0.0019	37.40	137.59	100.19	287.11	149.52	7.49	157
					HAP1DPT06 10b	< 0.0002	0.00431	0.0018	37.30	135.89	98.59	283.36	147.47	7.52	153
					Average	**ND**	**0.00405**	**0.0019**	**37.35**	**136.74**	**99.39**	**285.24**	**148.50**	**7.51**	**155**
		Concentration Level 6	30-Jun-21	0	***Spiked Aqueous Concentration***	***1.70***	***1.20***	***0.0709***	--	--	--	--	--	--	--
					HAP1DPT06 11a	0.805	0.879	0.0506	36.87	138.12	101.25	287.49	149.37	7.37	207
					HAP1DPT06 12a	0.791	0.880	0.0480	37.06	136.20	99.14	281.76	145.56	7.42	202
					Average	**0.798**	**0.880**	**0.0493**	**36.97**	**137.16**	**100.20**	**284.63**	**147.47**	**7.40**	**205**
			7-Jul-21	7	HAP1DPT06 11b	< 0.0002	0.00845	0.0022	36.86	137.18	100.32	283.64	146.46	7.48	149
					HAP1DPT06 12b	< 0.0002	0.0125	0.0025	36.83	136.68	99.85	284.30	147.62	7.45	150
					Average	**ND**	**0.0105**	**0.0024**	**36.85**	**136.93**	**100.09**	**283.97**	**147.04**	**7.47**	**150**

Notes:

-- - not applicable
< - compound not detected, the associated value is the detection limit
g - gram
mg/L - milligrams per liter
mL - milliliter
ND - not detected
ORP - oxidation-reduction potential

APPENDIX F:
Summary of Desorption Test Dissolved Metals, ORP and pH Results

APPENDIX F: SUMMARY OF DESORPTION TEST DISSOLVED METALS, ORP AND pH RESULTS
Hammond Ash Pond-1, Floyd County, Georgia

Groundwater Sample ID	Site Material	Chemical Characteristics (Baseline Characterization)	Treatment	Date	Day	Replicate	Dissolved Arsenic	Dissolved Molybdenum	Dissolved Lithium	Reactor Weight	Reactor + Soil Weight	Mass Soil	Reactor, Soil + Water Weight	Mass Water	pH	ORP
							mg/L	mg/L	mg/L	g	g	g	g	g		
HGWA-1	DPT02(12-22)	Arsenic: 4.7 µg/g Molybdenum: 6.2 µg/g Lithium: 33 µg/g	Laboratory Atmospheric Conditions	31-Aug-21	0	HAP1DPT02_1a	< 0.0002	0.00725	0.0012	37.58	138.18	100.60	290.11	151.93	7.16	160
						HAP1DPT02_2a	< 0.0002	0.00752	0.0013	37.14	138.93	101.79	289.25	150.32	7.26	158
						Average	**ND**	**0.00739**	**0.0013**	**37.36**	**138.56**	**101.20**	**289.68**	**151.13**	**7.21**	**159**
				15-Sep-21	7*	HAP1DPT02_1b	< 0.0002	0.00956	0.0005	36.36	137.68	101.32	287.48	149.80	6.87	122
						HAP1DPT02_2b	< 0.0002	0.00967	0.0007	36.48	136.90	100.42	288.34	151.44	6.90	121
						Average	**ND**	**0.00962**	**0.0006**	**36.42**	**137.29**	**100.87**	**287.91**	**150.62**	**6.89**	**122**
	DPT04XRF(40-45)	Arsenic: 13 µg/g Molybdenum: 1.4 µg/g Lithium: 12 µg/g	Laboratory Atmospheric Conditions	31-Aug-21	0	HAP1DPT04XRF_3a	0.0007	0.00658	0.0043	36.57	136.59	100.02	288.33	151.74	7.23	160
						HAP1DPT04XRF_4a	0.0007	0.00656	0.0046	36.65	136.65	100.00	288.41	151.76	7.24	159
						Average	**0.0007**	**0.00657**	**0.0045**	**36.61**	**136.62**	**100.01**	**288.37**	**151.75**	**7.24**	**160**
				15-Sep-21	7*	HAP1DPT04XRF_3b	0.0031	0.0124	0.0048	36.27	138.02	101.75	289.00	150.98	6.98	121
						HAP1DPT04XRF_4b	0.0030	0.0113	0.0040	36.32	136.85	100.53	286.77	149.92	6.97	120
						Average	**0.0031**	**0.0119**	**0.0044**	**36.30**	**137.44**	**101.14**	**287.89**	**150.45**	**6.98**	**121**
		Arsenic: 13 µg/g Molybdenum: 1.4 µg/g Lithium: 12 µg/g	Hydrogen Amended	31-Aug-21	0	HAP1DPT04XRF_5a	0.0007	0.00658	0.0043	36.57	136.59	100.02	288.33	151.74	7.23	160
						HAP1DPT04XRF_6a	0.0007	0.00656	0.0046	36.65	136.65	100.00	288.41	151.76	7.24	159
						Average	**0.0007**	**0.00657**	**0.0045**	**36.61**	**136.62**	**100.01**	**288.37**	**151.75**	**7.24**	**160**
				15-Sep-21	15	HAP1DPT04XRF_5b	0.0012	0.00896	0.0015	36.64	136.62	99.98	286.98	150.36	6.82	122
						HAP1DPT04XRF_6b	0.0012	0.00414	0.0008	36.67	136.66	99.99	287.32	150.66	6.67	124
						Average	**0.0012**	**0.00655**	**0.0012**	**36.66**	**136.64**	**99.99**	**287.15**	**150.51**	**6.75**	**123**

Notes:
* Samples for Day 7 sampling were prepared on 8 September 2021
< - compound not detected, the associated value is the detection limit
g - grams
µg/g - microgram per gram
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
ND - not detected
ORP - oxidation-reduction potential

APPENDIX G:
External Laboratory Reports

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : S-6195

14-October-2020

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W, Guelph
Canada, N1G 3Z2
Phone: 519-822-2265, Fax:519-822-3151

Date Rec. : 25 September 2020
LR Report: **CA15479-SEP20**

Copy: #1

CERTIFICATE OF ANALYSIS

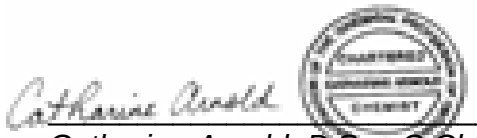
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: S-6195-1	6: S-6195-2	7: S-6195-3	8: S-6195-4	9: S-6195-5	10: S-6195-6
Sample Date & Time					24-Sep-20	24-Sep-20	24-Sep-20	24-Sep-20	24-Sep-20	24-Sep-20
Ag [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	< 1	< 1	< 1	< 1	< 1	< 1
Al [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	50000	33000	55000	69000	75000	68000
As [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	4.9	4.7	12	3.8	4.6	4.8
Ba [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	220	190	170	260	260	280
Be [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	1.8	1.6	2.5	3.0	5.6	4.5
Bi [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	0.31	0.23	0.48	0.41	0.37	0.35
Ca [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	4200	2500	16000	7500	3500	46000
Cd [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	0.14	0.11	0.58	0.38	0.19	0.080
Co [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	12	11	26	19	38	23
Cr [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	28	20	64	53	57	16
Cu [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	10	12	29	26	28	25
Fe [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	26000	26000	52000	42000	50000	41000
K [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	7800	6700	13000	16000	22000	14000
Li [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	38	33	43	38	36	59
Mg [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	4900	3600	12000	9900	11000	8800
Mn [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	710	530	1100	2400	830	1200

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : S-6195
LR Report : **CA15479-SEP20**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: S-6195-1	6: S-6195-2	7: S-6195-3	8: S-6195-4	9: S-6195-5	10: S-6195-6
Mo [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	1.2	6.2	0.54	1.4	13	0.40
Ni [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	25	25	52	47	48	55
Pb [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	18	11	20	20	16	20
Sb [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Se [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Sn [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	< 6	< 6	< 6	< 6	< 6	< 6
Sr [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	67	50	78	46	60	130
Ti [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	1600	970	2700	3500	3400	260
Tl [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	0.40	0.33	0.32	0.44	0.48	0.45
U [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	1.8	1.3	2.5	3.0	3.1	0.88
V [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	63	42	60	71	70	40
Y [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	19	18	22	31	30	64
Zn [µg/g]	07-Oct-20	15:21	13-Oct-20	14:29	52	49	76	79	100	86
S [%]	08-Oct-20	15:16	09-Oct-20	11:21	0.018	0.008	0.005	0.006	< 0.005	< 0.005
C [%]	08-Oct-20	15:16	09-Oct-20	11:21	0.086	0.044	0.412	0.157	0.036	1.15
Sulphide [%]	09-Oct-20	15:49	09-Oct-20	16:46	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
TOC [%]	09-Oct-20	10:44	09-Oct-20	11:21	0.070	0.040	0.160	0.090	< 0.025	0.120



Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002285504

SGS	**Minerals** **Geochemistry** **Lakefield Laboratory**	Revision **2.7** Doc Type **Method Summary** Method No: **GO/GC/GT_XR** Code **F76V** Service **Testing** Issued Date **23/Sep/2014**
Minerals	**Preparation and Determination of Major Element Oxides, LOI and Rare Earth Oxides in Oxide Ores, and Process Control and Trade Products by Borate Fusion and Xray Fluorescence Spectrometry** [SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, TiO_2, Cr_2O_3; V_2O_5; LOI; additions BaO; Ce_2O_3; Nd_2O_3, La_2O_3; Pr_2O_3, Sm_2O_3; Nb_2O_5, ThO_2, Ta_2O_5; SnO_2; SrO; ZrO_2; HfO_2; Y_2O_3; WO_3; U_3O_8; Co; Ni ; XRF]	Approved by **K. Patel**

1. **Parameter(s) measured, unit(s):**
   Silicon Dioxide (SiO_2), Aluminum Oxide (Al_2O_3), Iron(III) Oxide (Fe_2O_3), Magnesium Oxide (MgO), Calcium Oxide (CaO), Sodium Oxide (Na_2O), Potassium Oxide (K_2O), Phosphorus Pentoxide (P_2O_5), Manganese Oxide (MnO), Titanium Dioxide (TiO_2), Chromium (III) Oxide (Cr_2O_3), Vanadium Oxide (V_2O_5), LOI, in %
   Barium Oxide (BaO), Cerium (III) Oxide(Ce_2O_3), Neodymium Oxide (Nd_2O_3), Lanthanum Oxide (La_2O_3), Praseodymium Oxide (Pr_2O_3), Samarium Oxide (Sm_2O_3), Niobium Pentoxide (Nb_2O_5), Thorium Dioxide (ThO_2), Tantalum Pentoxide (Ta_2O_5), Tin Dioxide (SnO_2) Uranium Oxide (U_3O_8), Cobalt (Co), Nickel (Ni), Strontium Oxide (SrO), Zirconium Dioxide (ZrO_2), Hafnium Oxide (HfO_2), Yttrium Oxide (Y_2O_3), Tungsten Trioxide (WO_3) in % can be added as additions

2. **Typical sample size:**
   0.2 to 0.5g, 1g additional for LOI analysis

3. **Type of sample applicable (media):**
   Rocks, oxide ores, concentrates and catalysts

4. **Sample preparation technique used:**
   Samples are crushed and pulverized according to client specified instructions or default preparation procedures. This method is used to report, in percentage, the whole rock suite (SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, TiO_2, Cr_2O_3 ,V_2O_5). Sample preparation entails the formation of a homogenous glass disk by the fusion of the sample and a lithium tetraborate/lithium metaborate mixture. The LOI is determined separately and gravimetrically at 1000°C.

5. **Method of analysis used:**
   The prepared disks are analyzed by wavelength dispersion X-ray fluorescence (WD-XRF). The

LOI is included in the matrix correction calculations, which are performed by the XRF software.

6. **Data reduction by:**
Computer, on line, data fed to Laboratory Information Management System with secure audit trail.

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7. **Figures of Merit:**
This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of reference materials, replicates, duplicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, reporting limit, specificity and measurement uncertainty.

The reporting limits has been determined according to the following

Element	Report Limit %
SiO2	0.01
Al2O3	0.01
MgO	0.01
Na2O	0.01
K2O	0.01
CaO	0.01
P2O5	0.01
TiO2	0.01
Cr2O3	0.01
V2O5	0.01
Fe2O3	0.01
MnO	0.01
LOI	-10

*upper limit for all elements is 100%. A negative LOI indicates a gain on ignition

8. **Quality control:**
Quality control materials include method blanks, replicates and reference materials and are randomly inserted with the frequency set according to method protocols at ~12% for ore grade analysis and 18% for process control analysis. Quality control materials will also include BRM (Barren reference materials, or preparations blanks) and preparation duplicates if samples have been taken through the sample reduction process. Party quality samples are assayed in replicate, umpire quality samples are in triplicate. Calibration materials that cover the range upon method set-up; calibration check performed daily.

9. **Accreditation:**
The Standards Council of Canada has accredited this test in conformance with the requirements of ISO/IEC 17025. See www.scc.ca/en/search/palcan for scope of accreditation.

Note: Scopes of accreditation are site specific, please check with the local representative.

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

03-November-2020

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W, Guelph
Canada, N1G 3Z2
Phone: 519-822-2265, Fax:519-822-3151

Date Rec. : 25 September 2020
LR Report: **CA15480-SEP20**
Reference: S-6195

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	**5: S-6195-1**	**6: S-6195-2**	**7: S-6195-3**	**8: S-6195-4**	**9: S-6195-5**	**10: S-6195-6**
Sample Date & Time	24-Sep-20	24-Sep-20	24-Sep-20	24-Sep-20	24-Sep-20	24-Sep-20
SiO2 [%]	76.7	84.1	64.8	66.7	64.7	52.5
Al2O3 [%]	9.84	6.43	11.8	13.4	14.6	16.3
Fe2O3 [%]	3.73	3.72	7.30	5.99	7.24	6.12
MgO [%]	0.82	0.58	2.09	1.63	1.75	1.78
CaO [%]	0.59	0.34	2.36	1.03	0.47	6.37
Na2O [%]	0.36	0.24	0.64	0.64	0.15	0.10
K2O [%]	0.94	0.79	1.85	1.95	2.63	2.40
TiO2 [%]	0.90	0.39	0.50	0.64	0.63	0.70
P2O5 [%]	0.11	0.11	0.29	0.22	0.13	0.17
MnO [%]	0.08	0.06	0.14	0.29	0.10	0.14
Cr2O3 [%]	< 0.01	< 0.01	0.01	< 0.01	0.01	0.01
V2O5 [%]	0.02	< 0.01	< 0.01	0.01	< 0.01	0.01
LOI [%]	5.66	3.69	8.23	7.36	7.98	13.5
Sum [%]	99.8	100.5	100.0	99.9	100.5	100.1

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002309056

Quantitative X-Ray Diffraction by Rietveld Refinement

Report Prepared for:	*Environmental Services*
Project Number/ LIMS No.	*Custom XRD/MI4503-OCT20*
Sample Receipt:	*October 6, 2020*
Sample Analysis:	*October 6, 2020*
Reporting Date:	*October 23, 2020*

Instrument:	BRUKER AXS D8 Advance Diffractometer
Test Conditions:	Co radiation, 35 kV, 40 mA Regular Scanning: Step: 0.02°, Step time: 1s, 2θ range: 3-80°
Interpretations :	PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.
Detection Limit :	0.5-2%. Strongly dependent on crystallinity.

Contents:

1) Method Summary
2) Quantitative XRD Results
3) XRD Pattern(s)

Kim Gibbs, H.B.Sc., P.Geo.
Senior Mineralogist

Huyun Zhou, Ph.D., P.Geo.
Senior Mineralogist

ACCREDITATION: SGS Minerals Services Lakefield is accredited to the requirements of ISO/IEC 17025 for specific tests as listed on our scope of accreditation, including geochemical, mineralogical and trade mineral tests. To view a list of the accredited methods, please visit the following website and search SGS Canada - Minerals Services - Lakefield: http://palcan.scc.ca/SpecsSearch/GLSearchForm.do.

Method Summary

The Rietveld Method of Mineral Identification by XRD (ME-LR-MIN-MET-MN-D05) method used by SGS Minerals Services is accredited to the requirements of ISO/IEC 17025.

Mineral Identification and Interpretation:

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

Quantitative Rietveld Analysis:

Quantitative Rietveld Analysis is performed by using Topas 4.2 (Bruker AXS), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	S-6195-1 OCT4503-01 (wt %)	S-6195-2 OCT4503-02 (wt %)	S-6195-3 OCT4503-03 (wt %)	S-6195-4 OCT4503-04 (wt %)	S-6195-5 OCT4503-05 (wt %)	S-6195-6 OCT4503-06 (wt %)
Quartz	70.3	82.0	64.7	55.8	44.9	34.4
Albite	4.9	3.2	6.0	8.5	3.4	4.5
Microcline	2.1	1.2	1.5	3.3	7.9	4.6
Muscovite	10.2	7.0	13.1	20.5	26.1	24.0
Chlorite	4.1	2.5	6.3	-	-	-
Kaolinite	5.6	3.8	3.4	7.3	-	-
Anatase	0.7	0.1	0.2	0.6	1.2	1.7
Nontronite	2.2	0.2	1.8	4.1	0.4	4.9
Calcite	-	-	3.1	-	-	15.0
Goethite	-	-	-	-	16.2	10.9
TOTAL	100	100	100	100	100	100

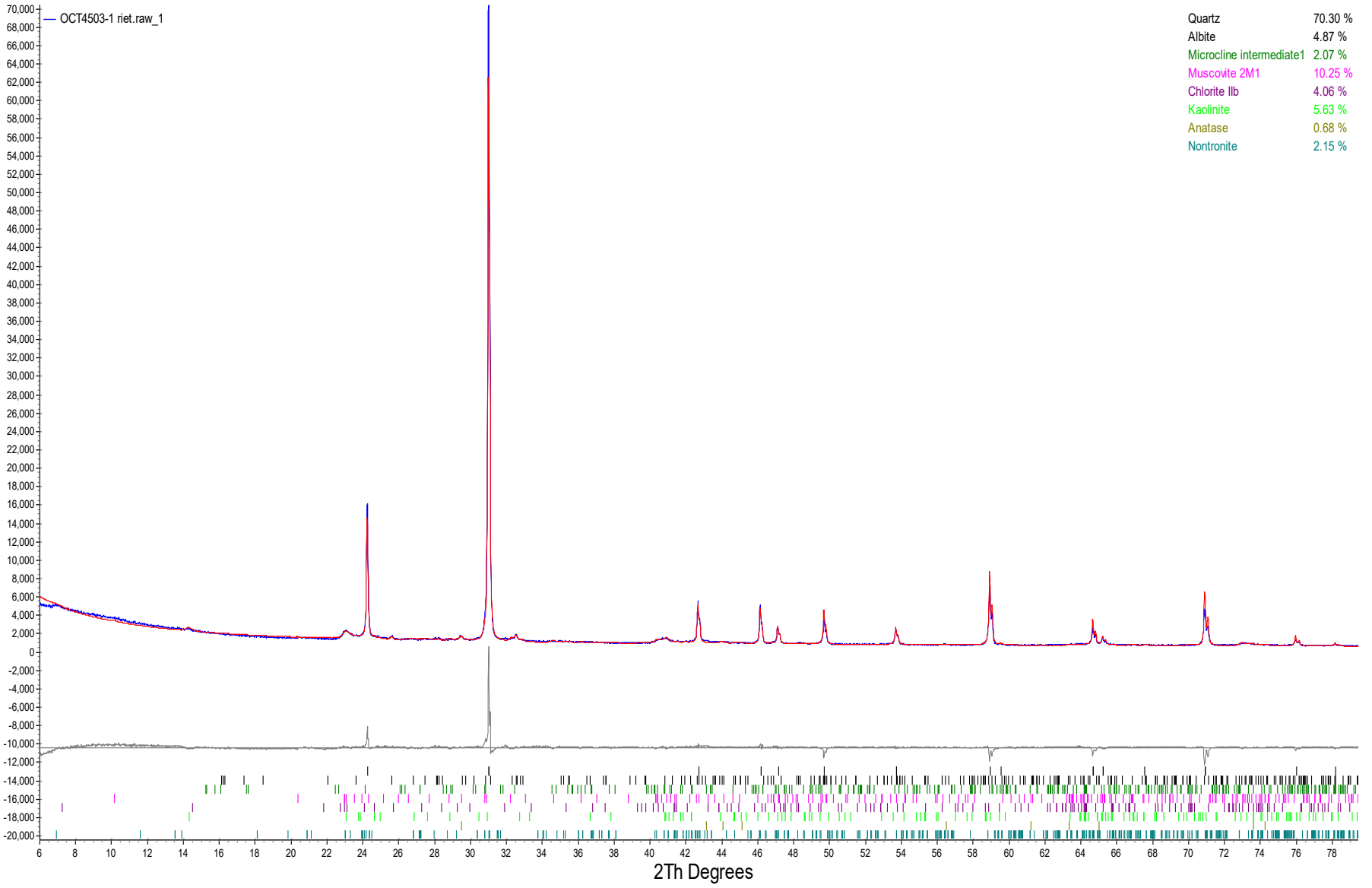
Zero values indicate that the mineral was included in the refinement, but the calculated concentration is below a measurable value.

Dashes indicate that the mineral was not identified by the analyst and not included in the refinement calculation for the sample.

The weight percent quantities indicated have been normalized to a sum of 100%. The quantity of amorphous material has not been determined.

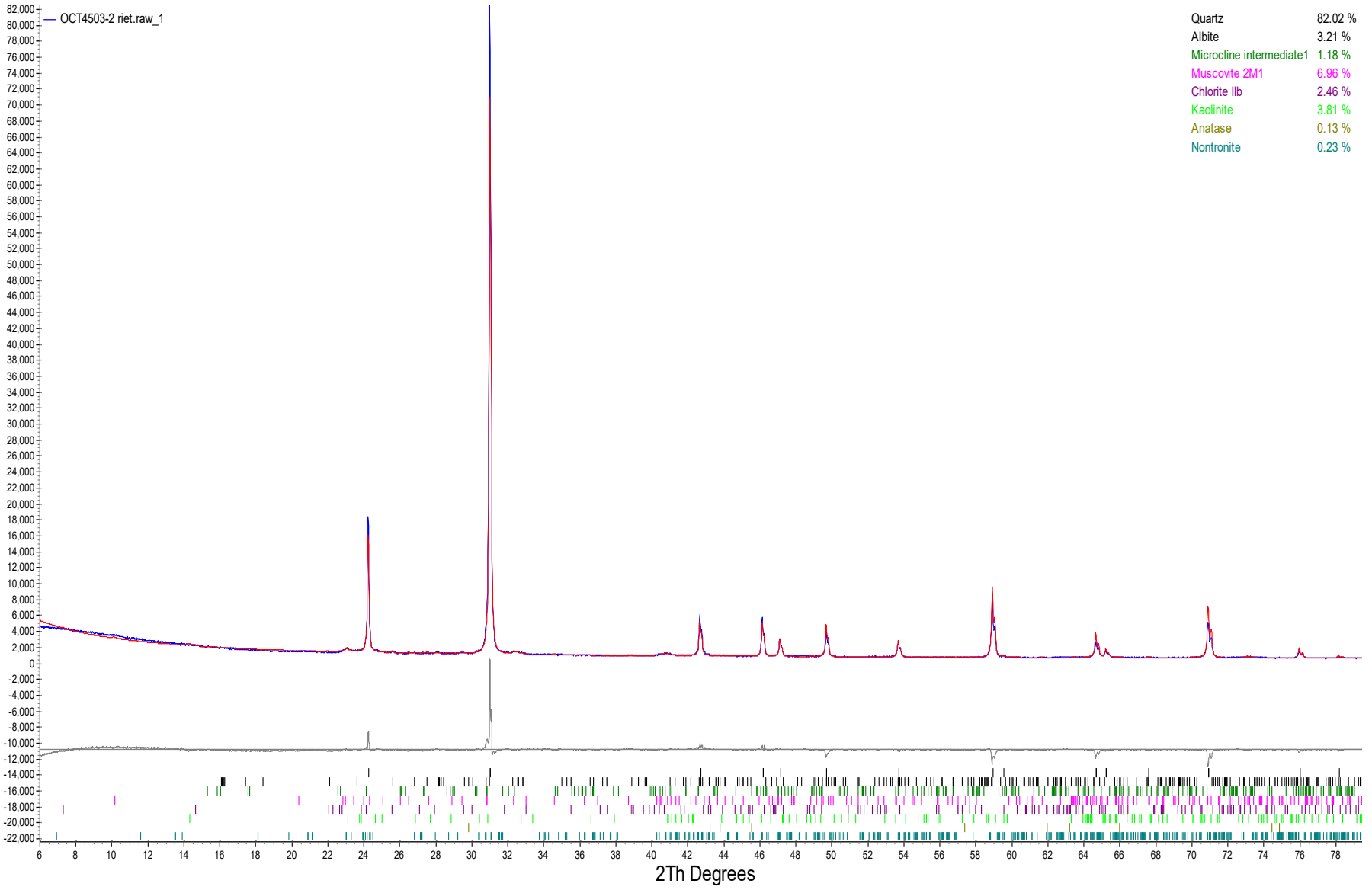
Mineral/Compound	Formula
Quartz	SiO_2
Albite	$NaAlSi_3O_8$
Microcline	$KAlSi_3O_8$
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$
Chlorite	$(Fe,(Mg,Mn)_5,Al)(Si_3Al)O_{10}(OH)_8$
Kaolinite	$Al_2Si_2O_5(OH)_4$
Anatase	TiO_2
Nontronite	$Fe_2(Al,Si)_4O_{10}(OH)_2Na_{0.3}\cdot 4(H_2O)$
Calcite	$CaCO_3$
Goethite	$\alpha FeO\cdot OH$

S-6195-1



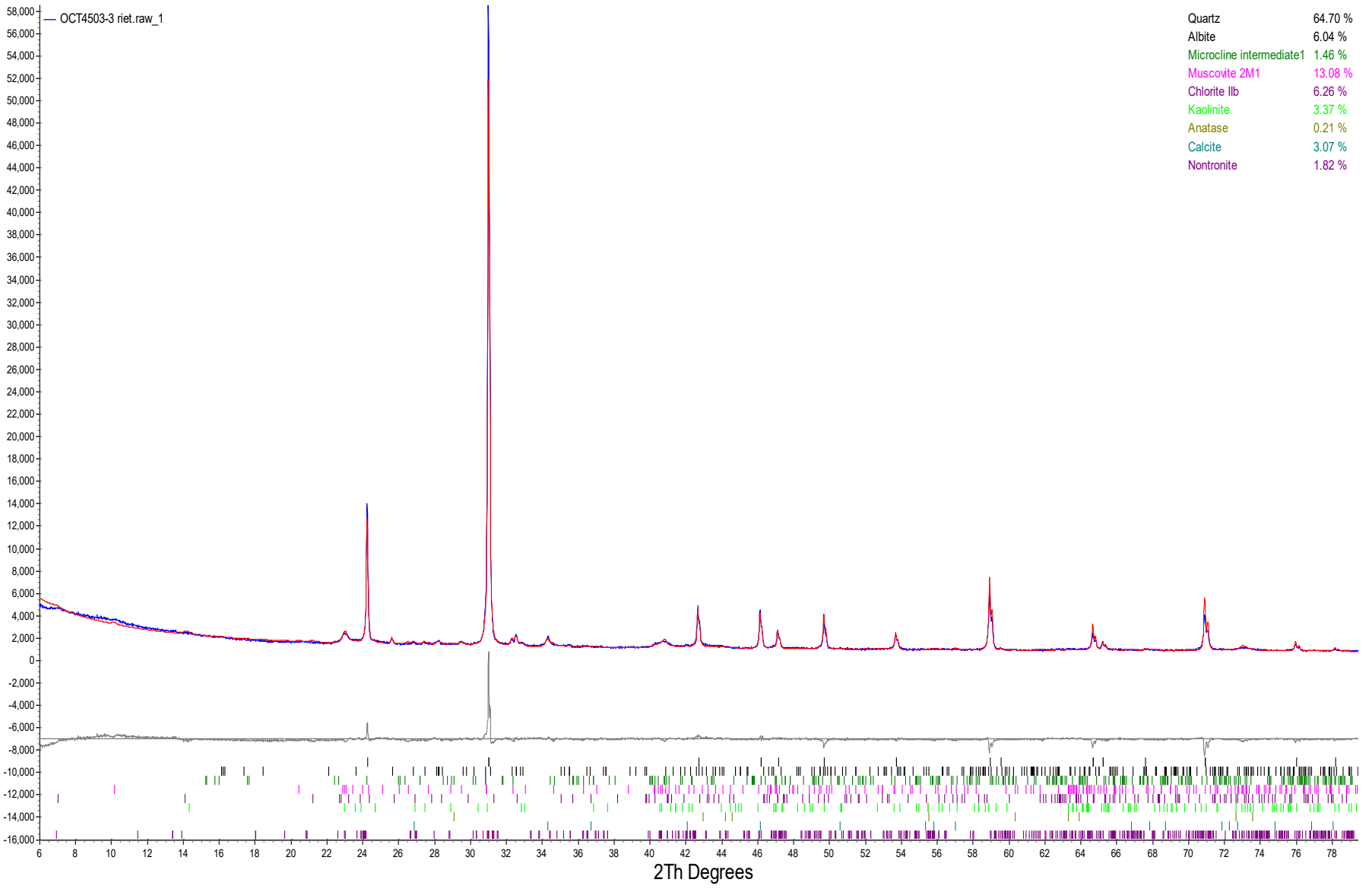
Quartz	70.30 %
Albite	4.87 %
Microcline intermediate1	2.07 %
Muscovite 2M1	10.25 %
Chlorite IIb	4.06 %
Kaolinite	5.63 %
Anatase	0.68 %
Nontronite	2.15 %

S-6195-2



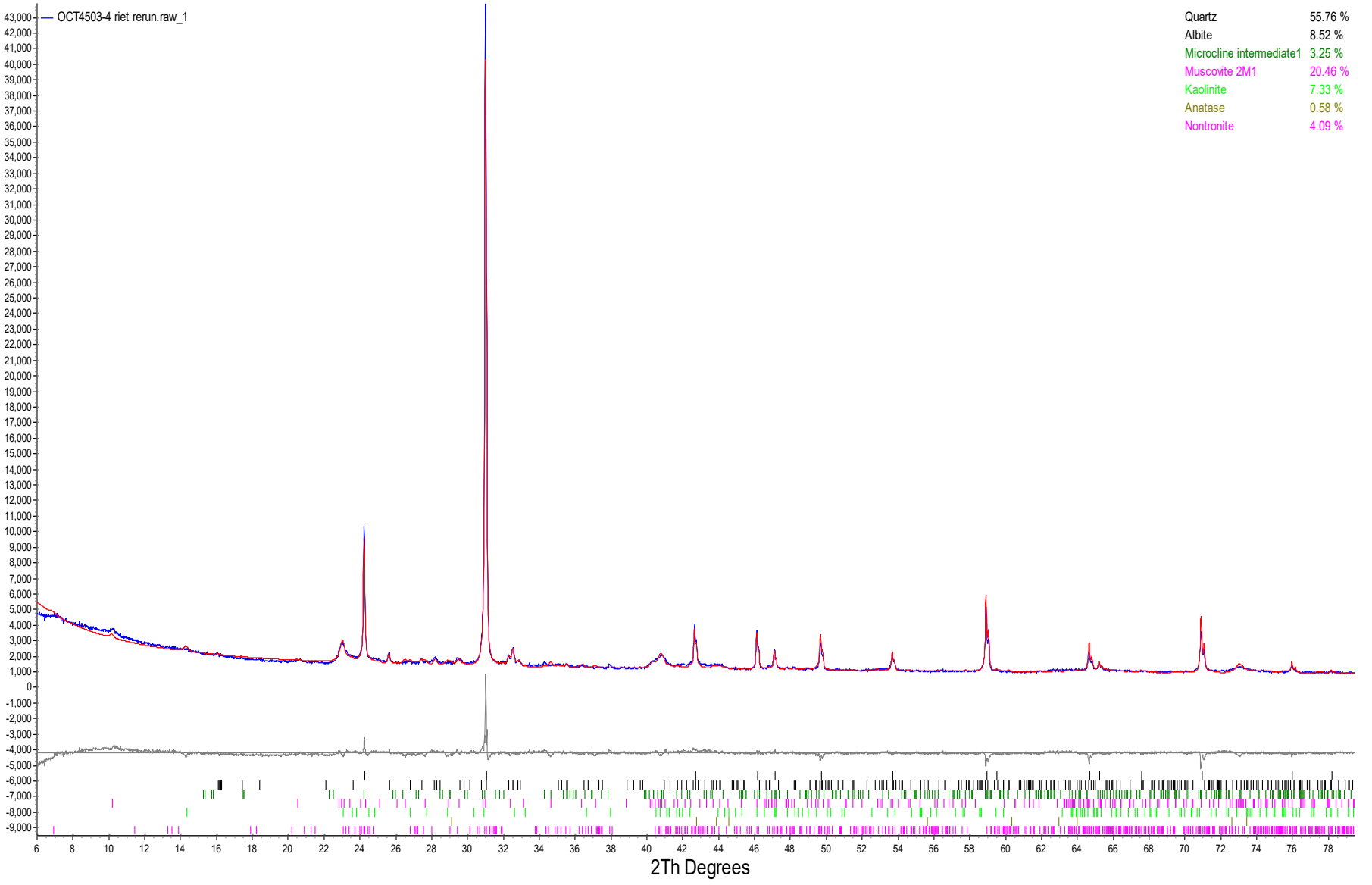
Quartz	82.02 %
Albite	3.21 %
Microcline intermediate1	1.18 %
Muscovite 2M1	6.96 %
Chlorite IIb	2.46 %
Kaolinite	3.81 %
Anatase	0.13 %
Nontronite	0.23 %

S-6195-3



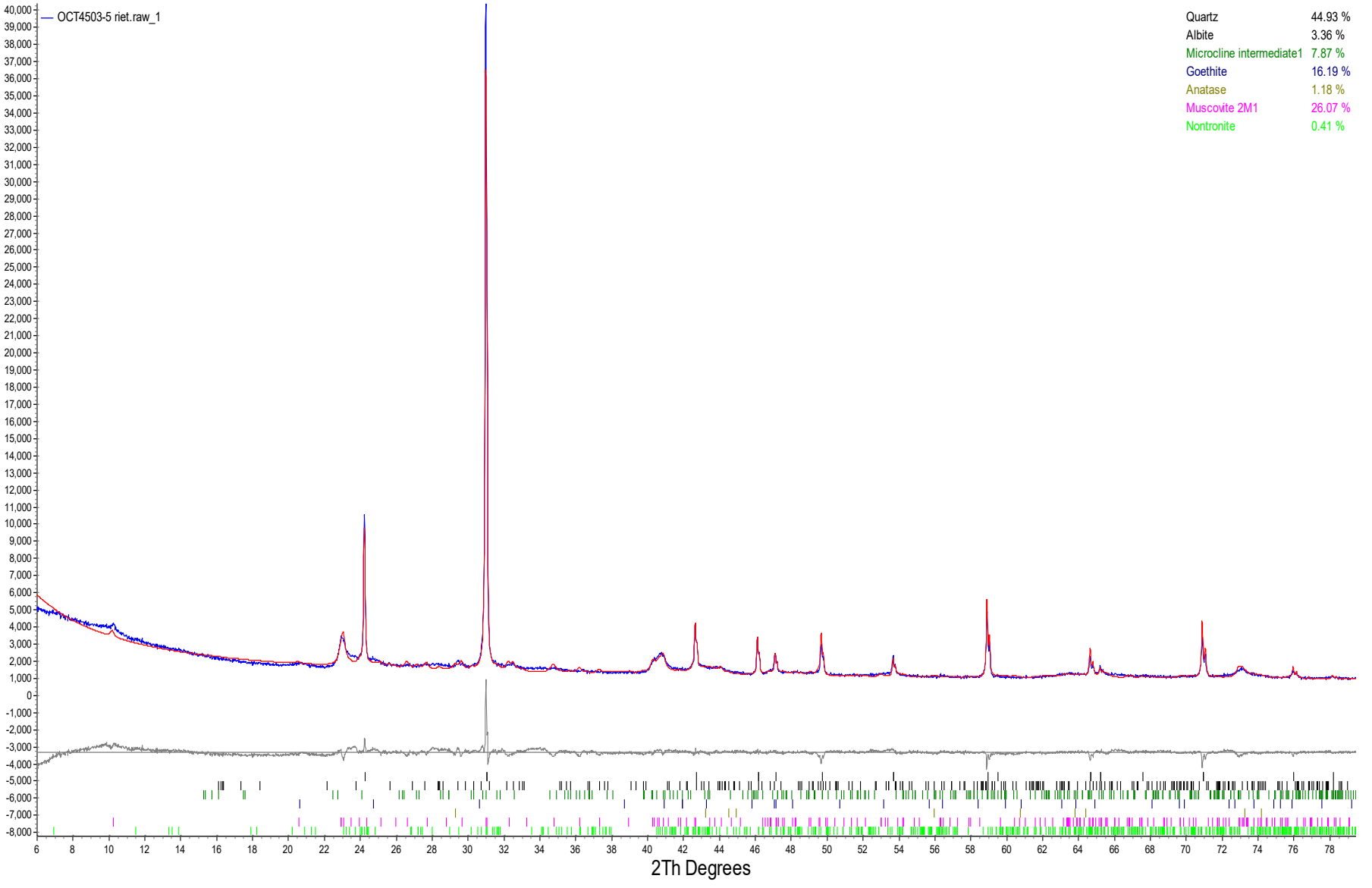
Quartz	64.70 %
Albite	6.04 %
Microcline intermediate1	1.46 %
Muscovite 2M1	13.08 %
Chlorite IIb	6.26 %
Kaolinite	3.37 %
Anatase	0.21 %
Calcite	3.07 %
Nontronite	1.82 %

S-6195-4



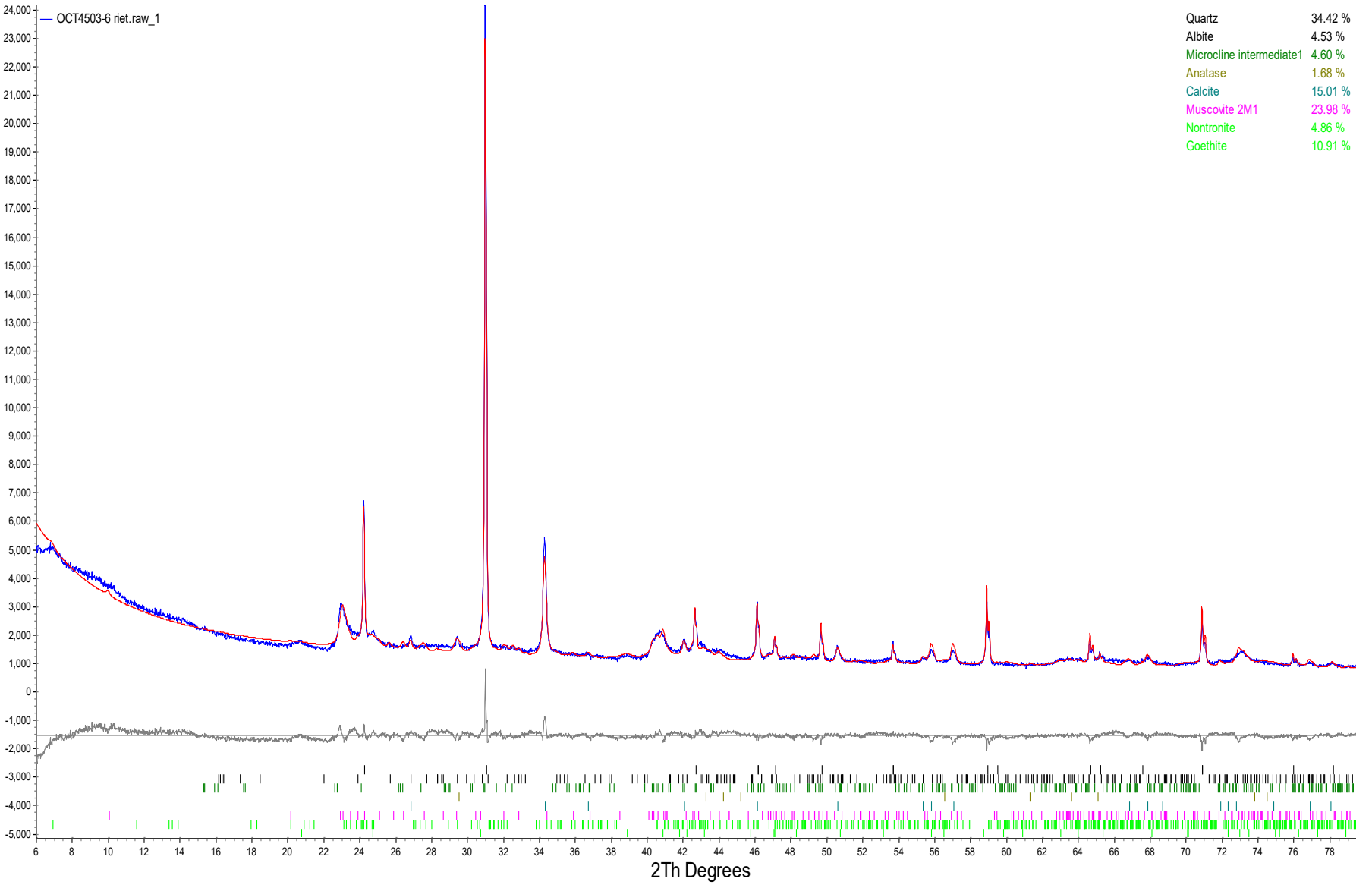
Quartz	55.76 %
Albite	8.52 %
Microcline intermediate1	3.25 %
Muscovite 2M1	20.46 %
Kaolinite	7.33 %
Anatase	0.58 %
Nontronite	4.09 %

S-6195-5



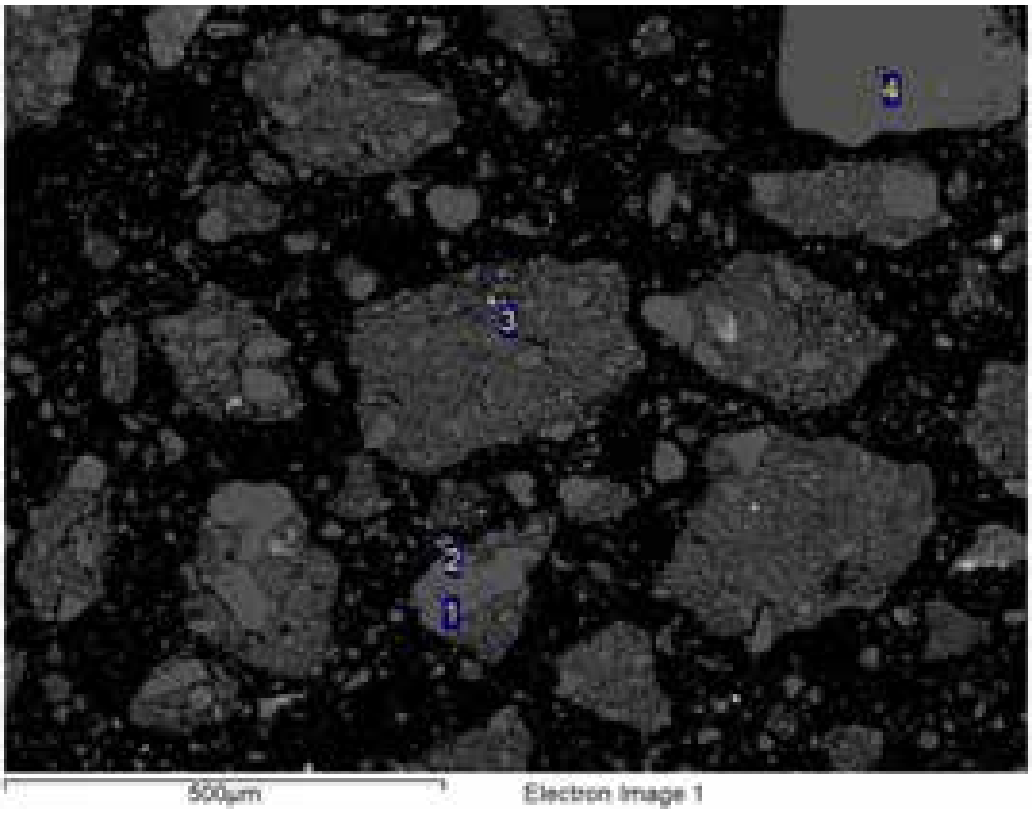
Quartz	44.93 %
Albite	3.36 %
Microcline intermediate1	7.87 %
Goethite	16.19 %
Anatase	1.18 %
Muscovite 2M1	26.07 %
Nontronite	0.41 %

S-6195-6



Quartz	34.42 %
Albite	4.53 %
Microcline intermediate1	4.60 %
Anatase	1.68 %
Calcite	15.01 %
Muscovite 2M1	23.98 %
Nontronite	4.86 %
Goethite	10.91 %

Sample Notes:
S-6195-1

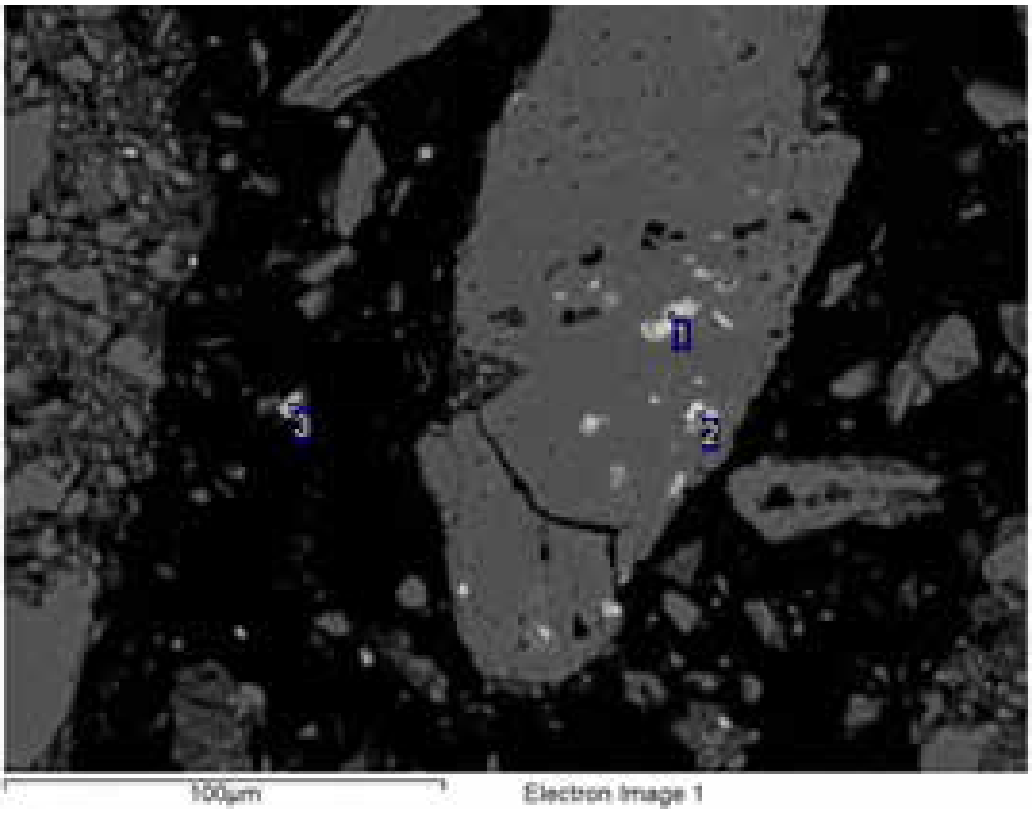


Processing option : All elements analysed (Normalised)

Spectrum	O	F	Si	P	Ca	Ti	Mn	Fe	W	Total	Mineral ID
1	51.8		48.2							100.0	Quartz
A2	36.8	8.2		16.8	36.9				1.3	100.0	Apatite
3	33.5					31.2	3.4	32.0		100.0	Ilmenite
4	52.2		47.8							100.0	Quartz

All results in weight%

Sample Notes:
S-6195-1

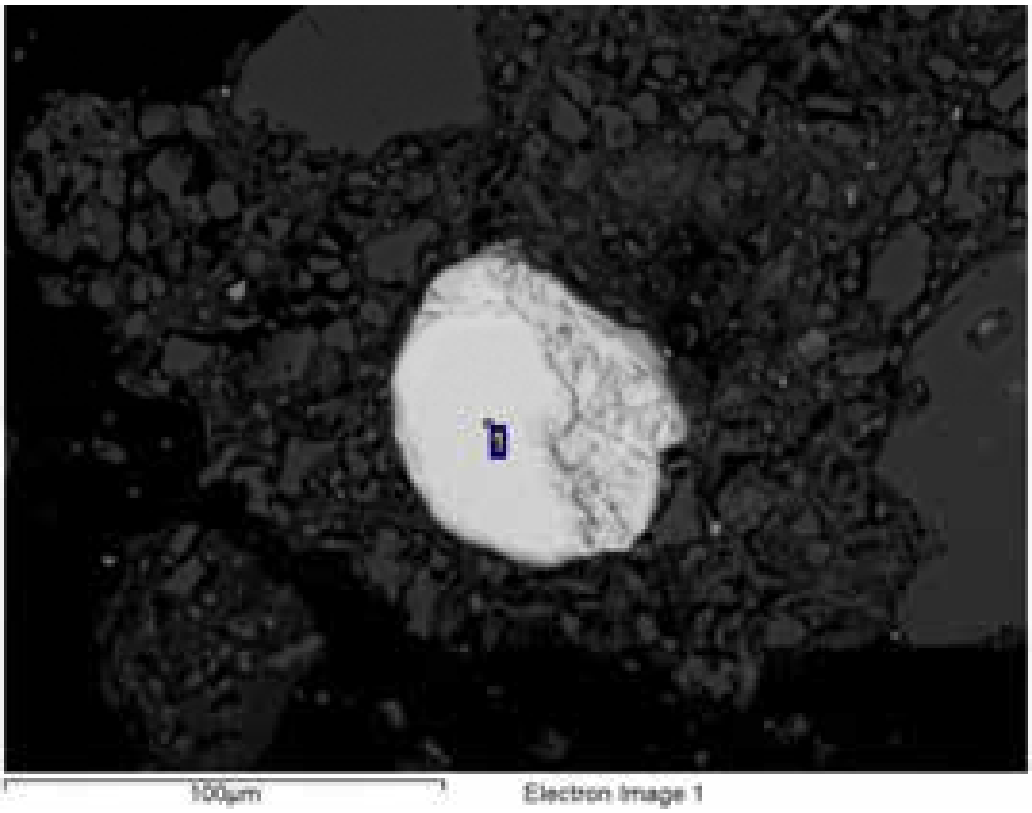


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	Ti	Fe	Total	Mineral ID
1	35.2	1.6	14.1	0.7		48.5	100.0	FeOx
2	40.4	0.8	7.9	0.6		50.3	100.0	FeOx
3	46.1	0.5	0.9		51.9	0.6	100.0	Rutile

All results in weight%

Sample Notes:
S-6195-1

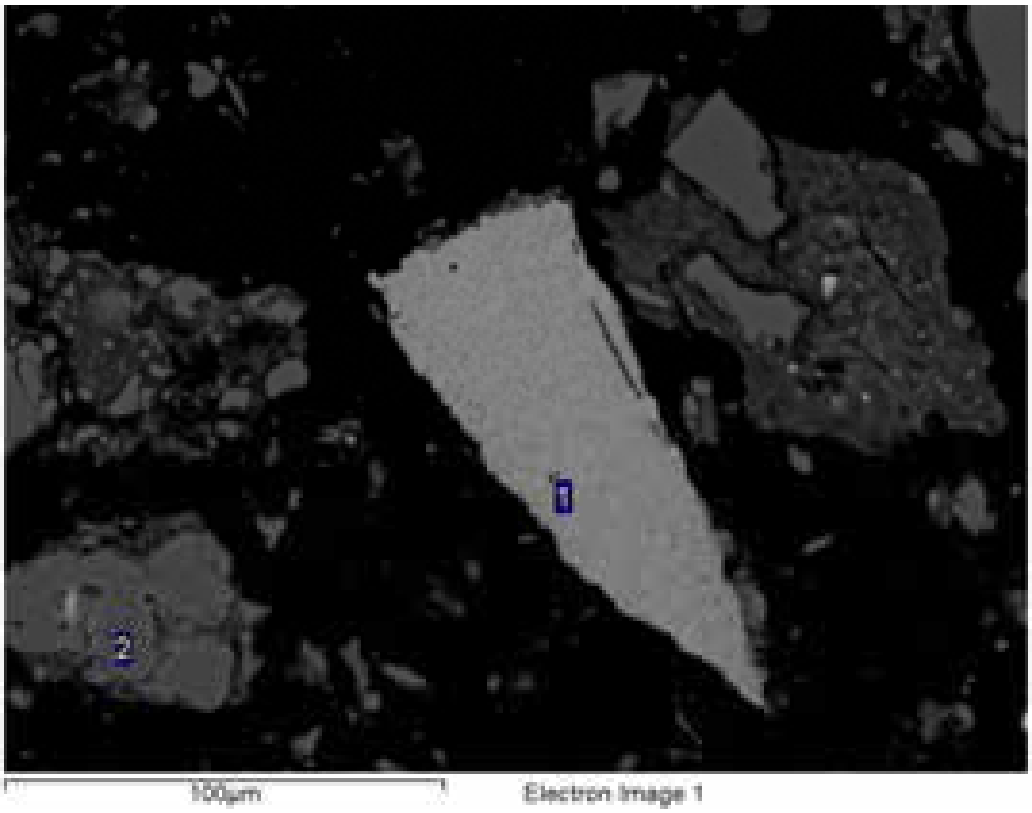


Processing option : All elements analysed (Normalised)

Spectrum	O	Si	Zr	Total	Mineral ID
1	34.2	16.0	49.8	100.0	Zircon

All results in weight%

Sample Notes:
S-6195-1

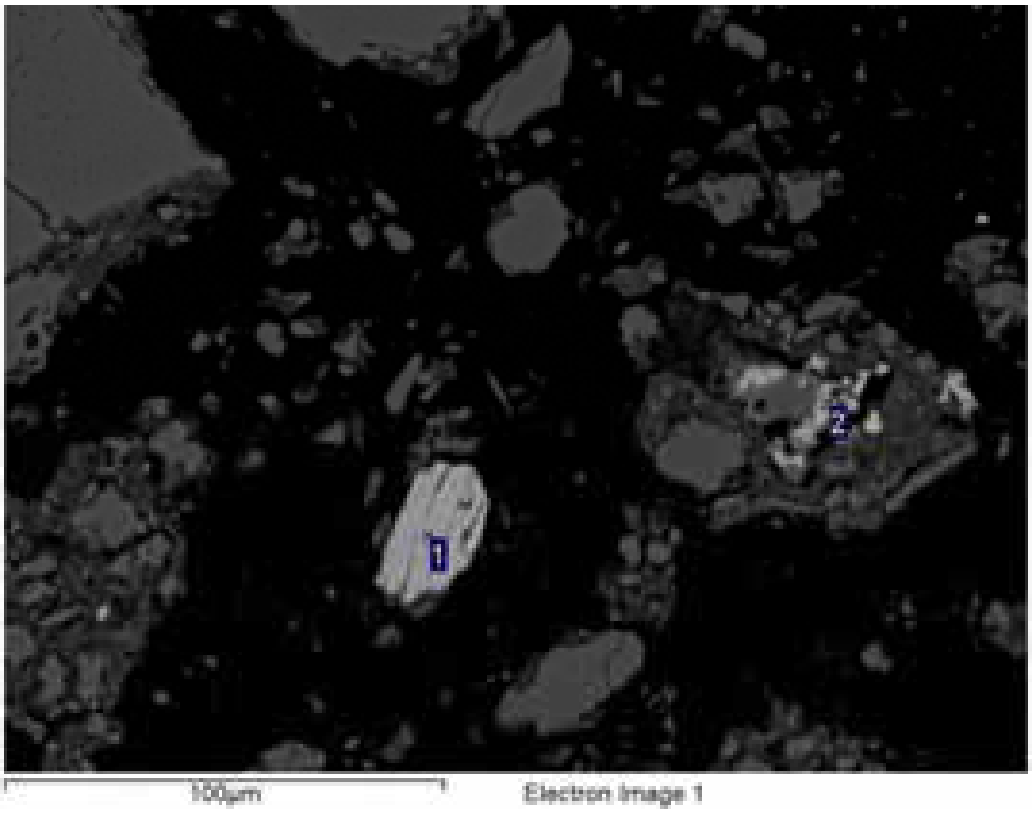


Processing option : All elements analysed (Normalised)

Spectrum	O	F	Na	Si	P	Ca	W	Total	Mineral ID
1	36.6	7.3	0.3		16.9	37.6	1.3	100.0	Apatite
2	52.2			47.8				100.0	Quartz

All results in weight%

Sample Notes:
S-6195-1

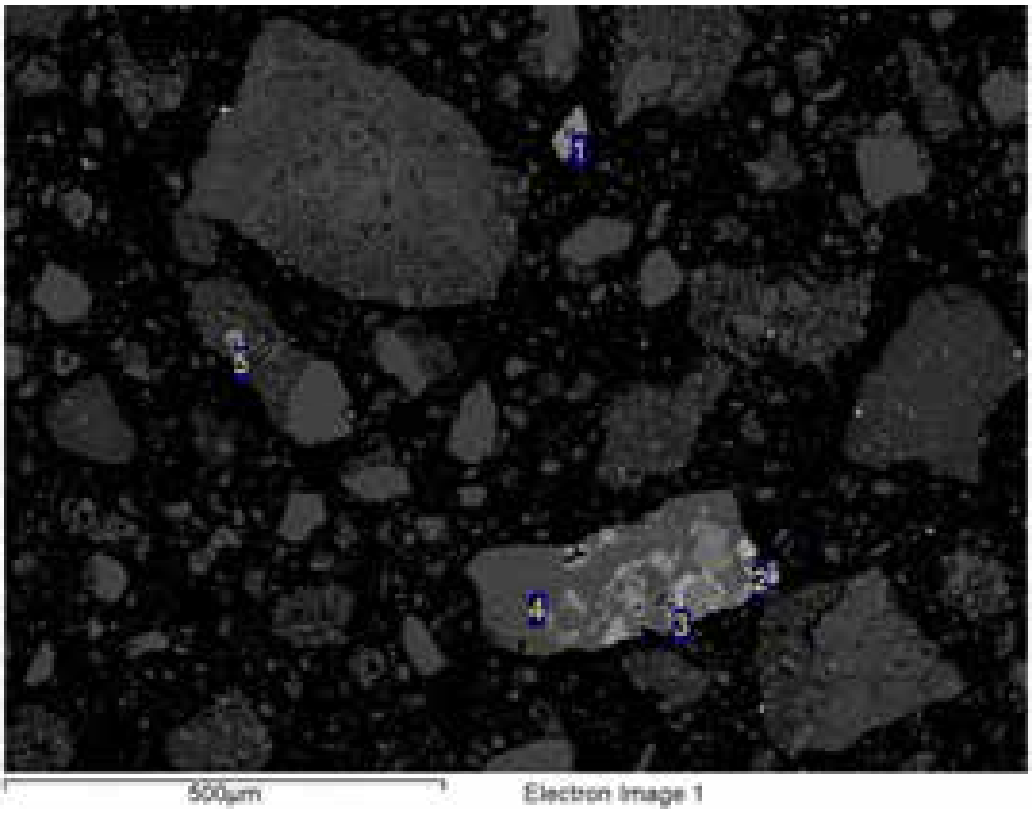


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	41.7			0.2				57.4		0.6	100.0	Rutile
2	38.5	0.4	3.9	9.6	0.5	1.5	0.4		0.4	44.6	100.0	FeOx

All results in weight%

Sample Notes:
S-6195-1

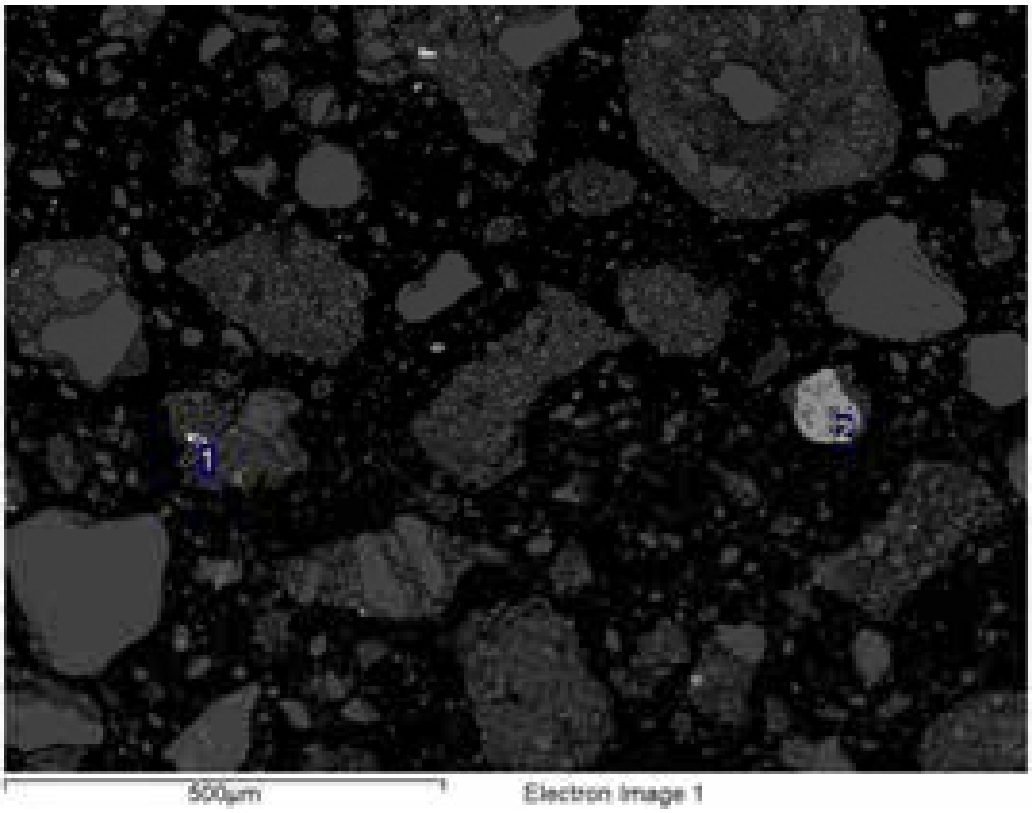


Processing option : All elements analysed (Normalised)

Spectrum	O	F	Mg	Al	Si	P	K	Ca	Ti	Fe	Ce	W	Total	Mineral ID
1	36.2	8.4				17.0		36.5			0.6	1.4	100.0	Apatite
2	37.2			2.5	2.1	0.4				57.9			100.0	FeOx
3	38.3			5.4	5.5	0.4	0.4	0.2		49.8			100.0	FeOx
4	51.7				47.5					0.8			100.0	Quartz
5	45.4		0.3	4.5	6.7		1.7		39.4	2.0			100.0	Rutile

All results in weight%

Sample Notes:
S-6195-1

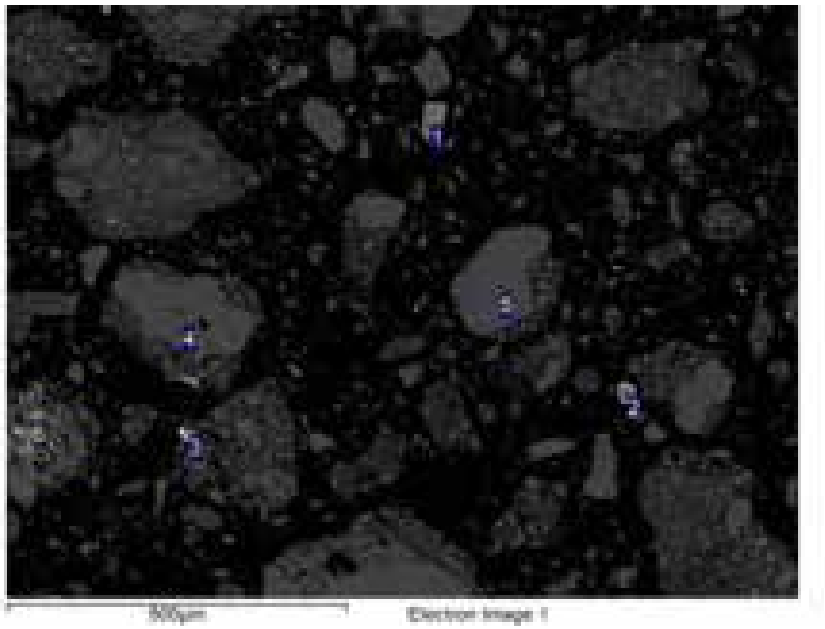


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	Ti	Fe	Zr	Total	Mineral ID
1	34.1		15.8			50.1	100.0	Zircon
2	49.9	0.8	1.9	46.6	0.7		100.0	Rutile

All results in weight%

Sample Notes:
S-6195-1 Rep

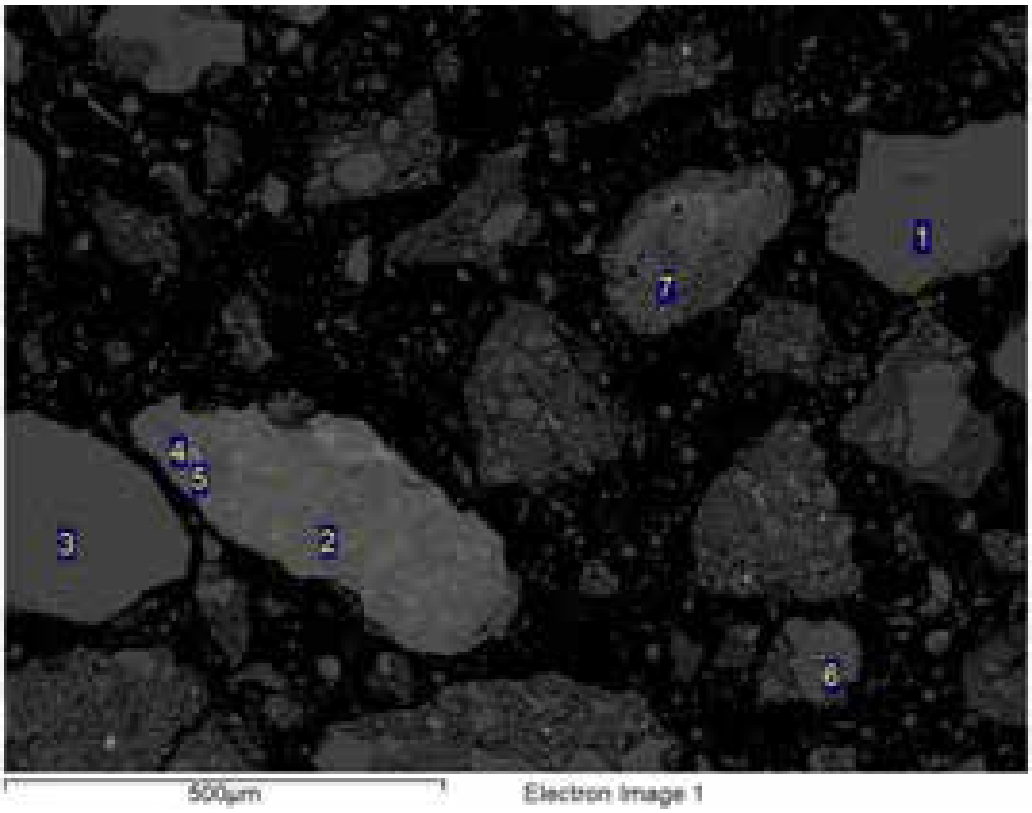


Processing option : All elements analysed (Normalised)

Spectrum	O	F	Na	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Zr	Ba	W	Total	Mineral ID
1	37.6	7.2					17.2		36.6						1.3	100.0	Apatite
2	44.5				1.5	4.7		1.6		47.3		0.3				100.0	Rutile
3	35.3					15.6							49.1			100.0	Zircon
4	49.1		8.3		9.7	32.9										100.0	Albite
5	52.1					47.9										100.0	Quartz
6	43.8	4.5		1.4	2.6	2.4		0.3	3.6		33.8	5.6		2.1		100.0	MnOx

All results in weight%

Sample Notes:
S-6195-1 Rep

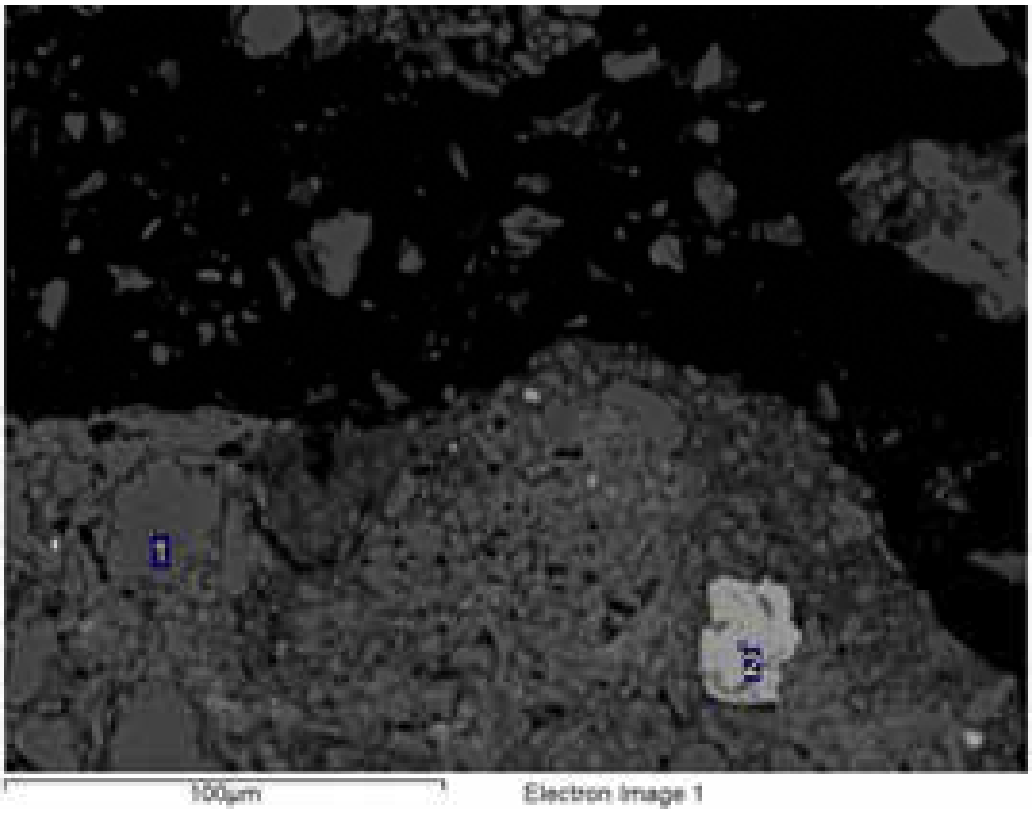


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	S	K	Ca	Ti	Cr	Fe	Total	Mineral ID
1	52.4				47.6							100.0	Quartz
2	48.6			1.1	38.4						11.9	100.0	FeOx/Quartz
3	52.6				47.4							100.0	Quartz
4	46.6			1.4	39.1						12.9	100.0	FeOx/Quartz
5	36.6			7.0	2.4	0.8		0.5		0.4	52.2	100.0	FeOX
6	51.8				48.2							100.0	Quartz
7	44.0	0.9	0.4	19.2	23.8		9.1		0.4		2.2	100.0	Mica

All results in weight%

Sample Notes:
S-6195-1 Rep

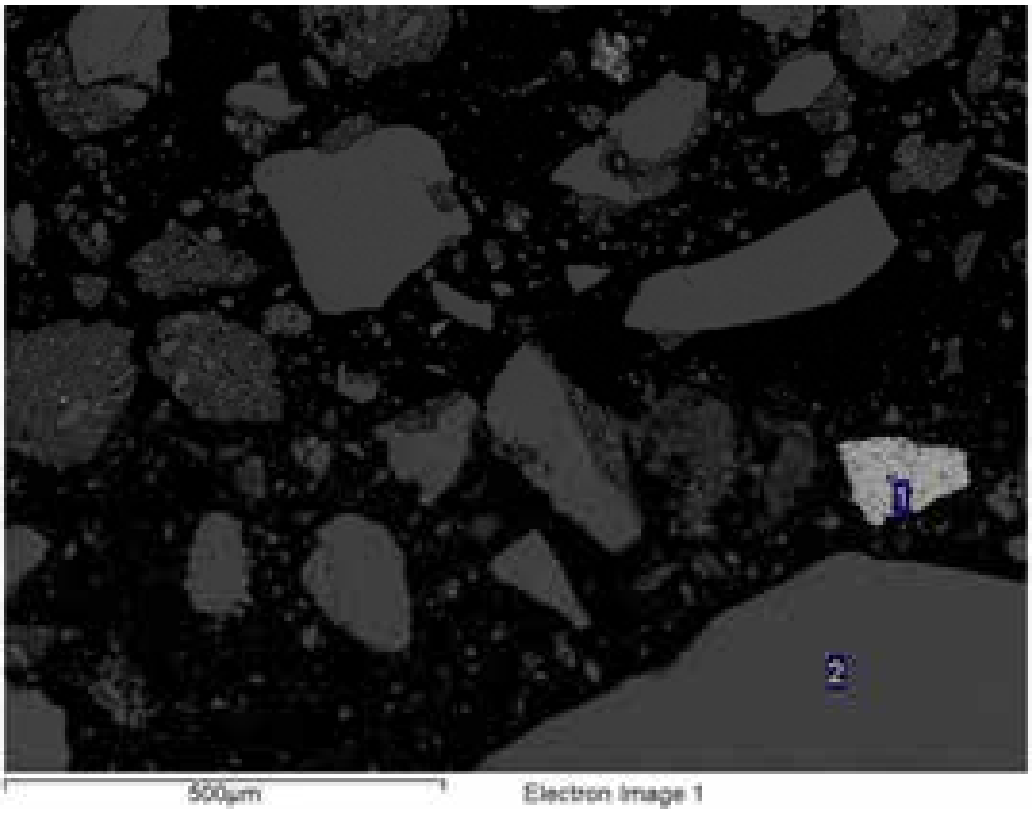


Processing option : All elements analysed (Normalised)

Spectrum	O	Si	Ti	Fe	Total	Mineral ID
1	52.1	47.7		0.2	100.0	Quartz
2	42.2		57.8		100.0	Rutile

All results in weight%

Sample Notes:
S-6195-2

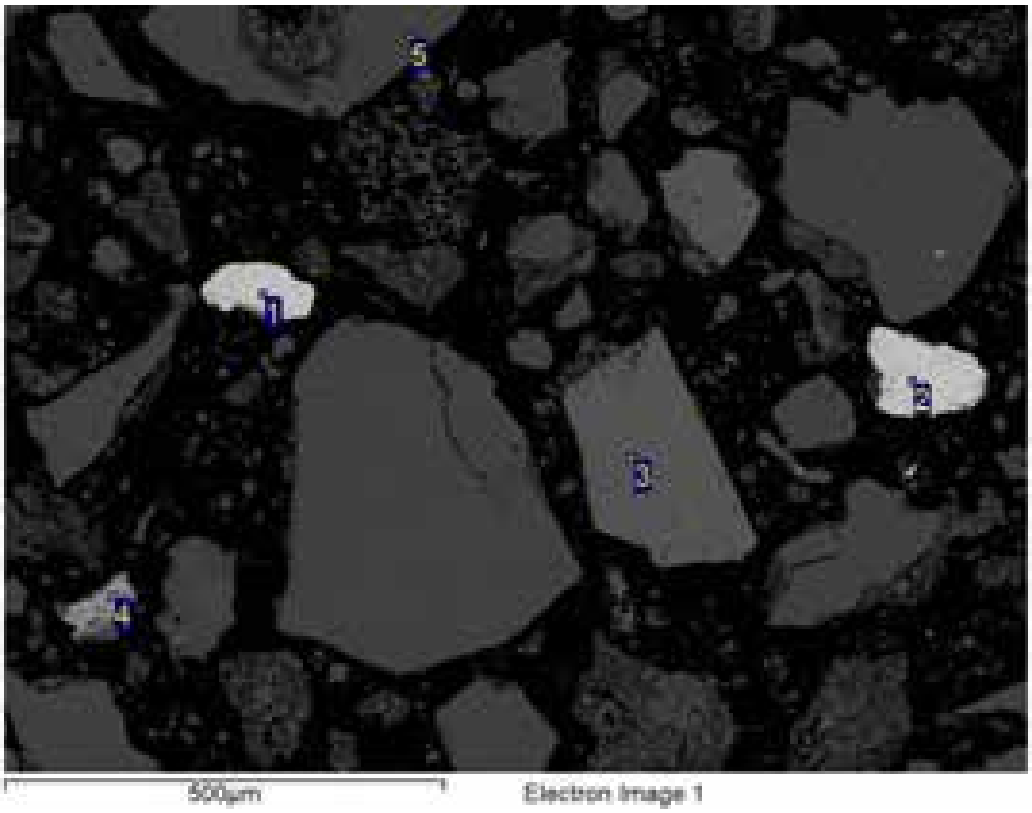


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	K	Ca	Fe	Total	Mineral ID
1	41.9	2.0	4.2	0.7	0.2	0.4	50.7	100.0	FeOx
2	50.9		49.1					100.0	Quartz

All results in weight%

Sample Notes:
S-6195-2

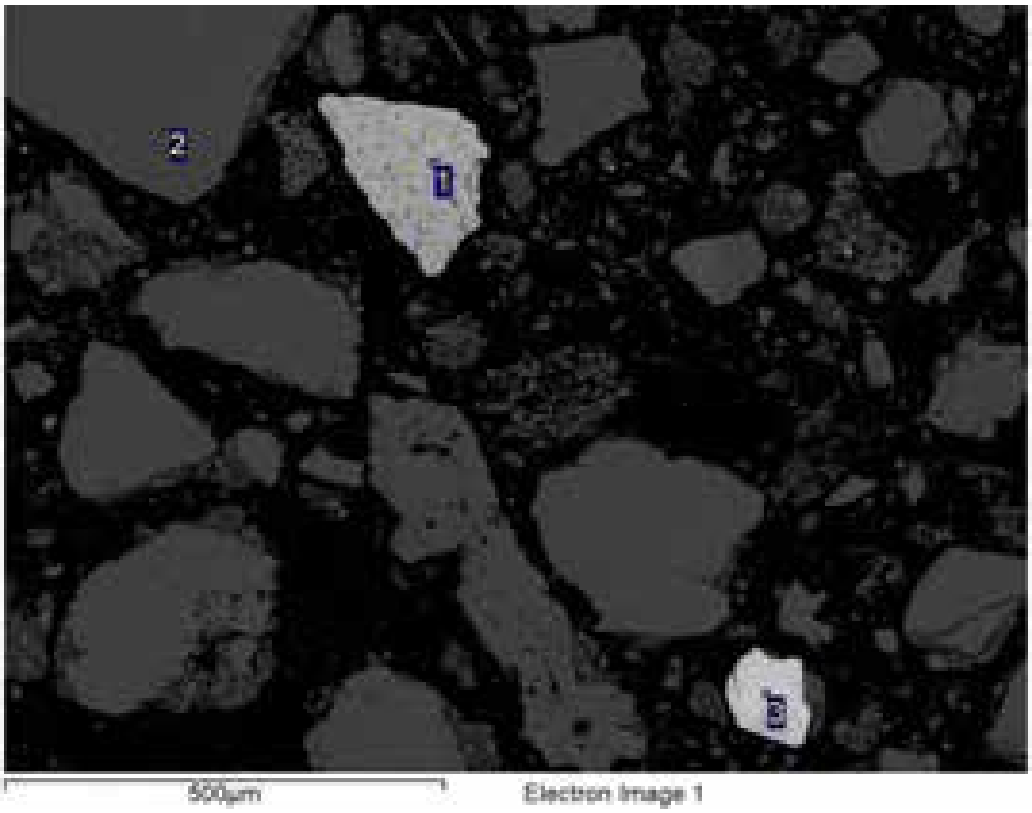


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Al	Si	P	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	34.3							30.8		34.8	100.0	Ilmenite
2	33.7							30.6	0.6	35.0	100.0	Ilmenite
3	45.3	0.7	9.4	32.0		12.6					100.0	Mica
4	41.2		1.3	2.7	0.5		0.3			54.0	100.0	FeOx
5	51.5			48.5							100.0	Quartz

All results in weight%

Sample Notes:
S-6195-2

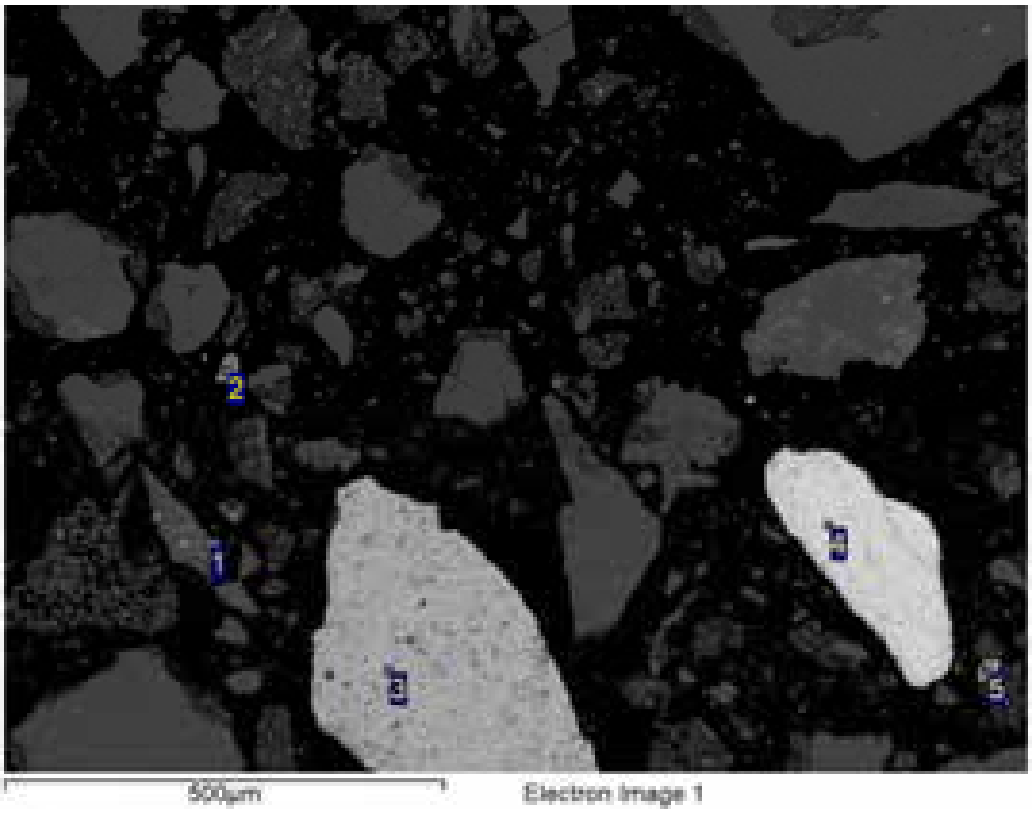


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	Ca	Ti	Mn	Fe	Total	Mineral ID
1	42.5	1.2	3.2	0.6	0.3			52.2	100.0	FeOx
2	52.1		47.9						100.0	Quartz
3	34.0					28.9	0.4	36.7	100.0	Ilmenite

All results in weight%

Sample Notes:
S-6195-2

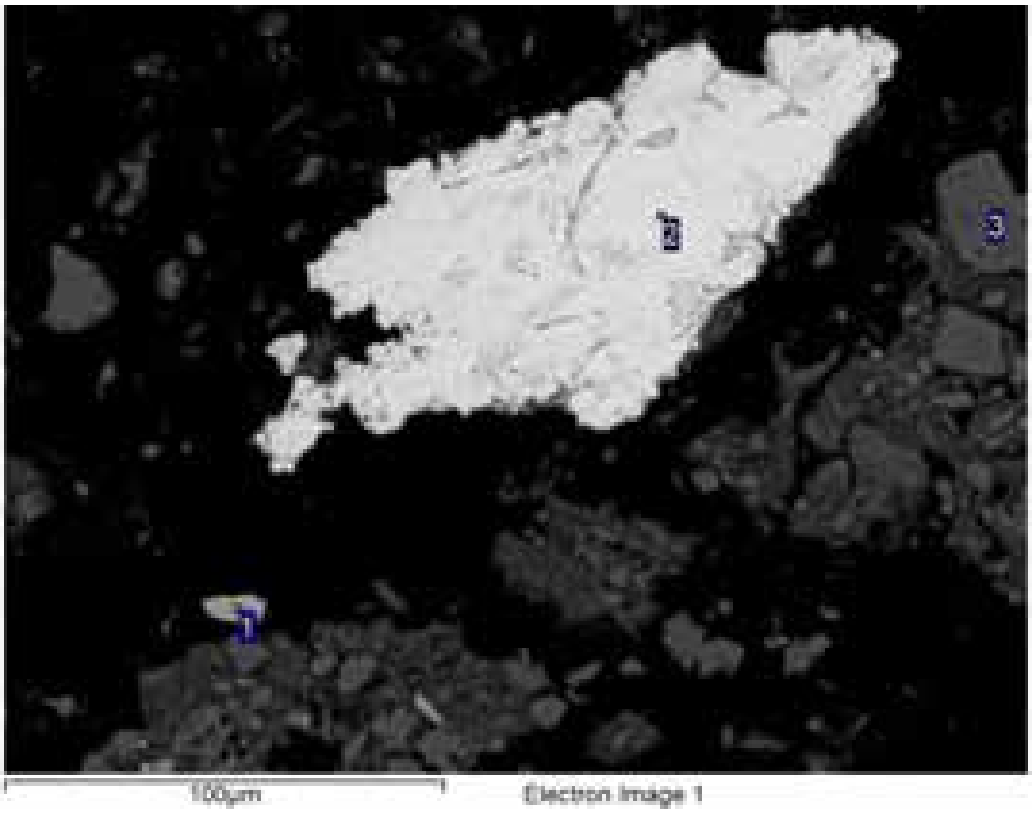


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	46.4		1.7	22.4	0.3					29.2	100.0	FeOx/Quartz
2	40.5	0.6	4.5	7.6		1.1	0.4	2.3		43.0	100.0	FeOx/Quartz
3	41.1		1.0	4.7	0.7	0.2	0.4		1.4	50.4	100.0	FeOx
4	34.3							11.9	0.6	53.3	100.0	Ilmenite/FeOx
5	42.8		0.3	0.2				41.7		14.9	100.0	Ilmenite/FeOx

All results in weight%

Sample Notes:
S-6195-2

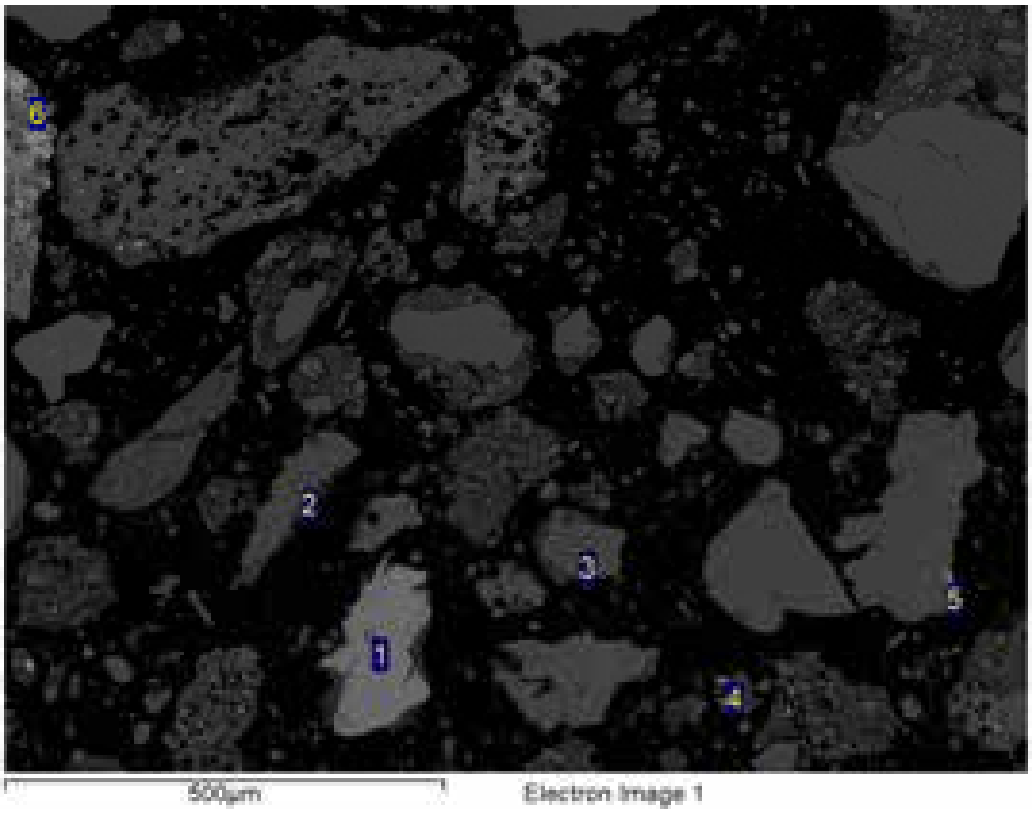


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	Ti	Fe	Total	Mineral ID
1	44.4	0.5	0.9	53.5	0.7	100.0	Rutile
2	33.6			7.0	59.4	100.0	FeOx
3	52.0		47.5		0.5	100.0	Quartz

All results in weight%

Sample Notes:
S-6195-2



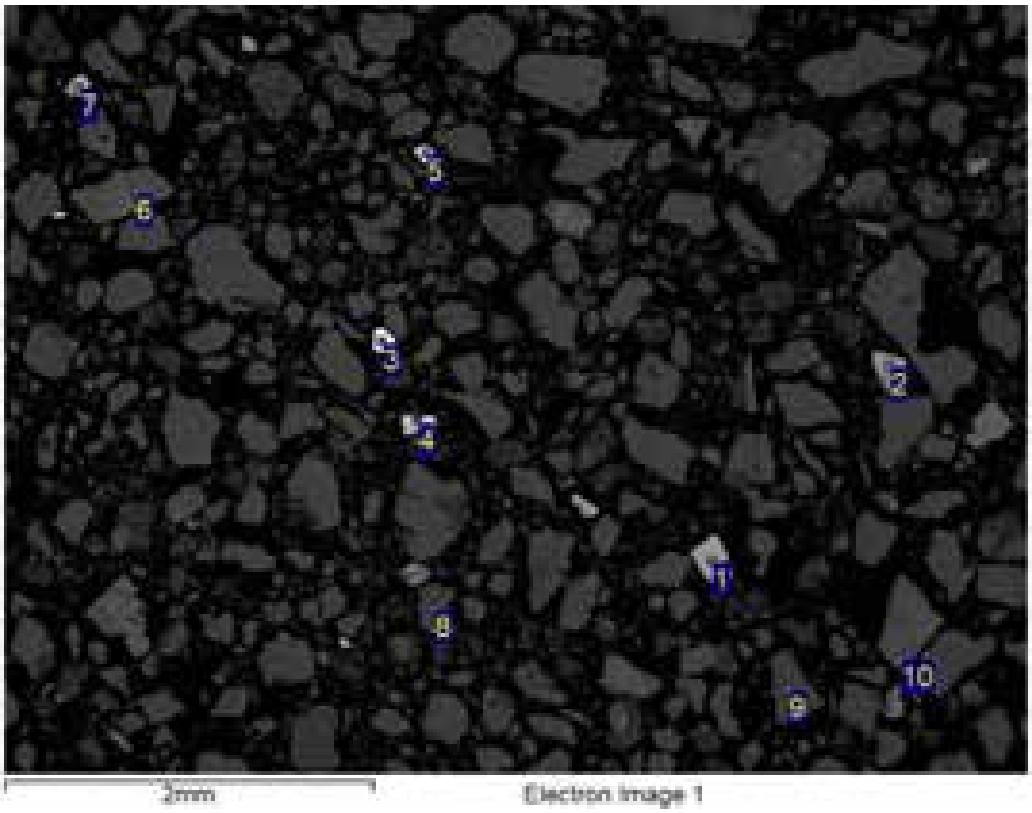
Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	K	Ca	Ti	Fe	Total	Mineral ID
1	44.8	12.5	18.5			16.1		8.1	100.0	Epidote
2	51.8		48.2						100.0	Quartz
3	52.0		48.0						100.0	Quartz
4	46.6	0.4	0.7				52.0	0.4	100.0	Rutile
5	42.0	2.1	37.3		0.1			18.5	100.0	FeOx/Quartz
6	43.6	1.9	19.9	0.4	0.4	0.3		33.6	100.0	FeOx/Quartz

All results in weight%

q

Sample Notes:
S-6195-2

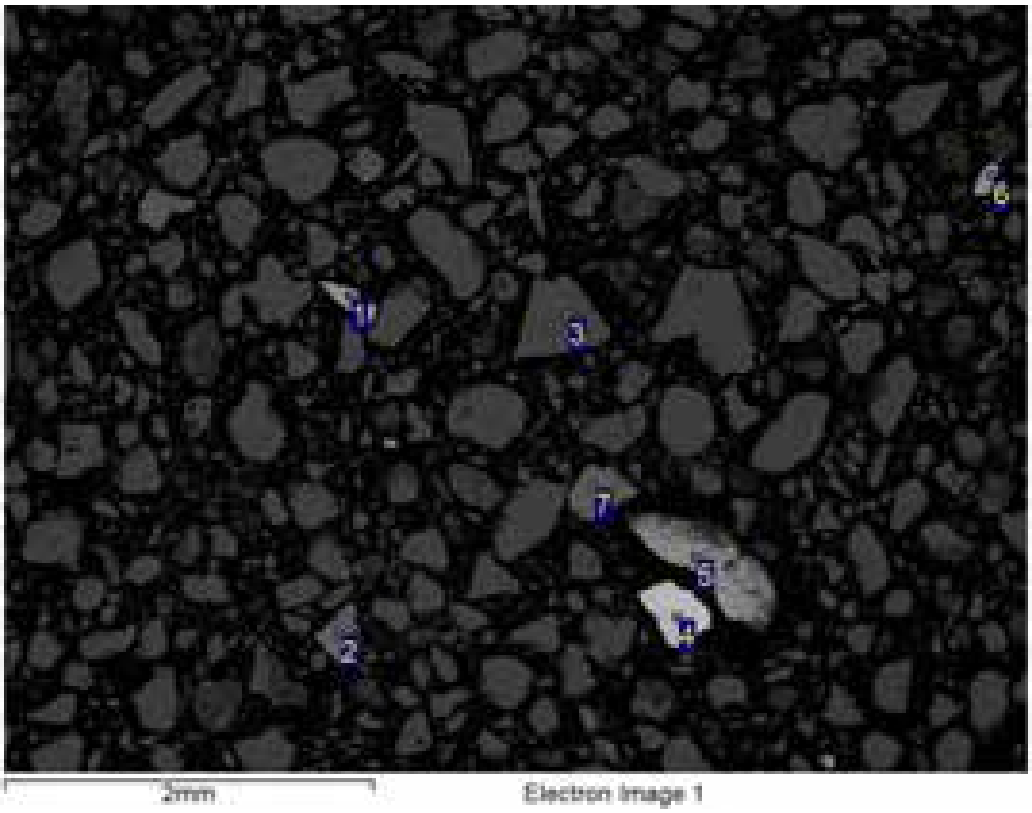


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Zr	Total	Mineral ID
1	42.2	0.3	4.5	7.3	0.5	1.3	0.3			43.6		100.0	FeOx/Silc
2	46.7	0.6	3.4	22.8		1.1	0.2			25.2		100.0	FeOx/Silc
3	34.3			15.8							49.9	100.0	Zircon
4	34.3							31.0	1.6	33.0		100.0	Ilmenite
5	34.9			15.6							49.6	100.0	Zircon
6	53.4		0.7	40.9						5.0		100.0	Quartz
7	36.6			0.5				30.5	2.3	30.1		100.0	Ilmenite
8	52.8			47.2								100.0	Quartz
9	50.6			49.4								100.0	Quartz
10	50.2			45.2						4.6		100.0	Quartz

All results in weight%

Sample Notes:
S-6195-2 Rep

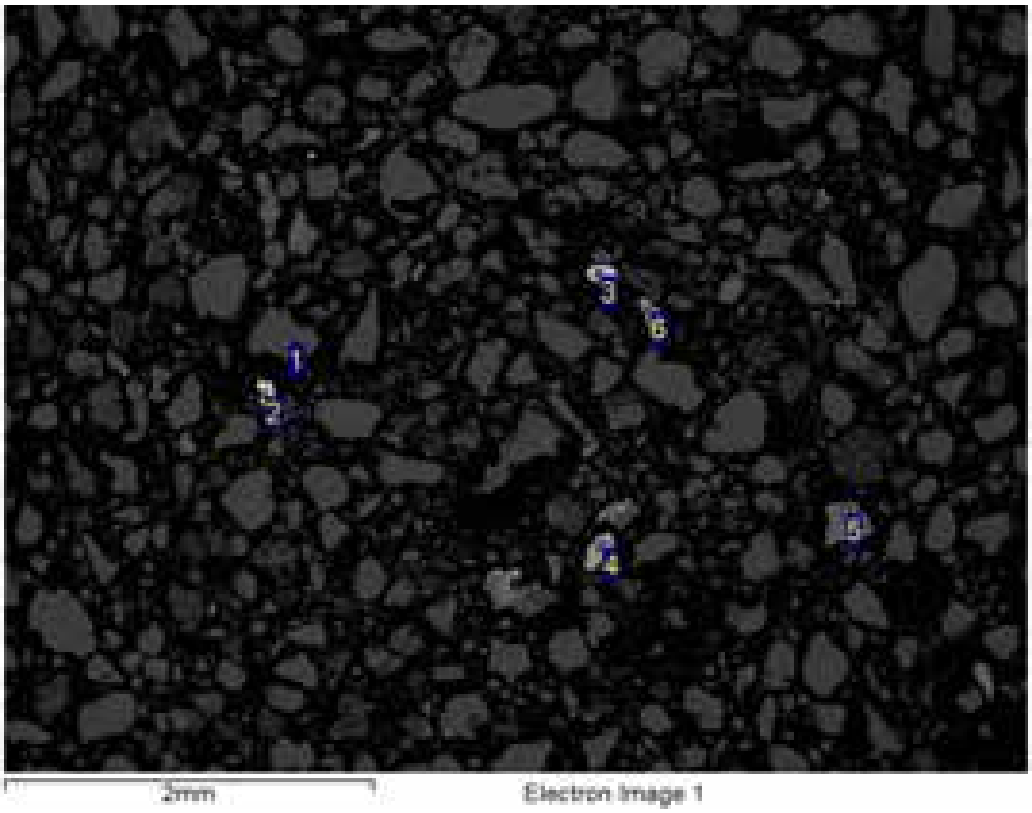


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	42.4			2.1	4.2	0.7	0.2	0.4			50.0	100.0	FeOx
2	51.3			1.3	33.6						13.8	100.0	FeOx/Quartz
3	52.6				46.3						1.1	100.0	Quartz
4	34.6								34.3	1.6	29.6	100.0	Ilmenite
5	42.8		0.8	5.7	10.4		1.9	0.2	0.8		37.5	100.0	FeOx/Silc
6	44.4			2.4	5.7	0.4	0.7	0.3	0.3		45.7	100.0	FeOx/Silc
7	43.9	1.0	10.1	4.8	25.0			8.1			7.1	100.0	Pyroxene

All results in weight%

Sample Notes:
S-6195-2 Rep

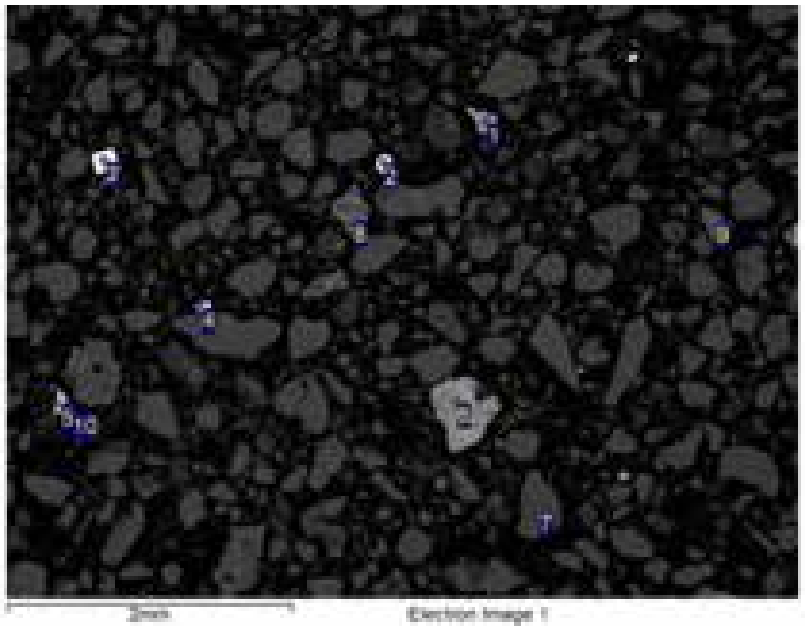


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	52.5		47.5							100.0	Quartz
2	34.2						26.9	2.3	36.6	100.0	Ilmenite
3	34.7						9.1		56.2	100.0	FeOx
4	40.5						59.2		0.4	100.0	Rutile
5	39.4	3.6	20.3						36.7	100.0	FeOx/Quartz
6	42.1	1.3	4.2	0.6	0.3	0.5			51.1	100.0	FeOx

All results in weight%

Sample Notes:
S-6195-2 Rep

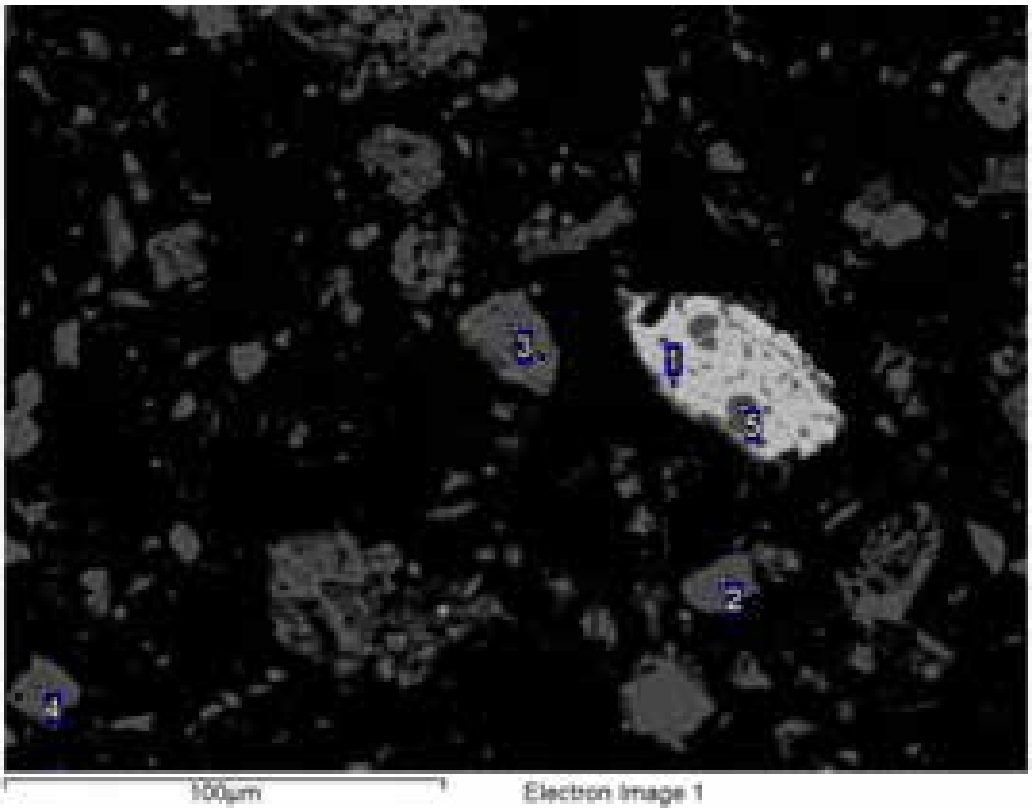


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	K	Ca	Ti	Fe	Zr	Ag	La	Ce	Nd	Hf	Total	Mineral ID
1	47.2		0.3	2.6	5.5	0.6	0.4	0.3	1.1	42.0							100.0	FeOx/Silc
2	34.3				15.4						48.8					1.4	100.0	Zircon
3	36.3				15.2						48.6						100.0	Zircon
4	32.9					14.8		0.8				2.6	12.8	25.7	10.5		100.0	Monazite
5	34.8								30.2	35.0							100.0	Ilmenite
6	44.4		0.4	3.5	5.5	0.5	0.7	0.3	0.4	44.3							100.0	FeOx
7	50.4				49.6												100.0	Quartz
8	41.2			1.7	4.4	0.4	0.4			51.9							100.0	FeOx
9	49.8	0.8		9.2	29.2		11.1										100.0	Mica
10	36.0			0.7	15.4						47.8						100.0	Zircon

All results in weight%

Sample Notes:
S-6195-3

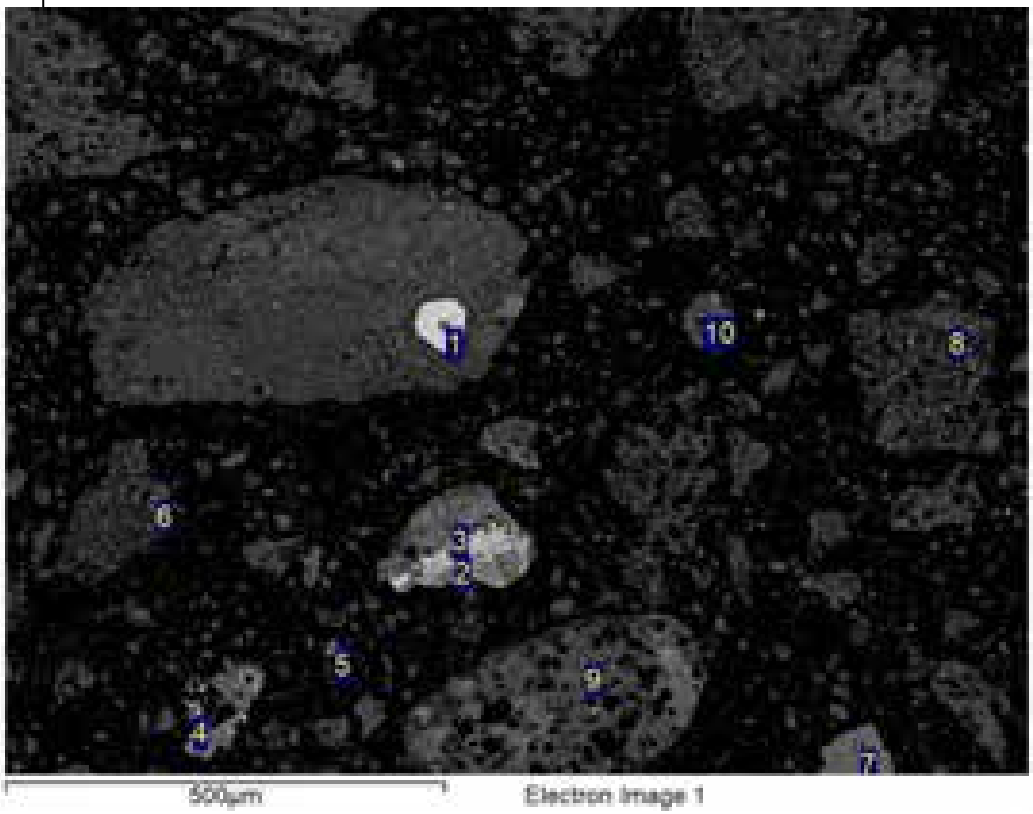


Processing option : All elements analysed (Normalised)

Spectrum	In stats.	O	Mg	Al	Si	K	Ca	Ti	Fe	Total	Mineral ID
1	Yes	42.2			4.3		0.5		53.0	100.0	FeOx
2	Yes	52.2			47.6				0.2	100.0	Quartx
3	Yes	49.3	2.5	14.6	26.2	5.0		0.2	2.1	100.0	Micas
4	Yes	52.1			47.9					100.0	Quartz
5	Yes	43.9	0.5	1.0	21.7	0.2	0.3		32.4	100.0	Quartz/FeOx
Max.		52.2	2.5	14.6	47.9	5.0	0.5	0.2	53.0		
Min.		42.2	0.5	1.0	4.3	0.2	0.3	0.2	0.2		

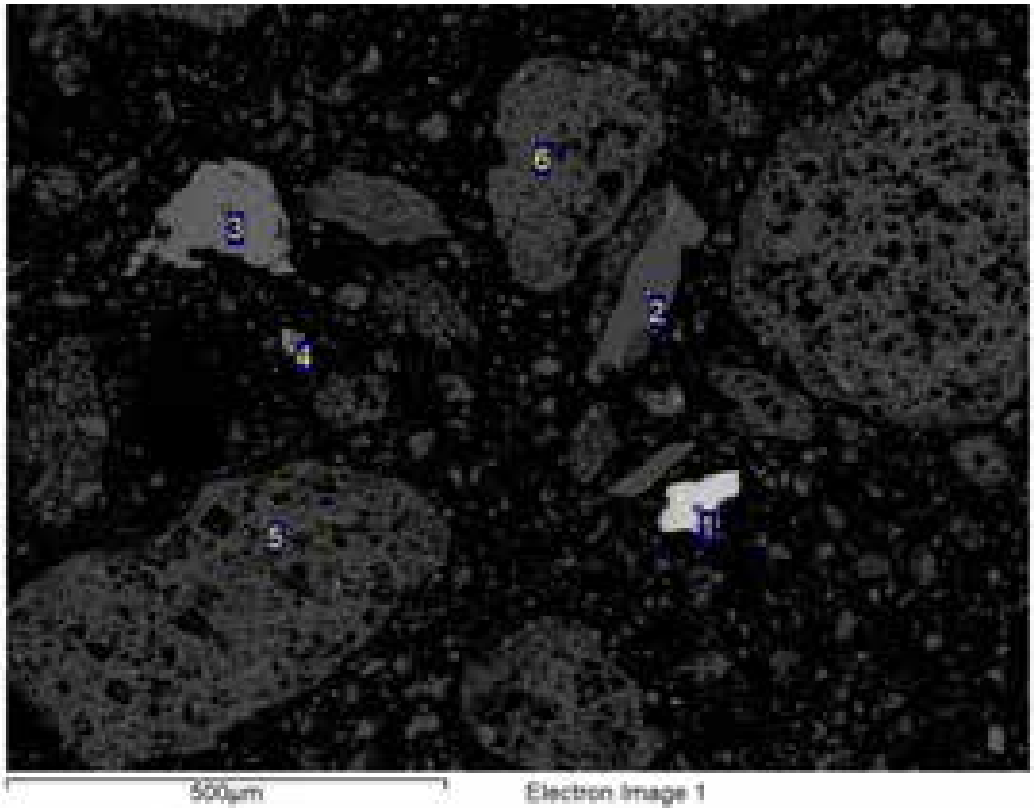
All results in weight%

Sample Notes:
S-6195-3



Spectrum	In stats.	O	F	Na	Mg	Al	Si	P	S	K	Ca	Ti	Fe	Total	Mineral ID
1	Yes	37.9					1.7				0.3		60.1	100.0	FeOx
2	Yes	38.5				0.6	1.4	0.3				0.5	58.7	100.0	FeOx
3	Yes	44.7		3.5	1.4	10.2	22.8		0.3	3.5	0.7	1.2	11.7	100.0	Micas
4	Yes	40.7				3.0	4.1	0.5		0.2	0.4		51.1	100.0	FeOx
5	Yes	38.4	5.5					18.6			37.2		0.3	100.0	Apatite
6	Yes	49.5		8.2		9.8	32.4							100.0	Plagioclase
7	Yes	53.0			0.8	1.0	4.3				40.6		0.3	100.0	Calcite
8	Yes	44.5			1.9	13.9	26.8			3.8	0.6	0.3	8.2	100.0	Micas
9	Yes	49.8		0.4	1.5	8.6	34.2			3.6		0.2	1.7	100.0	Micas
10	Yes	52.7			0.7	3.0	42.1			1.0			0.5	100.0	Quartz
Max.		53.0	5.5	8.2	1.9	13.9	42.1	18.6	0.3	3.8	40.6	1.2	60.1		
Min.		37.9	5.5	0.4	0.7	0.6	1.4	0.3	0.3	0.2	0.3	0.2	0.3		

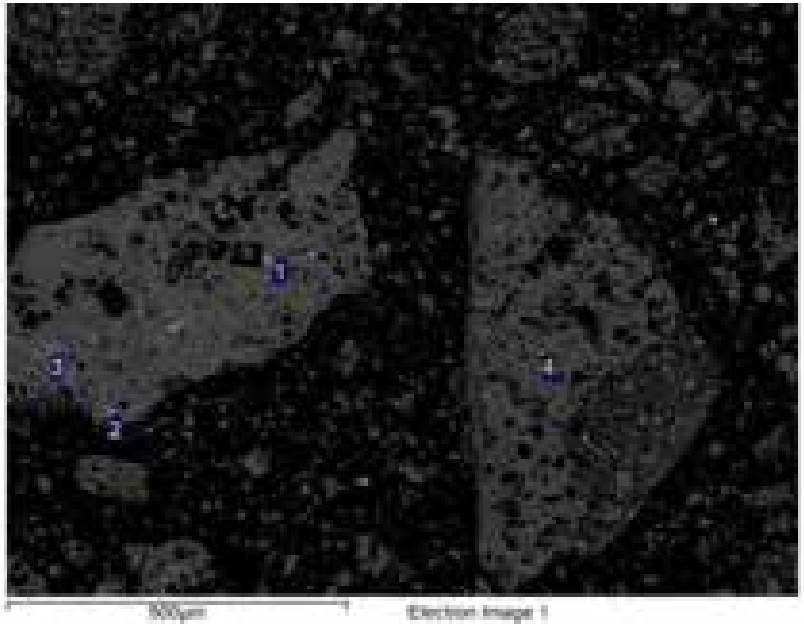
Sample Notes:
S-6195-3



Spectrum	In stats.	O	F	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	W	Total	Mineral ID
1	Yes	32.3								31.2	2.2	34.4		100.0	Ilmenite
2	Yes	52.3				47.7								100.0	Quartz
3	Yes	53.5		0.4					45.8			0.4		100.0	Calcite
4	Yes	37.3	7.2				17.3		37.0				1.3	100.0	Apatite
5	Yes	40.0	6.7		0.6	0.9	16.7		33.3			1.8		100.0	Apatite
6	Yes	50.9		0.4	1.7	46.1		0.4				0.5		100.0	Quartz
Max.		53.5	7.2	0.4	1.7	47.7	17.3	0.4	45.8	31.2	2.2	34.4	1.3		
Min.		32.3	6.7	0.4	0.6	0.9	16.7	0.4	33.3	31.2	2.2	0.4	1.3		

All results in weight%

Sample Notes:
S-6195-3

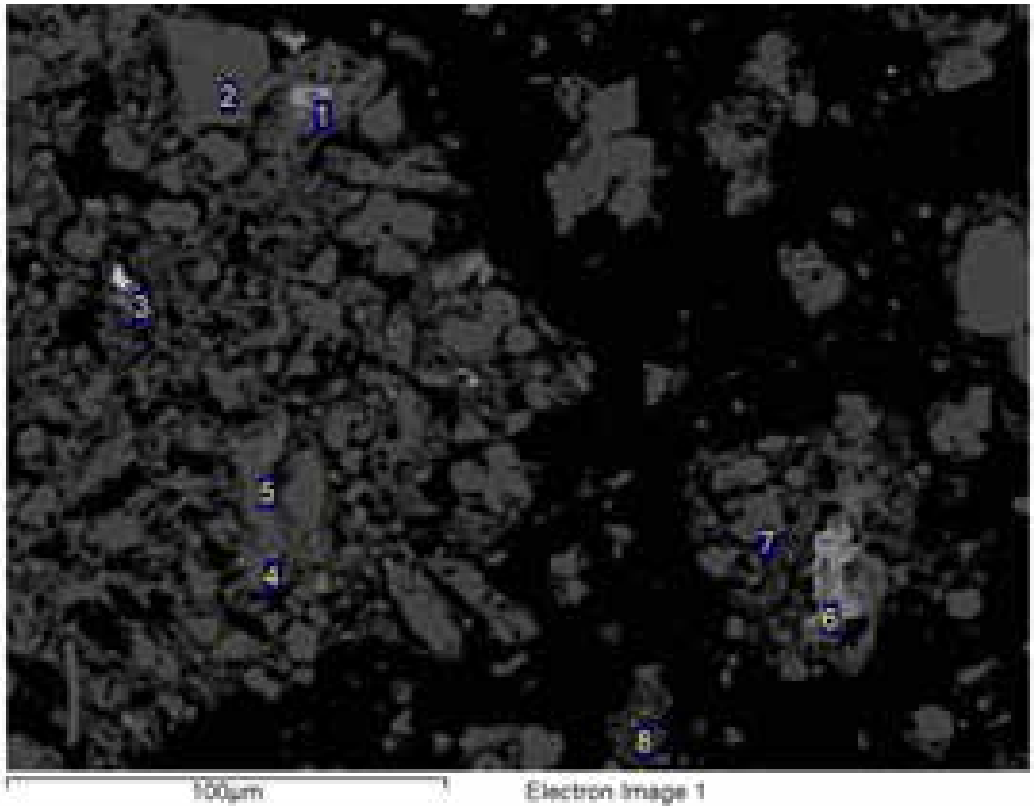


Processing option : All elements analysed (Normalised)

Spectrum	In stats.	O	F	Na	Mg	Al	Si	P	S	K	Ca	Mn	Fe	Co	Ni	W	Total	Mineral ID
1	Yes	36.2	6.5					18.5			36.9		0.6			1.3	100.0	Apatite
2	Yes	39.8		0.5	0.5	1.7	0.9				5.3	39.1	8.9	1.2	2.2		100.0	MnOx
3	Yes	34.8			0.6	5.2	4.5	0.6	0.4		0.5		53.4				100.0	FeOx
4	Yes	50.6			2.5	8.9	32.4			2.4	0.2		3.1				100.0	Silicates
Max.		50.6	6.5	0.5	2.5	8.9	32.4	18.5	0.4	2.4	36.9	39.1	53.4	1.2	2.2	1.3		
Min.		34.8	6.5	0.5	0.5	1.7	0.9	0.6	0.4	2.4	0.2	39.1	0.6	1.2	2.2	1.3		

All results in weight%

Sample Notes:
S-6195-3 Rep

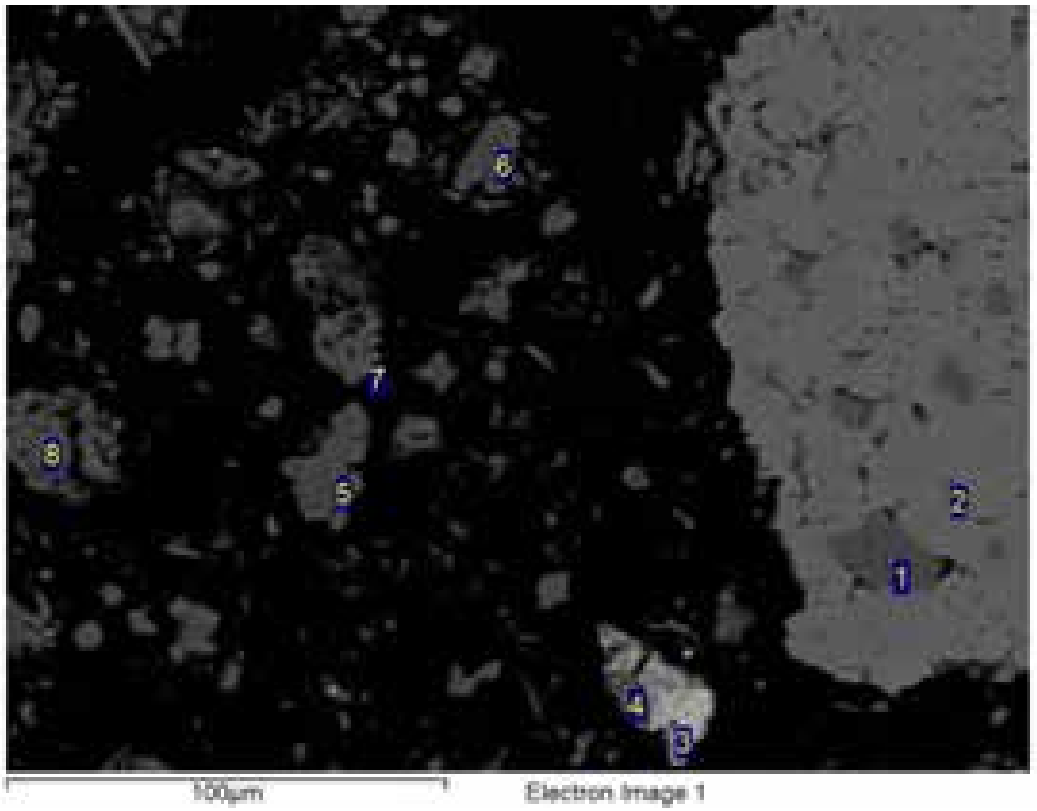


Processing option : All elements analysed (Normalised)

Spectrum	In stats.	O	F	Na	Mg	Al	Si	P	Cl	K	Ca	Ti	Fe	Total	Mineral ID
1	Yes	37.9	6.7			0.3		17.6			37.1		0.3	100.0	Apatite
2	Yes	48.5		7.4		10.9	31.5			0.6	0.8		0.2	100.0	Silicates
3	Yes	40.3				1.2	4.0	0.5			0.6		53.4	100.0	FeOx
4	Yes	52.4			1.3	5.7	36.4			2.7			1.5	100.0	Silicates
5	Yes	46.3			4.3	10.5	20.8	1.0		2.8	3.3	0.3	10.7	100.0	Silicates
6	Yes	25.0			1.0	8.1	19.0		1.2	1.4	0.7		43.6	100.0	Silicates
7	Yes	55.5				0.7	42.6			0.1			1.0	100.0	Quartz
8	Yes	43.2			1.9	12.0	28.5		0.4	2.7	0.7		10.6	100.0	Silicates
Max.		55.5	6.7	7.4	4.3	12.0	42.6	17.6	1.2	2.8	37.1	0.3	53.4		
Min.		25.0	6.7	7.4	1.0	0.3	4.0	0.5	0.4	0.1	0.6	0.3	0.2		

All results in weight%

Sample Notes:
S-6195-3 Rep

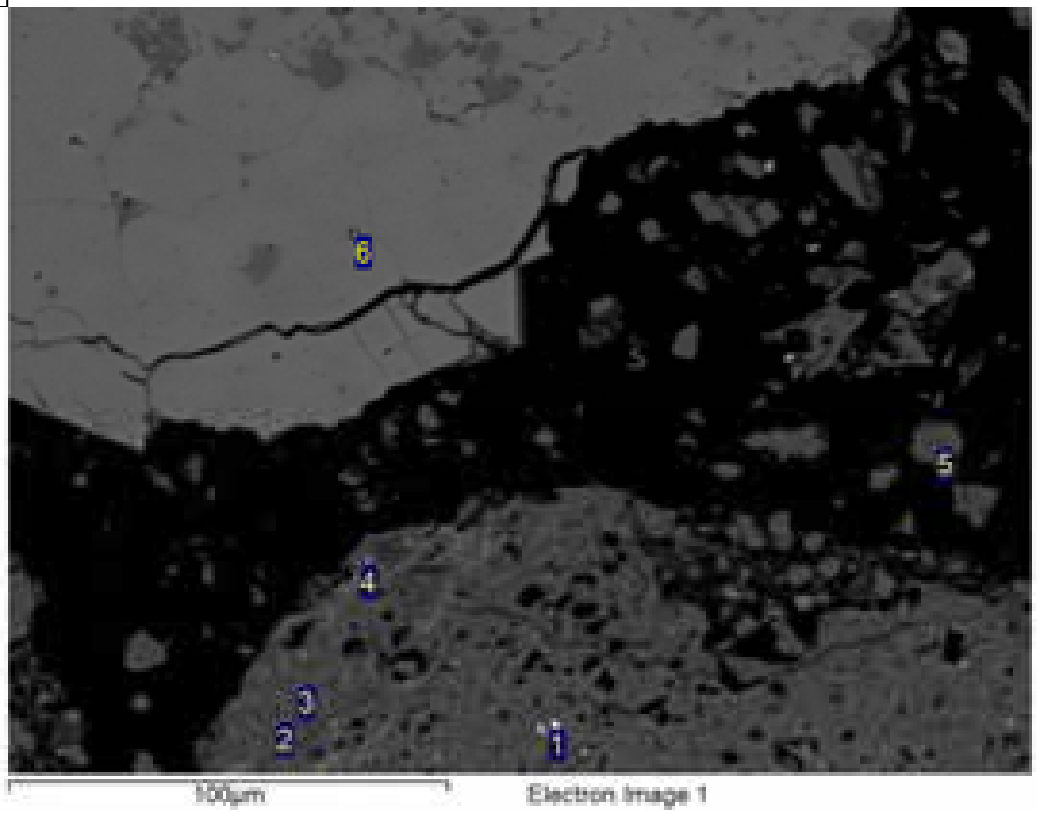


Processing option : All elements analysed (Normalised)

Spectrum	In stats.	O	Na	Mg	Al	Si	P	K	Ca	Ti	Fe	Total	Mineral ID
1	Yes	48.9	8.2		9.7	32.8			0.4			100.0	Albite
2	Yes	55.1		0.6					44.3			100.0	Calcite
3	Yes	41.9			1.6	5.6	0.6		1.0		49.3	100.0	FeOx
4	Yes	42.6		1.9	7.4	21.6		2.2	0.8	1.0	22.6	100.0	Silicates
5	Yes	52.1		0.2	0.4	47.3						100.0	Quartz
6	Yes	53.7				46.3						100.0	Quartz
7	Yes	51.5		1.8	6.7	15.8	5.9	2.0	13.3	0.3	2.7	100.0	Silicates
8	Yes	52.0		1.4	4.1	40.1		1.0			1.3	100.0	Quartz
Max.		55.1	8.2	1.9	9.7	47.3	5.9	2.2	44.3	1.0	49.3		
Min.		41.9	8.2	0.2	0.4	5.6	0.6	1.0	0.4	0.3	1.3		

All results in weight%

Sample Notes:
S-6195-3 Rep

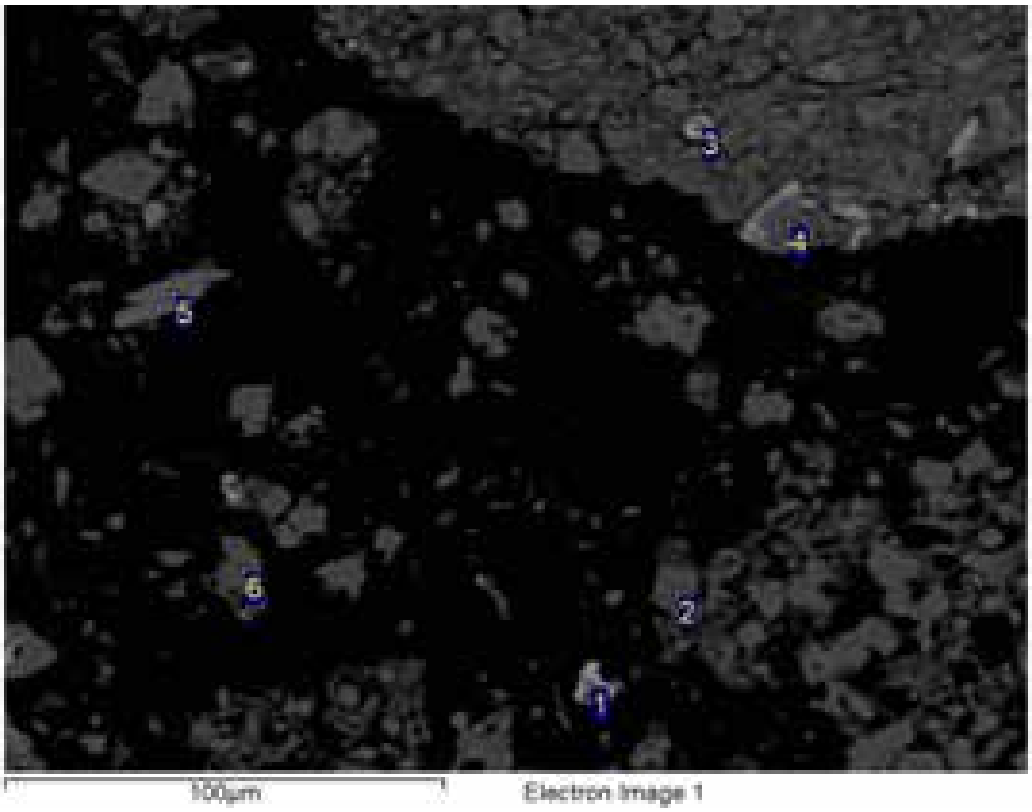


Processing option : All elements analysed (Normalised)

Spectrum	In stats.	O	Mg	Al	Si	P	S	K	Ca	Ti	Fe	Zr	Hf	Total	Mineral ID
1	Yes	39.0	0.3	1.2	15.1			0.4			0.6	42.3	1.2	100.0	Zircon
2	Yes	46.8	3.3	15.0	25.8			4.4		0.4	4.4			100.0	Micas
3	Yes	49.1	2.4	10.0	16.0			2.6		16.9	2.9			100.0	Ti-Silicates
4	Yes	40.3	2.7	11.3	15.9	0.5	0.3	2.2	0.5		26.4			100.0	Silicates
5	Yes	52.0			48.0									100.0	Quartz
6	Yes	54.6	0.3						45.1					100.0	Calcite
Max.		54.6	3.3	15.0	48.0	0.5	0.3	4.4	45.1	16.9	26.4	42.3	1.2		
Min.		39.0	0.3	1.2	15.1	0.5	0.3	0.4	0.5	0.4	0.6	42.3	1.2		

All results in weight%

Sample Notes:
S-6195-3 Rep

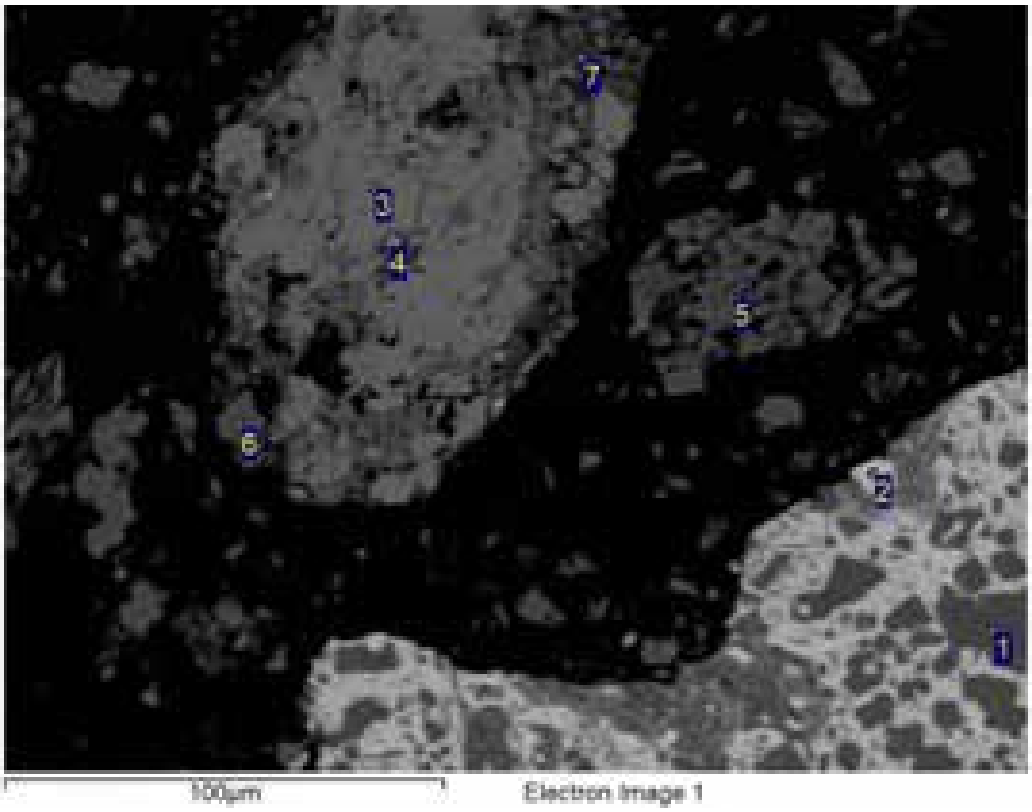


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	S	Cl	K	Ca	Ti	Fe	Total	Mineral ID
1	42.0		0.9	4.9	9.4	0.4		0.2	1.0	0.5		40.7	100.0	FeOx
2	52.3			0.4	46.9				0.0			0.3	100.0	Quartz
3	40.7		2.5	9.2	19.7	4.7	0.6		2.3	10.5	0.3	9.6	100.0	Pyroxene
4	52.6				44.8	1.1				1.4			100.0	Quartz
5	47.7	0.3	0.7	17.2	23.2				8.6		0.6	1.7	100.0	Mica
6	52.7		0.9	3.9	40.3				1.0			1.2	100.0	Quartz

All results in weight%

Sample Notes:
S-6195-3 Rep

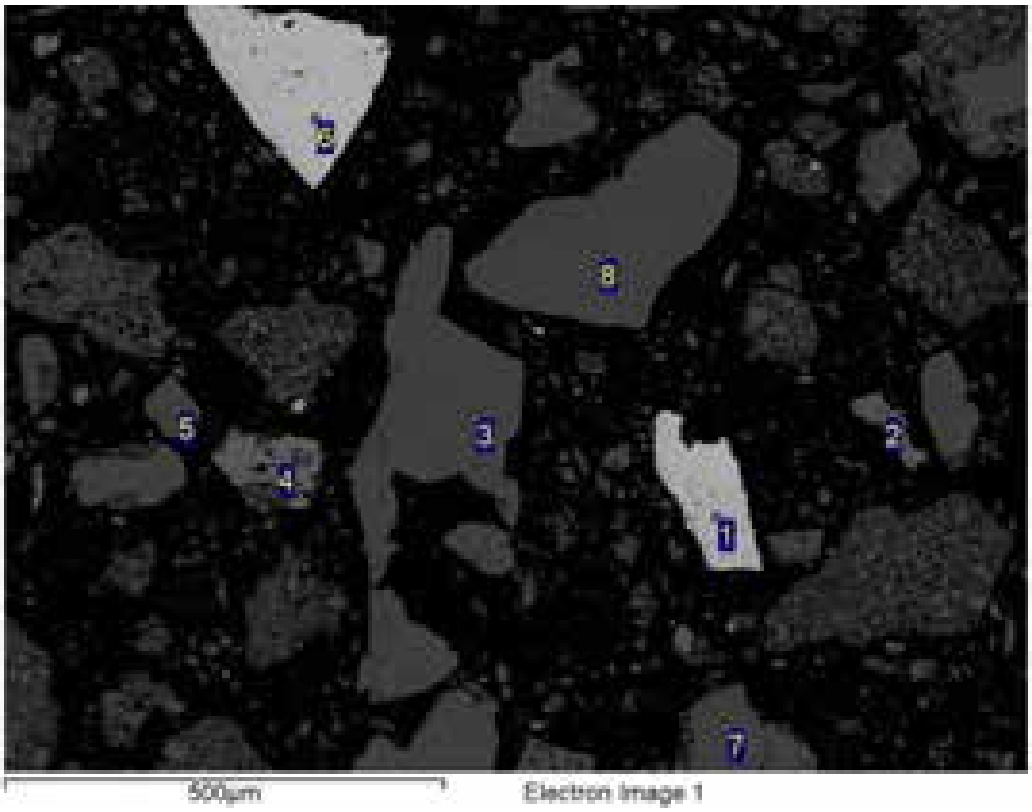


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	S	K	Ca	Ti	Fe	Total	Mineral ID
1	51.8				47.6					0.6	100.0	Quartz
2	42.6			0.7	8.2			0.4		48.2	100.0	FeOx
3	55.3		0.7					43.3		0.6	100.0	Calcite
4	51.4	0.4	1.8	7.6	17.1		2.1	3.3	15.0	1.3	100.0	Rutile
5	46.1		3.9	9.4	31.4	0.2	2.3	0.4	0.3	5.9	100.0	Feldspar
6	52.4				47.6						100.0	Quartz
7	44.6		2.0	9.1	20.4		2.4	15.8		5.9	100.0	Pyroxene

All results in weight%

Sample Notes:
S-6195-4

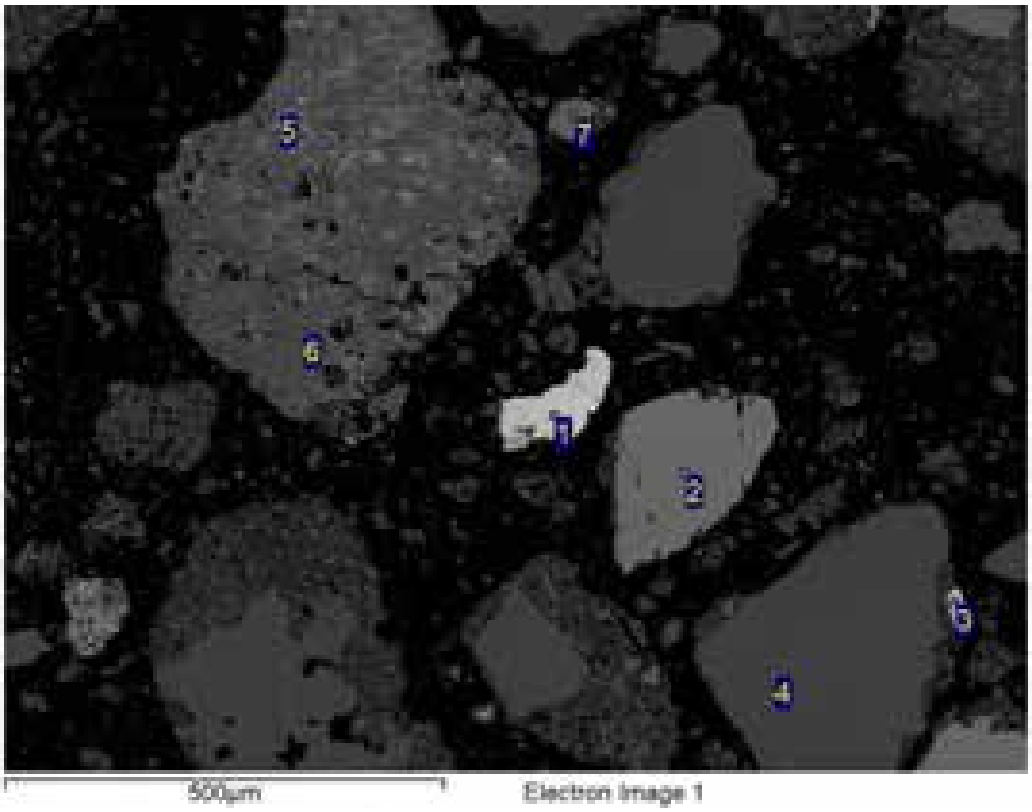


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ca	Fe	Total	Mineral ID
1	40.7		0.8	3.5	0.9			54.1	100.0	FeOx
2	45.4		9.3	31.6		13.6			100.0	Mica
3	51.6			48.4					100.0	Quartz
4	54.5	0.4					45.0		100.0	Calcite
5	52.0			48.0					100.0	Quartz
6	40.6		0.5	2.8	0.4			55.7	100.0	FeOx
7	51.2			48.8					100.0	Quartz
8	51.8			48.2					100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4

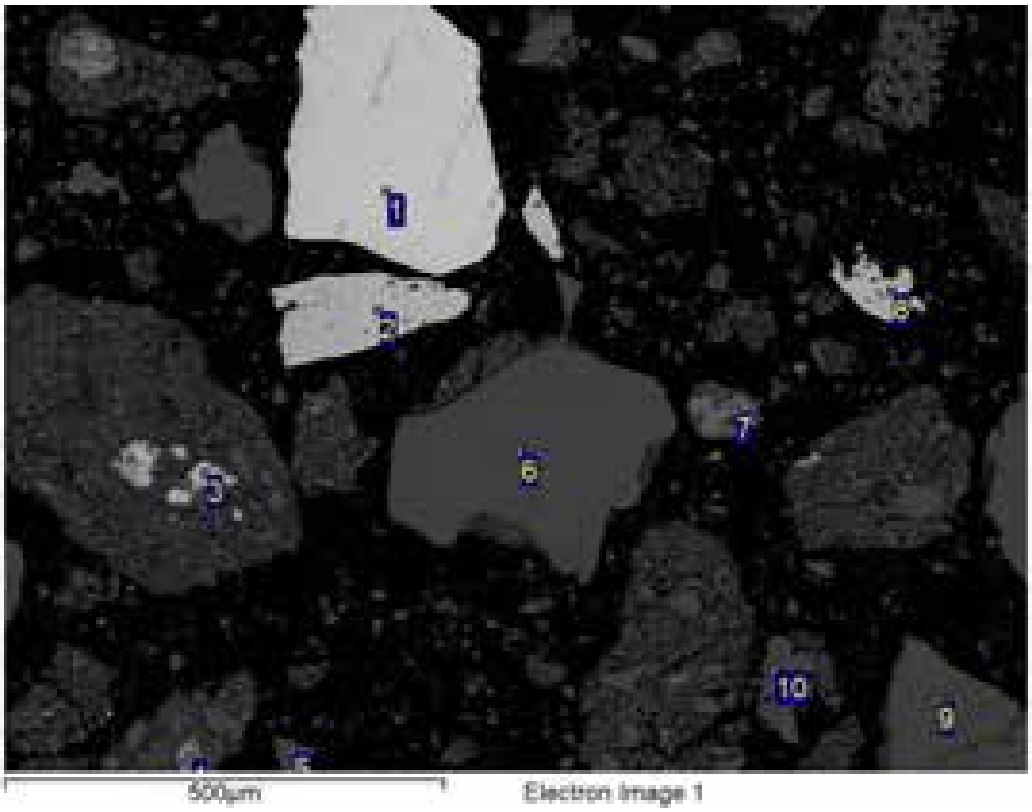


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	35.2								32.2		32.7	100.0	Ilmenite
2	44.4			12.7	18.9			16.3			7.7	100.0	Epidote
3	35.3								30.5	0.4	33.7	100.0	Ilmenite
4	51.6				48.4							100.0	Quartz
5	37.3		1.1	6.0	10.1	0.6	1.0	0.7			43.2	100.0	FeOx/Feldpsar
6	49.6	3.4	2.1	11.9	26.2		2.5	0.5			3.8	100.0	FeOx/Feldspar
7	54.5							45.5				100.0	Calcite

All results in weight%

Sample Notes:
S-6195-4

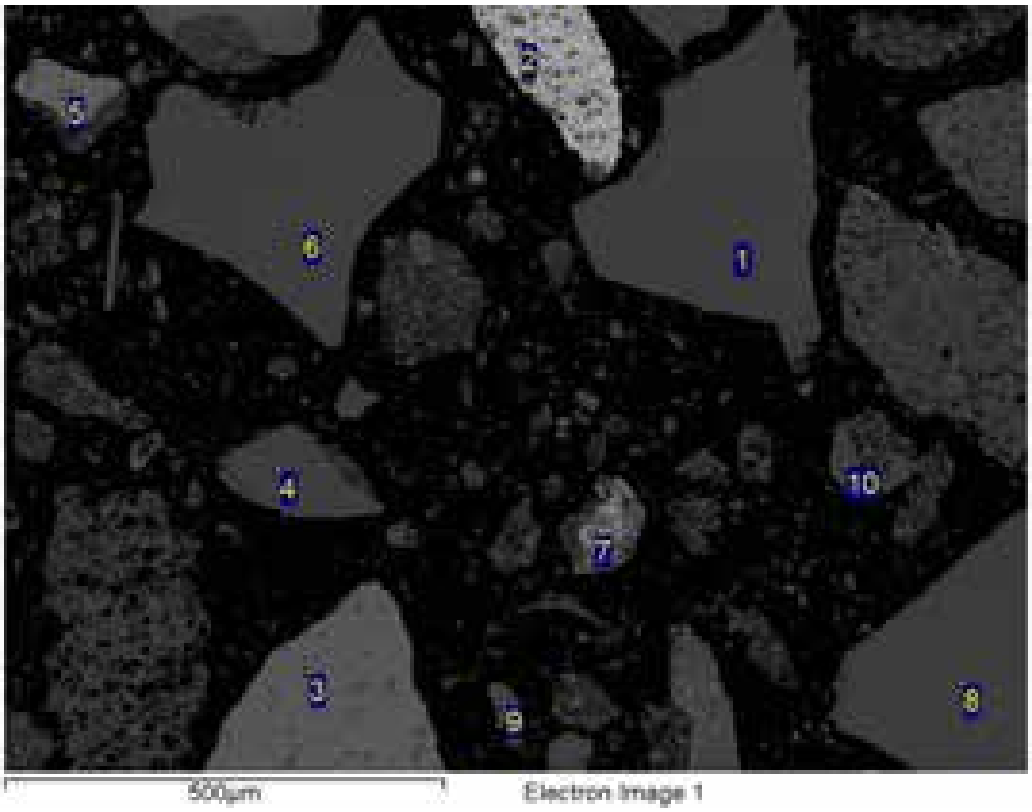


Processing option : All elements analysed (Normalised)

Spectrum	O	F	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Ni	Total	Mineral ID
1	33.9								31.0	0.6	34.5		100.0	Ilmenite
2	41.3			1.2	3.5	0.8	0.3			0.8	52.2		100.0	FeOx
3	40.2			0.7	2.0	0.9		0.3			56.0		100.0	FeOx
4	42.7	1.9	1.3	6.4	11.3		1.4	4.0		26.9	3.7	0.4	100.0	MnOx/Silc
5	52.3				47.7								100.0	Quartz
6	51.8				48.2								100.0	Quartz
7	54.9		0.4					44.2			0.4		100.0	Calcite
8	41.9			0.9	2.7	1.0		0.2			53.3		100.0	FeOx
9	51.6				48.4								100.0	Quartz
10	49.9				50.1								100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4

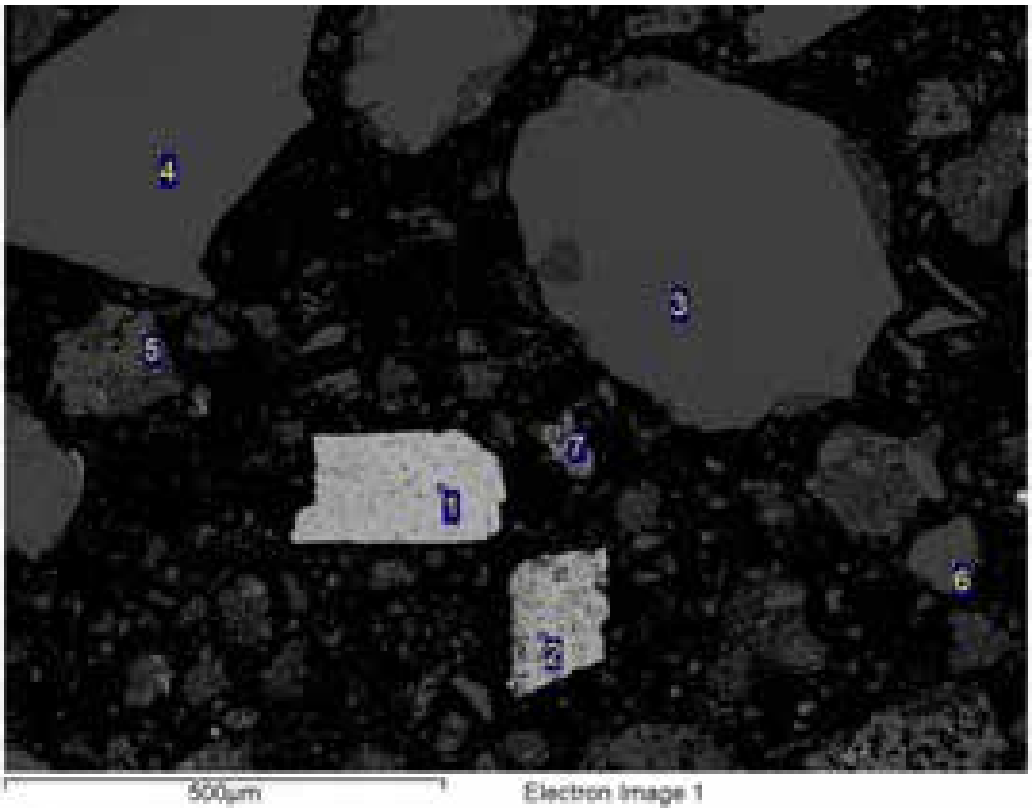


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	K	Ca	Mn	Fe	Ba	Total	Mineral ID
1	52.1				47.9							100.0	Quartz
2	40.2			0.8	2.8	0.6				55.5		100.0	FeOx
3	54.9		0.4					44.8				100.0	Calcite
4	52.3				47.7							100.0	Quartz
5	45.0	0.7		9.6	30.7		11.6				2.4	100.0	Mica
6	52.2				47.8							100.0	Quartz
7	39.7			2.6	2.4	1.6		0.7	4.4	48.6		100.0	FeOx
8	51.8				48.2							100.0	Quartz
9	49.1	8.3		9.7	32.9							100.0	Plagioclase
10	51.7				48.3							100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4

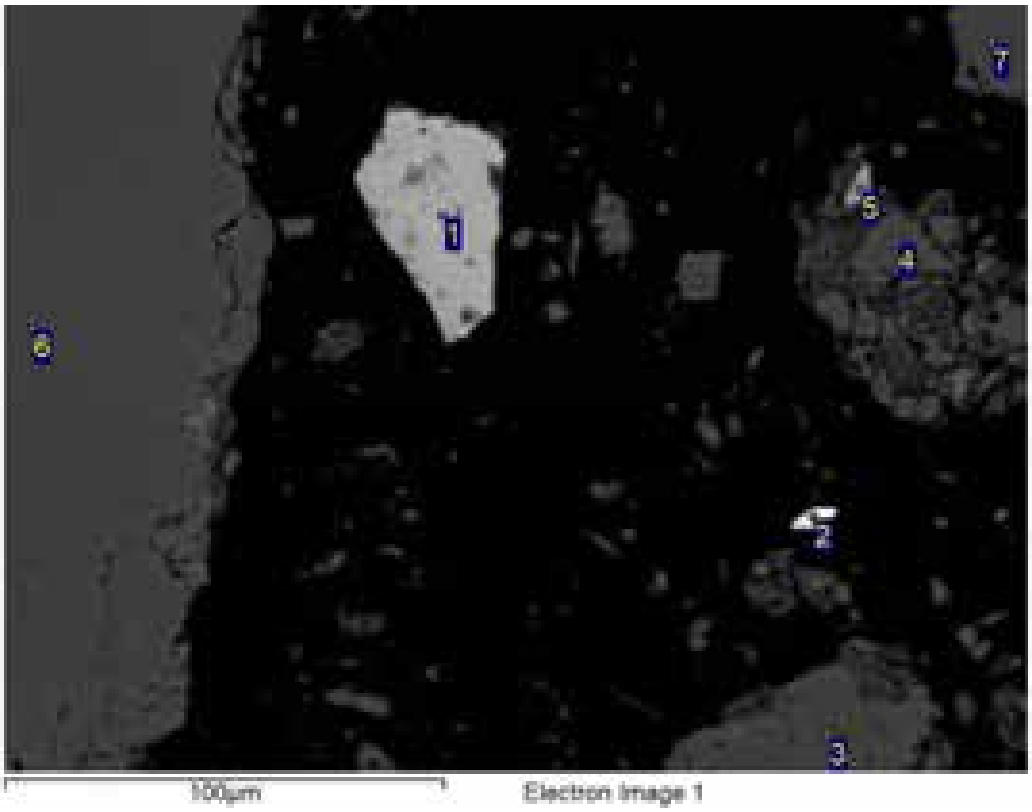


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ca	Fe	Total	Mineral ID
1	39.0	0.4	1.5	5.2	0.6	0.2		53.0	100.0	FeOx
2	40.8		2.6	3.5	1.1	0.4		51.7	100.0	FeOx
3	51.6			48.4					100.0	Quartz
4	51.4			48.6					100.0	Quartz
5	51.8			48.2					100.0	Quartz
6	51.5			48.5					100.0	Quartz
7	44.2		2.4	25.0	0.4	0.4	0.2	27.5	100.0	FeOx/Plagioclase

All results in weight%

Sample Notes:
S-6195-4

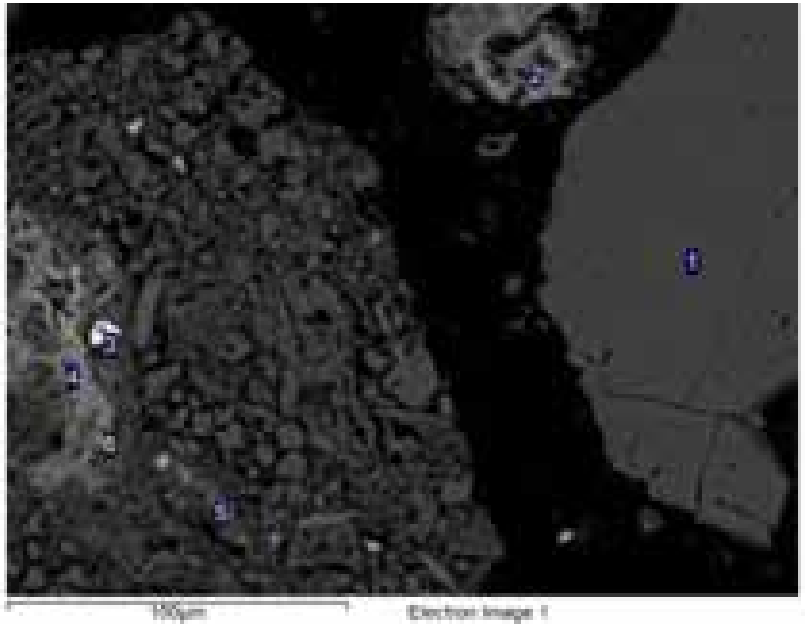


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	K	Ca	Ti	Fe	Zr	Total	Mineral ID
1	40.8	0.8	1.9	1.6		0.3		54.6		100.0	FeOx
2	43.2	0.4	13.9			0.3		0.3	41.9	100.0	Zircon
3	51.9		48.1							100.0	Quartz
4	51.6		48.4							100.0	Quartz
5	47.5	0.9	2.1		0.2		48.8	0.4		100.0	Rutile
6	51.7		48.3							100.0	Quartz
7	51.7		48.3							100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4 Rep

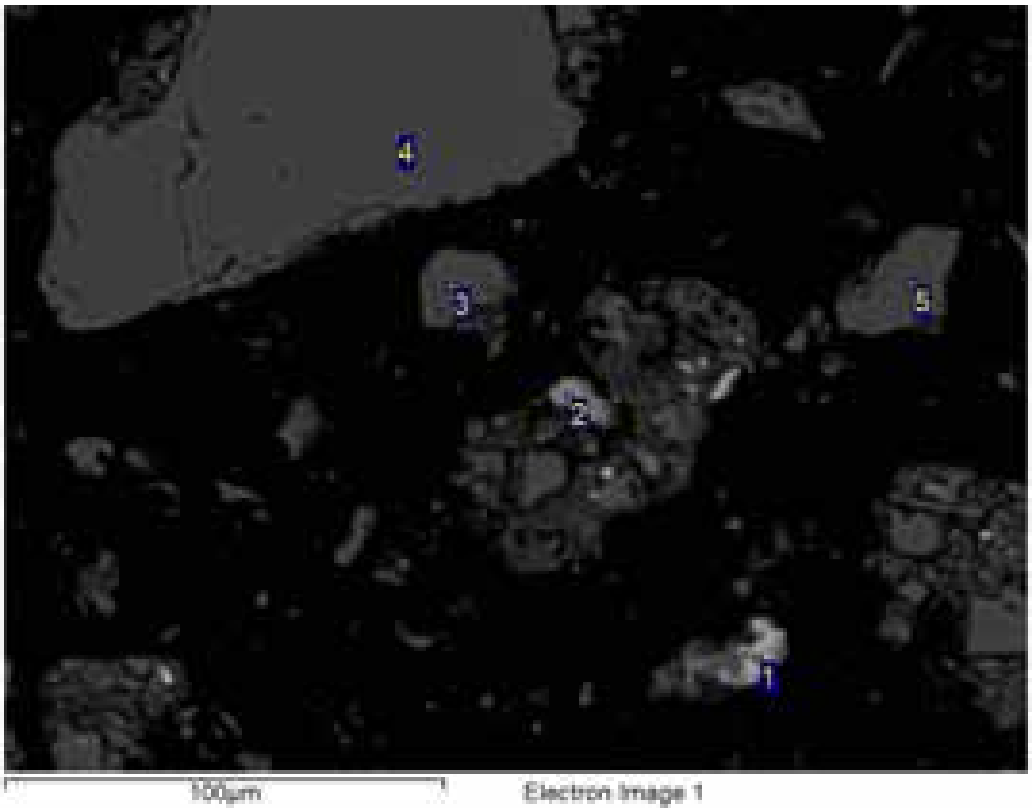


Processing option : All elements analysed (Normalised)

Spectrum	O	F	Al	Si	P	S	Cl	K	Ca	Mn	Fe	Co	Zr	Ce	Total	Mineral ID
1	50.6			49.4											100.0	Quartz
2	36.6		5.8	3.6	1.1		0.3		1.4	23.3	24.3	2.5		1.1	100.0	FeMnOx
3	40.0			14.5							0.4		45.0		100.0	Zircon
4	31.5		4.3	5.4	1.8			0.6	0.7		55.7				100.0	FeOx
5	35.6	2.8	1.1	0.7		0.4	0.4		6.2	43.3	9.6				100.0	MnOx
6	38.7		4.6	6.1	1.6			0.7	0.8		47.4				100.0	FeOx

All results in weight%

Sample Notes:
S-6195-4 Rep

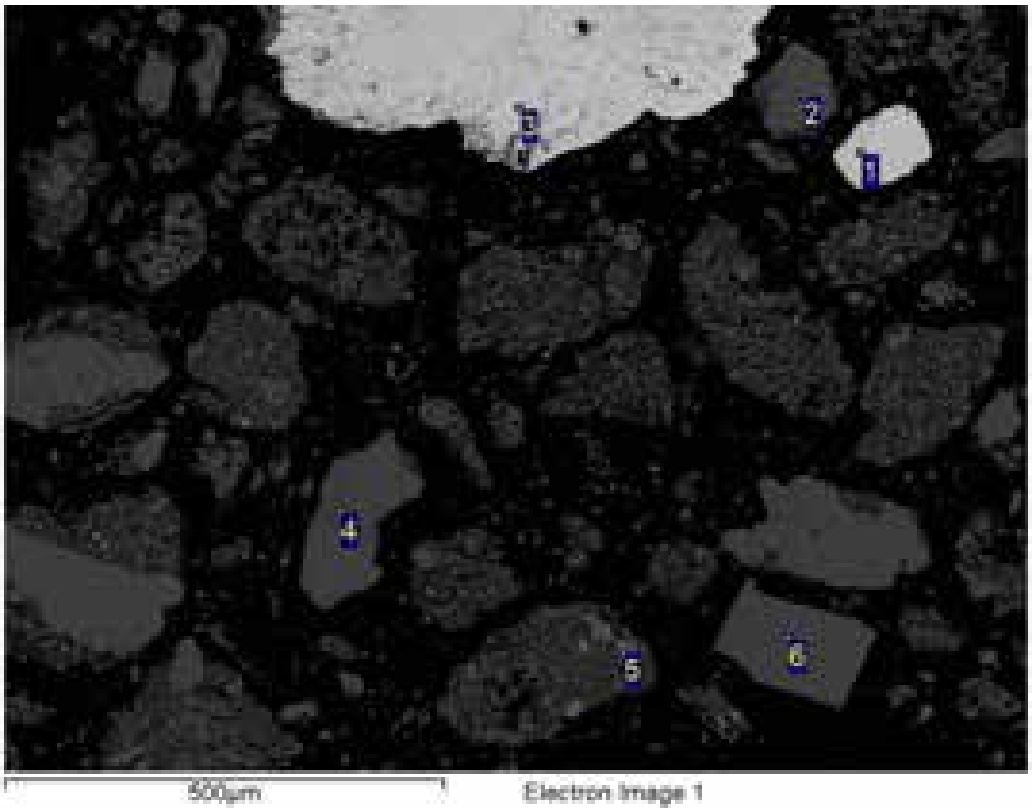


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Al	Si	P	K	Ca	Mn	Fe	Total	Mineral ID
1	41.8		1.9	7.3	0.8	0.3	0.3		47.7	100.0	FeOx
2	29.9		2.3	4.0	1.6		0.6	0.4	61.1	100.0	FeOx
3	46.6	7.7	10.7	33.8			0.8		0.3	100.0	Feldspar
4	50.2			49.5					0.2	100.0	Quartz
5	50.7			49.0					0.2	100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4 Rep

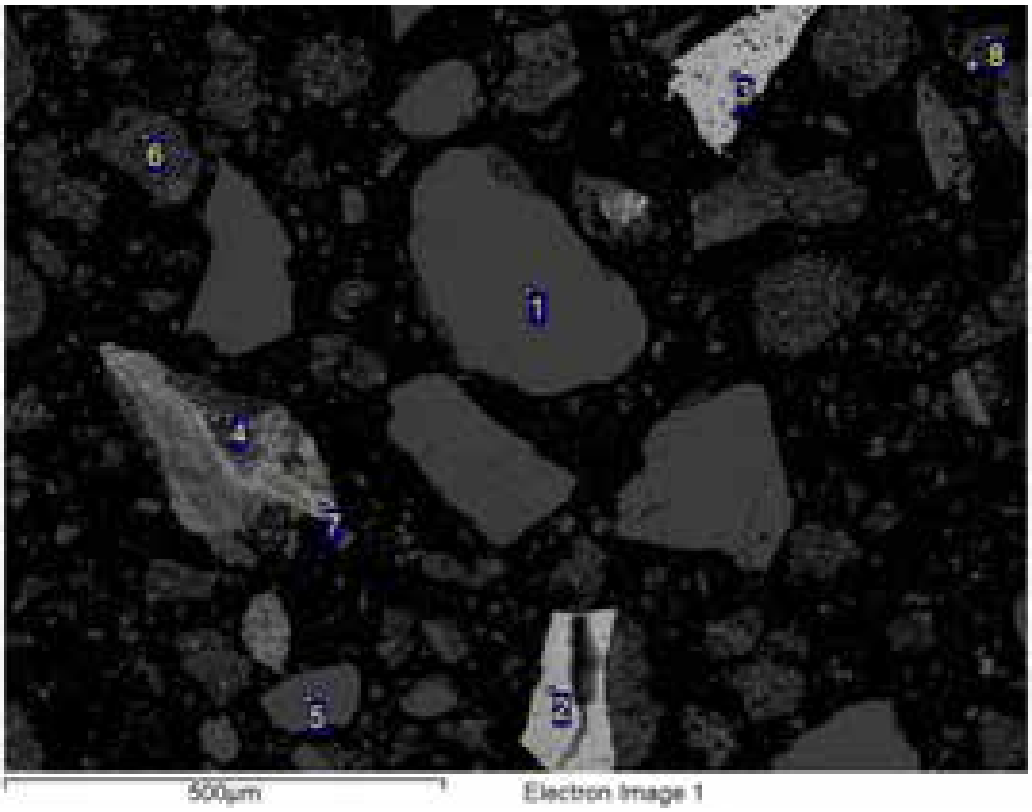


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	34.2						31.2	2.5	32.1	100.0	Ilmenite
2	49.5			50.5						100.0	Quartz
3	37.0			1.5					61.6	100.0	FeOx
4	50.7			49.3						100.0	Quartz
5	54.1	0.2	1.3	34.7	0.2	0.3	0.2	7.3	1.7	100.0	MnOx/Quartz
6	51.6			48.4						100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4 Rep

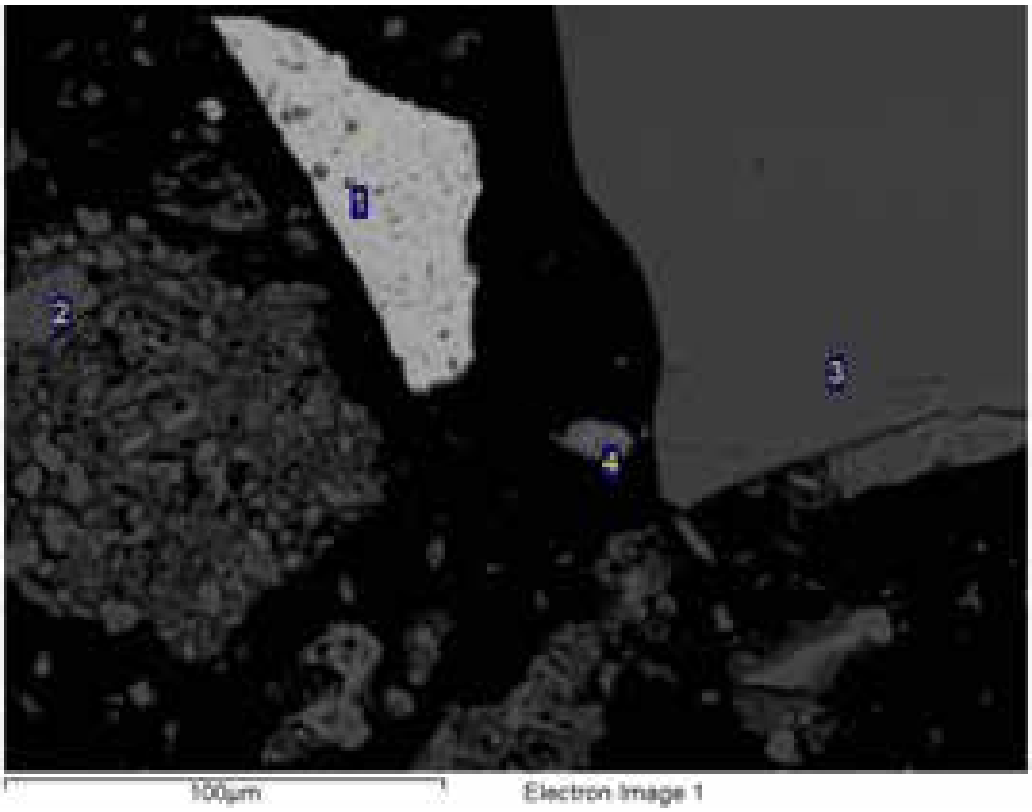


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	Cl	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	50.0				50.0								100.0	Quartz
2	39.4			1.4	1.9	1.3			0.5			55.4	100.0	FeOx
3	39.5			0.6	2.8	1.2			0.2			55.5	100.0	FeOx
4	40.9		1.3	10.8	36.8		0.3	1.9	0.7		0.5	6.8	100.0	Feldspar
5	50.8				49.2								100.0	Quartz
6	38.9		1.4	11.3	39.5		0.8	3.8	0.7	0.9		2.7	100.0	Feldspar
7	40.8	0.4	0.8	5.8	13.3	0.4		0.8	0.8		2.2	34.7	100.0	FeOx/Feldspar
8	50.3			1.2	47.6			0.1				0.9	100.0	Quartz

All results in weight%

Sample Notes:
S-6195-4 Rep

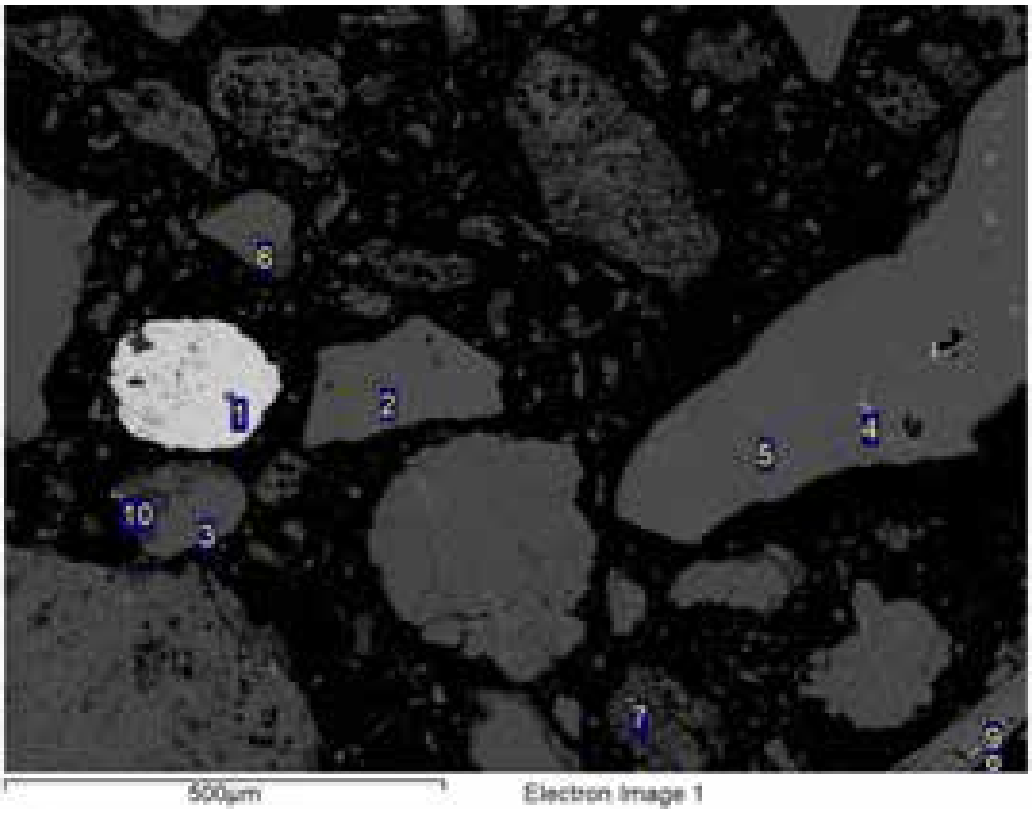


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	Ca	Fe	Total	Mineral ID
1	39.9		0.7	3.7	0.5	0.3	54.9	100.0	FeOx
2	51.7			48.1			0.2	100.0	Quartz
3	50.3			49.7				100.0	Quartz
4	48.8	6.0	13.1	15.8		0.3	16.0	100.0	Feldpsar

All results in weight%

Sample Notes:
S-6195-5

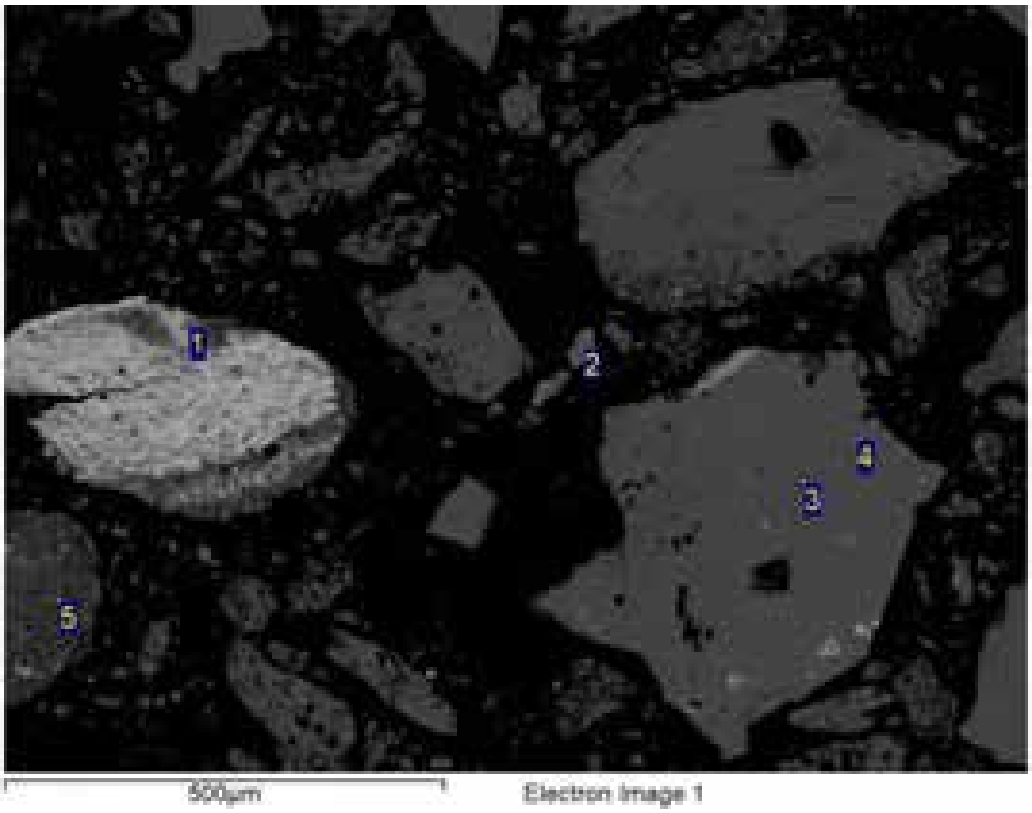


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	K	Ca	Ti	Mn	Fe	Zr	Total	Mineral ID
1	36.0		0.4	0.6	1.6						61.4		100.0	FeOx
2	52.0				48.0								100.0	Quartz
3	52.1				47.9								100.0	Quartz
4	36.6			0.7	2.4	0.3					60.1		100.0	FeOx
5	51.2				47.0						1.8		100.0	Quartz
6	51.5				48.5								100.0	Quartz
7	42.4		1.3	9.0	40.1		3.6		0.3		3.2		100.0	Quartz
8	36.5			1.4	1.3		0.5		27.9	2.7	29.6		100.0	Ilmenite
9	47.0	0.6	0.7	17.9	23.4		8.7		0.4		1.3		100.0	Mica
10	44.7		0.5	11.6	17.2		1.5	0.3	10.1		12.1	2.1	100.0	Felspar

All results in weight%

Sample Notes:
S-6195-5

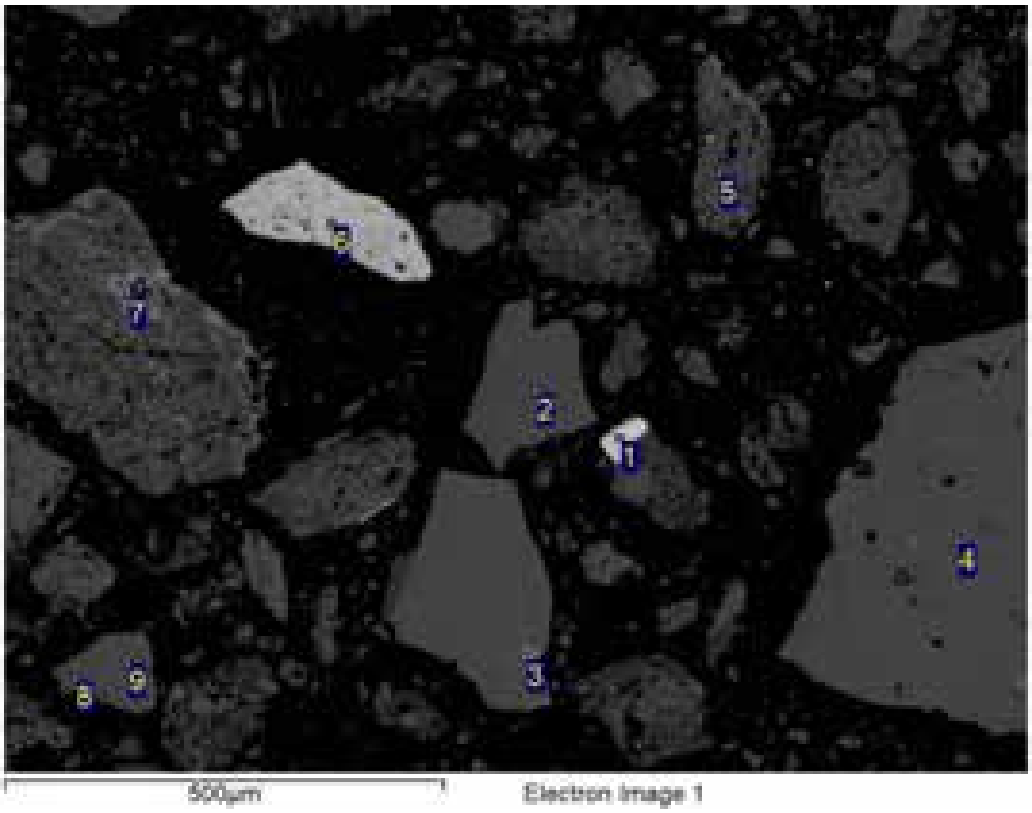


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	Cl	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	42.9	0.4	2.6	12.3	0.3		0.6				40.9	100.0	FeOx
2	47.8	1.1	15.0	23.1			9.2		0.2		3.6	100.0	Mica
3	51.6			48.4								100.0	Quartz
4	47.8		0.4	41.9							9.8	100.0	Quartz
5	42.2	1.3	12.5	23.3		0.5	2.6	0.4		0.4	16.8	100.0	Pyroxene

All results in weight%

Sample Notes:
S-6195-5

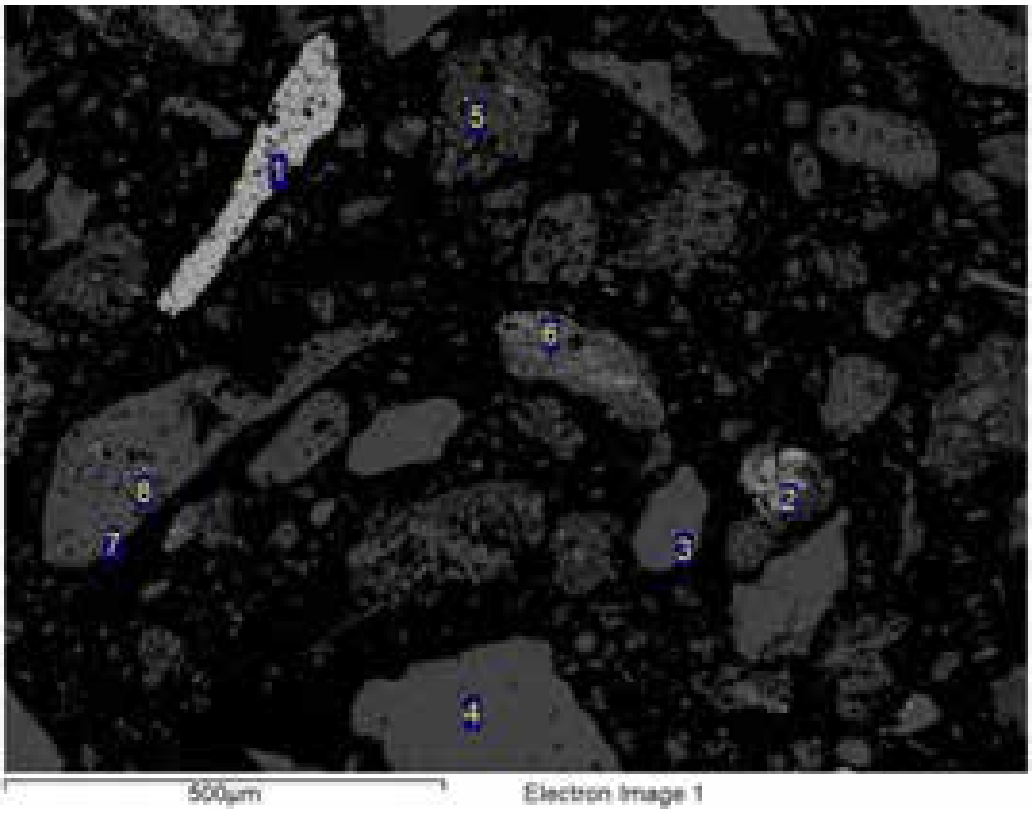


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ti	Mn	Fe	Total	Mineral ID
1	33.9						31.7	2.4	32.1	100.0	Ilmenite
2	51.6			48.4						100.0	Quartz
3	23.5		1.4	6.2		0.3		0.6	68.0	100.0	FeOx
4	52.2		0.4	46.6		0.1			0.6	100.0	Quartz
5	48.9	1.8	13.7	26.7		5.5	0.3		3.1	100.0	Mica
6	42.5		1.7	3.2	0.6				51.9	100.0	FeOx
7	42.7	0.6	8.0	13.0	0.6	2.8			32.2	100.0	Feldspar
8	52.2			14.6			33.1		0.2	100.0	Titanite
9	52.2			47.8						100.0	Quartz

All results in weight%

Sample Notes:
S-6195-5

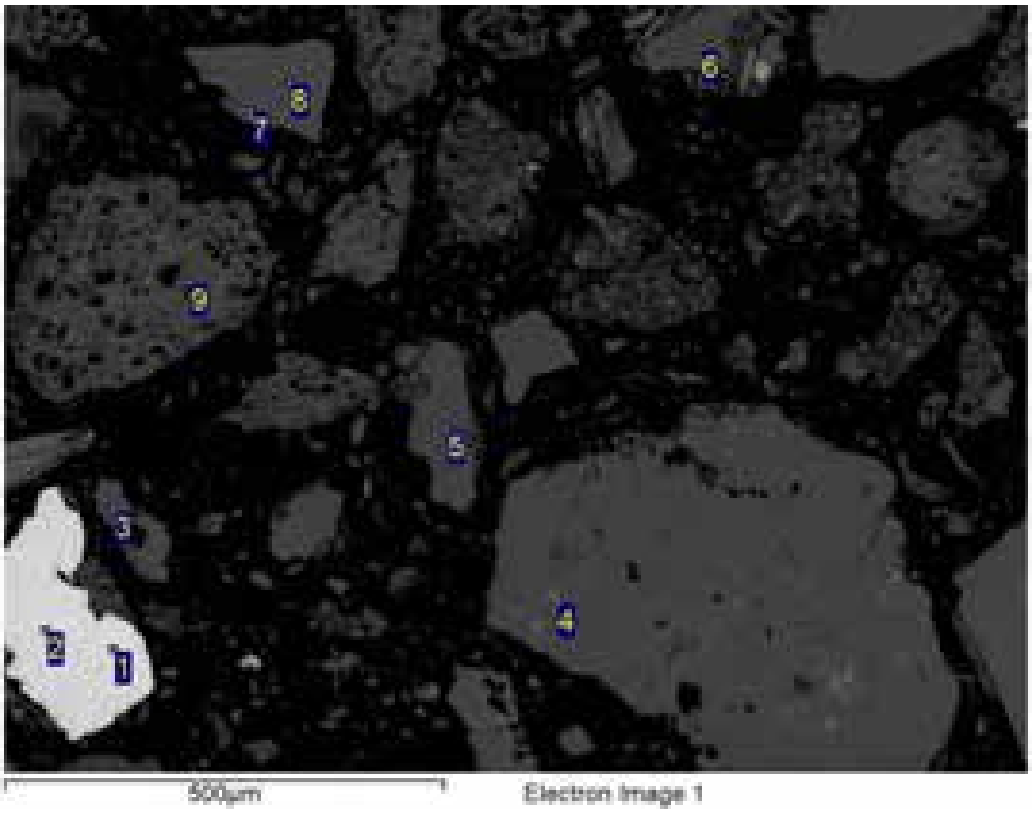


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	S	K	Ti	Mn	Fe	Total	Mineral ID
1	41.9		1.7	3.9	0.5					52.0	100.0	FeOx
2	38.7	0.4	3.9	6.6	0.4		0.7			49.3	100.0	FeOx
3	51.7			48.3							100.0	Quartz
4	52.1			47.9							100.0	Quartz
5	49.0		1.2	46.7			0.2			2.8	100.0	Quartz
6	36.7	0.8	7.5	13.2	0.8	0.3	1.1		0.4	39.2	100.0	FeOx/Feldpsar
7	56.2	1.7	10.2	26.2			3.1	0.4		2.3	100.0	Feldspar
8	36.1		7.3	3.9	1.0		0.3			51.4	100.0	FeOx

All results in weight%

Sample Notes:
S-6195-5

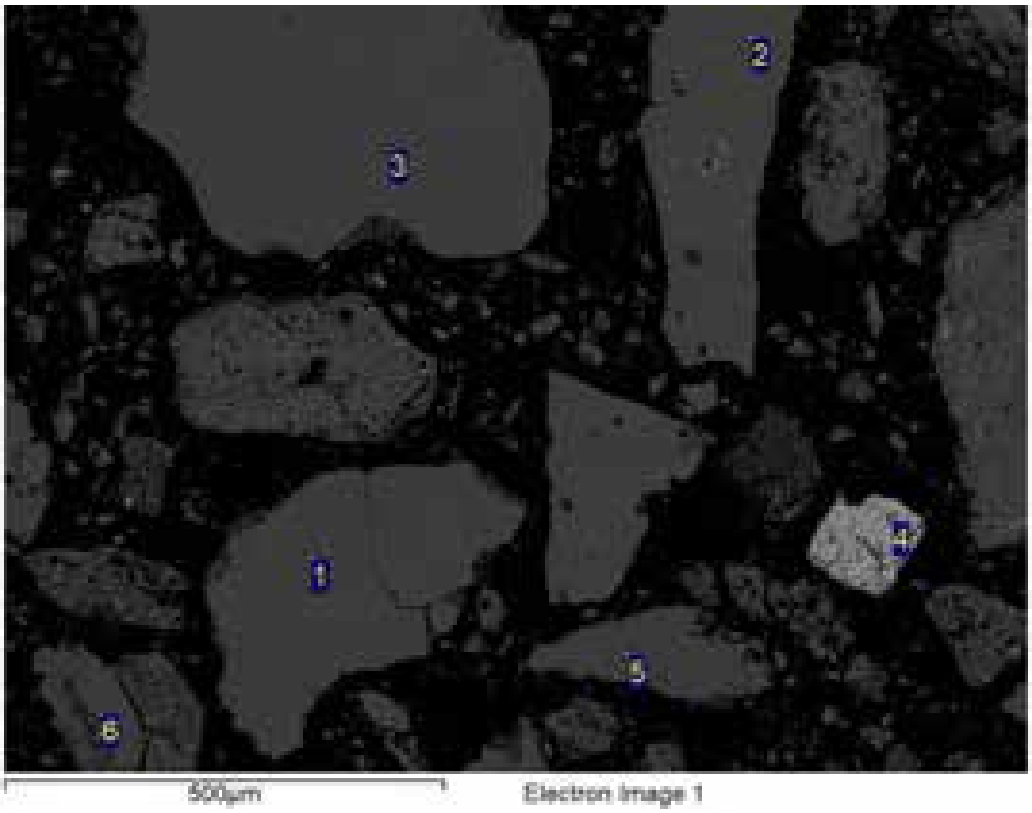


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	K	Ti	Fe	Total	Mineral ID
1	32.1					6.5	61.4	100.0	FeOx
2	31.9					6.4	61.7	100.0	FeOx
3	53.3			46.7				100.0	Quartz
4	55.7		0.7	38.8			4.8	100.0	Quartz
5	51.4			48.6				100.0	Quartz
6	51.4			48.6				100.0	Quartz
7	50.0			47.9			2.1	100.0	Quartz
8	51.5			48.1			0.4	100.0	Quartz
9	44.9	1.2	15.4	24.6	7.5	0.8	5.6	100.0	Amphibole

All results in weight%

Sample Notes:
S-6195-5 Rep

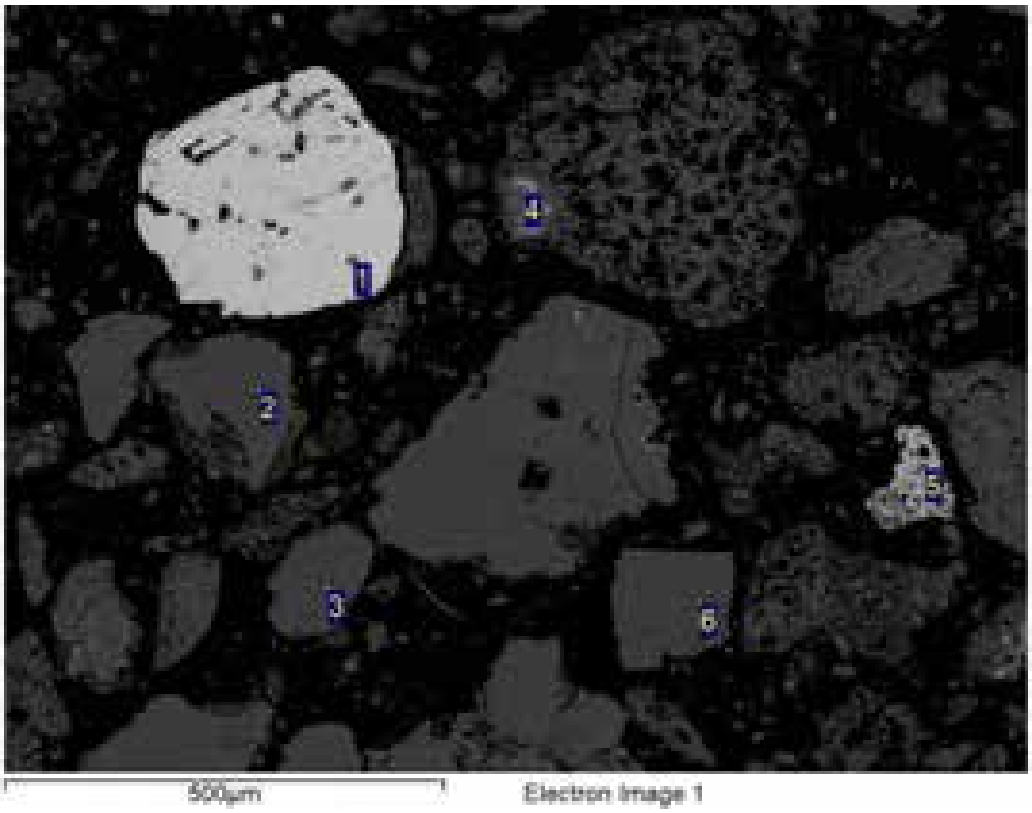


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	Fe	Total	Mineral ID
1	51.9		48.1			100.0	Quartz
2	51.2	0.4	47.8		0.6	100.0	Quartz
3	52.1		47.9			100.0	Quartz
4	39.4	2.0	4.1	0.6	54.0	100.0	FeOx
5	51.5		48.5			100.0	Quartz
6	52.4	0.6	46.6		0.5	100.0	Quartz

All results in weight%

Sample Notes:
S-6195-5 Rep

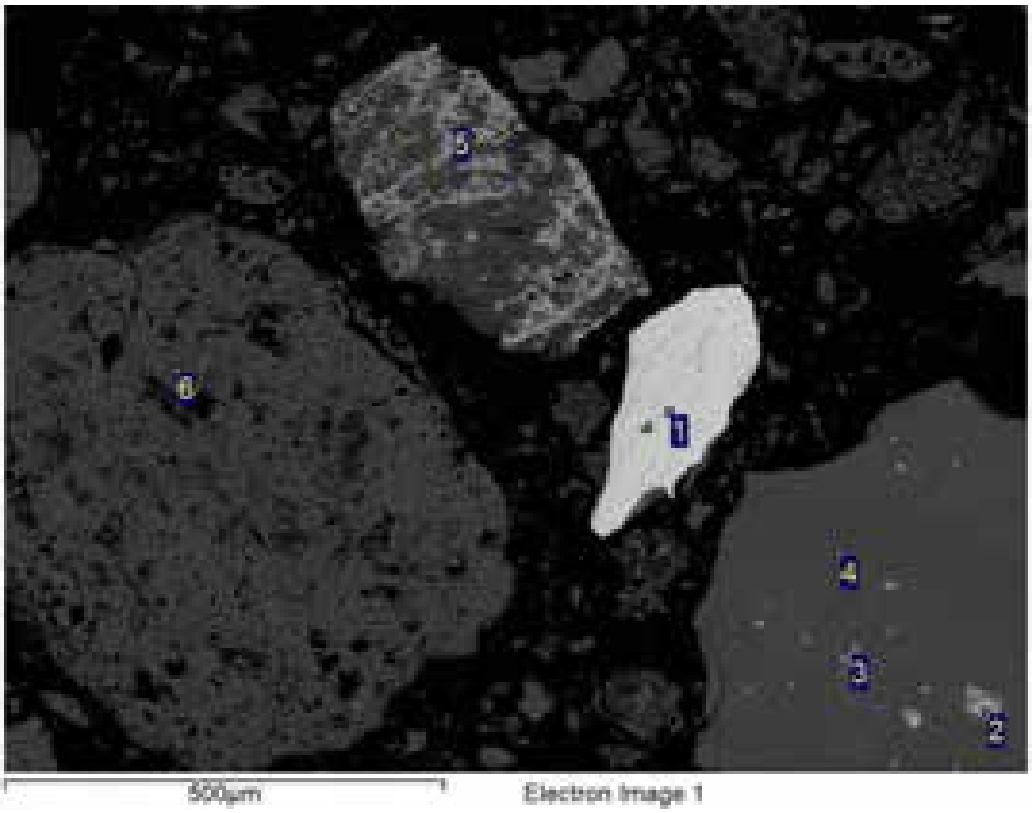


Processing option : All elements analysed (Normalised)

Spectrum	O	Al	Si	P	Ca	Ti	Mn	Fe	Co	Ni	Ba	Total	Mineral ID
1	34.4					31.1	0.9	33.7				100.0	Ilmenite
2	52.1		47.9									100.0	Quartz
3	51.8		48.2									100.0	Quartz
4	27.5	5.6	1.9		2.2		53.0	6.0	1.3	1.2	1.3	100.0	MnOx
5	42.7	1.5	8.6	0.3				46.8				100.0	FeOx
6	51.6		48.4									100.0	Quartz

All results in weight%

Sample Notes:
S-6195-5 Rep

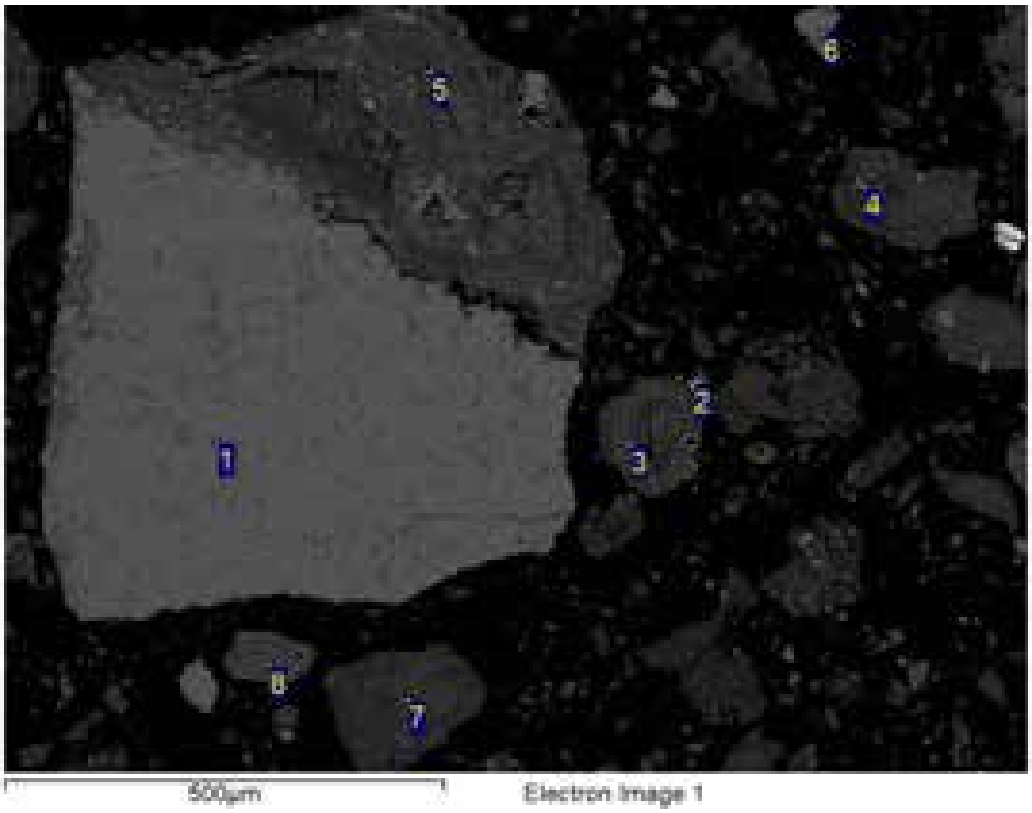


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	K	Ti	V	Fe	Total	Mineral ID
1	31.5						9.7	0.3	58.5	100.0	FeOx
2	53.9		0.9	16.4					28.9	100.0	FeOx/Quartz
3	29.7		0.9	24.9	0.4				44.1	100.0	FeOx/Quartz
4	52.0			47.5					0.5	100.0	Quartz
5	38.7	0.4	5.0	8.0		1.0			46.9	100.0	FeOx
6	50.9	2.8	14.7	25.5		3.3	0.4		2.4	100.0	Feldspar

All results in weight%

Sample Notes:
S-6195-6

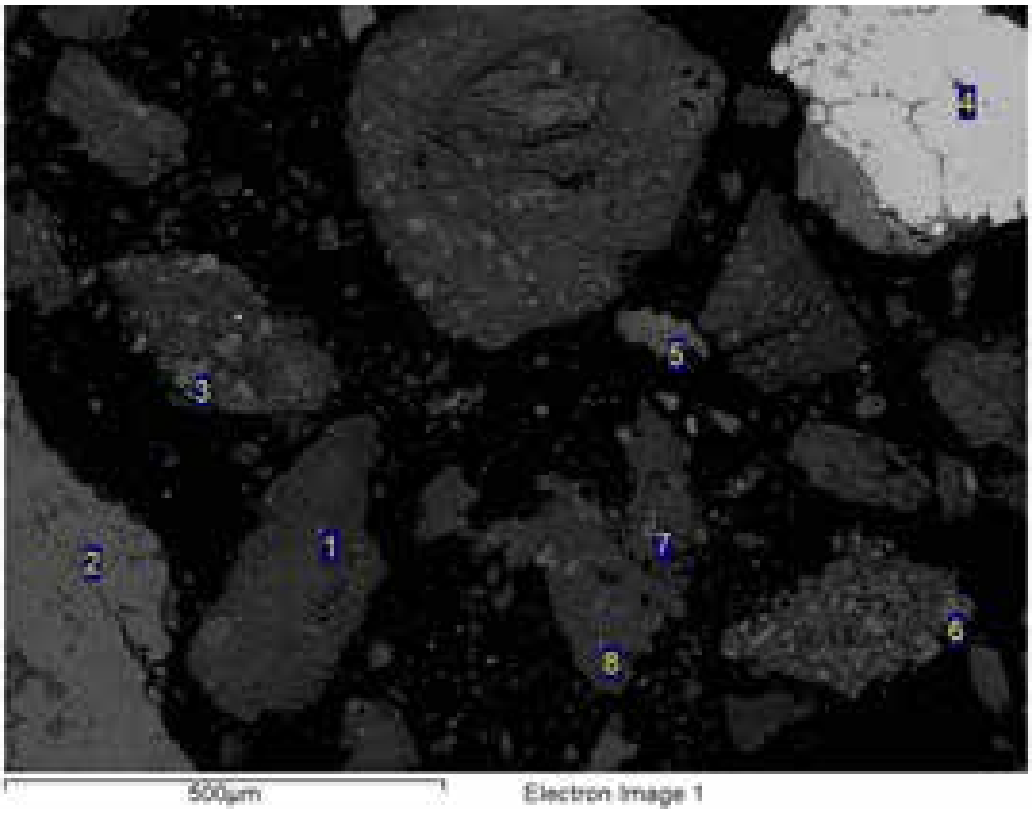


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	S	K	Ca	Ti	Fe	Ba	Total	Mineral ID
1	54.4	0.7		0.6			44.3				100.0	Calcite
2	31.4				14.3					54.2	100.0	Baryte
3	47.7	1.7	14.2	28.2		3.1	0.6	0.6	3.8		100.0	Feldspar
4	42.8	0.7	15.0	23.4	0.6	2.0	0.8	0.3	14.4		100.0	Feldspar
5	47.1	2.7	13.2	28.4		5.2	0.4	0.2	2.8		100.0	Feldspar
6	54.8	0.2					44.6		0.4		100.0	Calcite
7	46.6	2.0	12.0	27.5		4.8	0.4	0.5	6.3		100.0	Feldspar
8	51.0	2.2	11.8	26.3		4.1	0.3	0.4	3.9		100.0	Feldspar

All results in weight%

Sample Notes:
S-6195-6

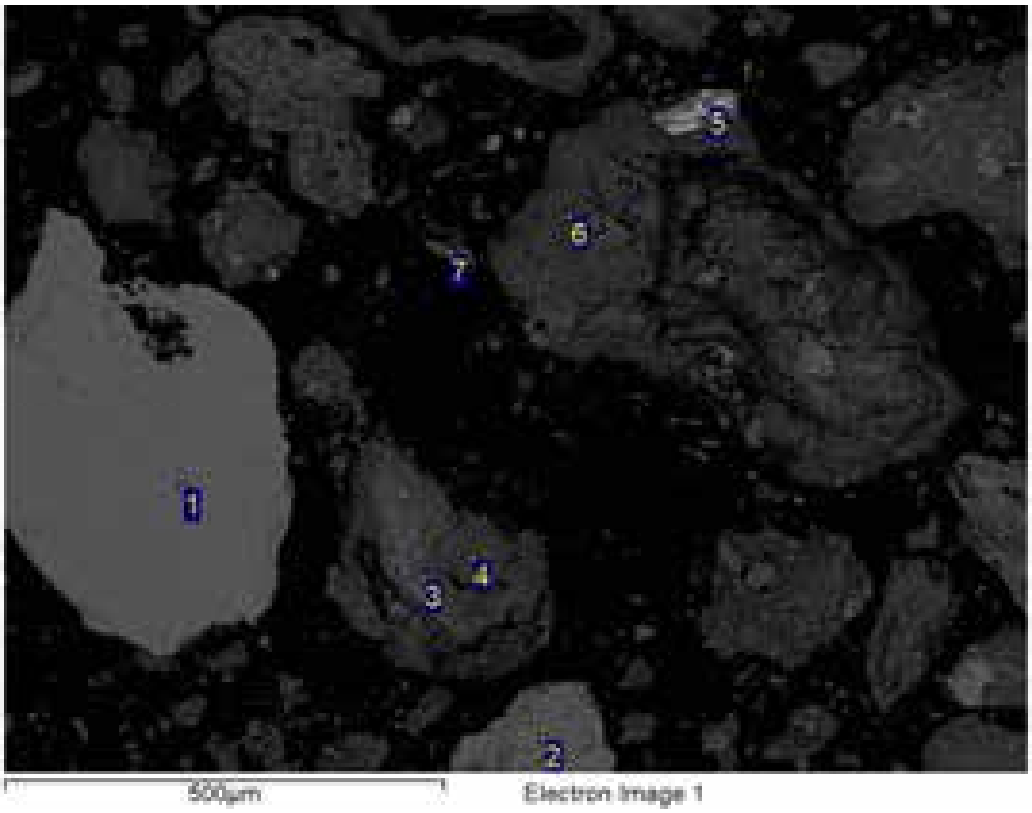


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	S	K	Ca	Ti	Fe	Total	Mineral ID
1	48.7	1.6	14.6	25.9		3.4	0.7	0.4	4.6	100.0	Feldspar
2	54.9	0.4	2.7	5.0		0.7	35.4	0.3	0.5	100.0	Calcite
3	53.0	0.4					46.1		0.6	100.0	Calcite
4	38.6			1.8			0.3		59.3	100.0	FeOx
5	54.5		1.9	4.2		0.2	38.8		0.3	100.0	Calcite
6	54.0	0.4		0.4			45.2			100.0	Calcite
7	56.2	0.5	0.4	0.7			41.7		0.5	100.0	Calcite
8	44.1	1.2	7.5	40.0	1.4	2.2	0.6	0.3	2.8	100.0	Quartz/ Feldspar

All results in weight%

Sample Notes:
S-6195-6

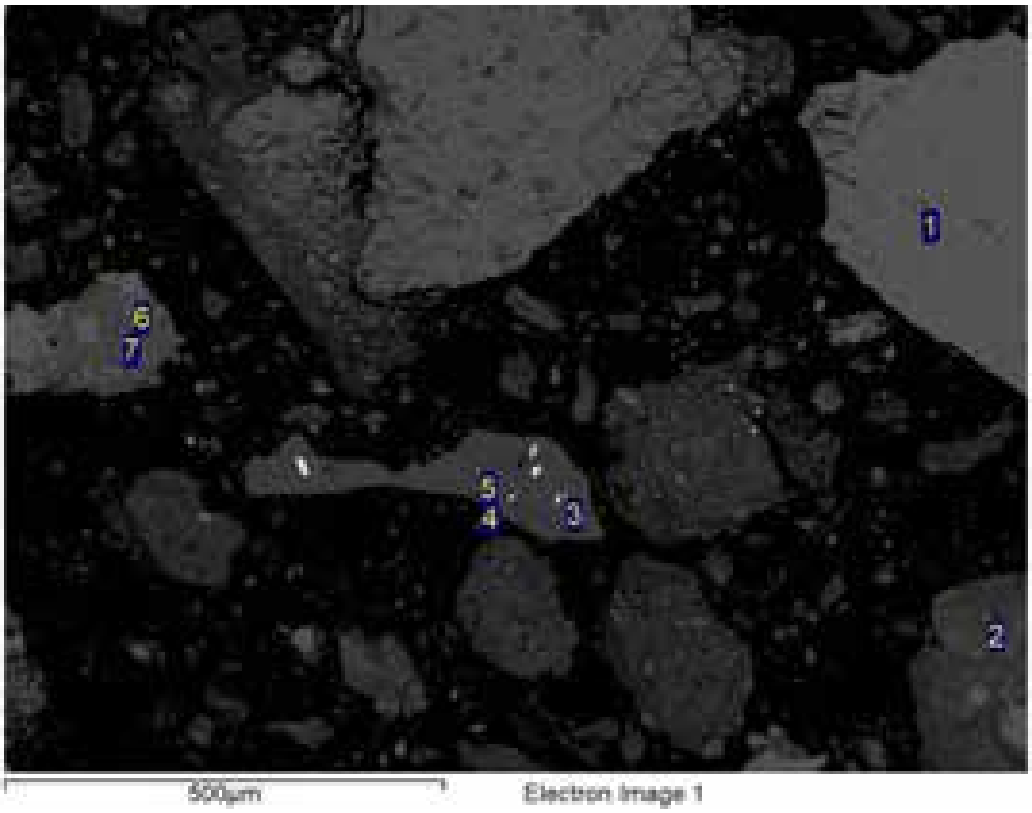


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	S	K	Ca	Ti	V	Fe	Total	Mineral ID
1	54.9						45.1				100.0	Calcite
2	54.2						45.8				100.0	Calcite
3	44.0	1.3	9.0	17.1		1.5	0.7	0.6		25.9	100.0	Feldspar/FeOx
4	46.7	0.9	14.5	26.9	0.4	1.4	0.8	0.6		7.9	100.0	Feldspar
5	41.1							57.9	1.0		100.0	Rutile
6	45.1	0.7	14.6	30.8		4.3	0.5	1.9		2.1	100.0	Quartz/Feldspar
7	51.5			48.5							100.0	Quartz

All results in weight%

Sample Notes:
S-6195-6

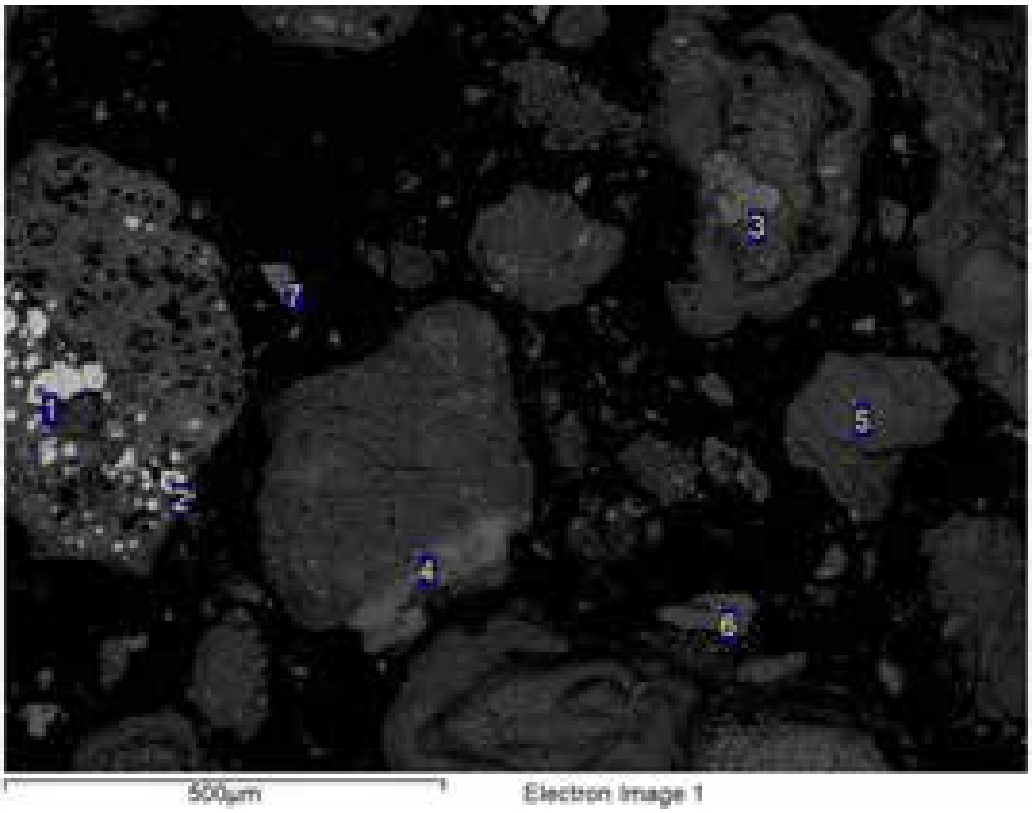


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	S	K	Ca	Ti	Fe	Sr	Ba	Total	Mineral ID
1	53.4		0.4					45.9		0.3			100.0	Calcite
2	42.5		0.8	13.0	22.9		1.5	0.8	0.5	18.1			100.0	Feldspar
3	21.3				0.5	14.4					3.6	60.1	100.0	Baryte
4	39.8	0.3			59.1	0.3			0.4				100.0	Quartz
5	51.3				48.7								100.0	Quartz
6	55.0		0.9		0.6			42.7		0.8			100.0	Calcite
7	53.3		2.2	9.5	21.7		3.7	5.2	0.5	4.0			100.0	Feldpsar

All results in weight%

Sample Notes:
S-6195-6 Rep

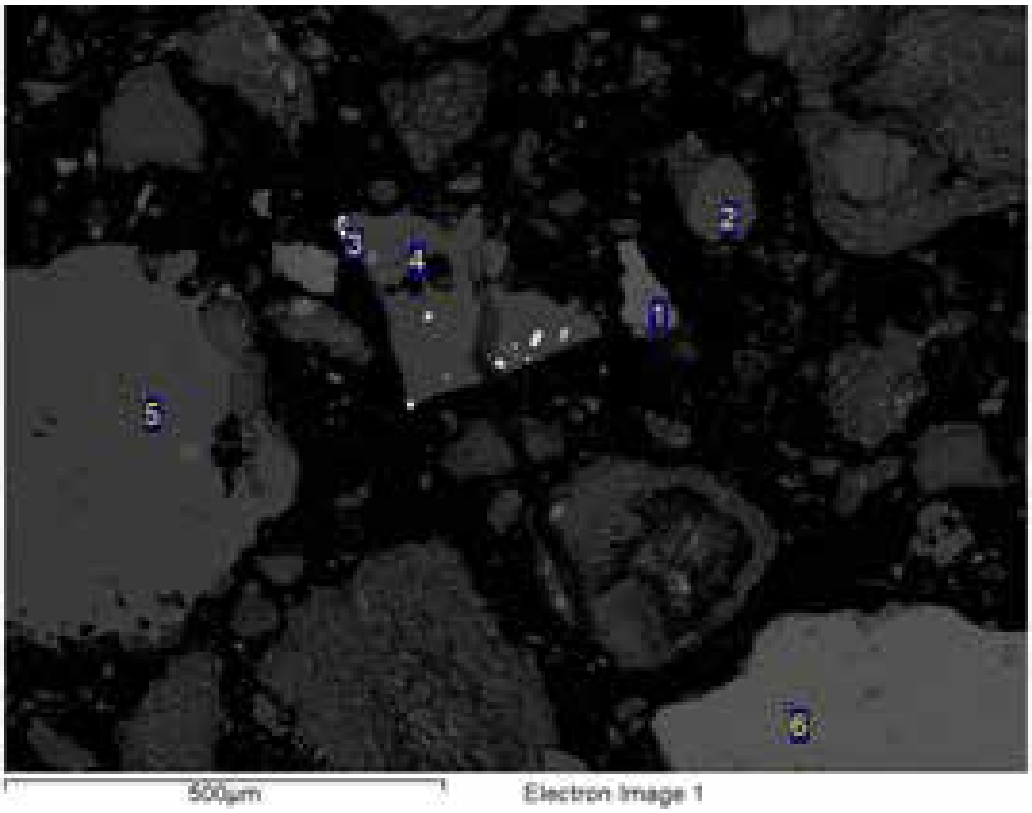


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	P	S	K	Ca	Ti	Mn	Fe	Total	Mineral ID
1	35.6			1.6	0.4			0.5		0.9	61.0	100.0	FeOx
2	36.5			1.5				0.4		1.4	60.2	100.0	FeOx
3	44.1	0.5	5.5	29.2		0.2	0.6	0.4			19.5	100.0	Feldspar/FeOx
4	42.5	0.4	7.9	7.5	0.4	0.3	0.4	0.4	0.3		39.8	100.0	FeOx/Feldspar
5	41.5	1.5	8.5	25.2			2.5	0.8	0.3		19.7	100.0	Feldspar/FeOx
6	46.3	2.5	11.1	32.1			4.8				3.2	100.0	Mica
7	54.0							45.6			0.3	100.0	Calcite

All results in weight%

Sample Notes:
S-6195-6 Rep

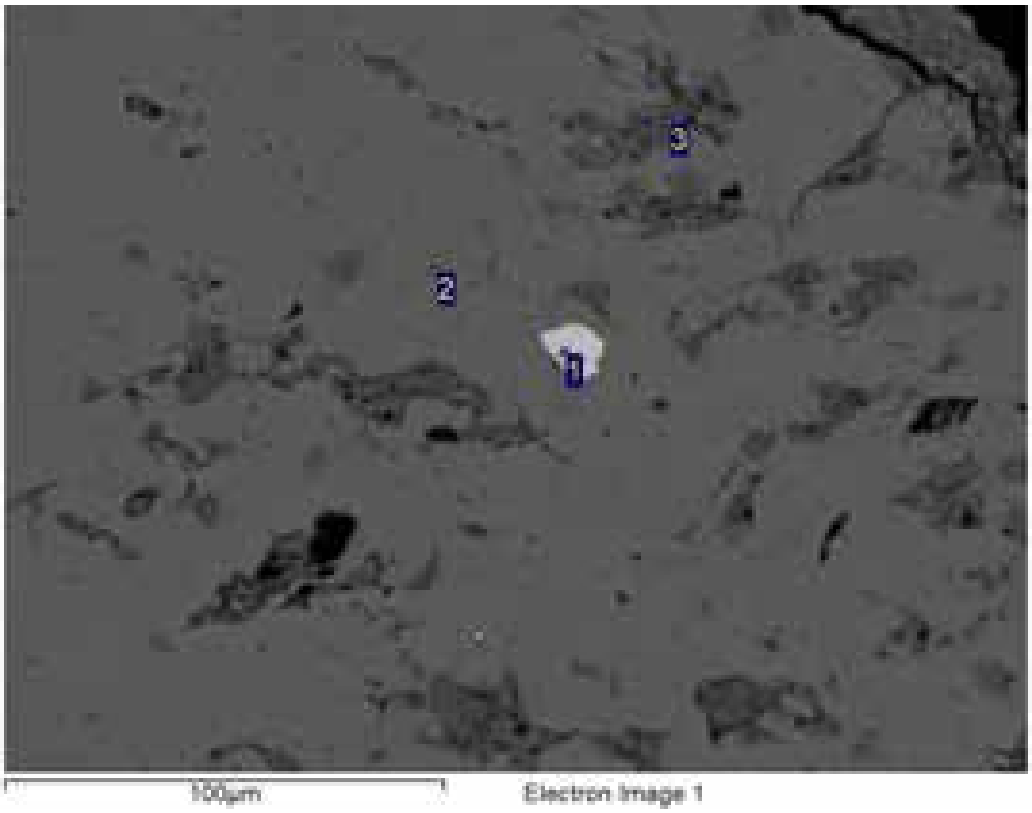


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Si	S	Ca	Fe	Co	Sr	Ba	Total	Mineral ID
1	52.6				47.4					100.0	Calcite
2	51.2		48.8							100.0	Quartz
3	26.2			14.7			0.0	2.5	56.7	100.0	Baryte
4	50.6		49.4							100.0	Quartz
5	51.2		48.8							100.0	Quartz
6	53.1	0.4			46.1	0.3				100.0	Calcite

All results in weight%

Sample Notes:
S-6195-6 Rep

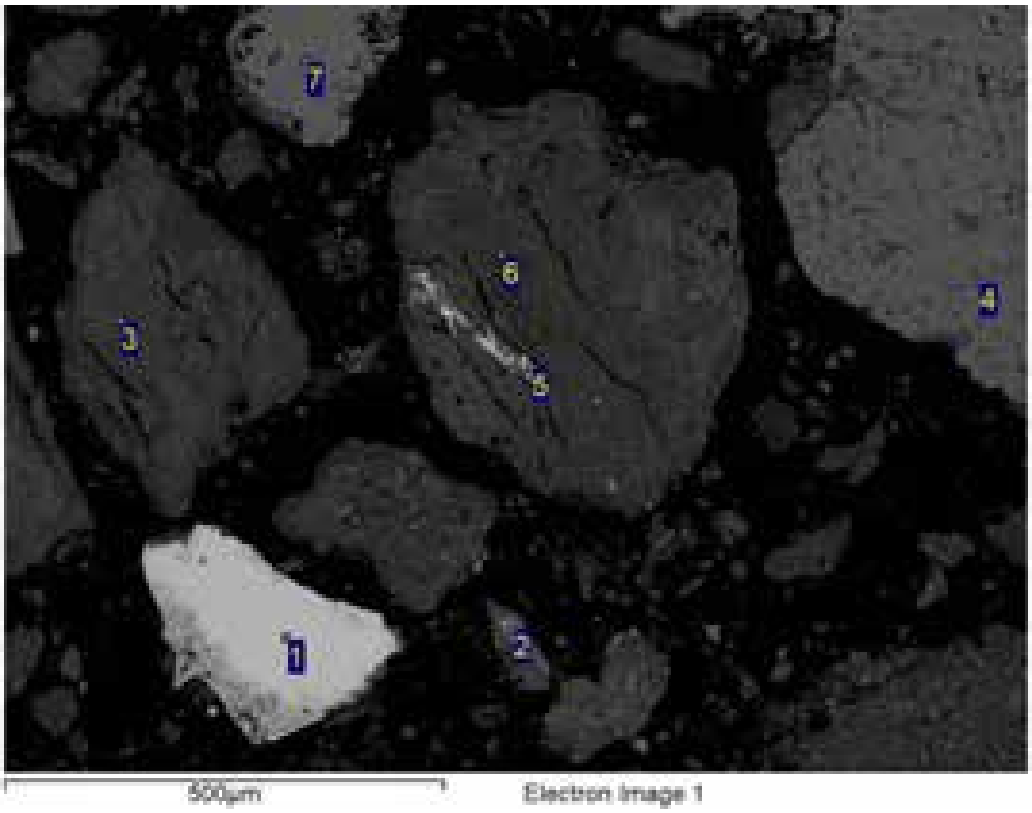


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	K	Ca	Fe	Cu	Total	Mineral ID
1	36.8	0.5	0.7	2.2		1.7	57.5	0.6	100.0	FeOx
2	53.5	0.4				46.1			100.0	Calcite
3	55.5	0.3	0.9	40.0	0.2	3.1			100.0	Quartz

All results in weight%

Sample Notes:
S-6195-6 Rep

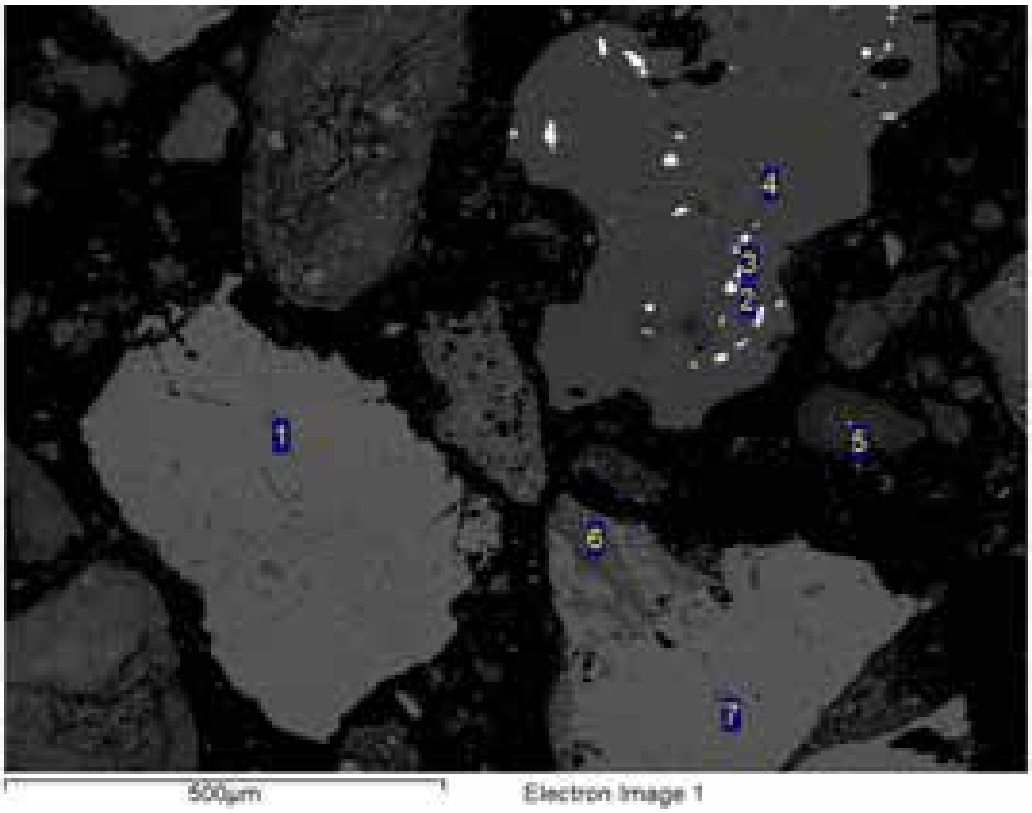


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	Cl	K	Ca	Ti	Mn	Fe	Co	Ba	Total	Mineral ID
1	37.2			1.7			0.4			60.7			100.0	FeOx
2	31.7		1.2	0.9			2.6		50.4	4.9	0.6	7.8	100.0	MnOx
3	46.0	1.7	15.2	27.5		2.9	0.6	0.3		5.7			100.0	Feldspar/Mica
4	53.1		1.5	3.0		0.3	42.1						100.0	Calcite
5	27.4		1.4	1.8		0.3	1.8		52.0	3.4		12.0	100.0	MnOx
6	43.7	2.0	13.0	25.7	0.3	4.1	0.9	1.0		9.2			100.0	Feldspar/Mica
7	53.9	0.3					45.5			0.3			100.0	Calcite

All results in weight%

Sample Notes:
S-6195-6 Rep



Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	S	K	Ca	Ti	Fe	Co	Sr	Ba	Total	Mineral ID
1	57.6						42.4						100.0	Calcite
2	21.0			0.9	14.8					0.0	3.9	59.5	100.0	Baryte
3	20.4			21.0	11.0					0.1		47.5	100.0	Baryte
4	52.2			47.8									100.0	Quartz
5	46.7	0.9	13.0	34.3		1.6	0.9	0.3	2.3				100.0	Feldspar/Quartz
6	49.7	0.3	0.7	48.5		0.1	0.1		0.6				100.0	Quartz
7	53.5						46.5						100.0	Calcite

All results in weight%

1-503 Imperial Road North Guelph, ON, N1H 6T9 t: 519-837-1600 1-800-265-7175 f: 519-837-1242 ca.agri.guelph.lab@sgs.com

Report # 565002

Analytical Report

Email

SGS LAKEFIELD - Catharine Arnold - S6195 Pulp
CEC
185 Concession St.
Lakefield, ON K0L 2H0

Fax: 705-652-6365
Email: catharine.arnold@sgs.com; lisa.thompson@sgs.com

Date Received: Sep-29-2020
Date Reported: Oct-16-2020

Laboratory Number:	32182101	32182102	32182103	32182104
Sample ID:	S-6195-1	S-6195-2	S-6195-3	S-6195-4
Sample Description:	Pulp			
CEC - Actual (MEQ/100g)	15.80	19.00	19.40	20.20

Authorized By: *Jack Legg*
CCA-ON, 4R NMS

1-503 Imperial Road North Guelph, ON, N1H 6T9 t: 519-837-1600 1-800-265-7175 f: 519-837-1242 ca.agri.guelph.lab@sgs.com

Analytical Report

Email

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Email: catharine.arnold@sgs.com; lisa.thompson@sgs.com

Date Received: Sep-29-2020
Date Reported: Oct-16-2020

Laboratory Number:	32182105	32182107
Sample ID:	S-6195-5	S-6195-6
Sample Description:		

CEC - Actual (MEQ/100g)	15.70	5.70

Authorized By: *Jack Legg*
CCA-ON, 4R NMS

1-503 Imperial Road North Guelph, ON, N1H 6T9 t: 519-837-1600 1-800-265-7175 f: 519-837-1242 ca.agri.guelph.lab@sgs.com

Report # 565002

Analytical Report

Email

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Fax: 705-652-6365
Email: catharine.arnold@sgs.com; lisa.thompson@sgs.com

Date Received: Sep-29-2020
Date Reported: Oct-16-2020

Laboratory Number:	32182101	32182102	32182103	32182104
Sample ID:	S-6195-1	S-6195-2	S-6195-3	S-6195-4
Sample Description:	Pulp			
CEC - Actual (MEQ/100g)	15.80	19.00	19.40	20.20

Authorized By: *Jack Legg*
CCA-ON, 4R NMS

1-503 Imperial Road North Guelph, ON, N1H 6T9 t: 519-837-1600 1-800-265-7175 f: 519-837-1242 ca.agri.guelph.lab@sgs.com

Analytical Report

Email

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Lakefield, ON K0L 2H0

Fax: 705-652-6365
Email: catharine.arnold@sgs.com; lisa.thompson@sgs.com

Date Received: Sep-29-2020
Date Reported: Oct-16-2020

Laboratory Number:	32182105	32182107
Sample ID:	S-6195-5	S-6195-6
Sample Description:		

CEC - Actual (MEQ/100g)	15.70	5.70

Authorized By: *Jack Legg*
CCA-ON, 4R NMS

Analysis Report
GS21-05060

F402001 SGS LAKEFIELD RESEARCH
PO BOX 4300
185 CONCESSION STREET
LAKEFIELD, ONTARIO ON K0L 2H0
CANADA

Received : 04-Nov-2021
Completed : 11-Nov-2021
Order Reference : Lisa/Catharine - S-8083-DPT04XRFAP1

Laboratory ID:	GS21-05060.001
Client Sample #	S-8083_DPT04XRFAP1
Description	CA19128-Sep21

CEC Actual (meq/100g)	3.10

NOTE
The analysis report above refers to the time and place of testing, and strictly to the supplied sample(s) only, without reference to any other matter. This report does not evidence or refer to any consignment or shipment or/and SGS sampling and inspection.

Report File Reference Number: 0000198571

Signed and dated in Guelph, ON
On 11-Nov-2021

For and on behalf of SGS Canada Inc., Agriculture and Food

Jack Legg, CCA-ON, 4R NMS
Branch Manager, Agronomist

Specialty Analytical

9011 SE Jannsen Rd
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

October 21, 2020

Kela Ashworth
SiREM Lab
130 Stone Road West
Guelph, Ontario N1G3Z2

TEL: (519) 822-2265
FAX
RE: S-6195

Dear Kela Ashworth: Order No.: 2009184

Specialty Analytical received 6 sample(s) on 9/25/2020 for the analyses presented in the following report.

REVISED REPORT: Please see case narrative for information on revision.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French
Lab Director

Case Narrative

WO#: **2009184**

Date: **10/21/2020**

Specialty Analytical

CLIENT: SiREM Lab
Project: S-6195

Revision 1.

This report has been revised to include sample 006.

Specialty Analytical

Date Reported: 21-Oct-20

CLIENT: SiREM Lab
Project: S-6195

Lab Order: 2009184

Lab ID: 2009184-001 **Collection Date:** 9/24/2020
Client Sample ID: S-6195-1 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY		**SW9081**				Analyst: **SH**
Anion Exchange Capacity	8.48	0.000200		meq/100g	1	10/5/2020 12:10:00 AM

Lab ID: 2009184-002 **Collection Date:** 9/24/2020
Client Sample ID: S-6195-2 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY		**SW9081**				Analyst: **SH**
Anion Exchange Capacity	6.58	0.000200		meq/100g	1	10/5/2020 12:12:00 AM

Lab ID: 2009184-003 **Collection Date:** 9/24/2020
Client Sample ID: S-6195-3 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY		**SW9081**				Analyst: **SH**
Anion Exchange Capacity	8.09	0.000200		meq/100g	1	10/5/2020 12:14:00 AM

Lab ID: 2009184-004 **Collection Date:** 9/24/2020
Client Sample ID: S-6195-4 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY		**SW9081**				Analyst: **SH**
Anion Exchange Capacity	7.85	0.000200		meq/100g	1	10/5/2020 12:16:00 AM

Lab ID: 2009184-005 **Collection Date:** 9/24/2020
Client Sample ID: S-6195-5 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY		**SW9081**				Analyst: **SH**
Anion Exchange Capacity	6.74	0.000200		meq/100g	1	10/5/2020 12:18:00 AM

Specialty Analytical

Date Reported: 21-Oct-20

CLIENT: SiREM Lab
Project: S-6195

Lab Order: 2009184

Lab ID: 2009184-006
Client Sample ID: S-6195-6

Collection Date: 9/24/2020
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY		**SW9081**				Analyst: **SH**
Anion Exchange Capacity	4.57	0.000200		meq/100g	1	10/21/2020 4:37:16 PM

KEY TO FLAGS

Rev. May 12, 2010

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
A4	The product appears to be aged or degraded diesel.
B	The blank exhibited a positive result great than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
G	Result may be biased high due to biogenic interferences. Clean up is recommended.
H	Sample was analyzed outside recommended holding time.
HT	At clients request, samples was analyzed outside of recommended holding time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits; post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

www.specialtyanalytical.com

Chain of Custody Record

2001184

Specialty Analytical
[illegible] SE Jennifer Rd
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Client: SiREM Lab
Address: 130 Stone Road West
City, State, Zip: Guelph, Ontario, N1G 3Z2
Telephone: 519-822-2265
AP Email: accountspayablecan@siremlab.com

Date:
Page 1 of 1
Project Name:
Project No: S-6195 PO No:
Collected by: Keith Ashworth
State Collected: OR [ ] WA [ ] Other:
Report To (PM): Keith Ashworth
PM Email: kashworth@siremlab.com

Laboratory Project No (internal): 2001184
Temperature on Receipt: [illegible] °C
Cooler: 1/2 Shipped Via: FedEx
Custody Seal: Y / N Intact / Broken / Cooler / Bottle
MDL [ ] DL/RL [ ] EQD [ ]
[illegible]

Sample Name	Sample Date	Sample Time	Sample Matrix	# of Containers	Requested Tests	Comments
S-6195-1	24-Sep-20		S	1	✓	
S-6195-2	24-Sep-20		S	1	✓	
S-6195-3	24-Sep-20		S	1	✓	
S-6195-4	24-Sep-20		S	1	✓	
S-6195-5	24-Sep-20		S	1	✓	
S-6195-6	24-Sep-20		S	1	✓	

Turnaround Time: Standard (5-7 Business) [✓] 3 Day [ ] 2 Day [ ] Next Day [ ] Same Day [ ]
Expedited turnaround requests should be coordinated in advance.

Relinquished	Date/Time	Received	Date/Time
Keith Ashworth	24 Sept 2020 / 11:25am	[signature]	9/24/2020 9/25/2020 9:30

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : S-7677

12-January-2022

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W
Guelph, ON
N1G 3Z2, Canada

Phone: 519-822-2265
Fax:519-822-3151

Date Rec. : 26 March 2021
LR Report: **CA14601-MAR21**

Copy: #1

CERTIFICATE OF ANALYSIS
S-7677_1_DPT07AP1

Sample ID	Sample Date & Time	Ag µg/g	Al µg/g	As µg/g	Ba µg/g	Be µg/g	Bi µg/g	Ca µg/g
1: Analysis Start Date		15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21
2: Analysis Start Time		19:04	19:04	19:04	19:04	19:04	19:04	19:04
3: Analysis Completed Date		16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21
4: Analysis Completed Time		10:28	10:28	10:28	10:28	10:28	10:28	10:28
5: S-7677_1_DPT07AP1	25-Mar-21	< 1	42000	7.8	220	1.1	0.18	830

Sample ID	Cd µg/g	Co µg/g	Cr µg/g	Cu µg/g	Fe µg/g	K µg/g	Li µg/g	Mg µg/g
1: Analysis Start Date	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21
2: Analysis Start Time	19:04	19:04	19:04	19:04	19:04	19:04	19:04	19:04
3: Analysis Completed Date	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21
4: Analysis Completed Time	10:28	10:28	10:28	10:28	10:28	10:28	10:28	10:28
5: S-7677_1_DPT07AP1	0.02	7	40	8.2	20000	7900	24	1600

Sample ID	Mn µg/g	Mo µg/g	Ni µg/g	Pb µg/g	Sb µg/g	Se µg/g	Sn µg/g	Sr µg/g
1: Analysis Start Date	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21
2: Analysis Start Time	19:04	19:04	19:04	19:04	19:04	19:04	19:04	19:04
3: Analysis Completed Date	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21
4: Analysis Completed Time	10:28	10:28	10:28	10:28	10:28	10:28	10:28	10:28
5: S-7677_1_DPT07AP1	100	1.4	14	15	< 0.8	< 0.7	< 6	38

Sample ID	Ti µg/g	Tl µg/g	U µg/g	V µg/g	Y µg/g	Zn µg/g	S %	C %
1: Analysis Start Date	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	15-Apr-21	12-Apr-21	12-Apr-21
2: Analysis Start Time	19:04	19:04	19:04	19:04	19:04	19:04	10:54	10:54
3: Analysis Completed Date	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	16-Apr-21	13-Apr-21	13-Apr-21

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : S-7677

LR Report : **CA14601-MAR21**

Sample ID	Ti µg/g	Tl µg/g	U µg/g	V µg/g	Y µg/g	Zn µg/g	S %	C %
4: Analysis Completed Time	10:28	10:28	10:28	10:28	10:28	10:28	11:02	11:00
5: S-7677_1_DPT07AP1	3500	0.34	2.0	53	16	39	0.022	0.078

Sample ID	Sulphide %	TOC %	
1: Analysis Start Date	13-Apr-21	12-Apr-21	---
2: Analysis Start Time	07:21	13:24	---
3: Analysis Completed Date	13-Apr-21	13-Apr-21	---
4: Analysis Completed Time	11:02	11:00	---
5: S-7677_1_DPT07AP1	< 0.04	0.066	1

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002769721

SGS	**Minerals** **Geochemistry** **Lakefield Laboratory**	Revision **2.7** Doc Type **Method Summary** Method No: **GO/GC/GT_XR** Code **F76V** Service **Testing** Issued Date **23/Sep/2014**
Minerals	**Preparation and Determination of Major Element Oxides, LOI and Rare Earth Oxides in Oxide Ores, and Process Control and Trade Products by Borate Fusion and Xray Fluorescence Spectrometry** [SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, TiO_2, Cr_2O_3; V_2O_5; LOI; additions BaO; Ce_2O_3; Nd_2O_3, La_2O_3; Pr_2O_3, Sm_2O_3; Nb_2O_5, ThO_2, Ta_2O_5; SnO_2; SrO; ZrO_2; HfO_2; Y_2O_3; WO_3; U_3O_8; Co; Ni ; XRF]	Approved by **K. Patel**

1. **Parameter(s) measured, unit(s):**
   Silicon Dioxide (SiO_2), Aluminum Oxide (Al_2O_3), Iron(III) Oxide (Fe_2O_3), Magnesium Oxide (MgO), Calcium Oxide (CaO), Sodium Oxide (Na_2O), Potassium Oxide (K_2O), Phosphorus Pentoxide (P_2O_5), Manganese Oxide (MnO), Titanium Dioxide (TiO_2), Chromium (III) Oxide (Cr_2O_3), Vanadium Oxide (V_2O_5), LOI, in %
   Barium Oxide (BaO), Cerium (III) Oxide(Ce_2O_3), Neodymium Oxide (Nd_2O_3), Lanthanum Oxide (La_2O_3), Praseodymium Oxide (Pr_2O_3), Samarium Oxide (Sm_2O_3), Niobium Pentoxide (Nb_2O_5), Thorium Dioxide (ThO_2), Tantalum Pentoxide (Ta_2O_5), Tin Dioxide (SnO_2) Uranium Oxide (U_3O_8), Cobalt (Co), Nickel (Ni), Strontium Oxide (SrO), Zirconium Dioxide (ZrO_2), Hafnium Oxide (HfO_2), Yttrium Oxide (Y_2O_3), Tungsten Trioxide (WO_3) in % can be added as additions

2. **Typical sample size:**
   0.2 to 0.5g, 1g additional for LOI analysis

3. **Type of sample applicable (media):**
   Rocks, oxide ores, concentrates and catalysts

4. **Sample preparation technique used:**
   Samples are crushed and pulverized according to client specified instructions or default preparation procedures. This method is used to report, in percentage, the whole rock suite (SiO_2, Al_2O_3, Fe_2O_3, MgO, CaO, Na_2O, K_2O, P_2O_5, MnO, TiO_2, Cr_2O_3 ,V_2O_5). Sample preparation entails the formation of a homogenous glass disk by the fusion of the sample and a lithium tetraborate/lithium metaborate mixture. The LOI is determined separately and gravimetrically at 1000°C.

5. **Method of analysis used:**
   The prepared disks are analyzed by wavelength dispersion X-ray fluorescence (WD-XRF). The

LOI is included in the matrix correction calculations, which are performed by the XRF software.

6. **Data reduction by:**
Computer, on line, data fed to Laboratory Information Management System with secure audit trail.

.

7. **Figures of Merit:**
This method has been fully validated for the range of samples typically analyzed. Method validation includes the use of reference materials, replicates, duplicates and blanks to calculate accuracy, precision, linearity, range, limit of detection, reporting limit, specificity and measurement uncertainty.

The reporting limits has been determined according to the following

Element	Report Limit %
SiO2	0.01
Al2O3	0.01
MgO	0.01
Na2O	0.01
K2O	0.01
CaO	0.01
P2O5	0.01
TiO2	0.01
Cr2O3	0.01
V2O5	0.01
Fe2O3	0.01
MnO	0.01
LOI	-10

*upper limit for all elements is 100%. A negative LOI indicates a gain on ignition

8. **Quality control:**
Quality control materials include method blanks, replicates and reference materials and are randomly inserted with the frequency set according to method protocols at ~12% for ore grade analysis and 18% for process control analysis. Quality control materials will also include BRM (Barren reference materials, or preparations blanks) and preparation duplicates if samples have been taken through the sample reduction process. Party quality samples are assayed in replicate, umpire quality samples are in triplicate. Calibration materials that cover the range upon method set-up; calibration check performed daily.

9. **Accreditation:**
The Standards Council of Canada has accredited this test in conformance with the requirements of ISO/IEC 17025. See www.scc.ca/en/search/palcan for scope of accreditation.

Note: Scopes of accreditation are site specific, please check with the local representative.

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : S-7677

12-January-2022

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W, Guelph
Canada, N1G 3Z2
Phone: 519-822-2265, Fax:519-822-3151

Date Rec. : 26 March 2021
LR Report: **CA14602-MAR21**
Reference: P.O# 800003210A

Copy: #1

CERTIFICATE OF ANALYSIS
S-7677_1_DPT07AP1

Sample ID	Sample Date & Time	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %
5: S-7677_1_DPT07AP1	25-Mar-21	80.8	9.02	3.21	0.29	0.12	0.10	1.07	0.90	0.04	0.01	< 0.01

Sample ID	V2O5 %	LOI %	Sum %
5: S-7677_1_DPT07AP1	0.02	4.02	99.6

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

00027697 31

Quantitative X-Ray Diffraction by Rietveld Refinement

Report Prepared for:	*Environmental Services*
Project Number/ LIMS No.	*Custom MIN/MI5060-MAR21*
Sample Receipt:	*March 30, 2021*
Sample Analysis:	*April 12, 2021*
Reporting Date:	*May 5, 2021*

Instrument:	BRUKER AXS D8 Advance Diffractometer
Test Conditions:	Co radiation, 35 kV, 40 mA Regular Scanning: Step: 0.02°, Step time: 1s, 2θ range: 3-80°
Interpretations :	PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.
Detection Limit :	0.5-2%. Strongly dependent on crystallinity.

Contents:

1) Method Summary
2) Quantitative XRD Results
3) XRD Pattern(s)

Kim Gibbs, H.B.Sc., P.Geo.
Senior Mineralogist

Huyun Zhou, Ph.D., P.Geo.
Senior Mineralogist

ACCREDITATION: SGS Minerals Services Lakefield is accredited to the requirements of ISO/IEC 17025 for specific tests as listed on our scope of accreditation, including geochemical, mineralogical and trade mineral tests. To view a list of the accredited methods, please visit the following website and search SGS Canada - Minerals Services - Lakefield: http://palcan.scc.ca/SpecsSearch/GLSearchForm.do.

Method Summary

The Rietveld Method of Mineral Identification by XRD (ME-LR-MIN-MET-MN-D05) method used by SGS Minerals Services is accredited to the requirements of ISO/IEC 17025.

Mineral Identification and Interpretation:

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

Quantitative Rietveld Analysis:

Quantitative Rietveld Analysis is performed by using Topas 4.2 (Bruker AXS), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

SGS Minerals
a division of SGS Canada Inc.
P.O. Box 4300, 185 Concession Street, Lakefield, Ontario, Canada K0L 2H0
Tel: (705) 652-2000 Fax: (705) 652-6365 www.sgs.com www.sgs.com/met
Member of the SGS Group (SGS SA)

Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

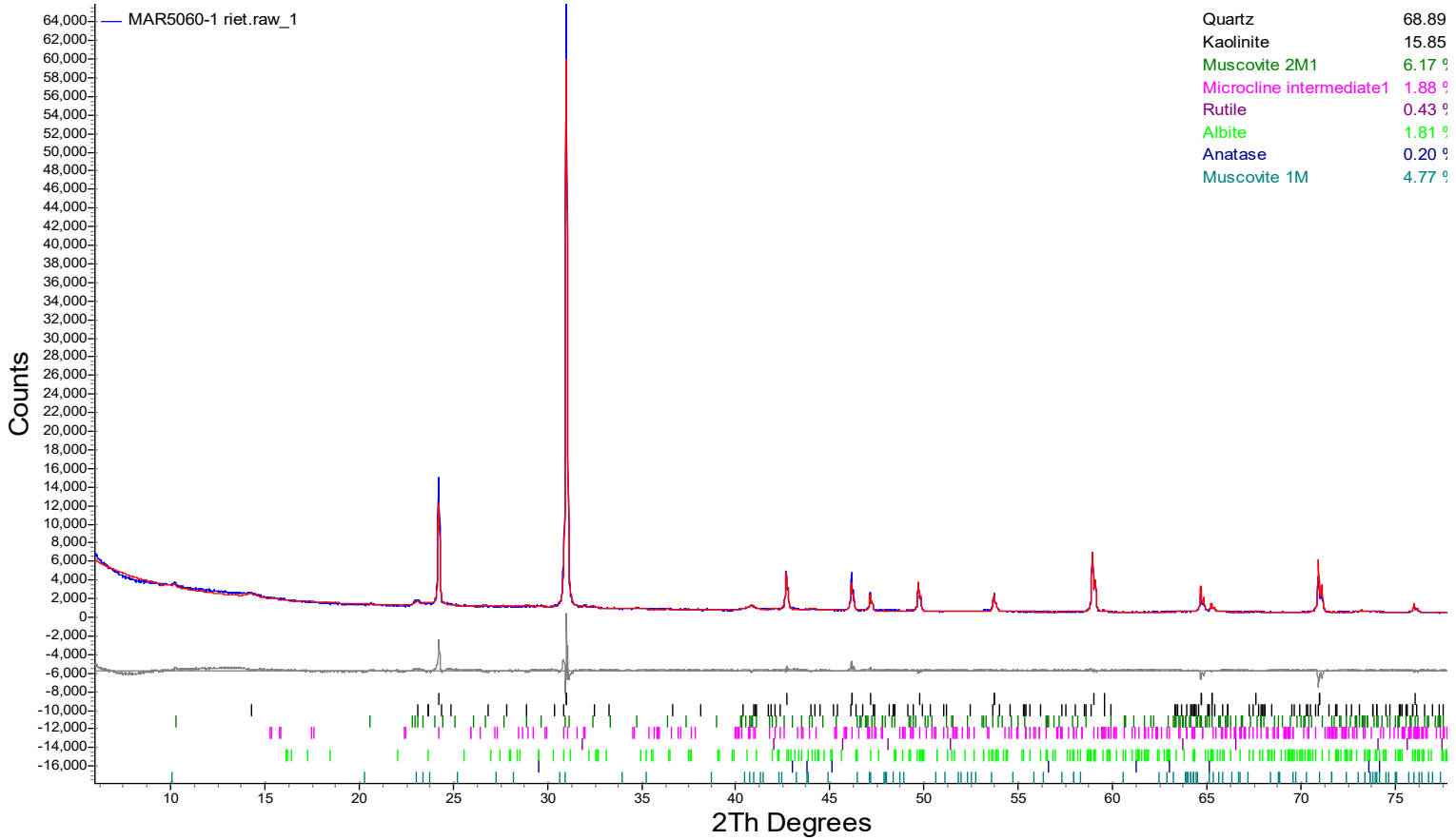
Mineral/Compound	S-7677_1_DPT07AP1 MAR5060-01 (wt %)
Quartz	68.9
Kaolinite	15.8
Muscovite	10.9
Microcline	1.9
Rutile	0.4
Albite	1.8
Anatase	0.2
TOTAL	100

The weight percent quantities indicated have been normalized to a sum of 100%.

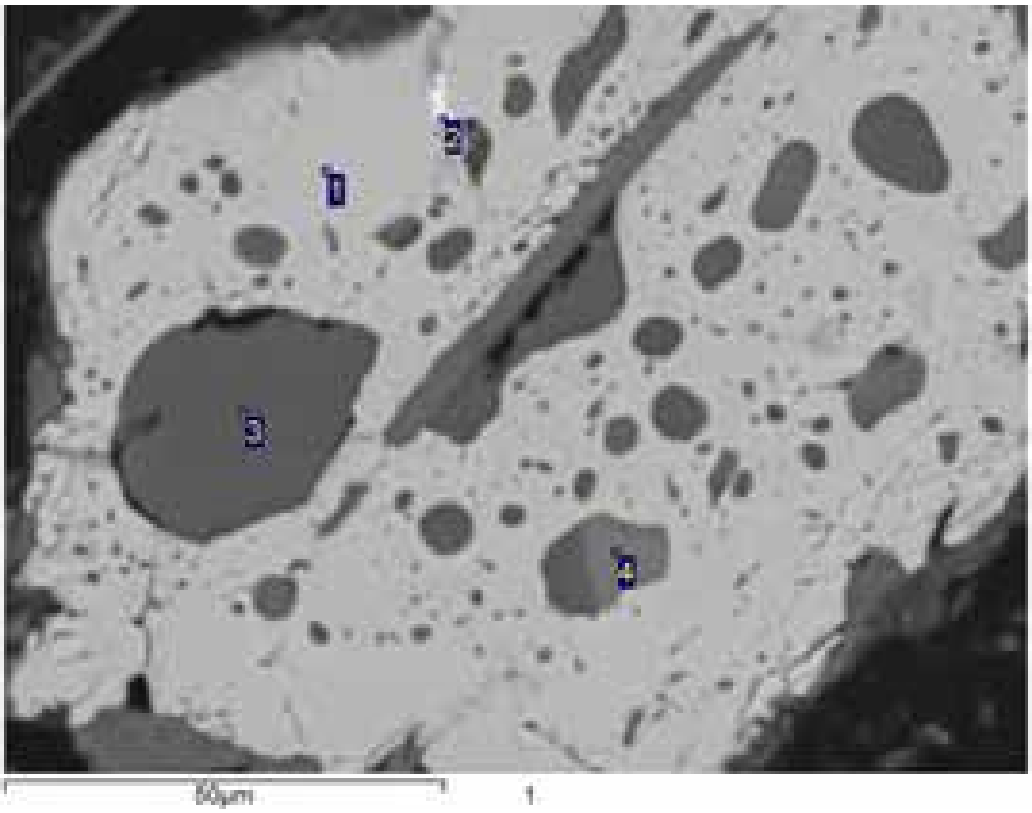
The quantity of amorphous material has not been determined.

Mineral/Compound	Formula
Quartz	SiO_2
Kaolinite	$Al_2Si_2O_5(OH)_4$
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$
Microcline	$KAlSi_3O_8$
Rutile	TiO_2
Albite	$NaAlSi_3O_8$
Anatase	TiO_2

S-7677_1_DPT07AP1



Sample Notes:
S-7677_1_DPT07AP1

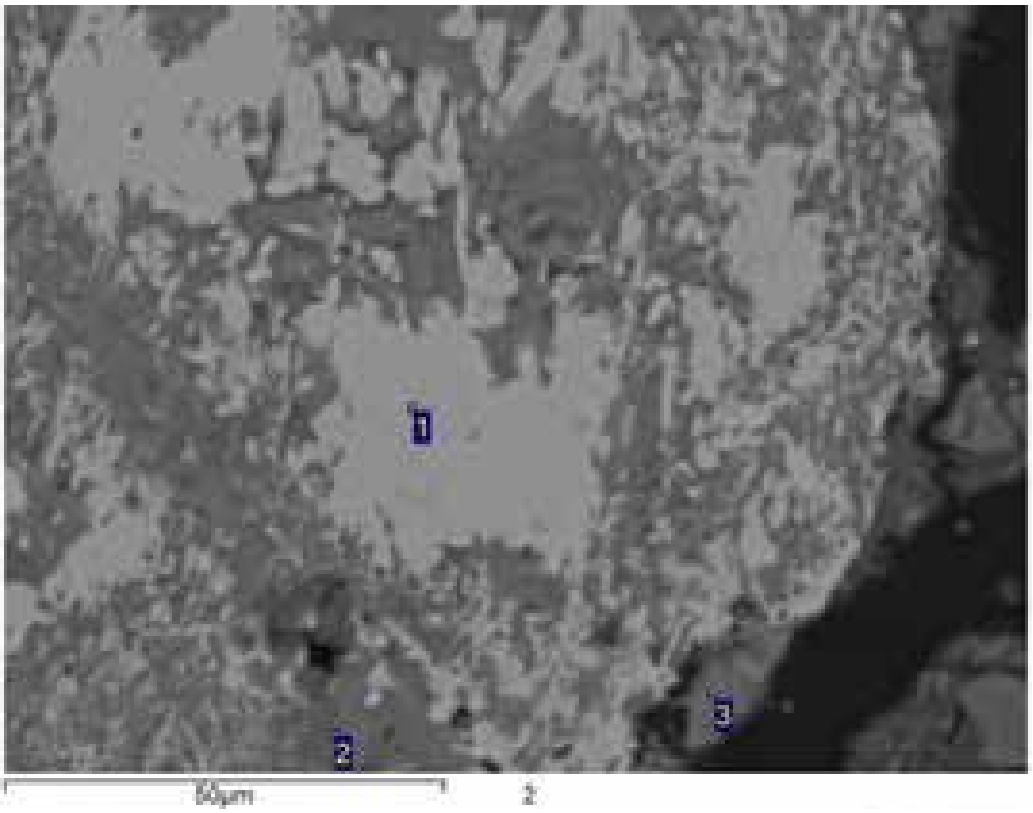


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	Ti	Mn	Fe	Zr	Total	Mineral ID
1	33.8				31.3	1.1	33.8		100.0	Ilmenite
2	34.9			10.8	12.4	0.4	9.4	32.0	100.0	Zircon
3	51.0			48.3	0.3		0.4		100.0	Quartz
4	41.9	7.0	12.0	13.1	0.8		25.3		100.0	Chlorite

All results in weight%

Sample Notes:
S-7677_1_DPT07AP1

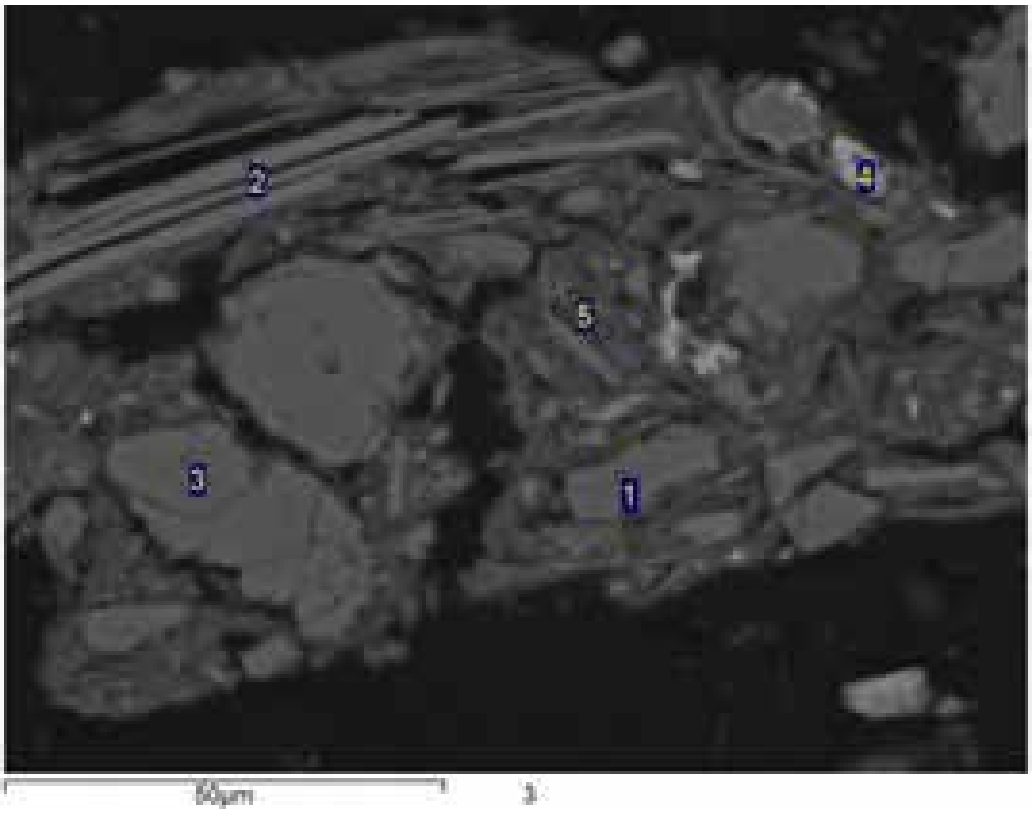


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	K	Ti	Fe	Total	Mineral ID
1	41.1					58.9		100.0	Rutile
2	50.3		2.6	44.4	1.5	0.8	0.4	100.0	Quartz
3	51.3	1.1	15.5	22.5	7.7	0.7	1.2	100.0	Muscovite

All results in weight%

Sample Notes:
S-7677_1_DPT07AP1

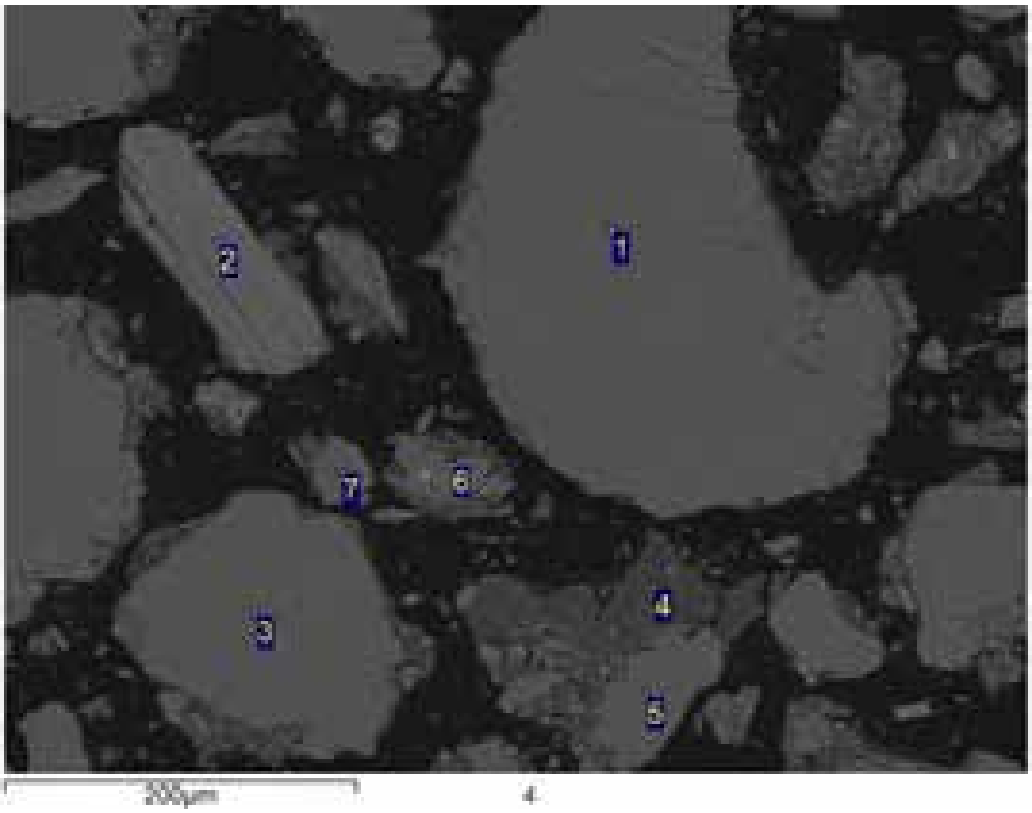


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	Cl	K	Ti	Fe	Total	Mineral ID
1	52.2			47.8					100.0	Quartz
2	46.5	0.9	17.1	24.9		8.4	0.6	1.5	100.0	Muscovite
3	50.8			49.2					100.0	Quartz
4	38.8		8.0	8.5		0.6		44.1	100.0	Fe-Oxide/Oxyhydroxide/Kaolinite mixture
5	42.2	0.5	18.5	27.1	0.4	3.7		7.6	100.0	Mineral mixtures Micas/Clays

All results in weight%

Sample Notes:
S-7677_1_DPT07AP1

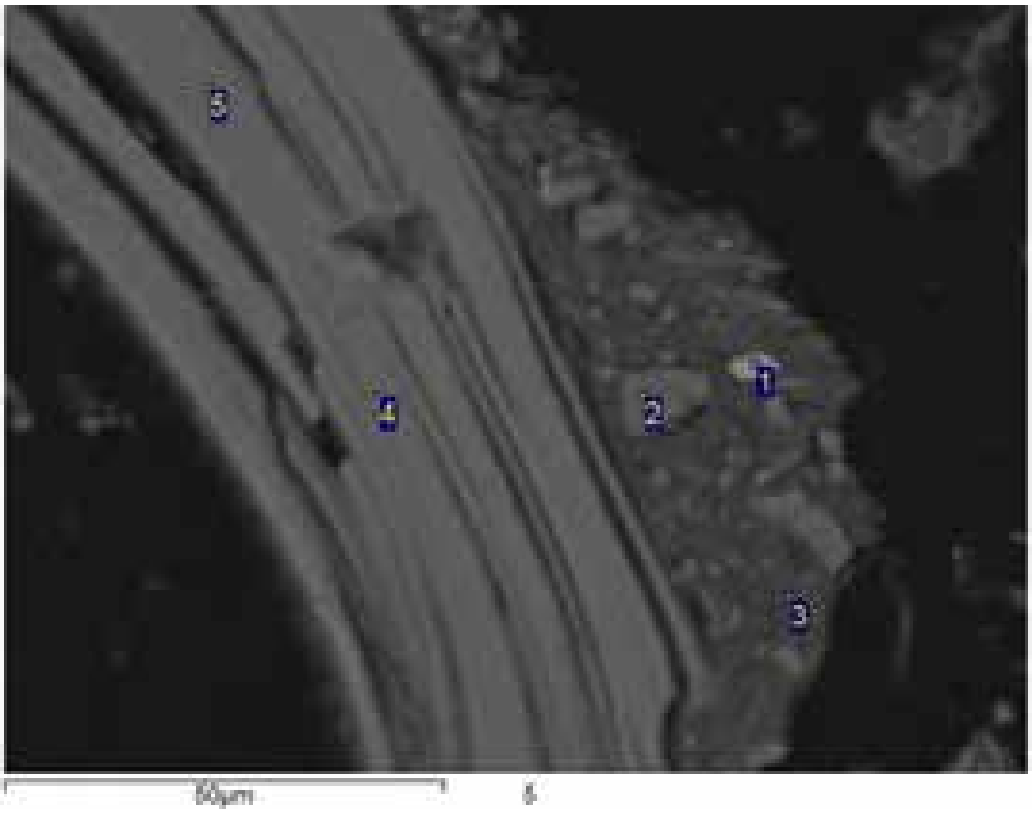


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	S	K	Ti	Fe	Total	Mineral ID
1	50.6				49.4					100.0	Quartz
2	47.8	1.1		18.7	23.2		8.1	0.3	0.9	100.0	Muscovite
3	50.6				49.4					100.0	Quartz
4	48.9		0.7	18.5	26.7	1.4	1.8	0.3	1.6	100.0	Muscovite
5	50.9				49.1					100.0	Quartz
6	51.6				48.4					100.0	Quartz
7	51.0				49.0					100.0	Quartz

All results in weight%

Sample Notes:
S-7677_1_DPT07AP1

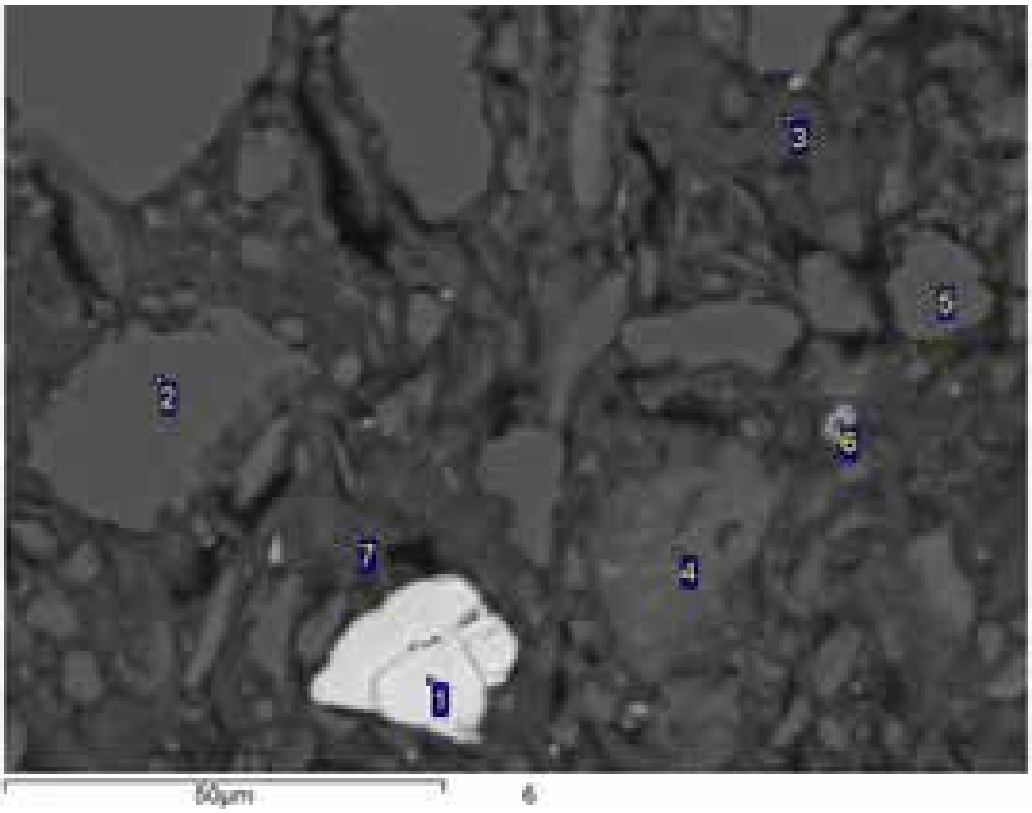


Processing option : All elements analysed (Normalised)

Spectrum	O	Na	Mg	Al	Si	P	K	Ti	Cr	Fe	Total	Mineral ID
1	49.6			5.0	3.2	0.5	0.2	36.3	0.5	4.6	100.0	Rutile
2	52.3				47.7						100.0	Quartz
3	47.0		0.7	18.6	28.7		2.0	0.9		2.1	100.0	Kaolinite/Muscovite
4	47.3	0.6	0.7	17.1	23.1		8.2	0.3		2.7	100.0	Muscovite
5	46.5	0.7	0.7	17.3	23.1		8.8			2.8	100.0	Muscovite

All results in weight%

Sample Notes:
S-7677_1_DPT07AP1

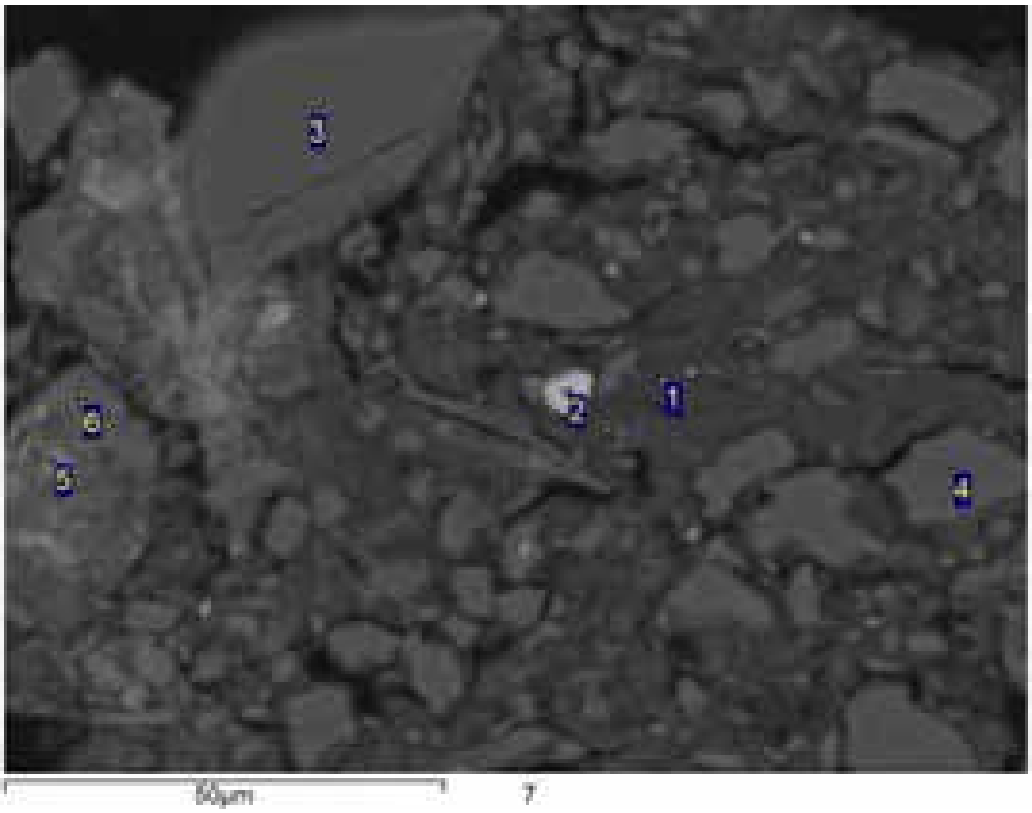


Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	K	Ti	Fe	Zr	Total	Mineral ID
1	34.1			16.0				49.9	100.0	Zircon
2	50.7			49.3					100.0	Quartz
3	47.0		21.8	29.0			2.2		100.0	Kaolinite
4	49.1	1.0	16.0	23.8	4.8	0.4	4.9		100.0	Muscovite
5	51.2		0.3	48.5					100.0	Quartz
6	54.2		1.8	2.7		41.3			100.0	Rutile
7	44.9	0.5	20.7	29.6	2.4		1.8		100.0	Kaolinite

All results in weight%

Sample Notes:
S-7677_1_DPT07AP1



Processing option : All elements analysed (Normalised)

Spectrum	O	Mg	Al	Si	S	K	Ti	Fe	Total	Mineral ID
1	44.8	0.8	18.2	30.4	0.6	2.5	0.6	2.1	100.0	Kaolinite
2	37.0	0.9					21.2	40.9	100.0	Ilmenite
3	50.5			49.5					100.0	Quartz
4	51.0			49.0					100.0	Quartz
5	34.7		9.9	11.2		0.5		43.6	100.0	Fe-Oxide/Oxyhydroxide/Kaolinite Mixtures
6	43.4		8.3	27.8		0.9		19.6	100.0	Fe-Oxide/Oxyhydroxide/Kaolinite Mixtures

All results in weight%

Analysis Report

GS21-00731

F402001 SGS LAKEFIELD RESEARCH
PO BOX 4300
185 CONCESSION STREET
LAKEFIELD, ONTARIO ON K0L 2H0
CANADA

Received: 31-Mar-2021
Completed: 29-Apr-2021
Order Reference: Kela Ashworth - S767 CEC

Laboratory ID:	GS21-00731.001
Client Sample #:	S-7677-1
Description:	S-7677_1_DPT07AP1
CEC Actual (meq/100g)	7.83

Report File Reference Number: 0000206179

NOTE:
The analysis report above refers to the time and place of testing, and strictly to the supplied sample(s) only, without reference to any other matter. This report does not evidence or refer to any consignment or shipment or/and SGS sampling and inspection.

Signed and dated in Guelph, ON
On 13-Jan-2022

For and on behalf of SGS Canada Inc., Agriculture and Food

Jack Legg, CCA-ON, 4R NMS
Branch Manager, Agronomist

Specialty Analytical

9011 SE Jannsen Rd
Clackamas, OR 97015
TEL: (503) 607-1331
Website: www.specialtyanalytical.com

January 25, 2022

Kela Ashworth
SiREM Lab
130 Stone Road West
Guelph, Ontario N1G3Z2
TEL: (519) 822-2265
FAX:

RE: S-7677 Order No.: 2103288

Dear Kela Ashworth:

REVISED REPORT: Please see case narrative for information on revision.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French
Lab Director

Specialty Analytical
9011 SE Jannsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-133€
Website: www.specialtyanalytical.com

Case Narrative

WO#: **2103288**
Date: **1/25/2022**

CLIENT: SiREM Lab
Project: S-7677

Revision 1.

Report revised at client request to separate selected samples into separate jobs. See Specialty Analytical job numbers 2201248 and 2201249

Specialty Analytical

WO#: **2103288**
Date Reported: **1/25/2022**

CLIENT: SiREM Lab
Project: S-7677

Lab ID: 2103288-001 **Matrix:** SOIL
Client Sample ID S-7677_1_DPT07AP1 **Collection Date:** 3/25/2021

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY				**SW9081**		Analyst: **EG**
Anion Exchange Capacity	5.13	0.000200		meq/100g	1	4/1/2021 10:38:06 AM

Qualifiers: H Holding times for preparation or analysis exceeded

QC SUMMARY REPORT

Specialty Analytical

WO#: **2103288**

1/25/2022

Client: SiREM Lab

Project: S-7677 **TestCode:** **AEC_S**

Sample ID: **2201248-003ADUP** SampType: **DUP** TestCode: **AEC_S** Units: **meq/100g** Prep Date: RunNo: **39875**

Client ID: **BatchQC** Batch ID: **R39875** TestNo: **SW9081** Analysis Date: **4/1/2021** SeqNo: **513304**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anion Exchange Capacity	7.21	0.000200						6.836	5.36	20	

Qualifiers: H Holding times for preparation or analysis exceeded

Specialty Analytical
9011 SE Jannsen Rd
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

Sample Receipt Checklist

Client Name SIREM Work Order Number 2103288

RcptNo: 1 Date and Time Received 3/29/2021 9:11:17 AM Received by: Katherine Lynch

Completed by Reviewed by:

Completed Date: 3/29/2021 9:24:09 AM Reviewed Date: 3/29/2021 3:51:52 PM

Carrier name: FedEx

Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present ☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐	
Is it clear what analyses were requested?	Yes ☑	No ☐	
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Samples in proper container/bottle?	Yes ☑	No ☐	
Were correct preservatives used and noted?	Yes ☐	No ☐	NA ☑
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☑	NA ☐
Response when temperature is outside of range:			
Preservative added to bottles:			
Sample Temp. taken and recorded upon receipt?	Yes ☑	No ☐	To 10.1 ºC
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials ☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑
Are Samples considered acceptable?	Yes ☑	No ☐	
Custody Seals present?	Yes ☐	No ☑	
Traffic Report or Packing Lists present?	Yes ☐	No ☑	
Airbill or Sticker?	Air Bill ☐	Sticker ☐	Not Present ☑
Airbill No:			
Sample Tags Present?	Yes ☐	No ☑	
Sample Tags Listed on COC?	Yes ☐	No ☑	
Tag Numbers:			
Sample Condition?	Intact ☑	Broken ☐	Leaking ☐

Case Number: SDG: SAS:

Adjusted? _____ Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section be

Specialty Analytical
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Sample Receipt Checklist

Client Contacted?	☑ Yes	☐ No	☐ NA	Person Contacted:	Comments:
Contact Mode:	☐ Phone:	☐ Fax:	☑ Email:	☐ In Person:	Samples received in cooler with ice packs. Client contacted.
Client Instructions:					
Date Contacted:	3/29/2021	Contacted By:	Katherine Lynch		
Regarding:	Temp of samples upon receipt				
CorrectiveAction:					

www.specialtyanalytical.com

Chain of Custody Record

Specialty Analytical

9011 SE Jannsen Rd
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Company: SiREM Lab
Address: 130 Stone Road West
City, State, Zip: Guelph, Ontario, N1G 3Z2
Telephone: 519-822-2265
Invoice To: accountspayable...@siremlab.com

Page 1 of 1
Project No.: S-7677
Collected by: Kela Ashworth
Report To: Kela Ashworth
Email: kashworth@siremlab.com

Laboratory Project No.: 2108788

Requested Analysis

Sample Name	Sample Date	Sample Time	Sample Matrix	# of Containers											
S-7677 1 DPT07AP1			S	1	✓										
S-7677 2 DPT11AP2			S	1	✓										
S-7677 3 DPT06AP2			S	1	✓										
S-7677 4 DPT12AP2			S	1	✓										
S-7677 5 DPT01AP3			S	1	✓										
S-7677 6 DPT03AP3			S	1	✓										
S-7677 7 DPT02AP3			S	1	✓										
S-7677 8 DPT04AP3			S	1	✓										
S-7677 9 DPT09AP2			S	1	✓										
S-7677 10 DPT10AP2			S	1	✓										

Turn-around Time: Standard (5-7 Business) ☑ 1 Day ☐ 2 Day ☐ Next Day ☐ Same Day ☐

Expedited turn-around requests should be coordinated in advance.

Specialty Analytical
9011 SE Jannsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-133€
Website: www.specialtyanalytical.com

Definition Only

WO#: **2103288**
Date: **1/25/2022**

Definitions:

KEY TO FLAGS

A: This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was qualified against gasoline calibration standards.

A1: This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was qualified against diesel calibration standards.

A2: This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was qualified against lube oil calibration standards.

A3: The results was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

A4: The product appears to be aged or degraded.

B: The blank exhibited a positive result greater than the reporting limit for this compound.

CN: See Case Narrative.

E: Result exceeds the calibration range for this compound. The result should be considered an estimate.

F: The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

FS: Follow-up testing is suggested.

G: Result may be biased high due to biogenic interferences. Clean up is recommended.

H: Sample was analyzed outside recommended holding time.

HT: At client's request, samples was analyzed outside of recommended holding time.

HP: Sample was analyzed outside recommended holding time due to VOA having pH >2.

J: The results for this analyte is between the MDL and the PQL and should be considered an

Specialty Analytical
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Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-133€
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Definition Only

WO#: **2103288**
Date: **1/25/2022**

Definitions:

estimated concentration.

K: Diesel result is biased high due to amount of Oil contained in the sample.

L: Diesel result is biased high due to amount of Gasoline contained in the sample.

M: Oil result is biased high due to amount of Diesel contained in the sample.

N: Gasoline result is biased high due to amount of Diesel contained in the sample.

MC: Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.

MI: Result is outside control limits due to matrix interference.

NH: Sample matrix is non-homogeneous

MSA: Value determined by Method of Standard Addition.

O: Laboratory Control Standard (LCS) exceeded laboratory control limits but meets CCV criteria. Data meets EPA requirements.

Q: Detection levels elevated due to sample matrix.

R: RPD control limits were exceeded

RF: Duplicate failed due to result being at or near the method-reporting limit.

RP: Matrix spike values exceed established QC limits; post digestion spike is in control.

S: Recovery is outside control limits.

SC: CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.

SL: LCS exceeded recovery control limits, but associated MS/MSD passing. Data meets EPA requirements.

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : Hammond MNA

25-August-2021

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W
Guelph, ON
N1G 3Z2, Canada

Phone: 519-822-2265
Fax:519-822-3151

Date Rec. : 12 August 2021
LR Report: **CA15239-AUG21**
Reference: P.O# 800003210A

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: S-8083_DPT 04XRFAP1
Sample Date & Time					11-Aug-21
Ag [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	< 0.5
Al [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	13000
As [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	13
Ba [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	100
Be [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	1
Bi [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	< 0.09
Ca [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	500
Cd [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	0.03
Co [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	4
Cr [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	11
Cu [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	5.8
Fe [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	14000
K [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	2800
Li [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	12
Mg [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	420
Mn [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	120
Mo [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	1.4
Ni [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	8.5
Pb [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	6
Sb [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	< 0.8
Se [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	< 0.7
Sn [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	< 6
Sr [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	16
Ti [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	1600
Tl [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	0.08
U [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	1.16
V [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	15

OnLine LIMS

0002615512

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : Hammond MNA

LR Report : **CA15239-AUG21**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: S-8083_DPT 04XRFAP1
Y [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	9.70
Zn [µg/g]	18-Aug-21	21:15	19-Aug-21	16:32	20

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002615512

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

ABA - Modified Sobek

Project : Hammond MNA

19-October-2021

Date Rec. : 30 September 2021
LR Report: **CA19125-SEP21**
Reference: PO#800003210A

Copy: #1

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W
Guelph, ON
N1G 3Z2, Canada

Phone: 519-822-2265
Fax:519-822-3151

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: S-8083_DPT 04XRFAP1
Sample Date & Time					11-Aug-21
S [%]	15-Oct-21	14:57	18-Oct-21	14:01	0.007
Sulphide [%]	18-Oct-21	11:56	18-Oct-21	14:01	< 0.04
TOC [%]	18-Oct-21	08:11	18-Oct-21	10:55	0.045

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002680894

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Project : Hammond MNA

21-October-2021

SiREM Laboratory
Attn : Kela Ashworth

130 Stone Rd. W
Guelph, ON
N1G 3Z2, Canada

Phone: 519-822-2265
Fax:519-822-3151

Date Rec. : 30 September 2021
LR Report: **CA19126-SEP21**
Reference: PO#800003210A

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	3: Analysis Completed Date	5: S-8083_DPT04 XRFAP1
Sample Date & Time			11-Aug-21
SiO2 [%]	19-Oct-21	20-Oct-21	91.9
Al2O3 [%]	19-Oct-21	20-Oct-21	2.69
Fe2O3 [%]	19-Oct-21	20-Oct-21	2.41
MgO [%]	19-Oct-21	20-Oct-21	0.08
CaO [%]	19-Oct-21	20-Oct-21	0.08
Na2O [%]	19-Oct-21	20-Oct-21	0.08
K2O [%]	19-Oct-21	20-Oct-21	0.46
TiO2 [%]	19-Oct-21	20-Oct-21	0.38
P2O5 [%]	19-Oct-21	20-Oct-21	0.04
MnO [%]	19-Oct-21	20-Oct-21	0.02
Cr2O3 [%]	19-Oct-21	20-Oct-21	< 0.01
V2O5 [%]	19-Oct-21	20-Oct-21	< 0.01
LOI [%]	19-Oct-21	20-Oct-21	1.53
Sum [%]	19-Oct-21	20-Oct-21	99.7

Catharine Arnold, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

0002684887

Quantitative X-Ray Diffraction by Rietveld Refinement

Report Prepared for:	*Environmental Services*
Project Number/ LIMS No.	*Custom XRD/MI4521-OCT21*
Sample Receipt:	*October 15, 2021*
Sample Analysis:	*October 30, 2021*
Reporting Date:	*November 11, 2021*

Instrument:	BRUKER AXS D8 Advance Diffractometer
Test Conditions:	Co radiation, 35 kV, 40 mA Regular Scanning: Step: 0.02°, Step time: 1s, 2θ range: 3-80°
Interpretations :	PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.
Detection Limit :	0.5-2%. Strongly dependent on crystallinity.

Contents:

1) Method Summary
2) Quantitative XRD Results
3) XRD Pattern(s)

Kim Gibbs, H.B.Sc., P.Geo.
Senior Mineralogist

Huyun Zhou, Ph.D., P.Geo.
Senior Mineralogist

ACCREDITATION: SGS Natural Resources Lakefield is accredited to the requirements of ISO/IEC 17025 for specific tests as listed on our scope of accreditation, including geochemical, mineralogical and trade mineral tests. To view a list of the accredited methods, please visit the following website and search SGS Canada Inc. - Minerals: https://www.scc.ca/en/search/palcan.

Method Summary

The Rietveld Method of Mineral Identification by XRD (ME-LR-MIN-MET-MN-D05) method used by SGS Natural Resources is accredited to the requirements of ISO/IEC 17025.

Mineral Identification and Interpretation:

Mineral identification and interpretation involves matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards have been added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Mineral or compound identification and quantitative analysis results should be accompanied by supporting chemical assay data or other additional tests.

Quantitative Rietveld Analysis:

Quantitative Rietveld Analysis is performed by using Topas 4.2 (Bruker AXS), a graphics based profile analysis program built around a non-linear least squares fitting system, to determine the amount of different phases present in a multicomponent sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental and specimen factors. Unlike other peak intensity-based methods, the Rietveld method uses a least squares approach to refine a theoretical line profile until it matches the obtained experimental patterns.

Rietveld refinement is completed with a set of minerals specifically identified for the sample. Zero values indicate that the mineral was included in the refinement calculations, but the calculated concentration was less than 0.05wt%. Minerals not identified by the analyst are not included in refinement calculations for specific samples and are indicated with a dash.

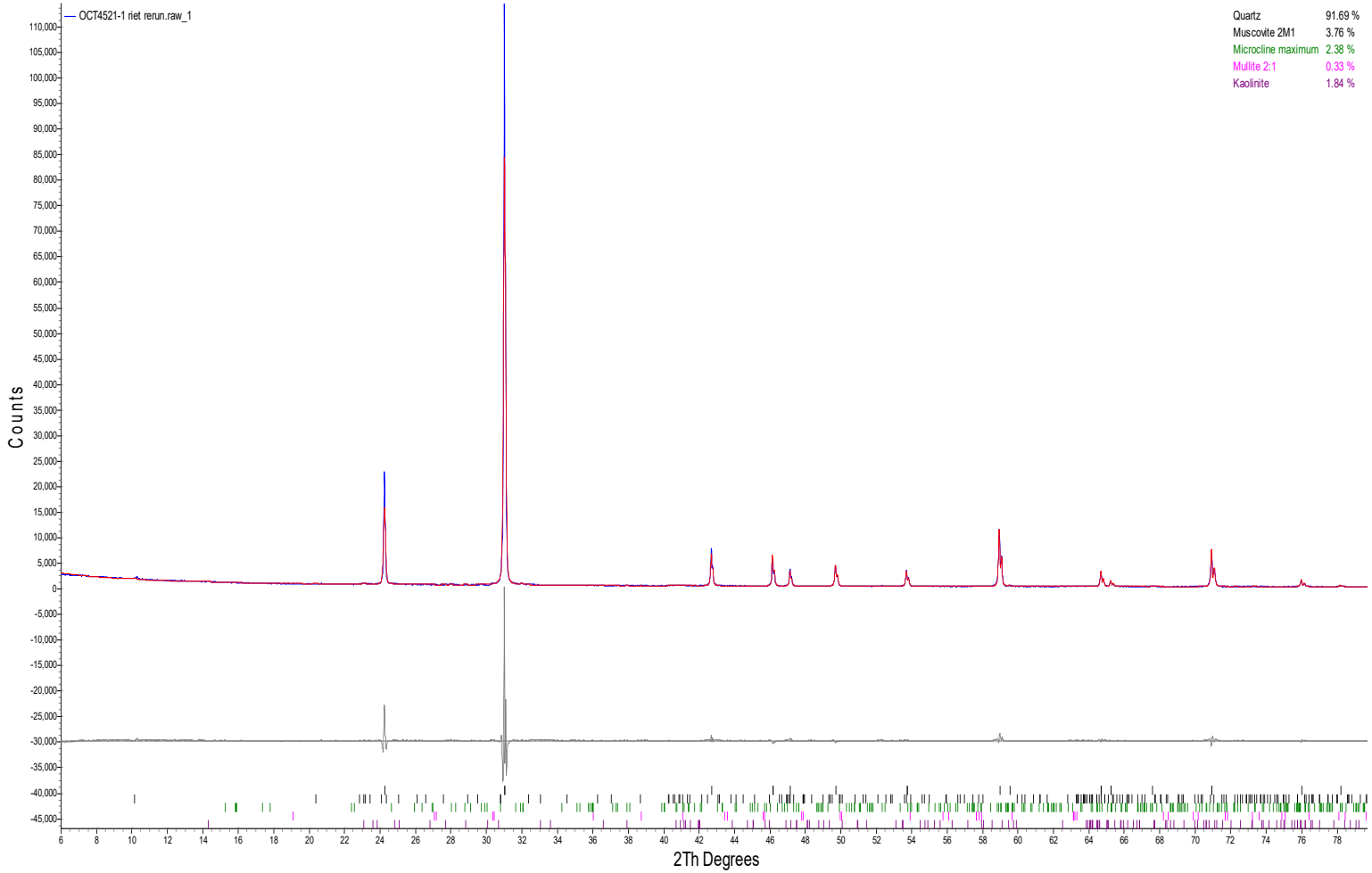
Summary of Rietveld Quantitative Analysis X-Ray Diffraction Results

Mineral/Compound	S-8083_DPT04XRFAP1 OCT4521-1 (wt %)
Quartz	91.7
Muscovite	3.8
Microcline	2.4
Mullite	0.3
Kaolinite	1.8
TOTAL	100

The weight percent quantities indicated have been normalized to a sum of 100%. The quantity of amorphous material has not been determined.

Mineral/Compound	Formula
Quartz	SiO_2
Muscovite	$KAl_2(AlSi_3O_{10})(OH)_2$
Microcline	$KAlSi_3O_8$
Mullite	$\sim Al_6Si_3O_{15}$
Kaolinite	$Al_2Si_2O_5(OH)_4$

S-8083_DPT04XRFAP1



Specialty Analytical

9011 SE Jannsen Rd
Clackamas, OR 97015
TEL: (503) 607-1331
Website: www.specialtyanalytical.com

September 16, 2021

Kela Ashworth
SiREM Lab
130 Stone Road West
Guelph, Ontario N1G3Z2
TEL: (519) 822-2265
FAX:

RE: S-8083 Order No.: 2108207

Dear Kela Ashworth:

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French
Lab Director

Specialty Analytical

WO#: **2108207**
Date Reported: **9/16/2021**

CLIENT: SiREM Lab
Project: S-8083

Lab ID: 2108207-001 **Matrix:** SOIL
Client Sample ID S-8083_DPT04XRFAP1 **Collection Date:** 8/30/2021

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ANION EXCHANGE CAPACITY				**SW9081**		Analyst: **NK**
Anion Exchange Capacity	5.52	0.000200		meq/100g	1	9/16/2021 12:34:37 PM

Qualifiers: H Holding times for preparation or analysis exceeded

QC SUMMARY REPORT

Specialty Analytical

WO#: **2108207**

9/16/2021

Client: SiREM Lab

Project: S-8083 **TestCode:** **AEC_S**

Sample ID: **2108207-001ADUP** SampType: **DUP** TestCode: **AEC_S** Units: **meq/100g** Prep Date: RunNo: **41888**

Client ID: **S-8083_DPT04XRFA** Batch ID: **R41888** TestNo: **SW9081** Analysis Date: **9/16/2021** SeqNo: **537224**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anion Exchange Capacity	4.66	0.000200						5.519	16.9	20	

Qualifiers: H Holding times for preparation or analysis exceeded

Specialty Analytical
9011 SE Jannsen Rd
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

Sample Receipt Checklist

Client Name SIREM Work Order Number 2108207

RcptNo: 1 Date and Time Received 8/31/2021 12:37:55 PM Received by: Mandy Wehe

Completed by Reviewed by:

Completed Date: 8/31/2021 Reviewed Date: 8/31/2021 2:28:45 PM

Carrier name: UPS

Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present ☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐	
Is it clear what analyses were requested?	Yes ☑	No ☐	
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Samples in proper container/bottle?	Yes ☑	No ☐	
Were correct preservatives used and noted?	Yes ☑	No ☐	NA ☐
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☑	No ☐	NA ☐
Response when temperature is outside of range:			
Preservative added to bottles:			
Sample Temp. taken and recorded upon receipt?	Yes ☑	No ☐	To 5.9 ºC
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials ☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	NA ☑
Are Samples considered acceptable?	Yes ☑	No ☐	
Custody Seals present?	Yes ☐	No ☑	
Traffic Report or Packing Lists present?	Yes ☐	No ☑	
Airbill or Sticker?	Air Bill ☐	Sticker ☐	Not Present ☑
Airbill No:			
Sample Tags Present?	Yes ☐	No ☑	
Sample Tags Listed on COC?	Yes ☐	No ☑	
Tag Numbers:			
Sample Condition?	Intact ☑	Broken ☐	Leaking ☐

Case Number: SDG: SAS:

Adjusted? _____ Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section be

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Sample Receipt Checklist

Client Contacted? ☐ Yes ☑ No ☐ NA Person Contacted: Comments:

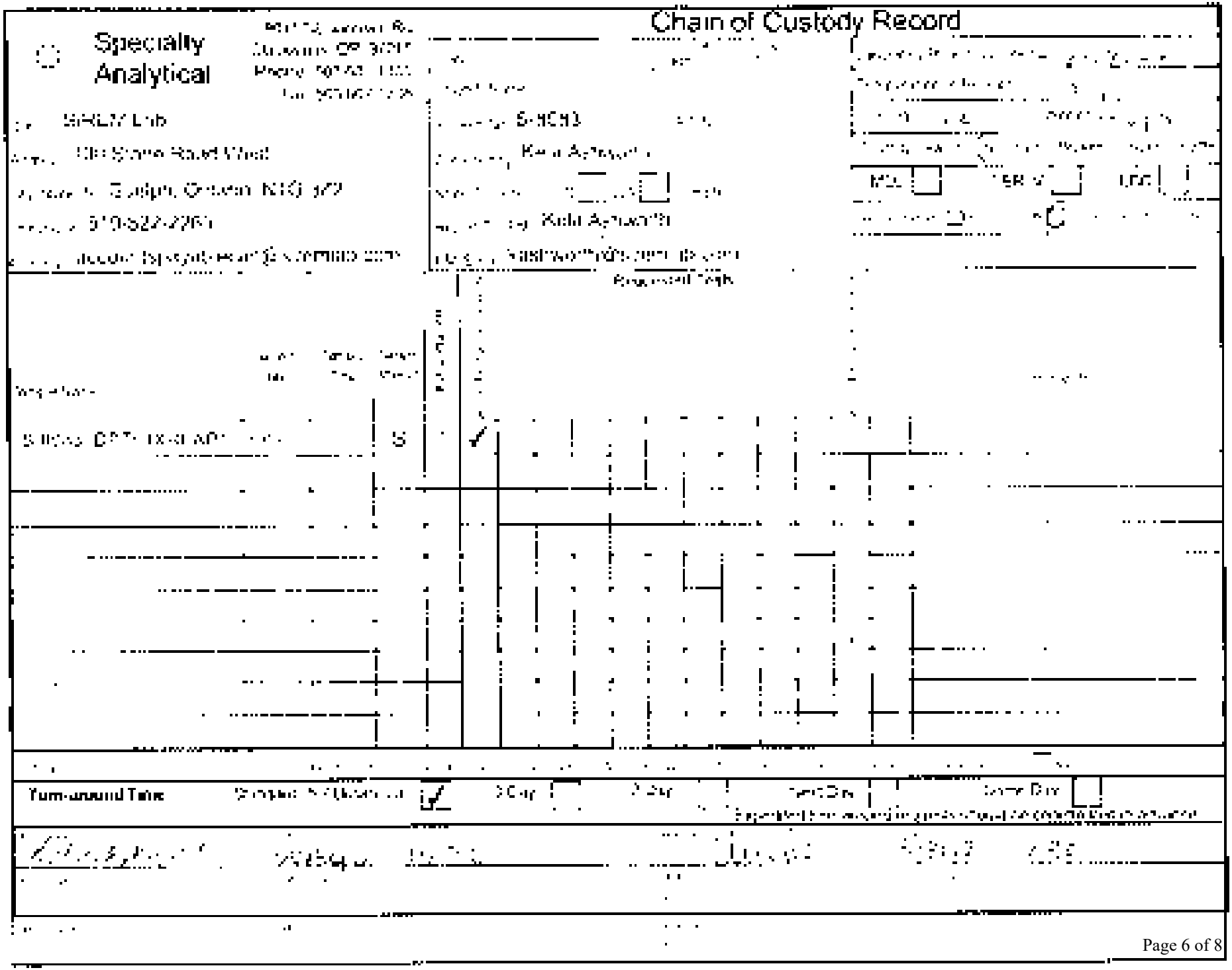
Contact Mode: ☐ Phone: ☐ Fax: ☐ Email: ☐ In Person:

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:


Specialty Analytical
Chain of Custody Record
Turn-around Time

Specialty Analytical
9011 SE Jannsen Ra
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-133€
Website: www.specialtyanalytical.com

Definition Only

WO#: **2108207**
Date: **9/16/2021**

Definitions:

KEY TO FLAGS

A: This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was qualified against gasoline calibration standards.

A1: This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was qualified against diesel calibration standards.

A2: This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was qualified against lube oil calibration standards.

A3: The results was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.

A4: The product appears to be aged or degraded.

B: The blank exhibited a positive result greater than the reporting limit for this compound.

CN: See Case Narrative.

E: Result exceeds the calibration range for this compound. The result should be considered an estimate.

F: The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.

FS: Follow-up testing is suggested.

G: Result may be biased high due to biogenic interferences. Clean up is recommended.

H: Sample was analyzed outside recommended holding time.

HT: At client's request, samples was analyzed outside of recommended holding time.

HP: Sample was analyzed outside recommended holding time due to VOA having pH >2.

J: The results for this analyte is between the MDL and the PQL and should be considered an

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Definition Only

WO#: **2108207**
Date: **9/16/2021**

Definitions:

estimated concentration.

K: Diesel result is biased high due to amount of Oil contained in the sample.

L: Diesel result is biased high due to amount of Gasoline contained in the sample.

M: Oil result is biased high due to amount of Diesel contained in the sample.

N: Gasoline result is biased high due to amount of Diesel contained in the sample.

MC: Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.

MI: Result is outside control limits due to matrix interference.

NH: Sample matrix is non-homogeneous

MSA: Value determined by Method of Standard Addition.

O: Laboratory Control Standard (LCS) exceeded laboratory control limits but meets CCV criteria. Data meets EPA requirements.

Q: Detection levels elevated due to sample matrix.

R: RPD control limits were exceeded

RF: Duplicate failed due to result being at or near the method-reporting limit.

RP: Matrix spike values exceed established QC limits; post digestion spike is in control.

S: Recovery is outside control limits.

SC: CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.

SL: LCS exceeded recovery control limits, but associated MS/MSD passing. Data meets EPA requirements.

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

Laboratory Job ID: 140-24429-1
Client Project/Site: S-7677 SiREMNA
Revision: 1

For:
Sirem, div of Geosyntec Consultants
130 Stone Rd West
Guelph, Ontario N1G 3Z2

Attn: Kela Ashworth

Ryan Henry

Authorized for release by:
12/10/2021 3:59:57 PM

Ryan Henry, Project Manager I
(865)291-3000
williamr.henry@eurofinset.com

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Method Summary 29
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Definitions/Glossary

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Qualifiers

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Job ID: 140-24429-1

Laboratory: Eurofins TestAmerica, Knoxville

Narrative

Job Narrative
140-24429-1
Revised

Comments
This report has been revised to report samples in separate jobs.

Receipt
The samples were received on 8/31/2021 at 10:10am and arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4º C.

Metals
7 Step Sequential Extraction Procedure

These soil samples were prepared and analyzed using Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0008, "7 Step Sequential Extraction Procedure". SW-846 Method 6010B as incorporated in Eurofins TestAmerica Knoxville standard operating procedure KNOX-MT-0007 was used to perform the final instrument analyses.

An aliquot of each sample was sequentially extracted using the steps listed below:

· Step 1 - Exchangeable Fraction: A 5 gram aliquot of sample was extracted with 25 mL of 1M magnesium sulfate (MgSO4), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 2 - Carbonate Fraction: The sample residue from step 1 was extracted with 25 mL of 1M sodium acetate/acetic acid (NaOAc/HOAc) at pH 5, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 3 - Non-crystalline Materials Fraction: The sample residue from step 2 was extracted with 25 mL of 0.2M ammonium oxalate (pH 3), centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 4 - Metal Hydroxide Fraction: The sample residue from step 3 was extracted with 25 mL of 1M hydroxylamine hydrochloride solution in 25% v/v acetic acid, centrifuged and filtered. 5 mL of the resulting leachate was digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 5 - Organic-bound Fraction: The sample residue from step 4 was extracted three times with 25 mL of 5% sodium hypochlorite (NaClO) at pH 9.5, centrifuged and filtered. The resulting leachates were combined and 5 mL were digested using method 3010A and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 6 - Acid/Sulfide Fraction: The sample residue from step 5 was extracted with 25 mL of a 3:1:2 v/v solution of HCl-HNO3-H2O, centrifuged and filtered. 5 mL of the resulting leachate was diluted to 50 mL with reagent water and analyzed by method 6010B. Results are reported in mg/kg on a dry weight basis.
· Step 7 - Residual Fraction: A 1.0 g aliquot of the sample residue from step 6 was digested using HF, HNO3, HCl and H3BO3. The digestate was analyzed by ICP using method 6010B. Results are reported in mg/kg on a dry weight basis.

In addition, a 1.0 g aliquot of the original sample was digested using HF, HNO3, HCl and H3BO3. The digestate was analyzed by ICP using method 6010B. Total metal results are reported in mg/kg on a dry weight basis.

Results were calculated using the following equation:

Result, µg/g or mg/Kg, dry weight = (C × V × V1 × D) / (W × S × V2)

Where:
C = Concentration from instrument readout, µg/mL
V = Final volume of digestate, mL
D = Instrument dilution factor
V1 = Total volume of leachate, mL
V2 = Volume of leachate digested, mL
W = Wet weight of sample, g

Job ID: 140-24429-1 (Continued)

Laboratory: Eurofins TestAmerica, Knoxville (Continued)

S = Percent solids/100

A method blank, laboratory control sample and laboratory control sample duplicate were prepared and analyzed with each SEP step in order to provide information about both the presence of elements of interest in the extraction solutions, and the recovery of elements of interest from the extraction solutions. Results outside of laboratory QC limits do not reflect out of control performance, but rather the effect of the extraction solution upon the analyte.

A laboratory sample duplicate was prepared and analyzed with each batch of samples in order to provide information regarding the reproducibility of the procedure.

SEP Report Notes:

The final report lists the results for each step, the result for the total digestion of the sample, and a sum of the results of steps 1 through 7 by element.

Magnesium was not reported for step 1 because the extraction solution for this step (magnesium sulfate) contains high levels of magnesium. Sodium was not reported for steps 2 and 5 since the extraction solutions for these steps contain high levels of sodium. The sum of steps 1 through 7 is much higher than the total result for sodium and magnesium due to the magnesium and sodium introduced by the extraction solutions.

The digestates for steps 1, 2 and 5 were analyzed at a dilution due to instrument problems caused by the high solids content of the digestates. The reporting limits were adjusted accordingly.

Method 6010B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following samples: S-8083_DPT06AP1 (140-24429-2) and S-8083_DPT04XRFAP1 (140-24429-3).

Method 6010B SEP: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 140-54486 and 140-54566 and analytical batch 140-55146 recovered outside control limits for the following analyte: Lithium. This analyte was biased high in the LCS/LCSD and was detected in the associated samples as an estimated value; therefore, the data have been reported.

Method 6010B SEP: The following samples were diluted due to the presence of silicon which interferes with Arsenic: S-8083_DPT06AP1 (140-24429-2) and S-8083_DPT04XRFAP1 (140-24429-3). Elevated reporting limits (RLs) are provided.

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

General Chemistry
% Moisture: The samples were analyzed for percent moisture using SOP number KNOX-WC-0012 (based on Modified MCAWW 160.3 and SM2540B and on the percent moisture determinations described in methods 3540C and 3550B).

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

Sample Summary

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-24429-1	S-8083_DPT02AP1	Solid	08/30/21 00:00	08/31/21 10:10
140-24429-2	S-8083_DPT06AP1	Solid	08/30/21 00:00	08/31/21 10:10
140-24429-3	S-8083_DPT04XRFAP1	Solid	08/30/21 00:00	08/31/21 10:10

Client Sample ID: S-8083_DPT02AP1
Lab Sample ID: 140-24429-1
Date Collected: 08/30/21 00:00
Matrix: Solid
Date Received: 08/31/21 10:10
Percent Solids: 80.5

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5	0.65	mg/Kg	☼	09/30/21 08:00	10/22/21 12:50	4
Lithium	ND		12	0.75	mg/Kg	☼	09/30/21 08:00	10/22/21 12:50	4
Molybdenum	ND		9.9	0.41	mg/Kg	☼	09/30/21 08:00	10/22/21 12:50	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.9	0.48	mg/Kg	☼	10/01/21 08:00	10/22/21 14:48	3
Lithium	ND		9.3	0.56	mg/Kg	☼	10/01/21 08:00	10/22/21 14:48	3
Molybdenum	ND		7.5	0.31	mg/Kg	☼	10/01/21 08:00	10/22/21 14:48	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.42**	**J**	0.62	0.16	mg/Kg	☼	10/04/21 08:00	10/22/21 16:46	1
Lithium	**0.52**	**J**	3.1	0.19	mg/Kg	☼	10/04/21 08:00	10/22/21 16:46	1
Molybdenum	**1.6**	**J**	2.5	0.10	mg/Kg	☼	10/04/21 08:00	10/22/21 16:46	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.5**		0.62	0.27	mg/Kg	☼	10/05/21 08:00	10/25/21 13:03	1
Lithium	**6.4**		3.1	0.19	mg/Kg	☼	10/05/21 08:00	10/25/21 13:03	1
Molybdenum	**1.2**	**J**	2.5	0.10	mg/Kg	☼	10/05/21 08:00	10/25/21 13:03	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		9.3	2.4	mg/Kg	☼	10/07/21 08:00	10/25/21 15:02	5
Lithium	**8.5**	**J B *+**	47	2.7	mg/Kg	☼	10/07/21 08:00	10/25/21 15:02	5
Molybdenum	ND		37	1.6	mg/Kg	☼	10/07/21 08:00	10/25/21 15:02	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.1**		0.62	0.19	mg/Kg	☼	10/07/21 08:00	10/25/21 17:01	1
Lithium	**12**		3.1	0.19	mg/Kg	☼	10/07/21 08:00	10/25/21 17:01	1
Molybdenum	**0.21**	**J**	2.5	0.12	mg/Kg	☼	10/07/21 08:00	10/25/21 17:01	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.2**		0.62	0.16	mg/Kg	☼	10/08/21 08:00	10/26/21 14:00	1
Lithium	**23**		3.1	0.19	mg/Kg	☼	10/08/21 08:00	10/26/21 14:00	1
Molybdenum	ND		2.5	0.10	mg/Kg	☼	10/08/21 08:00	10/26/21 14:00	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.2**		0.50	0.13	mg/Kg			11/02/21 16:06	1
Lithium	**50**		2.5	0.15	mg/Kg			11/02/21 16:06	1
Molybdenum	**3.0**		2.0	0.082	mg/Kg			11/02/21 16:06	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.6**		0.62	0.16	mg/Kg	☼	09/29/21 08:00	10/27/21 14:28	1
Lithium	**44**		3.1	0.19	mg/Kg	☼	09/29/21 08:00	10/27/21 14:28	1
Molybdenum	**3.2**		2.5	0.10	mg/Kg	☼	09/29/21 08:00	10/27/21 14:28	1

Client Sample ID: S-8083_DPT06AP1

Date Collected: 08/30/21 00:00
Date Received: 08/31/21 10:10

Lab Sample ID: 140-24429-2

Matrix: Solid
Percent Solids: 75.8

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.6	0.69	mg/Kg	☼	09/30/21 08:00	10/22/21 12:55	4
Lithium	ND		13	0.79	mg/Kg	☼	09/30/21 08:00	10/22/21 12:55	4
Molybdenum	ND		11	0.43	mg/Kg	☼	09/30/21 08:00	10/22/21 12:55	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.51	mg/Kg	☼	10/01/21 08:00	10/22/21 14:53	3
Lithium	ND		9.9	0.59	mg/Kg	☼	10/01/21 08:00	10/22/21 14:53	3
Molybdenum	ND		7.9	0.32	mg/Kg	☼	10/01/21 08:00	10/22/21 14:53	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.36**	**J**	0.66	0.17	mg/Kg	☼	10/04/21 08:00	10/22/21 16:51	1
Lithium	ND		3.3	0.20	mg/Kg	☼	10/04/21 08:00	10/22/21 16:51	1
Molybdenum	ND		2.6	0.11	mg/Kg	☼	10/04/21 08:00	10/22/21 16:51	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.56**	**J**	0.66	0.29	mg/Kg	☼	10/05/21 08:00	10/25/21 13:08	1
Lithium	**4.2**		3.3	0.20	mg/Kg	☼	10/05/21 08:00	10/25/21 13:08	1
Molybdenum	ND		2.6	0.11	mg/Kg	☼	10/05/21 08:00	10/25/21 13:08	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		9.9	2.5	mg/Kg	☼	10/07/21 08:00	10/25/21 15:07	5
Lithium	**7.5**	**J B *+**	49	2.9	mg/Kg	☼	10/07/21 08:00	10/25/21 15:07	5
Molybdenum	ND		40	1.6	mg/Kg	☼	10/07/21 08:00	10/25/21 15:07	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.2**		0.66	0.20	mg/Kg	☼	10/07/21 08:00	10/25/21 17:06	1
Lithium	**8.6**		3.3	0.20	mg/Kg	☼	10/07/21 08:00	10/25/21 17:06	1
Molybdenum	ND		2.6	0.13	mg/Kg	☼	10/07/21 08:00	10/25/21 17:06	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.77**	**J**	1.3	0.34	mg/Kg	☼	10/08/21 08:00	10/26/21 15:29	2
Lithium	**21**		3.3	0.20	mg/Kg	☼	10/08/21 08:00	10/26/21 14:05	1
Molybdenum	ND		2.6	0.11	mg/Kg	☼	10/08/21 08:00	10/26/21 14:05	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.9**		0.50	0.13	mg/Kg			11/02/21 16:06	1
Lithium	**41**		2.5	0.15	mg/Kg			11/02/21 16:06	1
Molybdenum	ND		2.0	0.082	mg/Kg			11/02/21 16:06	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.6**		3.3	0.86	mg/Kg	☼	09/29/21 08:00	10/27/21 17:44	5
Lithium	**56**		16	0.99	mg/Kg	☼	09/29/21 08:00	10/27/21 17:44	5
Molybdenum	ND		13	0.54	mg/Kg	☼	09/29/21 08:00	10/27/21 17:44	5

Client Sample ID: S-8083_DPT04XRFAP1
Lab Sample ID: 140-24429-3
Date Collected: 08/30/21 00:00
Matrix: Solid
Date Received: 08/31/21 10:10
Percent Solids: 96.9

Method: 6010B SEP - SEP Metals (ICP) - Step 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.1	0.54	mg/Kg	☼	09/30/21 08:00	10/22/21 13:00	4
Lithium	ND		10	0.62	mg/Kg	☼	09/30/21 08:00	10/22/21 13:00	4
Molybdenum	ND		8.3	0.34	mg/Kg	☼	09/30/21 08:00	10/22/21 13:00	4

Method: 6010B SEP - SEP Metals (ICP) - Step 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.5	0.40	mg/Kg	☼	10/01/21 08:00	10/22/21 14:58	3
Lithium	ND		7.7	0.46	mg/Kg	☼	10/01/21 08:00	10/22/21 14:58	3
Molybdenum	ND		6.2	0.25	mg/Kg	☼	10/01/21 08:00	10/22/21 14:58	3

Method: 6010B SEP - SEP Metals (ICP) - Step 3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.2**		0.52	0.13	mg/Kg	☼	10/04/21 08:00	10/22/21 16:56	1
Lithium	ND		2.6	0.15	mg/Kg	☼	10/04/21 08:00	10/22/21 16:56	1
Molybdenum	**0.46**	**J**	2.1	0.085	mg/Kg	☼	10/04/21 08:00	10/22/21 16:56	1

Method: 6010B SEP - SEP Metals (ICP) - Step 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.7**		0.52	0.23	mg/Kg	☼	10/05/21 08:00	10/25/21 13:13	1
Lithium	**1.9**	**J**	2.6	0.15	mg/Kg	☼	10/05/21 08:00	10/25/21 13:13	1
Molybdenum	**0.85**	**J**	2.1	0.085	mg/Kg	☼	10/05/21 08:00	10/25/21 13:13	1

Method: 6010B SEP - SEP Metals (ICP) - Step 5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.4**	**J**	7.7	2.0	mg/Kg	☼	10/07/21 08:00	10/25/21 15:12	5
Lithium	**5.6**	**J B *+**	39	2.3	mg/Kg	☼	10/07/21 08:00	10/25/21 15:12	5
Molybdenum	ND		31	1.3	mg/Kg	☼	10/07/21 08:00	10/25/21 15:12	5

Method: 6010B SEP - SEP Metals (ICP) - Step 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.5**		0.52	0.15	mg/Kg	☼	10/07/21 08:00	10/25/21 17:11	1
Lithium	**3.0**		2.6	0.15	mg/Kg	☼	10/07/21 08:00	10/25/21 17:11	1
Molybdenum	**0.13**	**J**	2.1	0.10	mg/Kg	☼	10/07/21 08:00	10/25/21 17:11	1

Method: 6010B SEP - SEP Metals (ICP) - Step 7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.46**	**J**	1.0	0.27	mg/Kg	☼	10/08/21 08:00	10/26/21 15:34	2
Lithium	**4.9**		2.6	0.15	mg/Kg	☼	10/08/21 08:00	10/26/21 14:20	1
Molybdenum	ND		2.1	0.085	mg/Kg	☼	10/08/21 08:00	10/26/21 14:20	1

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12**		0.50	0.13	mg/Kg			11/02/21 16:06	1
Lithium	**15**		2.5	0.15	mg/Kg			11/02/21 16:06	1
Molybdenum	**1.4**	**J**	2.0	0.082	mg/Kg			11/02/21 16:06	1

Method: 6010B - SEP Metals (ICP) - Total

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**59**		1.0	0.27	mg/Kg	☼	09/29/21 08:00	10/27/21 16:43	2
Lithium	**12**		5.2	0.31	mg/Kg	☼	09/29/21 08:00	10/27/21 16:43	2
Molybdenum	**1.5**	**J**	4.1	0.17	mg/Kg	☼	09/29/21 08:00	10/27/21 16:43	2

Default Detection Limits

Client: Sirem, div of Geosyntec Consultants
Job ID: 140-24429-1
Project/Site: S-7677 SiREMNA

Method: 6010B SEP - SEP Metals (ICP) - Step 1
Prep: 3010A
SEP: Exchangeable

Analyte	RL	MDL	Units
Arsenic	0.50	0.13	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 2
Prep: 3010A
SEP: Carbonate

Analyte	RL	MDL	Units
Arsenic	0.50	0.13	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 3
Prep: 3010A
SEP: Non-Crystalline

Analyte	RL	MDL	Units
Arsenic	0.50	0.13	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 4
Prep: 3010A
SEP: Metal Hydroxide

Analyte	RL	MDL	Units
Arsenic	0.50	0.22	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 5
Prep: 3010A
SEP: Organic-Bound

Analyte	RL	MDL	Units
Arsenic	1.5	0.38	mg/Kg
Lithium	7.5	0.44	mg/Kg
Molybdenum	6.0	0.25	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 6
SEP: Acid/Sulfide

Analyte	RL	MDL	Units
Arsenic	0.50	0.15	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.099	mg/Kg

Method: 6010B SEP - SEP Metals (ICP) - Step 7
Prep: Residual

Analyte	RL	MDL	Units
Arsenic	0.50	0.13	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Default Detection Limits

Client: Sirem, div of Geosyntec Consultants
Job ID: 140-24429-1
Project/Site: S-7677 SiREMNA

Method: 6010B SEP - SEP Metals (ICP) - Sum of Steps 1-7

Analyte	RL	MDL	Units
Arsenic	0.50	0.13	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B - SEP Metals (ICP) - Total

Prep: Total

Analyte	RL	MDL	Units
Arsenic	0.50	0.13	mg/Kg
Lithium	2.5	0.15	mg/Kg
Molybdenum	2.0	0.082	mg/Kg

Method: 6010B - SEP Metals (ICP) - Total

Lab Sample ID: MB 140-54251/17-A
Matrix: Solid
Analysis Batch: 55243

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54251

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.13	mg/Kg		09/29/21 08:00	10/27/21 10:49	1
Lithium	ND		2.5	0.15	mg/Kg		09/29/21 08:00	10/27/21 10:49	1
Molybdenum	ND		2.0	0.082	mg/Kg		09/29/21 08:00	10/27/21 10:49	1

Lab Sample ID: LCS 140-54251/18-A
Matrix: Solid
Analysis Batch: 55243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.06		mg/Kg		101	80 - 120
Lithium	5.00	4.90		mg/Kg		98	80 - 120
Molybdenum	25.0	26.0		mg/Kg		104	80 - 125

Lab Sample ID: LCSD 140-54251/19-A
Matrix: Solid
Analysis Batch: 55243

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54251

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	4.94		mg/Kg		99	80 - 120	2	30
Lithium	5.00	4.86		mg/Kg		97	80 - 120	1	30
Molybdenum	25.0	25.4		mg/Kg		102	80 - 125	3	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-54252/17-B ^4
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Method Blank
Prep Type: Step 1
Prep Batch: 54333

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0	0.52	mg/Kg		09/30/21 08:00	10/22/21 11:17	4
Lithium	ND		10	0.60	mg/Kg		09/30/21 08:00	10/22/21 11:17	4
Molybdenum	ND		8.0	0.33	mg/Kg		09/30/21 08:00	10/22/21 11:17	4

Lab Sample ID: LCS 140-54252/18-B ^5
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Lab Control Sample
Prep Type: Step 1
Prep Batch: 54333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.07		mg/Kg		101	80 - 120
Lithium	5.00	5.04	J	mg/Kg		101	80 - 120
Molybdenum	25.0	25.2		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 140-54252/19-B ^5
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 1
Prep Batch: 54333

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	4.84		mg/Kg		97	80 - 120	4	30
Lithium	5.00	4.54	J	mg/Kg		91	80 - 120	10	30
Molybdenum	25.0	25.0		mg/Kg		100	80 - 120	1	30

Method: 6010B SEP - SEP Metals (ICP)

Lab Sample ID: MB 140-54334/17-B ^3
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Method Blank
Prep Type: Step 2
Prep Batch: 54370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.5	0.39	mg/Kg		10/01/21 08:00	10/22/21 13:24	3
Lithium	ND		7.5	0.45	mg/Kg		10/01/21 08:00	10/22/21 13:24	3
Molybdenum	ND		6.0	0.25	mg/Kg		10/01/21 08:00	10/22/21 13:24	3

Lab Sample ID: LCS 140-54334/18-B ^5
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Lab Control Sample
Prep Type: Step 2
Prep Batch: 54370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	3.62		mg/Kg		72	60 - 120
Lithium	5.00	4.40	J	mg/Kg		88	80 - 120
Molybdenum	25.0	20.4		mg/Kg		82	70 - 120

Lab Sample ID: LCSD 140-54334/19-B ^5
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 2
Prep Batch: 54370

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	3.80		mg/Kg		76	60 - 120	5	30
Lithium	5.00	4.50	J	mg/Kg		90	80 - 120	2	30
Molybdenum	25.0	20.3		mg/Kg		81	70 - 120	0	30

Lab Sample ID: MB 140-54371/17-B
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Method Blank
Prep Type: Step 3
Prep Batch: 54400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.13	mg/Kg		10/04/21 08:00	10/22/21 15:23	1
Lithium	ND		2.5	0.15	mg/Kg		10/04/21 08:00	10/22/21 15:23	1
Molybdenum	ND		2.0	0.082	mg/Kg		10/04/21 08:00	10/22/21 15:23	1

Lab Sample ID: LCS 140-54371/18-B
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Lab Control Sample
Prep Type: Step 3
Prep Batch: 54400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.81		mg/Kg		96	80 - 120
Lithium	5.00	4.75		mg/Kg		95	80 - 120
Molybdenum	25.0	24.5		mg/Kg		98	80 - 120

Lab Sample ID: LCSD 140-54371/19-B
Matrix: Solid
Analysis Batch: 55087

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 3
Prep Batch: 54400

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	4.76		mg/Kg		95	80 - 120	1	30
Lithium	5.00	4.95		mg/Kg		99	80 - 120	4	30
Molybdenum	25.0	24.2		mg/Kg		97	80 - 120	1	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-54401/17-B
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Method Blank
Prep Type: Step 4
Prep Batch: 54485

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.22	mg/Kg		10/05/21 08:00	10/25/21 11:34	1
Lithium	ND		2.5	0.15	mg/Kg		10/05/21 08:00	10/25/21 11:34	1
Molybdenum	ND		2.0	0.082	mg/Kg		10/05/21 08:00	10/25/21 11:34	1

Lab Sample ID: LCS 140-54401/18-B
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Lab Control Sample
Prep Type: Step 4
Prep Batch: 54485

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.99		mg/Kg		100	80 - 130
Lithium	5.00	5.03		mg/Kg		101	80 - 120
Molybdenum	25.0	25.9		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 140-54401/19-B
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 4
Prep Batch: 54485

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	4.96		mg/Kg		99	80 - 130	1	30
Lithium	5.00	5.02		mg/Kg		100	80 - 120	0	30
Molybdenum	25.0	25.7		mg/Kg		103	80 - 120	1	30

Lab Sample ID: MB 140-54486/17-B ^5
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Method Blank
Prep Type: Step 5
Prep Batch: 54566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		7.5	1.9	mg/Kg		10/07/21 08:00	10/25/21 13:37	5
Lithium	8.44	J	38	2.2	mg/Kg		10/07/21 08:00	10/25/21 13:37	5
Molybdenum	ND		30	1.3	mg/Kg		10/07/21 08:00	10/25/21 13:37	5

Lab Sample ID: LCS 140-54486/18-B ^5
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Lab Control Sample
Prep Type: Step 5
Prep Batch: 54566

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	15.0	9.89		mg/Kg		66	60 - 100
Lithium	15.0	23.8	J *+	mg/Kg		159	80 - 150
Molybdenum	75.0	53.6		mg/Kg		72	60 - 100

Lab Sample ID: LCSD 140-54486/19-B ^5
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 5
Prep Batch: 54566

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	15.0	10.3		mg/Kg		68	60 - 100	4	30
Lithium	15.0	23.9	J *+	mg/Kg		159	80 - 150	0	30
Molybdenum	75.0	53.4		mg/Kg		71	60 - 100	0	30

Method: 6010B SEP - SEP Metals (ICP) (Continued)

Lab Sample ID: MB 140-54567/17-A
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Method Blank
Prep Type: Step 6
Prep Batch: 54567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.15	mg/Kg		10/07/21 08:00	10/25/21 15:37	1
Lithium	ND		2.5	0.15	mg/Kg		10/07/21 08:00	10/25/21 15:37	1
Molybdenum	ND		2.0	0.099	mg/Kg		10/07/21 08:00	10/25/21 15:37	1

Lab Sample ID: LCS 140-54567/18-A
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Lab Control Sample
Prep Type: Step 6
Prep Batch: 54567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.01		mg/Kg		100	80 - 120
Lithium	5.00	4.95		mg/Kg		99	80 - 120
Molybdenum	25.0	25.1		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 140-54567/19-A
Matrix: Solid
Analysis Batch: 55146

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 6
Prep Batch: 54567

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	5.07		mg/Kg		101	80 - 120	1	30
Lithium	5.00	5.04		mg/Kg		101	80 - 120	2	30
Molybdenum	25.0	25.8		mg/Kg		103	80 - 120	3	30

Lab Sample ID: MB 140-54607/17-A
Matrix: Solid
Analysis Batch: 55197

Client Sample ID: Method Blank
Prep Type: Step 7
Prep Batch: 54607

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.13	mg/Kg		10/08/21 08:00	10/26/21 11:23	1
Lithium	ND		2.5	0.15	mg/Kg		10/08/21 08:00	10/26/21 11:23	1
Molybdenum	ND		2.0	0.082	mg/Kg		10/08/21 08:00	10/26/21 11:23	1

Lab Sample ID: LCS 140-54607/18-A
Matrix: Solid
Analysis Batch: 55197

Client Sample ID: Lab Control Sample
Prep Type: Step 7
Prep Batch: 54607

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	4.99		mg/Kg		100	80 - 120
Lithium	5.00	4.99		mg/Kg		100	80 - 120
Molybdenum	25.0	25.7		mg/Kg		103	80 - 125

Lab Sample ID: LCSD 140-54607/19-A
Matrix: Solid
Analysis Batch: 55197

Client Sample ID: Lab Control Sample Dup
Prep Type: Step 7
Prep Batch: 54607

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	5.04		mg/Kg		101	80 - 120	1	30
Lithium	5.00	4.97		mg/Kg		99	80 - 120	0	30
Molybdenum	25.0	26.1		mg/Kg		104	80 - 125	2	30

Metals

Prep Batch: 54251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Total/NA	Solid	Total	
140-24429-2	S-8083_DPT06AP1	Total/NA	Solid	Total	
140-24429-3	S-8083_DPT04XRFAP1	Total/NA	Solid	Total	
MB 140-54251/17-A	Method Blank	Total/NA	Solid	Total	
LCS 140-54251/18-A	Lab Control Sample	Total/NA	Solid	Total	
LCSD 140-54251/19-A	Lab Control Sample Dup	Total/NA	Solid	Total	

SEP Batch: 54252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 1	Solid	Exchangeable	
140-24429-2	S-8083_DPT06AP1	Step 1	Solid	Exchangeable	
140-24429-3	S-8083_DPT04XRFAP1	Step 1	Solid	Exchangeable	
MB 140-54252/17-B ^4	Method Blank	Step 1	Solid	Exchangeable	
LCS 140-54252/18-B ^5	Lab Control Sample	Step 1	Solid	Exchangeable	
LCSD 140-54252/19-B ^5	Lab Control Sample Dup	Step 1	Solid	Exchangeable	

Prep Batch: 54333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 1	Solid	3010A	54252
140-24429-2	S-8083_DPT06AP1	Step 1	Solid	3010A	54252
140-24429-3	S-8083_DPT04XRFAP1	Step 1	Solid	3010A	54252
MB 140-54252/17-B ^4	Method Blank	Step 1	Solid	3010A	54252
LCS 140-54252/18-B ^5	Lab Control Sample	Step 1	Solid	3010A	54252
LCSD 140-54252/19-B ^5	Lab Control Sample Dup	Step 1	Solid	3010A	54252

SEP Batch: 54334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 2	Solid	Carbonate	
140-24429-2	S-8083_DPT06AP1	Step 2	Solid	Carbonate	
140-24429-3	S-8083_DPT04XRFAP1	Step 2	Solid	Carbonate	
MB 140-54334/17-B ^3	Method Blank	Step 2	Solid	Carbonate	
LCS 140-54334/18-B ^5	Lab Control Sample	Step 2	Solid	Carbonate	
LCSD 140-54334/19-B ^5	Lab Control Sample Dup	Step 2	Solid	Carbonate	

Prep Batch: 54370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 2	Solid	3010A	54334
140-24429-2	S-8083_DPT06AP1	Step 2	Solid	3010A	54334
140-24429-3	S-8083_DPT04XRFAP1	Step 2	Solid	3010A	54334
MB 140-54334/17-B ^3	Method Blank	Step 2	Solid	3010A	54334
LCS 140-54334/18-B ^5	Lab Control Sample	Step 2	Solid	3010A	54334
LCSD 140-54334/19-B ^5	Lab Control Sample Dup	Step 2	Solid	3010A	54334

SEP Batch: 54371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 3	Solid	Non-Crystalline	
140-24429-2	S-8083_DPT06AP1	Step 3	Solid	Non-Crystalline	
140-24429-3	S-8083_DPT04XRFAP1	Step 3	Solid	Non-Crystalline	
MB 140-54371/17-B	Method Blank	Step 3	Solid	Non-Crystalline	
LCS 140-54371/18-B	Lab Control Sample	Step 3	Solid	Non-Crystalline	
LCSD 140-54371/19-B	Lab Control Sample Dup	Step 3	Solid	Non-Crystalline	

Metals

Prep Batch: 54400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 3	Solid	3010A	54371
140-24429-2	S-8083_DPT06AP1	Step 3	Solid	3010A	54371
140-24429-3	S-8083_DPT04XRFAP1	Step 3	Solid	3010A	54371
MB 140-54371/17-B	Method Blank	Step 3	Solid	3010A	54371
LCS 140-54371/18-B	Lab Control Sample	Step 3	Solid	3010A	54371
LCSD 140-54371/19-B	Lab Control Sample Dup	Step 3	Solid	3010A	54371

SEP Batch: 54401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 4	Solid	Metal Hydroxide	
140-24429-2	S-8083_DPT06AP1	Step 4	Solid	Metal Hydroxide	
140-24429-3	S-8083_DPT04XRFAP1	Step 4	Solid	Metal Hydroxide	
MB 140-54401/17-B	Method Blank	Step 4	Solid	Metal Hydroxide	
LCS 140-54401/18-B	Lab Control Sample	Step 4	Solid	Metal Hydroxide	
LCSD 140-54401/19-B	Lab Control Sample Dup	Step 4	Solid	Metal Hydroxide	

Prep Batch: 54485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 4	Solid	3010A	54401
140-24429-2	S-8083_DPT06AP1	Step 4	Solid	3010A	54401
140-24429-3	S-8083_DPT04XRFAP1	Step 4	Solid	3010A	54401
MB 140-54401/17-B	Method Blank	Step 4	Solid	3010A	54401
LCS 140-54401/18-B	Lab Control Sample	Step 4	Solid	3010A	54401
LCSD 140-54401/19-B	Lab Control Sample Dup	Step 4	Solid	3010A	54401

SEP Batch: 54486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 5	Solid	Organic-Bound	
140-24429-2	S-8083_DPT06AP1	Step 5	Solid	Organic-Bound	
140-24429-3	S-8083_DPT04XRFAP1	Step 5	Solid	Organic-Bound	
MB 140-54486/17-B ^5	Method Blank	Step 5	Solid	Organic-Bound	
LCS 140-54486/18-B ^5	Lab Control Sample	Step 5	Solid	Organic-Bound	
LCSD 140-54486/19-B ^5	Lab Control Sample Dup	Step 5	Solid	Organic-Bound	

Prep Batch: 54566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 5	Solid	3010A	54486
140-24429-2	S-8083_DPT06AP1	Step 5	Solid	3010A	54486
140-24429-3	S-8083_DPT04XRFAP1	Step 5	Solid	3010A	54486
MB 140-54486/17-B ^5	Method Blank	Step 5	Solid	3010A	54486
LCS 140-54486/18-B ^5	Lab Control Sample	Step 5	Solid	3010A	54486
LCSD 140-54486/19-B ^5	Lab Control Sample Dup	Step 5	Solid	3010A	54486

SEP Batch: 54567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 6	Solid	Acid/Sulfide	
140-24429-2	S-8083_DPT06AP1	Step 6	Solid	Acid/Sulfide	
140-24429-3	S-8083_DPT04XRFAP1	Step 6	Solid	Acid/Sulfide	
MB 140-54567/17-A	Method Blank	Step 6	Solid	Acid/Sulfide	
LCS 140-54567/18-A	Lab Control Sample	Step 6	Solid	Acid/Sulfide	
LCSD 140-54567/19-A	Lab Control Sample Dup	Step 6	Solid	Acid/Sulfide	

QC Association Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 140-24429-1
Project/Site: S-7677 SiREMNA

Metals

Prep Batch: 54607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 7	Solid	Residual	
140-24429-2	S-8083_DPT06AP1	Step 7	Solid	Residual	
140-24429-3	S-8083_DPT04XRFAP1	Step 7	Solid	Residual	
MB 140-54607/17-A	Method Blank	Step 7	Solid	Residual	
LCS 140-54607/18-A	Lab Control Sample	Step 7	Solid	Residual	
LCSD 140-54607/19-A	Lab Control Sample Dup	Step 7	Solid	Residual	

Analysis Batch: 55087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 1	Solid	6010B SEP	54333
140-24429-1	S-8083_DPT02AP1	Step 2	Solid	6010B SEP	54370
140-24429-1	S-8083_DPT02AP1	Step 3	Solid	6010B SEP	54400
140-24429-2	S-8083_DPT06AP1	Step 1	Solid	6010B SEP	54333
140-24429-2	S-8083_DPT06AP1	Step 2	Solid	6010B SEP	54370
140-24429-2	S-8083_DPT06AP1	Step 3	Solid	6010B SEP	54400
140-24429-3	S-8083_DPT04XRFAP1	Step 1	Solid	6010B SEP	54333
140-24429-3	S-8083_DPT04XRFAP1	Step 2	Solid	6010B SEP	54370
140-24429-3	S-8083_DPT04XRFAP1	Step 3	Solid	6010B SEP	54400
MB 140-54252/17-B ^4	Method Blank	Step 1	Solid	6010B SEP	54333
MB 140-54334/17-B ^3	Method Blank	Step 2	Solid	6010B SEP	54370
MB 140-54371/17-B	Method Blank	Step 3	Solid	6010B SEP	54400
LCS 140-54252/18-B ^5	Lab Control Sample	Step 1	Solid	6010B SEP	54333
LCS 140-54334/18-B ^5	Lab Control Sample	Step 2	Solid	6010B SEP	54370
LCS 140-54371/18-B	Lab Control Sample	Step 3	Solid	6010B SEP	54400
LCSD 140-54252/19-B ^5	Lab Control Sample Dup	Step 1	Solid	6010B SEP	54333
LCSD 140-54334/19-B ^5	Lab Control Sample Dup	Step 2	Solid	6010B SEP	54370
LCSD 140-54371/19-B	Lab Control Sample Dup	Step 3	Solid	6010B SEP	54400

Analysis Batch: 55146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 4	Solid	6010B SEP	54485
140-24429-1	S-8083_DPT02AP1	Step 5	Solid	6010B SEP	54566
140-24429-1	S-8083_DPT02AP1	Step 6	Solid	6010B SEP	54567
140-24429-2	S-8083_DPT06AP1	Step 4	Solid	6010B SEP	54485
140-24429-2	S-8083_DPT06AP1	Step 5	Solid	6010B SEP	54566
140-24429-2	S-8083_DPT06AP1	Step 6	Solid	6010B SEP	54567
140-24429-3	S-8083_DPT04XRFAP1	Step 4	Solid	6010B SEP	54485
140-24429-3	S-8083_DPT04XRFAP1	Step 5	Solid	6010B SEP	54566
140-24429-3	S-8083_DPT04XRFAP1	Step 6	Solid	6010B SEP	54567
MB 140-54401/17-B	Method Blank	Step 4	Solid	6010B SEP	54485
MB 140-54486/17-B ^5	Method Blank	Step 5	Solid	6010B SEP	54566
MB 140-54567/17-A	Method Blank	Step 6	Solid	6010B SEP	54567
LCS 140-54401/18-B	Lab Control Sample	Step 4	Solid	6010B SEP	54485
LCS 140-54486/18-B ^5	Lab Control Sample	Step 5	Solid	6010B SEP	54566
LCS 140-54567/18-A	Lab Control Sample	Step 6	Solid	6010B SEP	54567
LCSD 140-54401/19-B	Lab Control Sample Dup	Step 4	Solid	6010B SEP	54485
LCSD 140-54486/19-B ^5	Lab Control Sample Dup	Step 5	Solid	6010B SEP	54566
LCSD 140-54567/19-A	Lab Control Sample Dup	Step 6	Solid	6010B SEP	54567

QC Association Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 140-24429-1
Project/Site: S-7677 SiREMNA

Metals

Analysis Batch: 55197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Step 7	Solid	6010B SEP	54607
140-24429-2	S-8083_DPT06AP1	Step 7	Solid	6010B SEP	54607
140-24429-2	S-8083_DPT06AP1	Step 7	Solid	6010B SEP	54607
140-24429-3	S-8083_DPT04XRFAP1	Step 7	Solid	6010B SEP	54607
140-24429-3	S-8083_DPT04XRFAP1	Step 7	Solid	6010B SEP	54607
MB 140-54607/17-A	Method Blank	Step 7	Solid	6010B SEP	54607
LCS 140-54607/18-A	Lab Control Sample	Step 7	Solid	6010B SEP	54607
LCSD 140-54607/19-A	Lab Control Sample Dup	Step 7	Solid	6010B SEP	54607

Analysis Batch: 55243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Total/NA	Solid	6010B	54251
140-24429-2	S-8083_DPT06AP1	Total/NA	Solid	6010B	54251
140-24429-3	S-8083_DPT04XRFAP1	Total/NA	Solid	6010B	54251
MB 140-54251/17-A	Method Blank	Total/NA	Solid	6010B	54251
LCS 140-54251/18-A	Lab Control Sample	Total/NA	Solid	6010B	54251
LCSD 140-54251/19-A	Lab Control Sample Dup	Total/NA	Solid	6010B	54251

Analysis Batch: 55440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Sum of Steps 1-7	Solid	6010B SEP	
140-24429-2	S-8083_DPT06AP1	Sum of Steps 1-7	Solid	6010B SEP	
140-24429-3	S-8083_DPT04XRFAP1	Sum of Steps 1-7	Solid	6010B SEP	

General Chemistry

Analysis Batch: 53487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-24429-1	S-8083_DPT02AP1	Total/NA	Solid	Moisture	
140-24429-2	S-8083_DPT06AP1	Total/NA	Solid	Moisture	
140-24429-3	S-8083_DPT04XRFAP1	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: S-8083_DPT02AP1

Lab Sample ID: 140-24429-1

Date Collected: 08/30/21 00:00
Matrix: Solid
Date Received: 08/31/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			55440	11/02/21 16:06	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			53487	09/07/21 10:52	LDP	TAL KNX
	Instrument ID: NOEQUIP									

Client Sample ID: S-8083_DPT02AP1

Lab Sample ID: 140-24429-1

Date Collected: 08/30/21 00:00
Matrix: Solid
Date Received: 08/31/21 10:10
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	54251	09/29/21 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			55243	10/27/21 14:28	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	54252	09/29/21 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	54333	09/30/21 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			55087	10/22/21 12:50	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	54334	09/30/21 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	54370	10/01/21 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			55087	10/22/21 14:48	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	54371	10/01/21 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	54400	10/04/21 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			55087	10/22/21 16:46	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	54401	10/04/21 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	54485	10/05/21 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			55146	10/25/21 13:03	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	54486	10/05/21 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	54566	10/07/21 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			55146	10/25/21 15:02	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	54567	10/07/21 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			55146	10/25/21 17:01	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			55197	10/26/21 14:00	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: S-8083_DPT06AP1

Date Collected: 08/30/21 00:00
Date Received: 08/31/21 10:10

Lab Sample ID: 140-24429-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			55440	11/02/21 16:06	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			53487	09/07/21 10:52	LDP	TAL KNX
	Instrument ID: NOEQUIP									

Client Sample ID: S-8083_DPT06AP1

Date Collected: 08/30/21 00:00
Date Received: 08/31/21 10:10

Lab Sample ID: 140-24429-2

Matrix: Solid
Percent Solids: 75.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	54251	09/29/21 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		5			55243	10/27/21 17:44	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	54252	09/29/21 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	54333	09/30/21 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			55087	10/22/21 12:55	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	54334	09/30/21 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	54370	10/01/21 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			55087	10/22/21 14:53	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	54371	10/01/21 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	54400	10/04/21 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			55087	10/22/21 16:51	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	54401	10/04/21 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	54485	10/05/21 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			55146	10/25/21 13:08	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	54486	10/05/21 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	54566	10/07/21 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			55146	10/25/21 15:07	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	54567	10/07/21 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			55146	10/25/21 17:06	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			55197	10/26/21 14:05	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			55197	10/26/21 15:29	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Job ID: 140-24429-1
Project/Site: S-7677 SiREMNA

Client Sample ID: S-8083_DPT04XRFAP1
Lab Sample ID: 140-24429-3
Date Collected: 08/30/21 00:00
Matrix: Solid
Date Received: 08/31/21 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Sum of Steps 1-7	Analysis	6010B SEP		1			55440	11/02/21 16:06	DKW	TAL KNX
	Instrument ID: NOEQUIP									
Total/NA	Analysis	Moisture		1			53487	09/07/21 10:52	LDP	TAL KNX
	Instrument ID: NOEQUIP									

Client Sample ID: S-8083_DPT04XRFAP1
Lab Sample ID: 140-24429-3
Date Collected: 08/30/21 00:00
Matrix: Solid
Date Received: 08/31/21 10:10
Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	54251	09/29/21 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		2			55243	10/27/21 16:43	KNC	TAL KNX
	Instrument ID: DUO									
Step 1	SEP	Exchangeable			5.000 g	25 mL	54252	09/29/21 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	54333	09/30/21 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			55087	10/22/21 13:00	KNC	TAL KNX
	Instrument ID: DUO									
Step 2	SEP	Carbonate			5.000 g	25 mL	54334	09/30/21 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	54370	10/01/21 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			55087	10/22/21 14:58	KNC	TAL KNX
	Instrument ID: DUO									
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	54371	10/01/21 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	54400	10/04/21 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			55087	10/22/21 16:56	KNC	TAL KNX
	Instrument ID: DUO									
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	54401	10/04/21 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	54485	10/05/21 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			55146	10/25/21 13:13	KNC	TAL KNX
	Instrument ID: DUO									
Step 5	SEP	Organic-Bound			5.000 g	75 mL	54486	10/05/21 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	54566	10/07/21 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			55146	10/25/21 15:12	KNC	TAL KNX
	Instrument ID: DUO									
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	54567	10/07/21 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			55146	10/25/21 17:11	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			55197	10/26/21 14:20	KNC	TAL KNX
	Instrument ID: DUO									
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		2			55197	10/26/21 15:34	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54251/17-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	54251	09/29/21 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			55243	10/27/21 10:49	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54252/17-B ^4
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	54252	09/29/21 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	54333	09/30/21 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		4			55087	10/22/21 11:17	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54334/17-B ^3
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	54334	09/30/21 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	54370	10/01/21 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		3			55087	10/22/21 13:24	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54371/17-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	54371	10/01/21 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	54400	10/04/21 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			55087	10/22/21 15:23	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54401/17-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	54401	10/04/21 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	54485	10/05/21 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			55146	10/25/21 11:34	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54486/17-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	54486	10/05/21 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	54566	10/07/21 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			55146	10/25/21 13:37	KNC	TAL KNX
	Instrument ID:	DUO								

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54567/17-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	54567	10/07/21 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			55146	10/25/21 15:37	KNC	TAL KNX
	Instrument ID:	DUO								

Client Sample ID: Method Blank
Lab Sample ID: MB 140-54607/17-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			55197	10/26/21 11:23	KNC	TAL KNX
	Instrument ID:	DUO								

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54251/18-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	54251	09/29/21 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			55243	10/27/21 10:54	KNC	TAL KNX
	Instrument ID:	DUO								

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54252/18-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	54252	09/29/21 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	54333	09/30/21 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			55087	10/22/21 11:22	KNC	TAL KNX
	Instrument ID:	DUO								

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54334/18-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	54334	09/30/21 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	54370	10/01/21 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			55087	10/22/21 13:29	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54371/18-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	54371	10/01/21 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	54400	10/04/21 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			55087	10/22/21 15:28	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54401/18-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	54401	10/04/21 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	54485	10/05/21 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			55146	10/25/21 11:39	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54486/18-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	54486	10/05/21 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	54566	10/07/21 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			55146	10/25/21 13:42	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-54567/18-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	54567	10/07/21 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			55146	10/25/21 15:42	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 140-54607/18-A
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			55197	10/26/21 11:28	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 140-54251/19-A
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Total			1.000 g	50 mL	54251	09/29/21 08:00	KNC	TAL KNX
Total/NA	Analysis	6010B		1			55243	10/27/21 10:59	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 140-54252/19-B ^5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 1	SEP	Exchangeable			5.000 g	25 mL	54252	09/29/21 08:00	KNC	TAL KNX
Step 1	Prep	3010A			5 mL	50 mL	54333	09/30/21 08:00	KNC	TAL KNX
Step 1	Analysis	6010B SEP		5			55087	10/22/21 11:27	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 140-54334/19-B ^5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 2	SEP	Carbonate			5.000 g	25 mL	54334	09/30/21 08:00	KNC	TAL KNX
Step 2	Prep	3010A			5 mL	50 mL	54370	10/01/21 08:00	KNC	TAL KNX
Step 2	Analysis	6010B SEP		5			55087	10/22/21 13:34	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 140-54371/19-B
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 3	SEP	Non-Crystalline			5.000 g	25 mL	54371	10/01/21 08:00	KNC	TAL KNX
Step 3	Prep	3010A			5 mL	50 mL	54400	10/04/21 08:00	KNC	TAL KNX
Step 3	Analysis	6010B SEP		1			55087	10/22/21 15:32	KNC	TAL KNX
	Instrument ID: DUO									

Lab Chronicle

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-54401/19-B
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 4	SEP	Metal Hydroxide			5.000 g	25 mL	54401	10/04/21 08:00	KNC	TAL KNX
Step 4	Prep	3010A			5 mL	50 mL	54485	10/05/21 08:00	KNC	TAL KNX
Step 4	Analysis	6010B SEP		1			55146	10/25/21 11:44	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-54486/19-B ^5
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 5	SEP	Organic-Bound			5.000 g	75 mL	54486	10/05/21 08:00	KNC	TAL KNX
Step 5	Prep	3010A			5 mL	50 mL	54566	10/07/21 08:00	KNC	TAL KNX
Step 5	Analysis	6010B SEP		5			55146	10/25/21 13:47	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-54567/19-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 6	SEP	Acid/Sulfide			5.000 g	250 mL	54567	10/07/21 08:00	KNC	TAL KNX
Step 6	Analysis	6010B SEP		1			55146	10/25/21 15:47	KNC	TAL KNX
	Instrument ID: DUO									

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 140-54607/19-A
Date Collected: N/A
Matrix: Solid
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Step 7	Prep	Residual			1.000 g	50 mL	54607	10/08/21 08:00	KNC	TAL KNX
Step 7	Analysis	6010B SEP		1			55197	10/26/21 11:33	KNC	TAL KNX
	Instrument ID: DUO									

Laboratory References:
TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Accreditation/Certification Summary

Client: Sirem, div of Geosyntec Consultants
Job ID: 140-24429-1
Project/Site: S-7677 SiREMNA

Laboratory: Eurofins TestAmerica, Knoxville

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-22
ANAB	Dept. of Energy	L2311.01	02-13-22
ANAB	ISO/IEC 17025	L2311	02-13-22
Arkansas DEQ	State	88-0688	06-17-22
California	State	2423	06-30-22
Colorado	State	TN00009	02-28-22
Connecticut	State	PH-0223	02-28-22
Florida	NELAP	E87177	06-30-22
Georgia (DW)	State	906	12-11-22
Hawaii	State	NA	12-11-21
Kansas	NELAP	E-10349	10-31-22
Kentucky (DW)	State	90101	12-31-21
Louisiana	NELAP	83979	06-30-22
Louisiana (DW)	State	LA019	12-31-21
Maryland	State	277	03-31-22
Michigan	State	9933	12-11-22
Nevada	State	TN00009	07-31-22
New Hampshire	NELAP	299919	01-17-22
New Jersey	NELAP	TN001	06-30-22
New York	NELAP	10781	03-31-22
North Carolina (DW)	State	21705	07-31-22
North Carolina (WW/SW)	State	64	12-31-21
Ohio VAP	State	CL0059	06-02-23
Oklahoma	State	9415	08-31-22
Oregon	NELAP	TNI0189	12-31-21
Pennsylvania	NELAP	68-00576	12-31-21
Tennessee	State	02014	12-11-22
Texas	NELAP	T104704380-18-12	08-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-19-00236	08-20-22
Utah	NELAP	TN00009	07-31-22
Virginia	NELAP	460176	09-14-22
Washington	State	C593	01-19-22
West Virginia (DW)	State	9955C	01-02-22
West Virginia DEP	State	345	04-30-22
Wisconsin	State	998044300	08-31-22

Method Summary

Client: Sirem, div of Geosyntec Consultants
Project/Site: S-7677 SiREMNA

Job ID: 140-24429-1

Method	Method Description	Protocol	Laboratory
6010B	SEP Metals (ICP) - Total	SW846	TAL KNX
6010B SEP	SEP Metals (ICP)	SW846	TAL KNX
Moisture	Percent Moisture	EPA	TAL KNX
3010A	Preparation, Total Metals	SW846	TAL KNX
Acid/Sulfide	Sequential Extraction Procedure, Acid/Sulfide Fraction	TAL-KNOX	TAL KNX
Carbonate	Sequential Extraction Procedure, Carbonate Fraction	TAL-KNOX	TAL KNX
Exchangeable	Sequential Extraction Procedure, Exchangeable Fraction	TAL-KNOX	TAL KNX
Metal Hydroxide	Sequential Extraction Procedure, Metal Hydroxide Fraction	TAL-KNOX	TAL KNX
Non-Crystalline	Sequential Extraction Procedure, Non-crystalline Materials	TAL-KNOX	TAL KNX
Organic-Bound	Sequential Extraction Procedure, Organic Bound Fraction	TAL-KNOX	TAL KNX
Residual	Sequential Extraction Procedure, Residual Fraction	TAL-KNOX	TAL KNX
Total	Preparation, Total Material	TAL-KNOX	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

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

TAL-KNOX = TestAmerica Laboratories, Knoxville, Facility Standard Operating Procedure.

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921-5947
phone 865.291.3000 fax 865.584.4315

Chain of Custody Record

eurofins Environment Testing America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Kela Ashworth	Site Contact:	Date:	COC No:
SiREM	Email: kashworth@siremlab.com	Lab Contact:	Carrier:	1 of 1 COCs
130 Stone Road West	Tel/Fax:			TALS Project #:
Guelph, Ontario, N1G 2Z3	**Analysis Turnaround Time**			Sampler:
519-822-2265	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(xxx) xxx-xxxx FAX	TAT if different from Below ____			Walk-in Client:
Project Name: S-7677 SiREMNA	☐ 2 weeks			Lab Sampling:
Site:	☐ 1 week			
P O # 800003206	☐ 2 days			Job / SDG No.:
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Sequential Extraction Procedure	Sample Specific Notes:
S-8083_DPT02AP1	30Aug21			S	1			X	SEP for As, Li & Mo
S-8083_DPT06AP1	30Aug21			S	1			X	SEP for As, Li & Mo
S-8083_DPT04XRFAP1	30Aug21			S	1			X	SEP for As, Li & Mo
S-8072_DPT02BAP1	30Aug21			S	1			X	SEP for As, Co & Mo
S-8072_DPT05BAP1	30Aug21			S	1			X	SEP for As, Co & Mo

NO CUSTODY SEALS
RECEIVED AT RT 3.3 / CT 3.4 °C
BKD 8-31-21
1 COOLER FEDX# 7746 7126 4636 INTPO

140-24429 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by: Kela Ashworth	Company: SiREM	Date/Time: 30Aug21/16:30	Received by: [signature]	Company: EТА KNX	Date/Time: 8-31-21 10:10
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.35, dated 10/6/2020

Loc: 140
24429

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	✓			☐ Containers, Broken	16
2. Were ambient air containers received intact?			✓	☐ Checked in lab	
3. The coolers/containers custody seal if present, is it intact?			✓	☐ Yes ☐ NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : SC71 Correction factor: +0.1°C	✓			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	✓			☐ Containers, Broken	
6. Were samples received in appropriate containers?	✓			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	✓			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	✓			☐ COC; No Date/Time; Client Contacted	**Labeling Verified by: Date:**
10. Was the sampler identified on the COC?		✓		☑ Sampler Not Listed on COC	
11. Is the client and project name/# identified?	✓			☐ COC Incorrect/Incomplete	**pH test strip lot number:**
12. Are tests/parameters listed for each sample?	✓			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	✓			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	✓			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?			✓	☐ Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓	☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust	
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info	

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: ______ PM Instructions: ______

Sample Receiving Associate: [signature] Date: 8-31-21

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1 2 3 4 5 6 7 8 9 10 11 12 13

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
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15-July-2021

SiREM Laboratory
Attn : Michael Healey

130 Stone Road W
Guelph, ON
N1G 3Z2, Canada

Phone: 519-822-2265
Fax:519-822-3151

Date Rec. : 06 July 2021
LR Report: **CA12138-JUL21**
Reference: P.O# 8000003210A

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT06_1a	6: HAP1DPT06_2a	7: HAP1DPT06_3a	8: HAP1DPT06_4a	9: HAP1DPT06_5a	10: HAP1DPT06_6a
Sample Date & Time					29-Jun-21	29-Jun-21	29-Jun-21	29-Jun-21	30-Jun-21	30-Jun-21
Temperature Upon Receipt [°C]	---	---	---	---	5.0	5.0	5.0	5.0	5.0	5.0
Silver (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Aluminum (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.008	0.008	0.009	0.009	< 0.001	< 0.001
Arsenic (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.0068	0.0071	0.0260	0.0097	0.0673	0.0805
Barium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.0496	0.0501	0.0516	0.0511	0.0447	0.0447
Beryllium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007
Boron (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.020	0.020	0.022	0.021	0.016	0.017
Bismuth (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.00039	0.00039	0.00042	0.00042	0.00004	0.00003
Calcium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	133	134	131	133	134	129
Cadmium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.000005	0.000005	0.000021	0.000013	0.000035	0.000041
Cobalt (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.000050	0.000049	0.000044	0.000044	0.000045	0.000046
Chromium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.00021	0.00019	0.00020	0.00022	0.00022	0.00020
Copper (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.0003	0.0003	0.0003	0.0003	< 0.0002	< 0.0002
Iron (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Potassium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.190	0.196	0.225	0.206	0.191	0.197
Lithium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.0048	0.0049	0.0098	0.0066	0.0135	0.0163
Magnesium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	3.70	3.62	3.74	3.46	3.74	3.65
Manganese (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.00084	0.00088	0.00127	0.00041	0.00078	0.00090
Molybdenum (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.00763	0.00713	0.0380	0.0292	0.0709	0.0759
Sodium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	42.8	40.5	43.9	38.6	40.4	42.2

OnLine LIMS

00025595277

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LR Report : **CA12138-JUL21**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT06_1a	6: HAP1DPT06_2a	7: HAP1DPT06_3a	8: HAP1DPT06_4a	9: HAP1DPT06_5a	10: HAP1DPT06_6a
Nickel (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	< 0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001
Lead (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	0.00017	0.00018	0.00018	0.00018	< 0.00009	< 0.00009
Antimony (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:23	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Selenium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00010	0.00010	0.00009	0.00012	0.00010	0.00008
Tin (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Strontium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.408	0.409	0.415	0.406	0.404	0.401
Titanium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00007	0.00011	0.00011	0.00009	0.00012	0.00006
Thallium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
Uranium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00142	0.00136	0.00130	0.00153	0.00144	0.00133
Vanadium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00016	0.00017	0.00021	0.00019	0.00023	0.00017
Tungsten (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00006	0.00006	0.00007	0.00005	0.00006	0.00007
Yttrium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00026	0.00022	0.00024	0.00024	0.00023	0.00020
Zinc (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002

Analysis	11: HAP1DPT06_7a	12: HAP1DPT06_8a	13: HAP1DPT06_9a	14: HAP1DPT06_10a	15: HAP1DPT06_11a	16: HAP1DPT06_12a
Sample Date & Time	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21
Temperature Upon Receipt [°C]	5.0	5.0	5.0	5.0	5.0	5.0
Silver (dissolved) [mg/L]	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Aluminum (dissolved) [mg/L]	0.001	0.001	0.001	< 0.001	< 0.001	< 0.001
Arsenic (dissolved) [mg/L]	0.245	0.199	0.442	0.456	0.805	0.791
Barium (dissolved) [mg/L]	0.0455	0.0455	0.0462	0.0461	0.0473	0.0437
Beryllium (dissolved) [mg/L]	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007
Boron (dissolved) [mg/L]	0.017	0.016	0.016	0.016	0.017	0.016
Bismuth (dissolved) [mg/L]	0.00002	0.00003	0.00002	0.00002	0.00002	0.00002
Calcium (dissolved) [mg/L]	131	130	128	133	128	129
Cadmium (dissolved) [mg/L]	0.000079	0.000087	0.000198	0.000198	0.000408	0.000401
Cobalt (dissolved) [mg/L]	0.000044	0.000044	0.000044	0.000047	0.000048	0.000050
Chromium (dissolved) [mg/L]	0.00019	0.00020	0.00026	0.00023	0.00024	0.00024
Copper (dissolved) [mg/L]	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	< 0.0002
Iron (dissolved) [mg/L]	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Potassium (dissolved) [mg/L]	0.214	0.190	0.201	0.207	0.193	0.228
Lithium (dissolved) [mg/L]	0.0288	0.0254	0.0327	0.0332	0.0506	0.0480
Magnesium (dissolved) [mg/L]	3.67	3.59	3.65	3.66	3.48	3.46
Manganese (dissolved) [mg/L]	0.00154	0.00095	0.00066	0.00051	0.00051	0.00040

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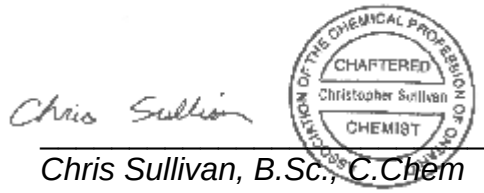
LR Report : **CA12138-JUL21**

Analysis	11: HAP1DPT06_7a	12: HAP1DPT06_8a	13: HAP1DPT06_9a	14: HAP1DPT06_10a	15: HAP1DPT06_11a	16: HAP1DPT06_12a
Molybdenum (dissolved) [mg/L]	0.208	0.196	0.421	0.435	0.879	0.880
Sodium (dissolved) [mg/L]	43.3	41.1	42.1	42.3	44.0	44.0
Nickel (dissolved) [mg/L]	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Lead (dissolved) [mg/L]	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Antimony (dissolved) [mg/L]	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Selenium (dissolved) [mg/L]	0.00011	0.00009	0.00010	0.00010	0.00011	0.00010
Tin (dissolved) [mg/L]	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Strontium (dissolved) [mg/L]	0.413	0.394	0.395	0.404	0.404	0.396
Titanium (dissolved) [mg/L]	0.00011	0.00014	0.00025	0.00033	0.00035	0.00038
Thallium (dissolved) [mg/L]	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
Uranium (dissolved) [mg/L]	0.00123	0.00134	0.00145	0.00148	0.00136	0.00134
Vanadium (dissolved) [mg/L]	0.00026	0.00020	0.00023	0.00024	0.00026	0.00026
Tungsten (dissolved) [mg/L]	0.00010	0.00009	0.00011	0.00012	0.00016	0.00016
Yttrium (dissolved) [mg/L]	0.00018	0.00016	0.00019	0.00019	0.00021	0.00016
Zinc (dissolved) [mg/L]	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002



Chris Sullivan, B.Sc., C.Chem
Project Specialist,
Environment, Health & Safety

OnLine LIMS

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Project : Hammond MNA

15-July-2021

SiREM Laboratory
Attn : Michael Healey

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Phone: 519-822-2265
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Date Rec. : 08 July 2021
LR Report: **CA12295-JUL21**
Reference: P.O# 800003210A

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT06_1b	6: HAP1DPT06_2b	7: HAP1DPT06_3b	8: HAP1DPT06_4b	9: HAP1DPT06_5b	10: HAP1DPT06_6b
Sample Date & Time					06-Jul-21	06-Jul-21	06-Jul-21	06-Jul-21	06-Jul-21	06-Jul-21
Temperature Upon Receipt [°C]	---	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0
Silver (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Aluminum (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.007	0.008	0.008	0.009	0.003	0.006
Arsenic (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.0399	0.0448	0.0405	0.0418	0.0377	0.0383
Beryllium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.000008	< 0.000007	< 0.000007	< 0.000007	0.000007	0.000008
Boron (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.012	0.014	0.012	0.012	0.012	0.010
Bismuth (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00026	0.00028	0.00026	0.00027	0.00004	0.00002
Calcium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	108	105	107	108	104	105
Cadmium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.000003	0.000006	< 0.000003	0.000006	0.000003	< 0.000003
Cobalt (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.000052	0.000044	0.000048	0.000049	0.000048	0.000044
Chromium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:26	0.00114	0.00092	0.00155	0.00133	0.00139	0.00151
Copper (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.0003	0.0002	0.0002	0.0002	< 0.0002	< 0.0002
Iron (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Potassium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.212	0.192	0.178	0.176	0.246	0.191
Lithium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.0012	0.0015	0.0013	0.0014	0.0016	0.0016
Magnesium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	2.77	2.87	2.65	2.76	2.74	2.63
Manganese (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00011	0.00009	0.00006	0.00010	0.00003	0.00006
Molybdenum (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00024	0.00019	0.00035	0.00034	0.00064	0.00055
Sodium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	25.4	27.2	24.4	25.4	25.6	25.0

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Project : Hammond MNA
LR Report : **CA12295-JUL21**

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT06_1b	6: HAP1DPT06_2b	7: HAP1DPT06_3b	8: HAP1DPT06_4b	9: HAP1DPT06_5b	10: HAP1DPT06_6b
Nickel (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001
Lead (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00015	0.00013	0.00012	0.00012	< 0.00009	< 0.00009
Antimony (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Selenium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00028	0.00022	0.00023	0.00019	0.00020	0.00019
Tin (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00009	0.00008	0.00009	0.00009	0.00011	0.00008
Strontium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.336	0.326	0.316	0.316	0.327	0.314
Titanium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00018	0.00020	0.00027	0.00011	0.00018	0.00020
Thallium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
Uranium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.000989	0.00115	0.000977	0.00115	0.000903	0.000933
Vanadium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00016	0.00013	0.00014	0.00014	0.00017	0.00014
Tungsten (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00009	0.00005	0.00004	0.00003	< 0.00002	< 0.00002
Yttrium (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	0.00008	0.00012	0.00015	0.00014	0.00011	0.00015
Zinc (dissolved) [mg/L]	13-Jul-21	12:01	14-Jul-21	12:27	< 0.002	< 0.002	< 0.002	0.002	0.003	0.002

Analysis	11: HAP1DPT06_7b	12: HAP1DPT06_8b	13: HAP1DPT06_9b	14: HAP1DPT06_10b	15: HAP1DPT06_11b	16: HAP1DPT06_12b
Sample Date & Time	06-Jul-21	06-Jul-21	06-Jul-21	06-Jul-21	06-Jul-21	06-Jul-21
Temperature Upon Receipt [°C]	7.0	7.0	7.0	7.0	7.0	7.0
Silver (dissolved) [mg/L]	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Aluminum (dissolved) [mg/L]	0.003	0.003	0.003	0.003	0.003	0.003
Arsenic (dissolved) [mg/L]	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium (dissolved) [mg/L]	0.0377	0.0360	0.0371	0.0368	0.0388	0.0384
Beryllium (dissolved) [mg/L]	< 0.000007	< 0.000007	< 0.000007	0.000008	< 0.000007	< 0.000007
Boron (dissolved) [mg/L]	0.008	0.008	0.009	0.009	0.009	0.010
Bismuth (dissolved) [mg/L]	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
Calcium (dissolved) [mg/L]	101	103	103	105	107	106
Cadmium (dissolved) [mg/L]	< 0.000003	< 0.000003	0.000003	0.000007	0.000006	0.000009
Cobalt (dissolved) [mg/L]	0.000043	0.000044	0.000046	0.000046	0.000047	0.000049
Chromium (dissolved) [mg/L]	0.00133	0.00170	0.00156	0.00144	0.00176	0.00109
Copper (dissolved) [mg/L]	< 0.0002	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Iron (dissolved) [mg/L]	< 0.007	< 0.007	< 0.007	0.011	< 0.007	< 0.007
Potassium (dissolved) [mg/L]	0.157	0.159	0.159	0.171	0.179	0.200
Lithium (dissolved) [mg/L]	0.0015	0.0015	0.0019	0.0018	0.0022	0.0025
Magnesium (dissolved) [mg/L]	2.58	2.60	2.58	2.58	2.64	2.68
Manganese (dissolved) [mg/L]	0.00001	0.00003	< 0.00001	0.00009	0.00003	0.00003
Molybdenum (dissolved) [mg/L]	0.00157	0.00145	0.00379	0.00431	0.00845	0.0125

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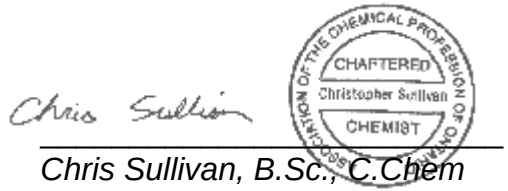
Project : Hammond MNA
LR Report : **CA12295-JUL21**

Analysis	11: HAP1DPT06_7b	12: HAP1DPT06_8b	13: HAP1DPT06_9b	14: HAP1DPT06_10b	15: HAP1DPT06_11b	16: HAP1DPT06_12b
Sodium (dissolved) [mg/L]	23.6	23.4	23.9	24.6	25.5	27.2
Nickel (dissolved) [mg/L]	< 0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Lead (dissolved) [mg/L]	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Antimony (dissolved) [mg/L]	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Selenium (dissolved) [mg/L]	0.00020	0.00018	0.00016	0.00021	0.00018	0.00018
Tin (dissolved) [mg/L]	0.00010	0.00007	0.00007	0.00007	0.00009	0.00007
Strontium (dissolved) [mg/L]	0.302	0.299	0.308	0.304	0.313	0.318
Titanium (dissolved) [mg/L]	0.00009	0.00013	0.00008	0.00011	0.00019	0.00014
Thallium (dissolved) [mg/L]	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
Uranium (dissolved) [mg/L]	0.00112	0.00101	0.00106	0.000970	0.00104	0.00101
Vanadium (dissolved) [mg/L]	0.00015	0.00014	0.00014	0.00014	0.00016	0.00016
Tungsten (dissolved) [mg/L]	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Yttrium (dissolved) [mg/L]	0.00017	0.00016	0.00016	0.00016	0.00016	0.00013
Zinc (dissolved) [mg/L]	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002



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Project : Hammond MNA

24-August-2021

SiREM Laboratory
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Date Rec. : 12 August 2021
LR Report: **CA15238-AUG21**
Reference: P.O# 800003210A

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT06_[1]	6: HAP1DPT06_[2]	7: HAP1DPT06_[3]	8: HAP1DPT06_[4]	9: HAP1DPT06_[5]	10: HAP1DPT06_[6]
Sample Date & Time					29-Jun-21	29-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21
Temp Upon Receipt [°C]	---	---	---	---	13.0	13.0	13.0	13.0	13.0	13.0
Ag (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.004	0.004	< 0.001	< 0.001	< 0.001	< 0.001
As (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.0631	0.112	0.280	0.560	1.12	1.70
Ba (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.0435	0.0430	0.0411	0.0419	0.0427	0.0419
Be (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007
B (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.018	0.018	0.017	0.016	0.017	0.017
Bi (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.00060	0.00050	0.00032	0.00031	0.00025	0.00020
Ca (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	129	125	129	128	127	125
Cd (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.000013	0.000015	0.000032	0.000088	0.000157	0.000357
Co (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	0.000051	0.000059	0.000052	0.000078	0.000058	0.000046
Cr (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:51	< 0.00008	0.00012	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Cu (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	0.0003	0.0003	0.0002	< 0.0002	< 0.0002	< 0.0002
Fe (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
K (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	0.305	0.292	0.298	0.291	0.293	0.294
Li (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	0.0074	0.0131	0.0283	0.0412	0.0569	0.0709

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Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT06_[1]	6: HAP1DPT06_[2]	7: HAP1DPT06_[3]	8: HAP1DPT06_[4]	9: HAP1DPT06_[5]	10: HAP1DPT06_[6]
Mg (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	4.31	4.12	4.24	4.16	4.12	3.97
Mn (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	0.0242	0.0235	0.0235	0.0230	0.0205	0.0106
Mo (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	0.0142	0.0522	0.105	0.261	0.587	1.20
Na (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	56.6	55.4	56.2	56.5	56.0	60.9
Ni (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	0.0002	0.0003	0.0003	0.0002	0.0002	0.0002
Pb (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:52	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.00010	0.00010	0.00008	0.00011	0.00011	0.00012
Sn (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Sr (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.390	0.389	0.389	0.425	0.402	0.387
Ti (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	< 0.00005	0.00010	< 0.00005	0.00011	0.00020	0.00026
Tl (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
U (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.000743	0.000734	0.000705	0.000677	0.000740	0.000730
V (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.00021	0.00018	0.00019	0.00018	0.00021	0.00018
W (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.00007	0.00007	0.00008	0.00010	0.00014	0.00018
Y (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.00007	0.00007	0.00006	0.00007	0.00007	0.00006
Zn (diss) [mg/L]	17-Aug-21	12:55	18-Aug-21	16:58	0.003	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002

Analysis	11: HAP2DPT07&8_[1]	12: HAP2DPT07&8_[2]	13: HAP2DPT07&8_[3]	14: HAP2DPT07&8_[4]	15: HAP2DPT07&8_[5]	16: HAP3DPT01_[1]	17: HAP3DPT01_[2]	18: HAP3DPT01_[3]	19: HAP3DPT01_[4]	20: HAP3DPT01_[5]
Sample Date & Time	05-Jul-12	05-Jul-12	06-Jul-12	07-Jul-12	08-Jul-12	13-Jul-12	13-Jul-12	14-Jul-12	14-Jul-12	14-Jul-12
Temp Upon Receipt [°C]	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Ag (diss) [mg/L]	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	0.003	0.003	0.002	0.007	0.003	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
As (diss) [mg/L]	0.0008	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002	< 0.0002	< 0.0002
Ba (diss) [mg/L]	0.0397	0.0412	0.0410	0.0413	0.0403	0.0424	0.0414	0.0415	0.0413	0.0407
Be (diss) [mg/L]	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007
B (diss) [mg/L]	0.006	0.006	0.006	0.006	0.006	0.005	0.005	0.005	0.004	0.005
Bi (diss) [mg/L]	0.00001	< 0.00001	< 0.00001	0.00007	0.00001	0.00002	0.00001	0.00002	< 0.00001	< 0.00001

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Project : Hammond MNA
LR Report : **CA15238-AUG21**

Analysis	11: HAP2DPT07&8_[1]	12: HAP2DPT07&8_[2]	13: HAP2DPT07&8_[3]	14: HAP2DPT07&8_[4]	15: HAP2DPT07&8_[5]	16: HAP3DPT01_[1]	17: HAP3DPT01_[2]	18: HAP3DPT01_[3]	19: HAP3DPT01_[4]	20: HAP3DPT01_[5]
Ca (diss) [mg/L]	31.6	32.7	31.9	31.0	31.6	30.6	30.8	31.0	30.8	30.9
Cd (diss) [mg/L]	0.000010	0.000003	0.000003	0.000005	0.000007	0.000015	0.000013	0.000039	0.000031	0.000057
Co (diss) [mg/L]	0.0970	0.227	0.332	0.441	0.552	0.000643	0.000626	0.000627	0.000656	0.000659
Cr (diss) [mg/L]	< 0.00008	< 0.00008	< 0.00008	0.00011	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Cu (diss) [mg/L]	0.0027	0.0013	0.0010	0.0011	0.0005	< 0.0002	0.0040	< 0.0002	< 0.0002	< 0.0002
Fe (diss) [mg/L]	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
K (diss) [mg/L]	0.693	0.702	0.713	0.710	0.729	0.752	0.753	0.770	0.757	0.747
Li (diss) [mg/L]	0.0021	0.0021	0.0019	0.0019	0.0019	0.0149	0.0306	0.0430	0.0558	0.0705
Mg (diss) [mg/L]	6.29	6.24	6.16	6.04	6.14	6.06	5.91	6.26	6.04	5.97
Mn (diss) [mg/L]	0.0844	0.0863	0.0851	0.0858	0.0868	0.0852	0.0851	0.0865	0.0854	0.0856
Mo (diss) [mg/L]	0.0109	0.00017	0.00010	0.00011	0.00010	0.0330	0.0501	0.0886	0.103	0.165
Na (diss) [mg/L]	8.02	7.86	7.87	7.72	8.05	7.84	7.86	8.01	7.95	7.89
Ni (diss) [mg/L]	0.0004	0.0004	0.0004	0.0004	0.0003	0.0003	0.0013	0.0004	0.0003	0.0004
Pb (diss) [mg/L]	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004	< 0.00004
Sn (diss) [mg/L]	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Sr (diss) [mg/L]	0.0764	0.0773	0.0753	0.0734	0.0746	0.0738	0.0739	0.0747	0.0734	0.0740
Ti (diss) [mg/L]	< 0.00005	0.00008	0.00008	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.00007	< 0.00005	0.00008
Tl (diss) [mg/L]	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005	< 0.000005
U (diss) [mg/L]	0.000043	0.000024	0.000012	0.000012	0.000011	0.000035	0.000010	0.000032	0.000010	0.000030
V (diss) [mg/L]	0.00002	< 0.00001	0.00001	0.00002	0.00001	0.00002	0.00001	0.00002	< 0.00001	0.00001
W (diss) [mg/L]	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Y (diss) [mg/L]	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Zn (diss) [mg/L]	0.012	0.006	0.005	0.005	0.004	0.002	< 0.002	< 0.002	< 0.002	< 0.002

Analysis	21: BAP1DPT0543&44_[1]	22: BAP1DPT0545&46_[2]	23: BAP1DPT0547&43_[3]	24: BAP1DPT0549&50_[4]	25: BAP1DPT0551&52_[5]	26: BAP1DT05_[6]
Sample Date & Time	22-Jul-12	29-Jul-12	29-Jul-12	30-Jul-12	30-Jul-12	03-Aug-21

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Project : Hammond MNA
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Analysis	21: BAP1DPT0543& 44_[1]	22: BAP1DPT0545& 46_[2]	23: BAP1DPT0547& 43_[3]	24: BAP1DPT0549& 50_[4]	25: BAP1DPT0551& 52_[5]	26: BAP1DT05_[6]
Temp Upon Receipt [°C]	13.0	13.0	13.0	13.0	13.0	13.0
Ag (diss) [mg/L]	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	0.001	< 0.001	< 0.001	0.001	0.001	0.002
As (diss) [mg/L]	0.0111	0.0218	0.0433	0.0659	0.0861	0.106
Ba (diss) [mg/L]	0.140	0.140	0.143	0.139	0.142	0.143
Be (diss) [mg/L]	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007	< 0.000007
B (diss) [mg/L]	0.008	0.008	0.008	0.007	0.007	0.007
Bi (diss) [mg/L]	0.00015	0.00011	0.00015	0.00008	0.00010	0.00011
Ca (diss) [mg/L]	47.3	48.0	46.6	48.0	46.4	45.9
Cd (diss) [mg/L]	0.000050	0.000080	0.000175	0.000248	0.000446	0.000679
Co (diss) [mg/L]	0.0102	0.0194	0.0384	0.0586	0.0761	0.0950
Cr (diss) [mg/L]	0.00032	0.00024	0.00029	0.00027	0.00026	0.00022
Cu (diss) [mg/L]	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0006
Fe (diss) [mg/L]	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
K (diss) [mg/L]	1.79	1.77	1.80	1.77	1.77	1.78
Li (diss) [mg/L]	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Mg (diss) [mg/L]	21.7	21.5	22.0	21.6	21.3	21.5
Mn (diss) [mg/L]	0.00035	0.00020	0.00019	0.00023	0.00026	0.00018
Mo (diss) [mg/L]	0.113	0.276	0.566	0.860	1.39	2.18
Na (diss) [mg/L]	3.50	3.50	3.71	3.86	4.03	4.59
Ni (diss) [mg/L]	< 0.0001	< 0.0001	0.0001	0.0001	< 0.0001	0.0002
Pb (diss) [mg/L]	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	0.00040	0.00043	0.00043	0.00037	0.00044	0.00039
Sn (diss) [mg/L]	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Sr (diss) [mg/L]	0.0546	0.0545	0.0528	0.0546	0.0534	0.0534
Ti (diss) [mg/L]	0.00006	0.00010	0.00021	0.00023	0.00036	0.00055
Tl (diss) [mg/L]	0.000157	0.000166	0.000154	0.000161	0.000164	0.000167
U (diss) [mg/L]	0.000670	0.000678	0.000662	0.000614	0.000643	0.000640
V (diss) [mg/L]	0.00060	0.00058	0.00059	0.00060	0.00058	0.00056
W (diss) [mg/L]	0.00005	0.00008	0.00010	0.00013	0.00020	0.00030

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Project : Hammond MNA
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Analysis	21: BAP1DPT0543&44_[1]	22: BAP1DPT0545&46_[2]	23: BAP1DPT0547&43_[3]	24: BAP1DPT0549&50_[4]	25: BAP1DPT0551&52_[5]	26: BAP1DT05_[6]
Y (diss) [mg/L]	0.00008	0.00008	0.00009	0.00009	0.00009	0.00009
Zn (diss) [mg/L]	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002

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LR Report: **CA12171-SEP21**
Reference: P.O# 800003210A

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT02_1a	6: HAP1DPT02_2a	7: HAP1DPT04XRF_3/5a	8: HAP1DPT04XRF_4/6a	9: HAP2DPT08_7a
Sample Date & Time					31-Aug-21	31-Aug-21	31-Aug-21	31-Aug-21	31-Aug-21
Temp Upon Receipt [°C]	---	---	---	---	11.0	11.0	11.0	11.0	11.0
Ag (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	0.003	0.002	0.003	0.003	0.002
As (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	< 0.0002	< 0.0002	0.0007	0.0007	< 0.0002
Ba (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	0.0421	0.0420	0.0403	0.0405	0.00396
Be (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	< 0.000007	< 0.000007	0.000008	0.000016	0.000007
B (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	0.165	0.148	0.106	0.113	0.293
Bi (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Ca (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	124	122	110	112	40.0
Cd (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	0.000003	0.000003	< 0.000003	< 0.000003	0.00176
Co (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	0.000053	0.000053	0.000084	0.000095	0.0571
Cr (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:43	0.00055	0.00049	0.00059	0.00045	0.00048
Cu (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0002
Fe (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.007	< 0.007	0.008	0.008	< 0.007
K (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	1.91	1.88	2.38	2.36	2.16
Li (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.0012	0.0013	0.0043	0.0046	0.0078
Mg (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	6.74	6.69	5.94	5.77	8.23
Mn (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.00316	0.00232	0.0182	0.0196	0.997
Mo (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.00725	0.00752	0.00658	0.00656	0.00011
Na (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	46.4	47.1	54.7	54.6	7.41
Ni (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.0003	0.0003	0.0009	0.0010	0.0667
Pb (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.00010	0.00010	0.00097	0.00084	0.00709
Sn (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.00006	< 0.00006	0.00081	0.00080	0.00006
Sr (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.771	0.755	0.573	0.568	0.0992
Ti (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.00013	0.00007	0.00015	0.00015	0.00011
Tl (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.000005	< 0.000005	0.000012	0.000013	0.000008
U (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.000540	0.000567	0.000739	0.000738	0.000015
V (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.00007	0.00007	0.00030	0.00029	0.00004
W (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Y (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	0.00029	0.00026	0.00080	0.00079	0.00062
Zn (diss) [mg/L]	10-Sep-21	15:00	14-Sep-21	11:48	< 0.002	0.003	< 0.002	< 0.002	0.049

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Analysis	10: HAP2DPT08_8a	11: HAP3DPT02_9a	12: HAP3DPT02_10a	13: BAP1DPT02_11a	14: BAP1DPT02_12a
Sample Date & Time	31-Aug-21	31-Aug-21	31-Aug-21	31-Aug-21	31-Aug-21
Temp Upon Receipt [°C]	11.0	11.0	11.0	11.0	11.0
Ag (diss) [mg/L]	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	0.001	0.001	0.002	0.005	0.005
As (diss) [mg/L]	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Ba (diss) [mg/L]	0.00396	0.0270	0.0276	0.0373	0.0382
Be (diss) [mg/L]	0.000009	< 0.000007	< 0.000007	0.000009	0.000009
B (diss) [mg/L]	0.324	0.227	0.230	0.108	0.110
Bi (diss) [mg/L]	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Ca (diss) [mg/L]	40.0	66.7	69.0	42.3	42.2
Cd (diss) [mg/L]	0.00200	< 0.000003	< 0.000003	0.000011	0.000014
Co (diss) [mg/L]	0.0605	0.000027	0.000032	0.000142	0.000164
Cr (diss) [mg/L]	0.00039	0.00098	0.00088	0.00125	0.00108
Cu (diss) [mg/L]	0.0003	0.0004	< 0.0002	< 0.0002	< 0.0002
Fe (diss) [mg/L]	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
K (diss) [mg/L]	2.22	1.86	2.03	1.58	1.59
Li (diss) [mg/L]	0.0083	0.0057	0.0065	0.0005	0.0005
Mg (diss) [mg/L]	8.59	5.48	5.91	13.6	13.7
Mn (diss) [mg/L]	1.02	0.00050	0.00042	0.0137	0.0131
Mo (diss) [mg/L]	0.00022	0.0112	0.0139	0.00026	0.00029
Na (diss) [mg/L]	7.57	5.22	5.13	3.97	4.07
Ni (diss) [mg/L]	0.0714	0.0002	0.0002	0.0014	0.0013
Pb (diss) [mg/L]	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	0.00767	0.00074	0.00073	0.00041	0.00048
Sn (diss) [mg/L]	0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Sr (diss) [mg/L]	0.103	0.427	0.454	0.0861	0.0866
Ti (diss) [mg/L]	0.00006	0.00012	0.00013	0.00018	0.00019
Tl (diss) [mg/L]	0.000006	0.000007	< 0.000005	0.000021	0.000030
U (diss) [mg/L]	0.000016	0.000472	0.000485	0.000081	0.000089
V (diss) [mg/L]	0.00002	0.00028	0.00029	0.00006	0.00007
W (diss) [mg/L]	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Y (diss) [mg/L]	0.00071	0.00007	0.00008	0.00143	0.00142
Zn (diss) [mg/L]	0.056	< 0.002	< 0.002	< 0.002	< 0.002

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CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: HAP1DPT02_1b	6: HAP1DPT02_2b	7: HAP1DPT04XRF_3b	8: HAP1DPT04XRF_4b	9: HAP1DPT04XRF_5b
Sample Date & Time					15-Sep-21	15-Sep-21	15-Sep-21	15-Sep-21	15-Sep-21
Temp Upon Receipt [°C]	---	---	---	---	9.0	9.0	9.0	9.0	9.0
Ag (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.002	0.002	0.006	0.004	0.003
As (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.0002	< 0.0002	0.0031	0.0030	0.0012
Ba (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.0382	0.0399	0.0462	0.0433	0.0496
Be (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.000007	0.000009	0.000034	0.000025	0.000022
B (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.651	0.602	0.281	0.312	0.281
Bi (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00002	0.00001	0.00001	0.00001	0.00002
Ca (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	89.2	89.4	74.2	80.1	83.1
Cd (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.000013	< 0.000003	0.000004	0.000006	0.000009
Co (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.000077	0.000074	0.000122	0.000165	0.000617
Cr (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00174	0.00214	0.00108	0.00095	0.00053
Cu (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.0002	< 0.0002	0.0005	0.0005	0.0005
Fe (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.007	< 0.007	0.016	0.016	0.010
K (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	3.44	3.42	4.56	4.46	2.89
Li (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.0005	0.0007	0.0048	0.0040	0.0015
Mg (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	9.55	8.93	5.41	5.76	6.11
Mn (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00296	0.00213	0.0339	0.0324	0.231
Mo (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00956	0.00967	0.0124	0.0113	0.00896
Na (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	38.6	36.9	58.6	63.7	61.3
Ni (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.0005	0.0005	0.0016	0.0015	0.0011
Pb (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.00009	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00020	0.00022	0.00134	0.00115	0.00070
Sn (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00013	0.00012	0.00121	0.00118	0.00135
Sr (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.727	0.720	0.392	0.413	0.441
Ti (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.00005	0.00022	0.00021	0.00023	0.00017
Tl (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.000005	< 0.000005	0.000016	0.000015	0.000013
U (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.000173	0.000190	0.00285	0.00240	0.00104
V (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00013	0.00010	0.00065	0.00075	0.00066
W (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.00002	< 0.00002	0.00004	0.00004	< 0.00002
Y (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	0.00013	0.00009	0.00046	0.00047	0.00043
Zn (diss) [mg/L]	21-Sep-21	15:10	22-Sep-21	14:19	< 0.002	0.003	0.002	0.003	0.002

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Analysis	10: HAP1DPT04XRF_6b	11: HAP2DPT08_7b	12: HAP2DPT08_8b	13: HAP2DPT02_9b	14: HAP2DPT02_10b	15: BAP1DPT02_11b	16: BAP1DPT02_12b
Sample Date & Time	15-Sep-21	15-Sep-21	15-Sep-21	15-Sep-21	15-Sep-21	15-Sep-21	15-Sep-21
Temp Upon Receipt [°C]	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Ag (diss) [mg/L]	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.00005
Al (diss) [mg/L]	0.002	0.007	0.014	0.007	0.003	0.005	0.003
As (diss) [mg/L]	0.0012	0.0016	0.0028	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Ba (diss) [mg/L]	0.0430	0.0280	0.0306	0.0291	0.0302	0.0112	0.0113
Be (diss) [mg/L]	0.000018	0.000039	0.000068	< 0.000007	< 0.000007	0.000099	0.000086
B (diss) [mg/L]	0.309	0.872	0.836	0.285	0.290	0.498	0.547
Bi (diss) [mg/L]	0.00001	0.00001	< 0.00001	0.00001	0.00001	0.00002	< 0.00001
Ca (diss) [mg/L]	69.6	48.4	51.6	63.9	67.5	11.8	12.5
Cd (diss) [mg/L]	0.000016	0.00420	0.0120	0.000007	0.000005	0.000041	0.000035
Co (diss) [mg/L]	0.000911	0.114	0.167	0.000085	0.000076	0.000005	0.000012
Cr (diss) [mg/L]	0.00051	0.00045	0.00049	0.00215	0.00246	0.00136	0.00150
Cu (diss) [mg/L]	0.0006	0.0009	0.0028	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Fe (diss) [mg/L]	0.009	< 0.007	< 0.007	0.010	< 0.007	< 0.007	< 0.007
K (diss) [mg/L]	2.53	5.54	5.93	3.90	3.98	1.24	1.37
Li (diss) [mg/L]	0.0008	0.0172	0.0243	0.0077	0.0077	0.0005	0.0005
Mg (diss) [mg/L]	5.64	12.5	13.7	7.25	7.80	3.28	3.49
Mn (diss) [mg/L]	0.381	3.60	5.05	0.00059	0.00051	0.0120	0.0126
Mo (diss) [mg/L]	0.00414	0.00017	0.00047	0.0534	0.0542	0.00005	0.00010
Na (diss) [mg/L]	60.3	10.4	10.1	5.57	5.65	4.85	4.90
Ni (diss) [mg/L]	0.0015	0.117	0.151	0.0003	0.0003	0.0014	0.0016
Pb (diss) [mg/L]	< 0.00009	0.00011	0.00058	< 0.00009	< 0.00009	< 0.00009	< 0.00009
Sb (diss) [mg/L]	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009	< 0.0009
Se (diss) [mg/L]	0.00050	0.0148	0.0159	0.00047	0.00066	0.00050	0.00043
Sn (diss) [mg/L]	0.00125	0.00014	0.00014	0.00011	0.00012	< 0.00006	< 0.00006
Sr (diss) [mg/L]	0.366	0.147	0.152	0.539	0.572	0.0297	0.0306
Ti (diss) [mg/L]	0.00017	0.00011	0.00007	0.00030	0.00010	0.00011	0.00010
Tl (diss) [mg/L]	0.000009	0.000014	0.000020	0.000006	0.000008	0.000020	0.000016
U (diss) [mg/L]	0.000268	0.000018	0.000027	0.00143	0.00171	0.000011	0.000025
V (diss) [mg/L]	0.00045	0.00007	0.00005	0.00041	0.00044	0.00008	0.00008
W (diss) [mg/L]	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Y (diss) [mg/L]	0.00047	0.00100	0.00157	0.00016	0.00012	0.00048	0.00034
Zn (diss) [mg/L]	0.004	0.087	0.127	< 0.002	< 0.002	0.008	0.004

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APPENDIX B

Reactive Transport Model Report

Prepared for

Georgia Power Company
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Atlanta, Georgia 30308

REACTIVE TRANSPORT MODEL REPORT

PLANT HAMMOND ASH POND 1 (AP-1)

Prepared by

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144

Project Number GW7300

August 2022

Geosyntec consultants

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LIST OF ACRONYMS AND ABBREVIATIONS

AP-1	Ash Pond 1
AP-2	Ash Pond 2
As	Arsenic
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
Co	Cobalt
CSM	Conceptual Site Model
DPT	Direct Push Technology
EDXA	Energy Dispersive X-Ray Analysis
GAEPD	Georgia Environmental Protection Division
GCSM	Geochemical Conceptual Site Model
GHB	General Head Boundary
GWPS	Ground Water Protection Standard
HAR	Hydrogeologic Assessment Report
MNA	Monitored Natural Attenuation
Mo	Molybdenum
mV	Millivolts
ORP	Oxidation-Reduction Potential
PZC	Point of Zero Charge
SEM	Scanning Electron Microscopy
SEP	Sequential Extraction Procedure
SSL	Statistically Significant Levels
TDS	Total Dissolved Solids
TOC	Total Organic Carbon
USEPA	United States Environmental Protection Agency
XRD	X-Ray Diffraction
WRA	Whole Rock Analysis

1.0 INTRODUCTION

1.1 Purpose

This reactive transport model report (Report) has been prepared for Georgia Power Company (Georgia Power) Plant Hammond Ash Pond 1 (AP-1 or Site) and is included as Appendix B of the *Draft Remedy Selection Report – Plant Hammond Ash Pond 1 (AP-1)* (Remedy Selection Report) (Geosyntec, 2022b). The purpose of this model report is to document the reactive transport models developed to evaluate potential remediation approaches to address statistically significant levels (SSLs) of arsenic (As) and molybdenum (Mo) above groundwater protection standards (GWPS) at certain locations at or beyond the AP-1 compliance boundary.

1.2 Site Background and Overview of AP-1 Pond Closure

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. A Site location map is included in the Remedy Selection Report (**Figure 1,** Geosyntec, 2022b).

AP-1 is a 35-acre surface impoundment that will be closed by removal and disposal of CCR to an offsite lined-landfill in accordance with Closure permit No. 057-023D(CCR), which was approved by GA EPD on June 22, 2020.

1.3 Site Geology and Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at the Site as described in the AP-1 *Hydrogeologic Assessment Report Revision 01 – Ash Pond 1 (AP-1)* (HAR Rev 01) submitted to GA EPD as supporting documents for the closure permit application (Geosyntec, 2019b).

1.3.1 Site Geology

AP-1 is located within the Great Valley District of the Valley and Ridge Physiographic Province (Valley and Ridge) of northwest Georgia which is characterized by Paleozoic sedimentary rocks that have been folded and faulted into the ridges and valleys that gave this region its name. In the vicinity of AP-1, the following anthropogenic and geologic units are encountered: (i) CCR, (ii) Fill/Dike materials, (iii) terrace alluvium, (iv) residuum (which can be discontinuous), (v) highly weathered/partially weathered

fractured shaley limestone bedrock (PWR), and (vi) competent shaley limestone bedrock of the Cambrian Conasauga Formation. Additional lithology descriptions of these units can be found in the HAR Rev 01 (Geosyntec, 2019b).

1.3.2 Hydrogeology and Groundwater Flow

The uppermost aquifer at AP-1 is a regional groundwater aquifer that occurs primarily in the alluvial and residuum soils, and within the weathered and fractured bedrock. 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 predominantly fracture flow. The regional groundwater flow direction is expected to be from north to south. However, under current conditions, the local groundwater flow direction beneath the western portion of AP-1 is predominantly north to south toward the Coosa River, and west to east toward Cabin Creek in the eastern portion of AP-1. Groundwater elevation data and potentiometric surface contours that depict groundwater flow direction are provided in the Remedy Selection Report (**Figure 5**, Geosyntec, 2022b) and in **Figure 1** & **Figure 2** of this report. Monitoring well construction details are provided in the Remedy Selection Report *(***Table 1**, Geosyntec, 2022b).

1.4 Groundwater Exceedances

At AP-1, Georgia Power has performed CCR groundwater monitoring-related activities since May 2016[1]. As discussed in the Remedy Selection Report (Geosyntec, 2022b), the concentration of As and Mo in groundwater exceed the GWPS at HGWC-13 and HGWC-8, respectively.

Groundwater monitoring data confirm that As and Mo have been vertically and horizontally delineated. Data also shows that the As and Mo plumes remain within the property boundary and are not migrating beyond the delineated downgradient plume edge due to natural attenuation processes in the aquifer (**Figure 1** and **Figure 2)**.

[1] Monitoring activities have been performed in accordance with the United States Environmental Protection Agency's (USEPA's) Coal Combustion Residuals (CCR) Rule, 40 Code of Federal Regulations (CFR) Parts 257 effective October 19, 2015 (CCR Rule) including subsequent revisions and Georgia Environmental Protection Division's (GAEPD's) Rule for Solid Waste Management Rule 391-3-4-10 for CCR.

1.5 Model Scope & Objectives

Geosyntec has developed a reactive transport model for As and Mo to support the remedy selection process for AP-1. The Georgia Environmental Protection Division (GAEPD) Groundwater Contaminant Fate and Transport Modeling Guidance (GAEPD, 2016) was used as a guide for development of both models, where appropriate.

The primary objectives of the modeling effort are to:

Develop a predictive reactive transport model for As and Mo in the vicinity of HGWC-13 and HGWC-8 (respectively) under post-closure conditions.

Assess the feasibility of monitored natural attenuation (MNA) processes to achieve the As and Mo GWPS at or beyond the compliance boundary under model predicted post-closure conditions.

Evaluate the feasibility of geochemical injections to achieve the As and Mo GWPS at the compliance boundary under anticipated post-closure conditions.

The geochemical conceptual site model, groundwater flow models, and transport models used to meet the above objectives are summarized below.

2.0 GEOCHEMICAL CONCEPTUAL SITE MODEL

The following section summarizes the geochemical conceptual site model for AP-1, as described in the AP-1 *Geochemical Conceptual Site Model Report – Plant Hammond Ash Pond 1 (AP-1)* (GCSM Report) (Geosyntec 2022a) included as **Appendix A** of the Remedy Selection Report (Geosyntec 2022b).

2.1 Arsenic Geochemistry and Fate and Transport Properties

Dissolved As in groundwater systems is typically stable as As(III) (arsenite, often as $HAsO_2$) or As(V) (arsenate, often as the oxyanion $H_2AsO_4^-$). In general, As(V) is less mobile and more readily attenuated compared to As(III) under acidic to circumneutral pH; however, this generalization is dependent on pH, dissolved oxygen, and the presence of other ionic species (Campbell and Nordstrom, 2014).

Equilibrium speciation indicates that under the conditions present in groundwater upgradient and downgradient of Hammond AP-1, As exists as As(V) in the forms of $H_2AsO_4^-$ and $HAsO_4^{2-}$ (Geosyntec, 2022a).

The mobility of these phases in groundwater is strongly controlled by sorption processes, in which As either forms bonds (adsorption) or breaks bonds (desorption) with chemical species on mineral surfaces present in the aquifer. Sorption reactions are strongly dependent on the composition of the aquifer matrix (i.e., the type of minerals and/or organic material), pH, and the presence of competitively adsorbing ions. The As(V) form of As is much more readily attenuated than As(III) due to the overall negative charge of the $H_2AsO_4^-$ and $HAsO_4^{2-}$ oxyanions, which can form chemical bonds or electrostatic interactions with positively charged clay or mineral surfaces (Campbell and Nordstrom, 2014; Smedley and Kinniburgh, 2002).

2.2 Molybdenum Geochemistry and Fate and Transport Properties

Like As, Mo in groundwater under oxidizing conditions is present as the molybdate oxyanion (MoO_4^{2-}) (Smedley and Kinniburgh, 2017). While Mo can also form Mo(V) and Mo(IV) species, $Mo(VI)O_4^{2-}$ is predicted to be the predominant species at the Site, including at HGCW-8, based on groundwater conditions (Geosyntec, 2022a). Mo tends to be more mobile under alkaline conditions with increasing sorption under neutral to acidic conditions (due to the formation of positively charged surface sites in lower pH conditions). Molybdenum strongly binds to organic matter and readily sorbs to oxyhydroxide minerals (Goldberg et. al., 1996; ATSDR, 2020).

2.3 Summary of Geochemical CSM (GCSM)

Under current conditions, As and Mo are attenuated by aquifer materials, and groundwater exceedances are contained on-site. Illustrations depicting the GCSM for As and Mo are provided on **Figure 3** and **Figure 4**, respectively. Key details to support the GCSM include:

The characterization of aquifer solids around AP-1 indicates the presence of mineral phases that provide substantial attenuation capacity (i.e., iron oxyhydroxides and clay minerals).

The Sequential Extraction Procedure (SEP) conducted for select aquifer solids samples representative of conditions at AP-1 suggests that site-specific constituents are associated with amorphous and crystalline metal oxides and oxyhydroxides. This observation indicates strong sorption and/or incorporation of site-specific constituents into immobile mineral phases.

Sorption and desorption studies confirm that site-specific constituents are sorbed, with some limited desorption occurring under the experimental conditions of these batch studies. Measured partition coefficients for Mo (i.e., 175 L/kg) were within the range of values reported in the literature and indicative of significant aquifer attenuation capacity for these constituents. Moreover, all six concentration levels of As up to 1.7 mg/L were completely removed from the aqueous phase during the batch sorption study. The partition coefficient could not be determined since the sorption capacity of arsenic was higher than the range of test conditions. This suggests that As is strongly sorbed to the aquifer matrix and that there is large sorption capacity even when subjected to higher As concentrations than those observed at the Site (e.g., highest observed concentrations of 0.99 mg/L at PMW-02 in September 2019).

The laboratory studies presented to date are consistent with groundwater monitoring results that indicate attenuation of site-specific constituents is occurring downgradient of AP-1.

3.0 GROUNDWATER FLOW MODEL

Groundwater flow and reactive transport models were developed to evaluate the feasibility of MNA and geochemical injections as potential corrective measures for As and Mo exceedances of GWPS. The following sections summarize the flow models setup, layering, boundaries, and parameterization.

3.1 Groundwater Flow Models

Two focused groundwater flow models were created to simulate post-closure groundwater flow. The first focused model simulates post-closure groundwater flow on the western side of AP-1, in the vicinity of HGWC-13. The second focused model simulates post-closure groundwater flow on the eastern side of AP-1, in the vicinity of HGWC-8. Both focused models are based on and informed by an updated version of the site wide groundwater flow model that was originally developed by Geosyntec (Geosyntec, 2019a). For the purposes of the feasibility level remedy selection, layer elevations, flow parameters, and flow boundaries were adjusted from the site wide model to better reflect local flow conditions. In both focused flow models, flow was simulated under steady state conditions. Both flow models utilize MODFLOW (Harbaugh, 2005) and were created using the software Processing MODFLOW version 8.0.47 (Simcore, 2012). A summary of flow model setup and output is provided below.

3.1.1 Flow Model Grid Extent & Layering

Model grid extents and layering for the HGWC-13 focused model and HGWC-8 focused model are shown on **Figures 5a** and **6a**, respectively. Model extents were designed to focus primarily on the portion of AP-1 where groundwater concentrations of As (at HGWC-13) and Mo (at HGWC-8) are detected above the GWPS. Both models use a uniform model grid cell size of 10x10 feet. For both focused models, model layering is consistent with the CSM described in the HAR (Geosyntec, 2019b) and based on a 3D site wide geologic model developed for Plant Hammond. However, model layer elevations were updated from the original site wide geologic model based on new data and an updated interpretation of site geology. Post-closure design grades were not incorporated into model layering since the purpose of the model is to evaluate groundwater contaminant transport in the underlying alluvium. An example cross section of layering for both focused models is provided on **Figures 5a** and **6a**, respectively.

3.1.2 Flow Model Boundaries

Model flow boundaries and input parameters for the HGWC-13 focused model and HGWC-8 focused model are shown on **Figures 5b** and **6b**, respectively. Model

boundaries representing Cabin Creek and Coosa River were derived from the updated version of the calibrated site wide model. The general head boundaries were informed by post-closure groundwater elevation contours simulated by the updated version of the site wide model.

In both models, recharge was assumed to be low under post-closure conditions and assigned an assumed value of 0.06 inches/year. Inside the footprint of AP-1, the assumption of low recharge is based on the AP-1 post-closure design which indicates that the interior of AP-1 will be replaced with fill (for the purposes of this modeling effort, conservatively assumed to be silt to silty sand) and graded to divert surface water runoff. The basis for low recharge outside the AP-1 footprint is based on boring log data which indicates that the upper portion of the subsurface in the area of AP-1 is composed of low permeability silts and clays.

Simulated groundwater elevation contours representing predicted post-closure flow conditions are shown on **Figures 5b** and **6b**.

3.1.3 Flow Model Parameters

Model parameters are shown in **Table 1a** and **Table 1b**. Inside AP-1, in layer 1, an assumed horizontal conductivity (Kh) and vertical conductivity (Kv) value of 0.29 ft/d and 0.029 ft/d, respectively, were assigned to both models, to represent the clean fill material that will be placed inside the AP-1 footprint as part of the closure. These values for the clean fill are assumed and based on silt to silty sand conductivities from Domenico and Schwartz (1990), as specific design level conductivity values were not available at the time of model development. For the dike, assumed low Kh and Kv values of 0.025 and 0.0025 ft/d were assigned based on silt and clay conductivities from Domenico and Schwartz (1990). For the other subsurface materials in the model domain, hydraulic conductivity is approximately based on calibrated values from the updated version of the sitewide model or slug test data. For the purposes of the feasibility level remedy selection and transport modeling effort, hydraulic conductivity zones in the focused model that represent the aquifer were simplified so that conductivity was homogenous per layer. Effective porosity and bulk density values were assigned to the models based on literature values (USEPA, 1998; Kresic, 2006). Longitudinal dispersivity was selected based on a mixture of best professional judgement and the USEPA On-line Tools for Site Assessment Calculation (USEPA, 2021). Transverse and vertical dispersivity were based on guidance from USEPA (1998) and standard modeling practice where transverse and vertical dispersivity are 10 and 100 times smaller than longitudinal dispersivity.

4.0 REACTIVE TRANSPORT MODEL: ARSENIC

A reactive transport model was developed for the area around monitoring well HGWC-13, where groundwater As concentrations currently exceed the GWPS. The objective of the reactive transport model is to evaluate the feasibility of MNA and geochemical injections to achieve the GWPS, under predicted post-closure conditions. The relative remedial time frame to reach the GWPS can be used to compare remedial alternatives including MNA and geochemical injections. For the purposes of this model, it was assumed that under post-closure conditions, the source of As within the footprint of AP-1 will be removed due to closure by removal activities, and the remaining As will be limited to dissolved As and As that had previously adsorbed to the aquifer matrix materials, in the immediate vicinity of HGWC-13.

The following sections describe the As reactive transport model objectives, setup, scenarios, results, and sensitivity analysis.

4.1 Model Setup

The reactive transport model utilizes the three-dimensional (3D) reactive multicomponent transport code PHT3D (Prommer and Post, 2010). PHT3D incorporates the programs MT3DMS (Zheng and Wang, 1999) for 3D advective-dispersive multi-species transport modeling and PHREEQC (Parkhust and Appelo, 2000) for geochemical reaction modeling. PHT3D uses MODFLOW (Harbaugh, 2005) to provide the groundwater flow field for transport simulations.

Transport model construction and parameterization was performed in the Processing MODFLOW pre- and post-processing software package (Simcore, 2012). Equilibrium constants from the MINTEQ.V4 thermodynamic database (USEPA, 1999) were used for the As model.

4.1.1 Geochemical Properties

This section describes the key geochemical reactions and properties included in the reactive transport model: aqueous complexation, mineral precipitation/dissolution, adsorption/desorption to mineral surfaces, and reduction-oxidation (redox) reactions.

Aqueous Complexation

At each time step, PHT3D uses PHREEQC to calculate equilibrium aqueous speciation. The MINTEQ.V4 database of equilibrium constants was used for aqueous speciation calculations.

Mineral Precipitation/Dissolution

At each time step, minerals specified within the model setup are allowed to precipitate or dissolve to achieve equilibrium with groundwater. To identify the relevant minerals, PHREEQC was used to calculate mineral saturation indices (SI) using the results of the September 2020 semiannual groundwater sampling event for monitoring wells HGWC-13, HGWC-1, MW-24D, and MW-19. Data from the September 2020 semiannual groundwater sampling event was used because the dataset is more comprehensive than datasets from more recent sampling events; results from the September 2020 sampling event are consistent with results from sampling events performed in 2022.

Barite was determined to be supersaturated (SI > 0), and gypsum, calcite, and aragonite were determined to be close to equilibrium (SI between -1.0 and 0). Therefore, the following minerals were set to precipitate/dissolve to achieve equilibrium with groundwater in PHT3D (i.e., SI = 0): gypsum, barite, calcite, aragonite, and ferrihydrite. Ferrihydrite was included based on solid-phase soil analyses that indicated iron oxides are abundant at the site (3.21% by whole rock analysis, Geosyntec, 2022a). While a mixture of different iron oxides and oxyhydroxides are commonly found in aquifers due to variations in crystallinity, crystal size, solid solution, and crystallization kinetics, ferrihydrite was the only iron oxide included in the model for simplicity.

Adsorption/Desorption

Adsorption and desorption of dissolved species to and from ferrihydrite surfaces was modeled using the non-electrostatic hydrous ferric oxide (HFO) surface complexation model developed by Dzombak and Morel (1990) and included in the MINTEQ.V4 database. Other mineral surfaces were not included in the model because their contribution to As adsorption is assumed to be significantly less than that of iron oxides based on the abundance of iron-bearing minerals in site soil and the strong affinity of As to adsorption on iron oxides. This approach is conservative for evaluating attenuation. The surface complexation model describes adsorption to HFO using two surface sites (strong and weak). The concentration of surface sites was dynamically linked to the concentration of ferrihydrite using a strong site density of 0.005 moles per mole (mol/mol) iron and a weak site density 0.2 mol/mol iron (Dzombak and Morel, 1990).

Redox Reactions

Groundwater monitoring data collected at AP-1 indicates that the average field oxidation-reduction potential (ORP) for compliance monitoring and horizontal delineation

monitoring wells is 41.4 millivolts (mV) (ranging from -130.7 mV to 484.0 mV between 2016 and 2022). The average field ORP for deeper vertical delineation wells is -35.2 mV (ranging from -274.2 mV to 413.1 mV between 2016 and 2022). Equilibrium speciation modeling indicates that As is present as As(V) in the forms of $H_2AsO_4^-$ and $HAsO_4^{2-}$ (Geosyntec, 2022a). Arsenic (As) is a redox-active species and can exist in multiple oxidations states (e.g., As(V), As(III), As(-III)); however, generally positive ORP values in the alluvium and residuum and a lack of organic carbon or other reductants such as sulfide support the assumption that As(V) is the dominant species of As used in the model system. Aquifer matrix samples collected in the vicinity of HGWC-13 contained less than 0.07% total organic carbon, and dissolved organic carbon (DOC) measured in groundwater from HGWC-13 was below the laboratory analytical detection limit (Geosyntec, 2022a). Similarly, total sulfide was not detected in any of the eight aquifer matrix samples collected at AP-1, and sulfide in groundwater from HGWC-13 were below detection limits (Geosyntec, 2022a). Redox transformations between As(V) and As(III) were assumed to be kinetically controlled, and due to the lack of reductants, arsenate and arsenite were decoupled from redox equilibrium (Rawson et. al., 2016; Wallis et.al., 2010).

4.1.2 Initial Geochemical Conditions

This section describes the initial geochemical conditions and assumptions related to using Site data in the reactive transport model. The initial groundwater composition for each area of the model domain discussed below is presented in **Table 2**.

Groundwater and Recharge Composition

Groundwater monitoring results from the September 2020 semiannual sampling event (Geosyntec, 2022a) were used to define initial groundwater composition within the model domain. Data from the September 2020 semiannual groundwater sampling event was used because the dataset is more complete than datasets from more recent sampling events; results from the September 2020 sampling event are consistent with results from sampling events performed in 2022.

Three areas with distinct initial groundwater compositions were defined:

The plume (Plume A, **Figure 7**) was defined within Layer 3 (Alluvium) based on an iso-concentration contour equal to the GWPS (0.01 mg/L) drawn using September 2020 groundwater monitoring data (**Appendix A**). Note that concentrations from September 2020 are consistent with data from 2022 (F**igure 1**). The initial groundwater composition

within the plume area was based on groundwater monitoring results at HGWC-13. Monitoring well HGWC-13 is screened within Layer 3.

In Layers 5 through 6 model cells representing unimpacted subsurface materials were assigned an initial groundwater composition based on groundwater monitoring results at vertical delineation well MW-24D. Monitoring well MW-24D is screened within Layer 6 (un-weathered bedrock).

In Layers 1 through 4, the initial groundwater composition of model cells outside the plume was defined based on groundwater monitoring results at downgradient delineation well MW-19. Monitoring well MW-19 is screened within Layer 3 (alluvium).

Values for the following constituents were used to define the initial groundwater compositions within the model: pH, pe (reduction potential), and molar concentrations of dissolved oxygen, As (III and V), boron, calcium, chloride, fluoride, sulfate (represented in PHREEQC as sulfur), barium, bicarbonate (represented in PHREEQC as C(4)), magnesium, potassium, sodium, iron (II and III), and manganese (II and III). pe was calculated from measured ORP values using a reference electrode correction (+200 millivolts (mV)) and then converting Eh to pe. Bicarbonate was calculated from measured total alkalinity results assuming alkalinity is entirely attributed to bicarbonate. If an analyte was not detected at the laboratory reporting limit, the initial concentration was assumed to be zero.

To ensure that the initial groundwater composition was electrochemically neutral (i.e., charge-balanced), the geochemical composition of each source of groundwater, along with the mineralogy and adsorption parameters described below, was input into PHREEQC and equilibrated using sodium or chloride to balance the charge of each solution. The results of this speciation calculation was used as the initial groundwater concentration for the transport model.

The initial concentration of As in groundwater was assumed to be highest at HGWC-13 (0.39 mg/L), where As exceeded the GWPS in September 2020, and decrease radially in accordance with the results of the September 2020 semiannual sampling event (**Appendix A**). To represent the groundwater As plume, initial dissolved As concentrations of 0.39 mg/L (5.21E06 mols per liter [mol/L]) and 0.01 mg/L (1.3E07 mol/L) were assigned to areas within Layer 3 (Plume A in **Figure 7**). The plume was assumed to extend into the inner edge of the pond dike. The concentration of As in groundwater upgradient of HGWC-13 is unknown, and therefore, the As plume was not extended farther upgradient. The concentration of As outside of the plume is assumed to be 0 (as is consistent with

non-detections in downgradient groundwater monitoring wells). As (III) concentrations were also defined as 0 outside of the plume footprint and 2.5E-11 mol/L within the plume (determined from PHREEQC speciation calculations). The sensitivity of the model to the initial As plume size was evaluated as part of the sensitivity analysis (**Section 4.3.3**).

Mineralogy

Initial concentrations of ferrihydrite, barite, gypsum, and calcite were defined based on groundwater monitoring results and results of solid phase characterization of site soil (Geosyntec, 2022a). Barite is supersaturated in groundwater at HGWC-13 based on geochemical equilibrium modeling using PHREEQC (see above). Inclusion of calcite was necessary to achieve realistic pH buffering capacity of the groundwater. Initial concentrations of barite, gypsum, and calcite were defined as 0.5 wt% (equivalent to 4.8E-02 mol/L_{bulk} gypsum and 8.0E-02 mol/L_{bulk} calcite) and 1 wt% (equivalent to 7.1E-02 mol/L_{bulk} barite, **Table 2**), approximately the detection limit of the XRD analysis performed on site soil samples. These reactive minerals may occupy very small percentages of the overall soil matrix and are not detected with XRD but are geochemically important within the aquifer system. Aragonite was also included in the model based on PHREEQC SI, but an initial concentration was not defined.

The initial concentration of ferrihydrite varied within the model domain. Before initiating the transport model, PHT3D equilibrates the surface sites (described below) with groundwater to generate the initial concentrations of adsorbed species. Therefore, the initial concentration of ferrihydrite determines the initial concentration of sorbed As in the model system. Two areas with discrete ferrihydrite concentrations were defined: 1) the area within the groundwater As plume (Layer 3), and 2) the area outside of the groundwater As plume (Layers 1 through 6). The initial concentration of ferrihydrite assigned to each area was based on results of solid phase analyses performed on site soils and professional judgement.

The initial concentration of ferrihydrite was calibrated based on the mobile fraction of As determined from SEP experiments performed on AP-1 site soils in the vicinity of HGWC-13. SEPs are chemical extractions used to remove metals from specific solid phases and use progressively stronger reagents to mobilize metals from increasingly stable phases (Geosyntec, 2022a). SEPs are standard practice for evaluating attenuation of inorganic contaminants (USEPA, 2015). Step 1 (exchangeable phase) and Step 2 (carbonate phase) of the procedure represent the fraction of As that may be reversibly sorbed or desorbed onto solid phases. This approach assumes that As measured in later steps of the SEP represents more recalcitrant solid-phase species (e.g., co-precipitated, incorporated) that

are unlikely to mobilize to groundwater under anticipated post-closure aquifer conditions. The sum of the As associated with Steps 1 and 2 was used as the amount of adsorbed As used to determine the initial concentration of ferrihydrite. As was not detected above laboratory detection limits during Steps 1 and 2 of the SEP, and therefore, one half of the analytical method detection limit was used as the As concentration of each step (0.47 mg/kg). The initial concentration of ferrihydrite within the groundwater As plume was defined as 5.2E-05 mol/L_{bulk}. This concentration represents the amount of ferrihydrite needed to achieve the measured concentration of adsorbed As (0.47 mg/kg) when ferrihydrite is modeled to be in equilibrium with groundwater within the plume area using PHREEQC.

Although most of the As measured in the SEP was associated with Step 3 (non-crystalline phase) and Step 4 (metal hydroxide phase), these phases, which are amorphous and crystalline metal oxides and oxyhydroxides, are considered to be relativity stable under the expected AP-1 post-closure geochemical conditions (i.e., slightly positive to slightly negative average ORP values and circum-neutral pH). As associated with these phases would most likely only be released upon mineral dissolution under low pH and/or reducing conditions or some other change in pH/redox conditions. While clay minerals may provide some surface sites for additional attenuation capacity at AP-1 (Geosyntec, 2022a), the model takes a conservative approach and only includes adsorption to iron oxides.

The initial concentration of ferrihydrite outside of the groundwater As plume was defined as 0.372 mol/L_{bulk}, based on x-ray fluorescence spectroscopy (whole-rock analysis) of soil at boring DPT04XRF (Geosyntec, 2022a). X-ray fluorescence is a standard analytical method for determining mineralogy when evaluating attenuation of inorganic contaminants (USEPA, 2015). This ferrihydrite concentration assumes that the measured solid-phase iron concentration at boring DPT04XRF (2.41 wt% by whole-rock analysis) is entirely represented by ferrihydrite. This concentration represents the upper end of expected ferrihydrite concentrations within the aquifer. The initial ferrihydrite concentration outside of the groundwater As plume is evaluated further in the sensitivity analysis (**Section 4.3.3**).

4.1.3 Boundary Conditions

Two transport boundary conditions were defined: i) a general head boundary (GHB) with specified concentration which represents the inflow of upgradient groundwater, and ii) a recharge boundary condition with specified concentration representing infiltration from precipitation.

The groundwater composition of the general head boundary was defined based on groundwater monitoring results at HGWA-1, a background monitoring well upgradient of AP-1. The geochemical composition of recharge (precipitation) was defined using 2020 precipitation-weighted mean concentrations reported by the National Atmospheric Deposition Program for the monitoring site in Williamson, Georgia, approximately 90 miles southeast of AP-1 (National Atmospheric Deposition Program, 2021). Model parameters are shown on **Table 2**.

4.2 Model Scenarios

The reactive transport model described above was used to evaluate the feasibility of two different remediation scenarios under post-closure conditions: i) monitored natural attenuation (MNA) and ii) in-situ geochemical injections followed by performance monitoring.

Both model scenarios assume that As originated only from AP-1, and that the source of As inside AP-1 will be removed as part of the closure of AP-1. Therefore, additional loading of As from other sources was not included in the model. Both scenarios also use concentrations from September 2020 as initial or starting concentrations for the beginning of each post-closure scenario and assume that concentrations from September 2020 are representative of conditions immediately following closure of AP-1.

4.2.1 MNA Scenario

Under the MNA scenario, the reactive transport model was run for 80 years under post-closure conditions. The As attenuation mechanism is adsorption onto naturally occurring ferrihydrite surfaces as described above. Additional manipulations of groundwater gradient or geochemistry were not performed under this scenario.

4.2.2 Injection Scenario

Under the injection scenario, boundary cells representing groundwater injection wells were inserted into the reactive transport model to simulate injection of an iron amendment that would promote the attenuation of As via adsorption to iron oxide mineral surfaces, effectively accelerating ongoing natural attenuation processes through the precipitation of additional reactive surface sites. For the injection scenario, aqueous ferric iron (Fe(III)) was selected as the injectate for the purposes of this model to evaluate the feasibility and to provide a proof of concept for this remedial approach. Fe(III) was selected because i) injection of a solid amendment (e.g., ferrihydrite) is not possible using PHT3D and ii) it does not require a change in oxidation state to precipitate. If geochemical injections are

selected as a component of the remedy, the results of treatability and pilot testing will be used to evaluate and select an injectate as part of the remedy design process.

Three rounds of injection were simulated with a period of performance monitoring following each round:

Simulated Event	Duration (days)	Cumulative Days	Cumulative Years
Injection Round #1	20	1-20	< 1
Monitoring (no injection)	365	21-385	1
Injection Round #2	20	386-405	1.1
Monitoring (no injection)	365	406-770	2.1
Injection Round #3	20	771-790	2.2
Monitoring (no injection)	1035	791-1825	5

Note that during the simulated performance monitoring periods, natural attenuation continues to occur as dissolved As is transported into the injection area and adsorbs to iron mineral surfaces.

The injection solution consisted of 0.1 mol/L Fe(III). The pH was defined as 6.5 s.u., and the pe was defined as 13. The injection rate was defined as 0.5 gallons per minute (gpm). Injections were limited to Layer 3 (alluvium), in which the As plume is present. PHT3D simulates injection across the entire layer thickness.

Note that the primary purpose of the injection model is to assess the viability and feasibility of geochemical injections for As remediation. Therefore, the simulated injection wells, the parameters defined in the injection model (e.g., number of wells, flow rate, injection regime, and injectate composition), and simulated results should be considered preliminary and "proof of concept". If geochemical injections are selected as a component of the remedy, the results of treatability and pilot testing will be used to evaluate and select the actual injectate, number of injection wells, injection regime and injection rate as part of the remedy design process.

4.3 Model Results

4.3.1 MNA Model Results

A time series of modeled groundwater As concentrations at HGWC-13 under the MNA model scenario is shown in **Figure 8**. Modeled As concentrations are predicted to decrease to below the GWPS at HGWC-13 after approximately 20 years of MNA.

In the core of the plume, there is an initial period of As desorption from the solid phase, during which dissolved As concentrations increase to levels above the initial concentration. This As desorption is likely due to flushing through the model system (simulating pore water replacement) and equilibrating with As-bearing aquifer solids. As desorption may also be related to the relatively higher pH within the initial plume area (7.34 standard units [s.u.]) (discussed further in model sensitivity analysis **Section 4.3.3**). Predicted groundwater As concentrations within the plume increase up to 1.85 mg/L (2.47E-05 mol/L). This desorption is not apparent in **Figure 8**, because of the location of HGWC-13 at the edge of the plume footprint.

Following this initial increase, the modeled groundwater plume steadily decreases in size, and As concentrations decrease within the plume area indicating that the plume is naturally attenuating. During the model simulation period, the plume is predicted to remain relatively stationary and does not migrate downgradient beyond its initial plume extent.

The model predicts that the plume is completely attenuated to concentrations less than the GWPS after approximately 60 years of MNA. The time to achieve GWPS is primarily driven by initial As desorption from the aquifer solids and the aquifer solids acting as a secondary source of As to groundwater.

4.3.2 Injection Model Results

A time series of modeled groundwater As concentrations at HGWC-13 under the injection scenario is shown in **Figure 8**. At HGWC-13, the modeled groundwater As concentration decreases significantly during the first round of injections. As concentrations are predicted to rebound slightly above the GWPS after the second round, but again drop and remain below the GWPS after the third round of injections. Overall, at the compliance well HGWC-13, As concentrations are simulated to fall below the GWPS within 2.5 years after injections are simulated to commence (including one year of performance monitoring in between the first two rounds of injection). This remedial time frame is significantly faster than that predicted by MNA alone.

Dissolved As concentrations in locations in between injection wells increase during the first round of injections (likely due to desorption discussed in **Section 4.3.1** and in the sensitivity analysis **Section 4.3.3**). However, following each subsequent round of injections, the modeled groundwater plume progressively decreases in size and As concentrations.

Following the third round of injection, the model is run for ~2.8 years under performance monitoring conditions, during which the plume continues to decrease in size as As is attenuated via adsorption to ferrihydrite. A smaller plume with As concentrations greater than the GWPS is predicted to remain within the footprint of the initial plume, after 5 years. The smaller plume is predicted to not migrate and to remain within the original plume footprint.

The mass of dissolved As was calculated for both the MNA and injection model scenarios to compare the amount of mass reduction achieved with each remedial technology. The mass of dissolved As was reduced by approximately 87% after three rounds of injection and 2.8 years of performance monitoring (total of 5 years of remediation). In comparison, the MNA approach required approximately 30 years to achieve a similar reduction in dissolved mass (approximately 89% mass reduction).

Overall, this scenario demonstrates the feasibility of the injection approach for accelerating As attenuation in comparison to an MNA scenario.

4.3.3 Model Sensitivity Analysis

A sensitivity analysis was performed on three model parameters: 1) the size and concentration of the initial groundwater As plume, 2) the attenuation capacity of the aquifer (i.e., the concentration of ferrihydrite surface sites) outside of the initial plume footprint, and 3) the initial pH within the plume footprint. The results of the sensitivity analysis are discussed below.

Initial Groundwater Plume

Within the reactive transport model, the size and concentration of the initial groundwater As plume determines the total mass of As in the system. Modeled ferrihydrite surface sites are equilibrated with the groundwater at timestep 0 (before transport steps commence). This step ‘pre-loads’ ferrihydrite surfaces with As. As described in **Section 4.1**, the initial concentration of ferrihydrite within the plume area was calibrated so that the modeled As concentrations match the As concentrations measured in SEP experiments performed on aquifer matrix materials in the vicinity of the exceedance well

HGWC-13. Therefore, a larger initial groundwater As plume or an initial groundwater plume with higher As concentrations results in both a larger mass of dissolved As in groundwater and a larger mass of As adsorbed on ferrihydrite surfaces. Although the dissolved As groundwater plume is delineated, the precise dimensions of the plume requires further characterization during the pre-design phase.

To evaluate the sensitivity of the reactive transport model to the size and concentration of the initial groundwater As plume, the model was run under the MNA scenario described in **Section 4.3.1** using a 'limited footprint' plume (Plume B in **Figure 7**). Under the limited footprint scenario, the groundwater As concentration exceeding the GWPS is assumed to be limited to the area immediately around HGWC-13. As concentrations outside of the limited plume footprint are assumed to be 0. The limited footprint plume scenario represents a lower estimate of initial dissolved and adsorbed, solid-associated As mass within the system. In contrast, the plume described in **Section 4.3.1** represents a more conservative estimate of dissolved and solid-associated As mass within the system. Both groundwater plume scenarios are consistent with the September 2020 groundwater monitoring results.

A time series of modeled groundwater As concentrations at HGWC-13 under the MNA scenario using the limited footprint plume is shown in **Figure 9**. In the limited footprint plume scenario, the groundwater As concentration at HGWC-13 is predicted to decrease below the GWPS within approximately 15 years, slightly faster than the 20 years predicted for HGWC-13 using the larger plume configuration. The limited footprint plume, however, is predicted to be completely attenuated below the GWPS within approximately 22.5 years, substantially faster than the 60 years attenuation simulated for the plume considered in **Section 4.3.1**. These results reflect the relatively high sensitivity of the reactive transport model to the size and concentration of the initial groundwater As plume and emphasize the importance of further plume characterization as part of the design and implementation of any groundwater remedy.

Attenuation Capacity

The attenuation capacity of the aquifer determines the extent to which dissolved As in groundwater can be sequestered via adsorption to mineral surfaces. Higher attenuation capacities can limit groundwater plume migration because more surface sites are available to adsorb As from the groundwater. Lower attenuation capacities may result in substantial plume migration because surface sites quickly become saturated with As, allowing dissolved As to be transported downgradient.

The attenuation capacity of the aquifer is represented in the model by the concentration of ferrihydrite sites, which is defined as a function of ferrihydrite concentration. In realty, numerous iron oxide phases with a range of attenuation capacities are likely present in site soil. The concentration of acid-extractable solid-phase iron and whole rock analysis (WRA) of soil samples collected from boring DPT04XRF provide data on the iron content of site soil within the vicinity of exceedance well HGWC-13. However, the precise composition of soil iron is unknown. Additionally, heterogeneities in soil iron concentration are likely to exist across the site, and many other soil properties affect the degree to which As adsorbs to naturally occurring iron oxides (e.g., surface area, mineral impurities).

To evaluate the sensitivity of the reactive transport model to the attenuation capacity of soil outside the initial groundwater plume footprint, two model scenarios were run. The first model scenario is identical to the one described in **Section 4.2.1** and represents an upper estimate of site attenuation capacity by assuming that the initial ferrihydrite concentration is equal to 100% of iron measured by WRA (0.372 mol/L_{bulk}). The second model scenario is similar to the first, except the initial ferrihydrite concentration outside of the plume area is assumed to be two orders of magnitude lower (0.00372 mol/L_{bulk}). This scenario represents a lower estimate of ferrihydrite soil concentration.

Time series of modeled groundwater As concentration at HGWC-13 under the MNA scenario with a high and low soil attenuation capacity outside of the larger plume area is shown in **Figure 9**. Groundwater As concentrations at HGWC-13 are predicted to decrease below the GWPS within approximately 45 years, more than twice as long as the higher attenuation capacity scenario. After 50 years, groundwater As concentrations have decreased within the plume; however, the size of the plume remains approximately the same, and the edge of the plume has migrated approximately 70 feet downgradient (to the southeast) beyond its initial boundaries. The plume however remains on-site. These results demonstrate that the remedial time frame is sensitive to the attenuation capacity outside the plume area, particularly at locations downgradient of HGWC-13.

Initial pH

Because As exists as a negatively charged oxyanion in the conditions present in AP-1 groundwater (i.e., $H_2AsO_4^-$ or $HAsO_4^{2-}$, Geosyntec, 2022a), pH plays a critical role in the amount of As adsorption onto ferrihydrite surfaces. Consistent with the initial geochemical conditions described in **Section 4.1.1**, the initial pH of model cells within the plume footprint was defined as the pH measured in HGWC-13 in September 2020 (7.34 s.u.), and the pH of model cells outside of the plume footprint was defined as the

pH measured in downgradient delineation well MW-19 (6.41 s.u.). This range of pH values observed inside and outside the plume straddles a value known as the point of zero charge (PZC) for ferrihydrite. The PZC is a pH value at which the charge of a mineral surface is equal to zero. At pH values higher than the PZC, the mineral surface maintains a negative net charge due to the abundance of hydroxide ions (OH^-), while at pH values lower than the PZC, the mineral surface is positively charged due to the abundance of protons (H^+) and protonation of the surface. This suggests that As will more strongly adsorb to surfaces in conditions with pH values less than the PZC and potentially desorb from surfaces when the pH is greater than the PZC. In the reactive transport model, the PZC for ferrihydrite defined in the database is 7.29 s.u. (Dzombak and Morel, 1990), which is less than the pH at HGWC-13, the plume area. This PZC is consistent with other published PZC values for ferrihydrite, which range from 7.3 to 8.4. The PZC for other types of iron oxide minerals generally ranges from 5.6 to 9 (Kosmulski, 2018).

To evaluate the sensitivity of the initial pH in the plume footprint, the model was run with the initial pH within the larger plume footprint (Plume A, **Figure 7**) equal to the pH in the downgradient well (6.41 s.u.). All other geochemical parameters remained the same, and the HGWC-13 water chemistry with the lower pH was input into PHREEQC with chloride used to balance the charge of the solution. The model results show that groundwater As concentrations do not increase above the initial input value of 0.39 mg/L and that significant desorption does not occur. As concentrations at HGWC-13 are predicted to decrease to below the GWPS within 15 years (**Figure 9**). This result however does not significantly change the overall plume MNA remedial time frame: As concentrations in groundwater are not predicted to decrease to below GWPS until after 40 years of MNA.

5.0 REACTIVE TRANSPORT MODEL: MOLYBDENUM

A reactive transport model was developed for the area around monitoring well HGWC-8, where groundwater Mo concentrations currently exceed the GWPS. The objective of the reactive transport model is to evaluate the feasibility of MNA and geochemical injections to achieve the GWPS, under predicted post-closure conditions. The relative remedial time frame to reach the GWPS can be used to compare remedial alternatives including MNA and geochemical injections. For the purposes of this model, it was assumed that under post-closure conditions, the source of Mo within the footprint of AP-1 will be removed due to closure by removal activities, and the remaining Mo will be limited to dissolved Mo and Mo that had previously adsorbed to the aquifer matrix materials, in the immediate vicinity of HGWC-8.

5.1 Model Setup

The reactive transport model utilizes the three-dimensional (3D) reactive multicomponent transport code PHT3D (Prommer and Post, 2010). PHT3D incorporates the programs MT3DMS (Zheng and Wang, 1999) for 3D advective-dispersive multi-species transport modeling and PHREEQC (Parkhust and Appelo, 2000) for geochemical reaction modeling. PHT3D uses MODFLOW (Harbaugh, 2005) to provide the groundwater flow field for transport simulations.

Transport model construction and parameterization was performed in the Processing MODFLOW pre- and post-processing software package (Simcore, 2012). Equilibrium constants from the MINTEQ.V4 thermodynamic database (USEPA, 1999) were used for the Mo model.

5.1.1 Geochemical Properties

This section describes the key geochemical reactions included in the reactive transport model: aqueous complexation, mineral precipitation & dissolution, and adsorption/desorption to mineral surfaces.

Aqueous Complexation

At each time step, PHT3D uses PHREEQC to calculate equilibrium aqueous speciation. The MINTEQ.V4 database of equilibrium constants was used for aqueous speciation

calculations. Sodium was defined as the charge balancing ion to obtain an electrochemically neutral solution at the initial time step.

Mineral Precipitation/Dissolution

At each time step, minerals specified within the model setup are allowed to precipitate or dissolve to achieve equilibrium with groundwater. To identify the relevant minerals, PHREEQC was used to calculate mineral SI using the results of the September 2020 semiannual groundwater sampling event for monitoring wells HGWC-8, HGWC-1, MW-27D, and MW-20. Data from the September 2020 semiannual groundwater sampling event was used because the dataset is more comprehensive than datasets from more recent sampling events; results from the September 2020 sampling event are consistent with results from sampling events performed in 2022.

Barite was determined to be supersaturated (SI > 0), and anhydrite, calcite, and dolomite were determined to be close to equilibrium (SI between -1.0 and 0). Therefore, the following minerals were set to precipitate/dissolve to achieve equilibrium with groundwater in PHT3D (i.e., SI = 0): anhydrite, barite, calcite, dolomite, and ferrihydrite. Ferrihydrite was included based on solid-phase soil analyses that indicated iron oxides are abundant at the site (Geosyntec, 2022a). While a mixture of different iron oxides and oxyhydroxides are commonly found in aquifers due to variations in crystallinity, crystal size, solid solution, and crystallization kinetics, ferrihydrite was the only iron oxide included in the model for simplicity.

Adsorption/Desorption

Adsorption and desorption of dissolved species to and from ferrihydrite surfaces were modeled using the non-electrostatic HFO surface complexation model developed by Dzombak and Morel (1990) and included in the MINTEQ.V4 database. Other mineral surfaces were not included in the model because their contribution to Mo adsorption is assumed to be significantly less than that of iron oxides based on the abundance of iron-bearing minerals in site soil and the strong affinity of Mo to adsorption on iron oxides (Geosyntec, 2022a). The surface complexation model describes adsorption to HFO using two surface sites (strong and weak). The concentration of surface sites was dynamically linked to the concentration of ferrihydrite using a strong site density of 0.005 moles per mole (mol/mol) iron and a weak site density of 0.2 mol/mol iron (Dzombak and Morel, 1990).

5.1.2 Initial Geochemical Conditions

This section describes the model parameters for groundwater composition and mineralogy used to define the initial geochemical conditions of the model domain.

Groundwater Composition

Groundwater monitoring results from the September 2020 semiannual sampling event (Geosyntec, 2022a) were used to define initial groundwater composition within the model domain. Data from the September 2020 semiannual groundwater sampling event was used because the dataset is more complete than datasets from more recent sampling events; results from the September 2020 sampling event are consistent with results from sampling events performed in 2022.

Three areas with distinct initial groundwater compositions were defined:

The plume area (Plume A in **Figure 10**) was defined within Layer 2 (alluvium) based on an iso-concentration contour equal to the GWPS (0.1 mg/L) drawn using September 2020 groundwater monitoring data (**Appendix A**). The initial groundwater composition within the plume area was based on groundwater monitoring results at HGWC-8. Monitoring well HGWC-8 is screened within Layer 2.

The non-impacted alluvium/residuum in Layer 3 (beneath the plume in Layer 2) was defined based on groundwater monitoring results at downgradient delineation well MW-20. Layer 3 was assumed to be non-impacted based on the co-located vertical delineation well MW-27D (screened in bedrock), as no well is screened within the residuum in the immediate vicinity of HGWC-8. Since no groundwater monitoring wells within the vicinity of HGWC-8 are screened in Layer 3, MW-20 (being the closest non-impacted and non-bedrock well) was used to define layer 3.

The non-impacted area beneath the plume in Layer 4 (weathered bedrock/PWR) and Layer 5 (un-weathered bedrock) was defined based on the areal extent of the plume area described above. The initial groundwater composition within this area was based on groundwater monitoring results at vertical delineation well MW-27D (**Figure 2** and **Appendix A**). Groundwater Mo concentrations at well MW-27D do not exceed the GWPS. Monitoring well MW-27D is screened within Layer 5.

The area outside of the plume area was defined within Layers 1 through 5 and encompasses the entire groundwater model domain, except for the areas described above. The initial groundwater composition within this area was based on groundwater

monitoring results at downgradient delineation well MW-20. Monitoring well MW-20 is screened within Layer 2 (alluvium).

Values for the following constituents were used to define the initial groundwater and recharge compositions within the model: pH, pe, and molar concentrations of dissolved oxygen, molybdenum, boron, calcium, chloride, fluoride, sulfate (represented in PHREEQC as sulfur), barium, bicarbonate (represented in PHREEQC as C(4)), magnesium, potassium, sodium, iron(II), and manganese(II). pe was calculated from measured oxidation-reduction potential values using the Nernst equation. Bicarbonate was calculated from measured total alkalinity results assuming alkalinity is entirely attributed to bicarbonate at circumneutral pH, consistent with pH measurements of site groundwater. Results for total iron and manganese were used as the initial concentration of iron(II) and manganese(II), respectively, assuming that the concentrations of other insoluble or minor oxidation states (i.e., iron(III), manganese(III,IV)) in groundwater are negligible. If an analyte was not detected at the laboratory reporting limit, the initial concentration was assumed to be zero.

To ensure that the initial groundwater composition was electrochemically neutral (i.e., charge-balanced), the geochemical composition of each water, along with the mineralogy and adsorption parameters described below, was input into PHREEQC and equilibrated using sodium or chloride to balance the charge of each solution. The charge-balanced solution composition was used as the initial groundwater concentration for the transport model. The initial groundwater composition for each area of the model domain is presented in **Table 3**.

The initial concentration of Mo in groundwater was assumed to be highest at HGWC-8 (0.43 mg/L, equivalent to 4.5 µM), where Mo exceeded the GWPS in September 2020, and decrease radially, consistent with the plume shown in **Figure 2**. To represent the groundwater Mo plume, initial Mo concentrations of 1.0, 2.0, 3.0, 4.0, and 4.5 µM were prescribed to areas within Layer 2 (Plume A in **Figure 10**). The plume was assumed to extend to the inner edge of the pond dike. The concentration of Mo in groundwater upgradient of HGWC-8 remains unknown; therefore, the Mo plume was not extended further upgradient. It is assumed that Mo originated only from AP-1, and that the source of Mo inside AP-1 will be removed as part of the closure of AP-1. Therefore, additional loading of Mo from other sources was not included in the model. The sensitivity of the model to the size and concentration of the Mo plume was evaluated during the sensitivity analysis (**Section 5.3.3**).

Mineralogy

Initial concentrations of ferrihydrite, barite, and calcite were defined based on groundwater monitoring results and results of solid phase characterization of site soil (Geosyntec, 2022a). Barite is supersaturated in groundwater at HGWC-8 based on geochemical equilibrium modeling using PHREEQC. Inclusion of calcite was necessary to achieve realistic pH buffering capacity of the groundwater. Initial concentrations of barite and calcite were defined as 0.5 wt% (equivalent to 0.04 mol/L_{bulk} barite and 0.08 mol/L_{bulk} calcite, **Table 3**), approximately the detection limit of the XRD analysis performed on site soil samples.

The initial concentration of ferrihydrite varied within the model domain. Before initiating the transport model, PHT3D equilibrates the surface sites (described below) with groundwater to generate the initial concentrations of adsorbed species. Therefore, the initial concentration of ferrihydrite determines the initial concentration of solid-phase Mo in the model system, an important determinant of plume longevity. Two areas with discrete ferrihydrite concentrations were defined: i) the area within the groundwater Mo plume (Layer 2), and ii) the area outside of the groundwater Mo plume (Layers 1 through 5). The initial concentration of ferrihydrite assigned to each area was based on results of solid phase analyses performed on site soils.

The initial concentration of ferrihydrite within the groundwater Mo plume was calibrated based on the mobile fraction of Mo determined from SEP experiments performed on AP-1 site soils in the vicinity of HGWC-8. SEPs are chemical extractions used to remove metals from specific solid phases and use progressively stronger reagents to mobilize metals from increasingly stable phases (Geosyntec, 2022a). SEPs are standard practice for evaluating attenuation of inorganic contaminants (USEPA, 2015). Step 1 (exchangeable phase) and Step 2 (carbonate phase) of the procedure represent the fraction of Mo that may be reversibly adsorbed or desorbed onto solid phases. This approach assumes that Mo measured in later steps of the SEP represents more recalcitrant solid-phase species (e.g., co-precipitated, incorporated) that are unlikely to mobilize to groundwater under anticipated post-closure aquifer conditions. Molybdenum was not detected during Steps 1 and 2 of the SEP, and therefore, one half of the analytical method detection limit was used as the Mo concentration of each step, based on professional judgement, for a total adsorbed Mo concentration of 0.36 mg/kg (Geosyntec, 2022a). The initial concentration of ferrihydrite within the groundwater Mo plume was defined as 0.047 mol/L_{bulk}. This concentration represents the amount of ferrihydrite needed to achieve the defined concentration of adsorbed Mo when ferrihydrite is modeled to be in equilibrium with groundwater within the plume area using PHREEQC.

The initial concentration of ferrihydrite outside of the groundwater Mo plume was defined as 0.574 mol/L_{bulk}, based on x-ray fluorescence spectroscopy (whole-rock analysis) of soil at boring DPT02 (Geosyntec, 2022a). X-ray fluorescence is a standard analytical method for determining mineralogy when evaluating attenuation of inorganic contaminants (USEPA, 2015). This ferrihydrite concentration assumes that the measured solid-phase iron concentration at boring DPT02 (3.72 wt% by whole-rock analysis) is entirely represented by ferrihydrite. This concentration represents the upper end of expected ferrihydrite concentrations within the aquifer and falls within the range of solid-phase iron concentrations measured at the site (2.41% to 7.24% by whole-rock analysis) (Geosyntec, 2022a). The initial ferrihydrite concentration outside of the groundwater Mo plume is evaluated further in the sensitivity analysis (**Section 5.3.3**). While clay minerals may provide some surface sites for additional attenuation capacity at AP-1 (Geosyntec, 2022a), the model takes a conservative approach and only includes adsorption to iron oxides.

5.1.3 Boundary Conditions

Two reactive transport boundary conditions were defined: i) a general head boundary (GHB) with specified concentration which represents the inflow of upgradient groundwater, and ii) a recharge boundary condition with specified concentration representing infiltration from precipitation.

The groundwater composition of the general head boundary was defined based on groundwater monitoring results at HGWA-1, a background monitoring well upgradient of AP-1. The geochemical composition of recharge (precipitation) was defined using 2020 precipitation-weighted mean concentrations reported by the National Atmospheric Deposition Program for the monitoring site in Williamson, Georgia, approximately 90 miles southeast of AP-1 (National Atmospheric Deposition Program, 2021). Model parameters are shown on **Table 3**.

5.2 Model Scenarios

The reactive transport model described above was used to evaluate the feasibility of two different remediation scenarios under post-closure conditions: i) monitored natural attenuation (MNA) and ii) in-situ geochemical injections followed by performance monitoring.

Both model scenarios assume that Mo originated only from AP-1, and that the source of Mo inside AP-1 will be removed as part of the closure of AP-1. Therefore, additional loading of Mo from other sources was not included in the models. Both scenarios also

use concentrations from September 2020 as initial or starting concentrations for the beginning of each post-closure scenario and assume that concentrations from September 2020 are representative of conditions immediately following closure of AP-1.

5.2.1 MNA Scenario

Under the MNA scenario, the reactive transport model was run for 80 years under ambient post-closure conditions. The Mo attenuation mechanism is adsorption onto naturally occurring ferrihydrite surfaces as described in **Section 5.1.1**. Additional manipulations of groundwater gradient or geochemistry were not performed under this scenario.

5.2.2 Injection Scenario

Under the injection scenario, boundary cells representing groundwater injection wells were added to the reactive transport model to simulate injection of an iron amendment that would promote attenuation of Mo via adsorption to iron oxide mineral surfaces, effectively accelerating ongoing natural attenuation processes. For the injection scenario, aqueous ferric iron (Fe(III)) was selected as the injectate for the purposes of this model to evaluate the feasibility and to provide a "proof of concept" for this remedial approach. Fe(III) was selected because 1) injection of a solid amendment (e.g., ferrihydrite) is not possible using PHT3D, and 2) it does not require a change in oxidation state to precipitate.

Three rounds of injection were simulated with a period of performance monitoring after each round:

Event	Duration (days)	Cumulative Days	Cumulative Years
Injection Round #1	30	1-30	< 1
Monitoring (no injection)	365	31-395	1
Injection Round #2	30	396-425	1.1
Monitoring (no injection)	365	426-790	2.1
Injection Round #3	30	791-820	2.2
Monitoring (no injection)	1,005	821-1,825	5

Note that during the performance monitoring periods, natural attenuation continues to occur as dissolved Mo is transported into the injection area and adsorbs to iron mineral surfaces.

The injection solution consisted of 0.1 M Fe(III), and the pH and pe of the injection solution were defined as 7 and 13, respectively. The injection rate was defined as 1.0 gallon per minute (gpm). Injection wells were placed in the vicinity of the Mo plume and were inserted only into Layer 2 (Alluvium), the layer in which the groundwater Mo plume is located. Note that PHT3D simulates injection across the entire layer thickness. During each round of injection, all injection wells were simulated to operate simultaneously. Due to the large volume of solution injected during each round, the number of injection wells and the injection rate were selected to ensure that water table mounding did not exceed the ground surface (i.e., flooding).

Note that the primary purpose of the injection model is to assess the viability and feasibility of geochemical injections for Mo remediation. Therefore, the simulated injection wells, the parameters defined in the injection model (e.g., number of wells, flow rate, injection regime, and injectate composition), and the simulated results should be considered preliminary and "proof of concept". If geochemical injections are selected as a component of the remedy, the results of treatability and pilot testing will be used to evaluate and select the actual injectate, number of injection wells, injection regime and injection rate as part of the remedy design process.

5.3 Model Results

5.3.1 MNA Model Results

A time series of modeled groundwater Mo concentrations at HGWC-8 under the MNA model scenario is shown in **Figure 11**. Groundwater Mo concentration at HGWC-8 is predicted to decrease below the GWPS in approximately 65 years. This estimated remedial time frame is less than the >80-year time frame estimated for the entire plume due to the location of HGWC-8 in relation to the assumed groundwater Mo plume.

Model simulation results indicate that the groundwater plume steadily decreases in size and Mo concentration over time. However, a small groundwater plume that exceeds the GWPS is predicted to remain within the initial plume footprint (initial footprint shown in Plume A, **Figure 10**) after 80 years of MNA. The attenuation time is primarily driven by aquifer solids acting as a secondary source of Mo to groundwater; adsorbed Mo is mobilized to groundwater as background groundwater with a lower Mo concentration flows through the soil within the plume area. The modeled groundwater Mo plume is not predicted to migrate downgradient of the initial plume footprint.

5.3.2 Injection Model Results

A time series of modeled groundwater Mo concentrations at HGWC-8 under the injection model scenario is shown in **Figure 11**. The modeled groundwater Mo concentration at HGWC-8 decreases significantly in response to the first and third rounds of injection because HGWC-8 is within the radius of influence of a simulated injection well. The groundwater Mo concentration at HGWC-8 decreases below the GWPS after the third round of injections; the decrease in groundwater Mo concentration occurs in two stages due to changes in groundwater pH induced by the third round of injection. By the end of the simulation (5 years after the initiation of injections), the modeled Mo concentration at HGWC-8 is approximately 80% lower than the initial concentration. A smaller plume with Mo concentrations greater than the GWPS is predicted to remain within the footprint of the initial plume, after 5 years. The smaller plume is predicted to not migrate and to remain within the original plume footprint.

The mass of dissolved Mo was calculated for both the MNA and injection model scenarios to compare the amount of mass reduction achieved with each remedial technology. The mass of dissolved Mo was reduced by approximately 57% after three rounds of injection and 2.8 years of performance monitoring (total of 5 years of remediation). In comparison, the MNA approach required approximately 65 years to a achieve a similar reduction in dissolved mass (52%).

Overall, this scenario demonstrates the feasibility of the injection approach for accelerating Mo attenuation in comparison to an MNA scenario.

5.3.3 Model Sensitivity Analysis

A sensitivity analysis was performed on two model parameters: 1) the size and concentration of the initial groundwater Mo plume, and 2) the aquifer attenuation capacity (i.e., the concentration of ferrihydrite surface sites) outside the initial plume footprint. The results of the sensitivity analysis are discussed below.

Initial Groundwater Plume

Within the reactive transport model, the size and concentration of the initial groundwater Mo plume determines the total mass of Mo in the system. Modeled ferrihydrite surface sites are equilibrated with the groundwater before the transport steps commence, which ‘pre-loads’ ferrihydrite surface sites with Mo. Thus, an initial groundwater Mo plume with a larger footprint or higher Mo concentrations results in a larger mass of Mo both in groundwater and adsorbed on ferrihydrite surfaces. Although the dissolved Mo

groundwater plume is delineated, the precise dimensions of the plume requires further characterization during the pre-design phase.

To evaluate the sensitivity of the model to the size and concentration of the initial groundwater Mo plume, the model was run under the MNA scenario described in **Section 5.2.1** but using a 'limited footprint' plume (Plume B in **Figure 10**) instead of the original plume A configuration (Plume A in **Figure 10**). Under the limited footprint plume scenario, the groundwater Mo concentration is assumed to decline linearly between the exceedance and delineation wells. The limited footprint plume scenario represents a lower estimate of initial dissolved and solid-associated Mo mass within the system. In contrast, the contoured groundwater Mo plume scenario described in **Section 5.2.1** (Plume A in **Figure 10**) represents a more conservative estimate of dissolved and solid-associated Mo mass within the system.

A time series of modeled groundwater Mo concentration at HGWC-8 under the MNA scenario using the limited footprint plume is shown in **Figure 12**. Model results indicate that when using the limited footprint plume, the groundwater Mo concentration at HGWC-8 is predicted to decrease below the GWPS within approximately 20 years. This estimated remedial time frame is less than the 65-year remedial time frame estimated at HGWC-8 using the contoured groundwater Mo plume. These results reflect the high sensitivity of the reactive transport model to the size and concentration of the initial groundwater Mo plume and emphasize the importance of further plume characterization as part of the design and implementation of any groundwater remedy.

Attenuation Capacity

The attenuation capacity of the aquifer determines the extent to which dissolved Mo in groundwater can be sequestered via adsorption to mineral surfaces. Higher attenuation capacities inhibit the groundwater plume from migrating downgradient because there are more available surface sites on which Mo can adsorb. Lower attenuation capacities may result in substantial plume migration because surface sites quickly become saturated with Mo, allowing dissolved Mo to be transported downgradient.

The attenuation capacity of the aquifer is represented in the model by the concentration of ferrihydrite surface sites, which is defined as a function of ferrihydrite concentration. In reality, numerous iron oxide phases with a range of attenuation capacities are likely present in site soil. The concentration of acid-extractable solid-phase iron and WRA of soil samples collected from boring DPT02 provide data on the iron content of site soil within the vicinity of exceedance well HGWC-8. However, the precise composition of soil iron is unknown. Additionally, heterogeneities in soil iron concentration are likely to

exist across the site, and many other soil properties affect the degree to which Mo adsorbs to naturally occurring iron oxides (e.g., surface area, mineral impurities).

To evaluate the sensitivity of the model to the attenuation capacity of soil outside the initial groundwater plume footprint, two model scenarios were run. The first model scenario is identical to the one described in **Section 5.2.1** and represents an upper estimate of site attenuation capacity by assuming that the initial ferrihydrite concentration outside of the plume area is equal to 100% of iron measured by WRA (0.574 mol/L_{bulk}). The second model scenario is similar to the first, except the initial ferrihydrite concentration outside of the plume area is assumed to be the same as within the plume area (0.047 mol/L_{bulk}). This scenario represents a lower estimate of ferrihydrite soil concentration, based on the concentration of ferrihydrite needed to achieve the measured concentration of adsorbed Mo at boring DPT02 when equilibrated with HGWC-8 groundwater in PHREEQC. Both scenarios are consistent with measured solid-phase data collected at boring DPT02.

Time series of modeled groundwater Mo concentration at HGWC-8 under the MNA scenario with a high and low soil attenuation capacity outside of the plume area is shown in **Figure 12**. Model results indicate that groundwater Mo concentration at HGWC-8 is predicted to decrease below the GWPS within approximately 70 years, regardless of the attenuation capacity outside of the plume area. After 80 years, an area with groundwater Mo concentrations in excess of the GWPS exists downgradient of HGWC-8 under both attenuation capacity scenarios. The groundwater Mo plume under the high attenuation capacity scenario after 80 years remains within the initial plume footprint. After 80 years, the groundwater Mo plume under the low attenuation capacity scenario is approximately double the size and extends further downgradient than the groundwater Mo plume under the higher attenuation capacity scenario. Under both scenarios, the groundwater Mo plume is predicted to remain within the property boundary. These results demonstrate that the remedial time frame is sensitive to the attenuation capacity outside the plume area, particularly at locations downgradient of HGWC-8.

6.0 MODEL UNCERTAINTY & LIMITATIONS

The reactive transport model was constructed in accordance with standard industry practices, using the best information available at the time of model development, and widely accepted and publicly available numerical modeling software. However, reactive transport models are necessarily simplified mathematical representations of complex natural systems. Therefore, all models have associated uncertainties in model predictions and limits to their accuracy. Some of the primary limitations and sources of uncertainty in this model are:

Post-closure, the groundwater flow velocity and flow direction are expected to be significantly different from current conditions. The flow models were developed to predict post-closure conditions based on current data and reasonable assumptions. However, given the uncertainty surrounding what groundwater post-closure conditions will actually be, the predicted flow velocities and directions may vary from actual future field conditions.

In general, both the As and Mo groundwater plumes at AP-1 are horizontally and vertically delineated. However, a more refined delineation that provides a better understanding of plume concentration and mass was not available at the time of model development, adding uncertainty to the model results. Higher resolution plume characterization near HGWC-13 and HGWC-8 will help inform the model.

Although aquifer characterization data indicates the presence of iron oxides (and clay minerals) which suggest significant attenuation capacity, the attenuation capacity of the aquifer (including iron oxide concentrations and distribution) represents another source of uncertainty. Higher resolution site characterization near HGWC-13 and HGWC-8 conducted as part of the design and implementation of the selected groundwater remedy will provide additional information on the attenuation capacity of the aquifer.

Reactions rates have not been included in the models due to both uncertainty and for simplicity; the model assumes instantaneous equilibrium conditions. The sorption and desorption studies with AP-1 aquifer materials suggest fast kinetics for both As and Mo sorption and desorption (i.e., on the order of days) (Geosyntec, 2022a); however, the reaction rate uncertainty associated with the injection scenarios may affect predicted remedial time frames. Additional data collected during the design of the remedy will help refine remedial timeframes.

Injection parameters were assumed to serve as a proof of concept. In practice, the number of injection wells, locations of wells, injectate composition, and injection regime will be evaluated in the design phase and selected to accelerate remediation goals.

Remedial time frames predicted in this model are based on assumptions developed using available data. As such, refinements to the GCSM may affect predicted time frames to achieve As and Mo concentration below GWPS.

The model and associated GCSM assumes that closure activities do not significantly change the geochemistry of groundwater at the Site. As closure progresses, groundwater monitoring data will be evaluated to assess geochemical changes to groundwater composition.

The objective of the reactive transport modeling is to assess potential remediation approaches to As and Mo exceedances at AP-1. These models were not calibrated to existing conditions and are intended as a feasibility-level tool to compare and forecast the relative differences between post-closure remediation scenarios.

7.0 FINDINGS & CONCLUSIONS

Findings & conclusions drawn from the results of the As and Mo reactive transport models are summarized below.

7.1 Model Findings – Arsenic

The reactive transport model described in **Section 4** was used to estimate the remedial feasibility for groundwater As concentrations to decrease below the GWPS under two scenarios: i) MNA, and ii) in situ injections followed by performance monitoring.

Under the MNA scenario described in **Section 4.2.1**, the groundwater As concentration at HGWC-13 is predicted to decrease below the GWPS in approximately 20 years (**Figure 8**). The model predicts that the plume is completely attenuated below the GWPS after approximately 60 years of MNA.

Injection of an iron-based amendment followed by MNA is predicted to decrease the remedial time frame compared to MNA alone. Under the injection scenario described in **Section 4.2.2**, the groundwater As concentration at HGWC-13 is predicted to decrease below the GWPS in approximately 2 years (**Figure 8**). These results represent a proof of concept evaluation of injection as a remedial technology and do not represent an actual estimate of remedial time frame. The mass of dissolved As is reduced by approximately 86% after 3 rounds of injections. In comparison, the same amount of mass reduction takes approximately 30 years of MNA (approximately 88% mass reduction). These results demonstrate the feasibility of the injection approach for accelerating As attenuation in comparison to an MNA scenario.

Note that these results represent a “proof of concept” evaluation of injection as a remedial technology and do not represent an actual estimate of remedial time frame. If geochemical injections are selected as part of the remedy, the time to achieve groundwater As concentrations below the GWPS will depend on the amendment selected during the design phase and how the injection remedy is implemented.

A sensitivity analysis was performed on three model parameters: 1) the size and concentration of the initial groundwater As plume, 2) the attenuation capacity of the aquifer outside of the initial plume footprint, and 3) the initial pH within the plume footprint. These parameters represent model uncertainties related to limited groundwater and soil data within the vicinity of the As exceedance well (HGWC-13). The results of the sensitivity analysis indicate that the remedial time frame at HGWC-13 is highly sensitive to the size and concentration of the initial groundwater As plume and less

sensitive to the attenuation capacity of soil outside the initial plume footprint. The amount of As desorption that occurs is also sensitive to the initial pH within the plume area due to the PZC of ferrihydrite used in the model.

7.2 Model Findings – Molybdenum

The reactive transport model described in **Section 5** was used to estimate the remedial feasibility for groundwater Mo concentrations to decrease below the GWPS under two scenarios: i) MNA, and ii) in situ injections followed by performance monitoring.

Under the MNA scenario described in **Section 5.2.1**, the groundwater Mo concentration at HGWC-8 is predicted to decrease below the GWPS in approximately 65 years (**Figure 11**). However, a small groundwater plume downgradient of HGWC-8 that exceeds the GWPS is expected to remain after 80 years of MNA; the residual plume is predicted to remain within the initial plume footprint. Under the MNA scenario, 52% of dissolved Mo in groundwater is attenuated after 65 years. Under the injection scenario described in **Section 5.2.2**, injection of an iron-based amendment followed by MNA is predicted to attenuate 57% of dissolved Mo in groundwater within 5 years and decrease the remedial time frame compared to MNA alone. These results demonstrate the feasibility of the injection approach for accelerating Mo attenuation in comparison to an MNA scenario.

Note that these results represent a "proof of concept" evaluation of injection as a remedial technology and do not represent an actual estimate of remedial time frame. If geochemical injections are selected as part of the remedy, the time to achieve groundwater Mo concentrations below the GWPS will depend on the amendment selected during the design phase and how the injection remedy is implemented.

A sensitivity analysis was performed on two model parameters: 1) the size and concentration of the initial groundwater Mo plume, and 2) the attenuation capacity of soil outside the original plume footprint. These parameters represent model uncertainties related to limited groundwater and soil data within the vicinity of the Mo exceedance well (HGWC-8). The results of the sensitivity analysis indicate that the remedial time frame at HGWC-8 is highly sensitive to the size and concentration of the initial groundwater Mo plume and less sensitive to the attenuation capacity of soil outside the initial plume footprint. The remedial time frames of areas outside of the initial groundwater Mo plume footprint, particularly areas downgradient of HGWC-8, are more sensitive to the attenuation capacity parameter than areas within the original plume footprint.

7.3 Conclusions

The reactive transport models support the GCSM and suggests that As and Mo attenuation in groundwater at AP-1 is likely due to adsorption onto naturally occurring iron oxide minerals. Within each plume area, As and Mo are present in both the dissolved phase and associated with the solid phase, which acts as a secondary source of As and Mo to groundwater as background groundwater moves through the model system. The models show that while the expected attenuation capacity of the aquifer is sufficient to prevent downgradient plume migration, some mass of both As and Mo above the GWPS is predicted to persist after long time periods.

The reactive transport models show that injection of an Fe(III)-based amendment would result in a decrease in groundwater As and Mo concentrations. The addition of iron creates additional sorption sites and attenuation capacity within the plume to adsorb dissolved As and Mo. Under the simulated injection scenarios described herein, the size and concentration of the plumes decrease faster than when MNA alone is implemented. These results demonstrate the feasibility of the injection approach for accelerating As and Mo attenuation in comparison to an MNA approach.

Ultimately, the time to achieve As and Mo concentrations below the GWPS is dependent on the size and concentration of the plume area, the amount of reactive iron oxide surfaces available for attenuation, and for As, the pH within the plume footprint. Additional data collected during the design and remedy implementation process will be evaluated to further refine these parameters. Treatability studies and pilot studies will provide vital information on the number of injection wells, optimum well locations, injectate composition, and injection rates required to achieve remediation objectives.

8.0 REFERENCES

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TABLES

Table 1a
HGWC-13 Focused Flow Model Parameters
Plant Hammond AP-1, Floyd County, Georgia

Material	Model Layer	Kh (ft/d)	Kv (ft/d)	Effective Porosity	Dispersivity (ft): Longitudinal/Transverse/Vertical
Clean Fill Inside AP-1	1	0.29	0.029	0.1	15/1.5/0.15
Fill Outside AP-1	1 and 2	0.029	0.005	0.1	15/1.5/0.15
Dike	1 and 2	0.025	0.0025	0.085	15/1.5/0.15
Alluvium	2 and 3	2.1 to 2.22	0.21 to 0.22	0.18	15/1.5/0.15
Alluvium & Residuum	4	0.625	0.095	0.15	15/1.5/0.15
PWR	5	9.6	0.958	0.09	15/1.5/0.15
Bedrock	6	9.6	0.958	0.05	15/1.5/0.15

Notes:
1. Kh = Horizontal Conductivity.
2. Kv = Vertical Conductivity.
3. ft = feet.
4. ft/d = feet per day.
5. PWR = Partially Weathered Rock.

Sources/Rationale for Kh & Kv parameters:

A. Clean Fill Inside AP-1: No data was available for the clean fill material that will be placed inside AP-1, so an assumed Kh value based on silt and silty sand conductivities from Domenico and Schwartz (1990) was used. Kv was assumed to be 1/10 lower than Kh.

B. Dike: An assumed value based on silt and clay conductivities from Domenico and Schwartz (1990) was used. Kv was assumed to be 1/10 lower than Kh.

C. Fill outside AP-1, Alluvium, Residuum, PWR, & Bedrock: Kh & Kv values are approximately based on calibrated values from the updated version of the sitewide model or slug test data.

Sources/Rationale for all other parameters:

D. Effective Porosity: For the Dike material, a low value was used based on the assumption that the dikes are comprised of compacted silts and clays. For all other materials, effective porosity literature values from EPA were used (Table C.3.2, USEPA, 1998).

E. Dispersivity: For longitudinal dispersivity, the value was selected based on a mixture of best professional judgement and the USEPA On-line Tools for Site Assessment Calculation (USEPA, 2021). Transverse and vertical dispersivity were based on guidance from USEPA (1998) and standard modeling practice where transverse and vertical dispersivity are 10 and 100 times smaller than longitudinal dispersivity.

Table 1b
HGWC-8 Focused Flow Model Parameters
Plant Hammond AP-1, Floyd County, Georgia

Material	Model Layer	Kh (ft/d)	Kv (ft/d)	Effective Porosity	Dispersivity (ft): Longitudinal/Transverse/Vertical
Clean Fill Inside of AP-1	1	0.29	0.029	0.1	15/1.5/0.15
Fill Outside of AP-1	1	0.29	0.029	0.1	15/1.5/0.15
Dike	1	0.025	0.0025	0.005	15/1.5/0.15
Alluvium	2	5.2	1.66	0.18	15/1.5/0.15
Alluvium & Residuum	3	6	2	0.15	15/1.5/0.15
PWR	4	9.6	0.96	0.09	15/1.5/0.15
Bedrock	5	9.59	0.959	0.05	15/1.5/0.15

Notes:
1. Kh = Horizontal Conductivity.
2. Kv = Vertical Conductivity.
3. ft = feet.
4. ft/d = feet per day.
5. PWR = Partially Weathered Rock.

Sources/Rationale for Kh & Kv parameters:

A. Clean Fill Inside AP-1: No data was available for the clean fill material that will be placed inside AP-1, so an assumed Kh value based on silt and silty sand conductivities from Domenico and Schwartz (1990) was used. Kv was assumed to be 1/10 lower than Kh.

B. Fill Outside AP-1: No data was available for the fill material outside and to the east of AP-1. Boring logs for locations east of AP-1 often did not have data for the upper most portion of the subsurface. However boring log data from deeper subsurface intervals showed that lithologies ranged from clay to silt to sand. Therefore, for the purposes of the transport modeling effort, it was assumed that the fill material was present east of AP-1. Fill outside of AP-1 was assigned an assumed Kh value based on silt and silty sand conductivities from Domenico and Schwartz (1990). Kv was assumed to be 1/10 lower than Kh.

C. Dike: An assumed value based on silt and clay conductivities from Domenico and Schwartz (1990) was used. Kv was assumed to be 1/10 lower than Kh.

D. Alluvium, Residuum, PWR, & Bedrock: Kh & Kv values are approximately based on calibrated values from the updated version of the sitewide model or slug test data.

Sources/Rationale for all other parameters:

E. Effective Porosity: For the Dike material, a low value was used based on the assumption that the dikes are comprised of compacted silts and clays. For all other materials, effective porosity literature values from EPA were used (Table C.3.2, USEPA, 1998).

F. Dispersivity: For longitudinal dispersivity, the value was selected based on a mixture of best professional judgement and the USEPA On-line Tools for Site Assessment Calculation (USEPA, 2021). Transverse and vertical dispersivity were based on guidance from USEPA (1998) and standard modeling practice where transverse and vertical dispersivity are 10 and 100 times smaller than longitudinal dispersivity.

Table 2
Arsenic Model Initial Parameters
Plant Hammond AP-1, Floyd County, Georgia

Model Parameter	Model Area									
	General Head Boundary		Plume area (layer 3)		Beneath plume area (layers 5-6)		Outside of plume (all layers)		Recharge (precipitation)	
Units	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L
Groundwater and Recharge Composition										
pH	7.15		7.34		7.65		6.41		5.30	
pe	2.57		2.03		3.50		2.60		--	
DO	4.6E-05	7.4E-01	8.1E-06	1.30E-01	1.1E-05	1.70E-01	8.8E-06	1.4E-01	2.2E-04	7.0E+00
Arsenic (III)	0.0E+00	0.0E+00	2.5E-11	8.97E-08	0.0E+00	0.00E+00	0.0E+00	0.0E+00	--	--
Arsenic (V)	0.0E+00	0.0E+00	5.2E-06	3.90E-01	0.0E+00	0.00E+00	0.0E+00	0.0E+00	--	--
Boron	1.6E-06	1.70E-02	1.5E-04	1.60E+00	4.2E-05	4.50E-01	8.2E-05	0.89	--	--
Calcium	2.6E-03	1.03E+02	4.3E-03	1.73E+02	2.2E-03	8.76E+01	3.4E-03	135	1.2E-06	5.0E-02
Chloride	2.4E-03	1.34E+01	1.8E-03	4.12E+01	1.9E-03	4.52E+01	1.3E-03	35	8.1E-06	2.0E-01
Fluoride	4.3E-06	8.20E-02	2.3E-05	4.40E-01	0.0E+00	0.00E+00	9.0E-06	0.17	--	--
Sulfur (VI)	4.9E-04	4.73E+01	3.7E-03	3.59E+02	1.2E-03	1.14E+02	3.2E-03	305	3.1E-06	3.0E-01
Barium	2.6E-07	3.50E-02	3.8E-07	5.20E-02	3.9E-07	5.30E-02	4.1E-07	0.056	--	--
Alkalinity	3.1E-03	1.87E+02	1.2E-03	6.95E+01	1.1E-03	6.40E+01	9.0E-04	5.5E+01	--	--
Magnesium	1.8E-04	4.30E+00	6.4E-04	1.56E+01	3.5E-07	4.90E+00	6.4E-04	15.5	8.2E-07	2.0E-02
Potassium	8.7E-06	3.40E-01	1.2E-04	4.60E+00	1.3E-05	5.00E-01	1.1E-04	4.2	--	--
Sodium	9.2E-04	2.11E+01	2.8E-04	6.40E+00	5.2E-04	1.20E+01	2.9E-04	6.7	5.2E-06	1.2E-01
Iron (total)	--	8.70E-02	--	8.70E-01	--	7.60E-02		0.16	--	--
Iron (II)	1.4E-06	--	1.5E-05	--	1.4E-07	--	2.9E-06	--	--	--
Iron (III)	1.2E-07	--	7.6E-07	--	1.4E-07	--	8.1E-09	--	--	--
Manganese (total)	--	1.80E-01	--	2.10E+00	--	1.30E-01	--	3.3	--	--
Manganese (II)	3.3E-06	--	3.8E-05	--	2.4E-06	--	6.0E-05	--	--	--
Manganese (III)	3.0E-29	--	1.3E-28	--	2.3E-28	--	9.6E-28	--	--	--
Source	HGWA-1, September 2020 groundwater monitoring event (Geosyntec, 2022a)		HGWC-13, September 2020 groundwater monitoring event (Geosyntec, 2022a)		MW-24D, September 2020 groundwater monitoring event (Geosyntec, 2022a)		MW-19, September 2020 groundwater monitoring event (Geosyntec, 2022a)		National Atmospheric Deposition Program, 2021	
Soil Composition										
Units	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	--	--
Ferrihydrite	3.7E-01	4.0E+01	5.2E-05	5.6E-03	3.7E-01	4.0E+01	3.7E-01	4.0E+01	--	--
Gypsum	4.8E-02	8.3E+00	4.8E-02	8.3E+00	4.8E-02	8.3E+00	4.8E-02	8.3E+00	--	--
Barite	7.1E-02	1.7E+01	7.1E-02	1.7E+01	7.1E-02	1.7E+01	7.1E-02	1.7E+01	--	--
Calcite	8.0E-02	8.3E+00	8.0E-02	8.3E+00	8.0E-02	8.3E+00	8.0E-02	8.3E+00	--	--
Source	Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022a) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Sequential extraction procedure (Geosyntec, 2022a) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022a) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022a) Barite and calcite: approximate XRD detection limits			

Notes:

1. The geochemical composition of each area, along with mineralogy and adsorption parameters, was input into PHREEQC and equilibrated using sodium or chloride to the balance charge. The charge-balanced solution composition was used as the initial groundwater concentration for the model (shown above).

2. Dissolved constituent concentrations are reported in moles per liter of groundwater (mol/L), the input unit of PHT3D.

3. Solid constituent concentrations are reported in moles per liter of bulk saturated soil (mol/L_{bulk}), the input unit of PHT3D.

4. PHREEQC speciations calculations were used to determine iron(II), iron(III), manganese(II), and manganese(III) concentrations from total dissolved iron and manganese concentrations measured in groundwater in September 2020.

Abbreviations:

-- = not applicable mg/L = milligrams per liter

°C = degrees Celsius g/L = grams per liter

DO = dissolved oxygen

mol/L = moles per liter

mol/L_{bulk} = moles per liter bulk saturated soil

S.U. = standard unit

T = temperature

Table 3
Molybdenum Model Initial Parameters
Plant Hammond AP-1, Floyd County, Georgia

Model Parameter	Model Area											
	General Head Boundary		Plume area (layer 2)		Plume area (layer 3)		Plume area (layers 4 and 5)		Outside of plume (all layers)		Recharge (precipitation)	
Units	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L	mol/L	mg/L
Groundwater and Recharge Composition												
pH	7.15		6.92		6.78		7.51		6.78		5.3	
pe	2.57		2.81		2.01		3.99		2.01		--	
DO	2.3E-05	7.4E-01	1.25E-05	4.0E-01	1.34E-05	4.3E-01	3.91E-05	1.3E+00	1.34E-05	4.3E-01	2.2E-04	7.0E+00
Molybdenum	0.0E+00	0.0E+00	4.5E-06	4.3E-01	0.0E+00	0.0E+00	1.9E-08	1.8E-03	0.0E+00	0.0E+00	--	--
Boron	1.6E-06	0.017	1.8E-04	1.9E+00	1.0E-05	1.2E-01	1.1E-05	1.2E-01	1.0E-05	1.2E-01	--	--
Calcium	2.6E-03	1.0E+02	3.0E-03	1.2E+02	2.7E-03	2.5E+01	6.2E-04	2.5E+01	2.7E-03	2.5E+01	1.2E-06	5.0E-02
Chloride	2.4E-03	1.3E+01	2.5E-03	7.5E+01	2.2E-03	3.0E+01	2.0E-03	3.0E+01	2.2E-03	3.0E+01	8.1E-06	2.0E-01
Fluoride	4.3E-06	8.2E-02	2.8E-05	5.3E-01	2.6E-06	5.0E-02	1.2E-05	2.2E-01	2.6E-06	5.0E-02	--	--
Sulfur	1.5E-03	4.7E+01	6.1E-03	1.9E+02	3.4E-03	1.1E+02	2.3E-04	7.5E+00	3.4E-03	1.1E+02	3.1E-06	3.0E-01
Barium	2.5E-07	3.5E-02	4.4E-07	6.0E-02	7.0E-07	9.6E-02	7.3E-06	1.0E+00	7.0E-07	9.6E-02	--	--
Alkalinity	3.1E-03	1.9E+02	1.3E-03	8.1E+01	2.3E-03	1.4E+02	1.7E-03	1.0E+02	2.3E-03	1.4E+02	--	--
Magnesium	1.8E-04	4.3E+00	6.7E-04	1.6E+01	3.5E-04	8.5E+00	7.0E-04	1.7E+01	3.5E-04	8.5E+00	8.2E-07	2.0E-02
Potassium	8.7E-06	3.4E-01	1.8E-04	7.1E+00	5.6E-06	2.2E-01	2.4E-05	9.5E-01	5.6E-06	2.2E-01	--	
Sodium	9.2E-04	2.1E+01	3.7E-04	8.5E+00	4.5E-04	1.0E+01	1.2E-03	2.7E+01	4.5E-04	1.0E+01	5.2E-06	1.2E-01
Iron	1.6E-06	8.7E-02	5.4E-06	3.0E-01	5.0E-05	2.8E+00	2.7E-06	1.5E-01	5.0E-05	2.8E+00	--	--
Manganese	3.3E-06	1.8E-01	4.0E-06	2.2E-01	4.4E-06	2.4E-01	2.4E-06	1.3E-01	4.4E-06	2.4E-01	--	--
Source	HGWA-1, September 2020 groundwater monitoring event (Geosyntec, 2022)		HGWC-8, September 2020 groundwater monitoring event (Geosyntec, 2022)		MW-20, September 2020 groundwater monitoring event (Geosyntec, 2022)		MW-27D, September 2020 groundwater monitoring event (Geosyntec, 2022)		MW-20, September 2020 groundwater monitoring event (Geosyntec, 2022)		National Atmospheric Deposition Program, 2021	
Soil Composition												
Units	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	mol/L_{bulk}	g/L	--	--
Ferrihydrite	5.7E-01	6.1E+01	4.7E-02	5.0E+00	5.7E-01	6.1E+01	5.7E-01	6.1E+01	5.7E-01	6.1E+01	--	--
Barite	4.0E-02	8.3E+00	4.0E-02	8.3E+00	4.0E-02	8.3E+00	4.0E-02	8.3E+00	4.0E-02	8.3E+00	--	--
Calcite	8.0E-02	8.3E+00	8.0E-02	8.3E+00	8.0E-02	8.3E+00	8.0E-02	8.3E+00	8.0E-02	8.3E+00	--	--
Source	Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Sequential extraction procedure (Geosyntec, 2022) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022) Barite and calcite: approximate XRD detection limits		Ferrihydrite: Iron whole-rock analysis (Geosyntec, 2022) Barite and calcite: approximate XRD detection limits			

Notes:

1. The geochemical composition of each area, along with mineralogy and adsorption parameters, was input into PHREEQC and equilibrated using sodium or chloride to the balance charge. The charge-balanced solution composition was used as the initial groundwater concentration for the model (shown above).
2. Dissolved constituent concentrations are reported in moles per liter of groundwater (mol/L), the input unit of PHT3D.
3. Solid constituent concentrations are reported in moles per liter of bulk saturated soil (mol/L_{bulk}), the input unit of PHT3D.

Abbreviations:
-- = not applicable
DO = dissolved oxygen
mol/L = moles per liter
mol/L_{bulk} = moles per liter bulk saturated soil
S.U. = standard unit

FIGURES

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well (Not Used for Contouring)
- Piezometer
- GWPS Arsenic Iso-Concentration Contour (mg/L) (dashed where inferred)
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Notes:

1. Concentration data from groundwater samples collected during the February 2022 semiannual monitoring event. Data reported for wells screened deeper in the aquifer were not used to generate the iso-concentration contour (HGWA-43D, HGWA-44D, MW-24D, MW-25D, MW-26D, MW-27D, MW-28D). Concentrations are reported in mg/L.
2. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
3. The Groundwater Protection Standard (GWPS) for arsenic is 0.01 mg/L.
4. Aerial photograph source: Google Earth Pro, August 2019, And Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

ISO-CONCENTRATION MAP
ARSENIC - FEBRUARY 2022

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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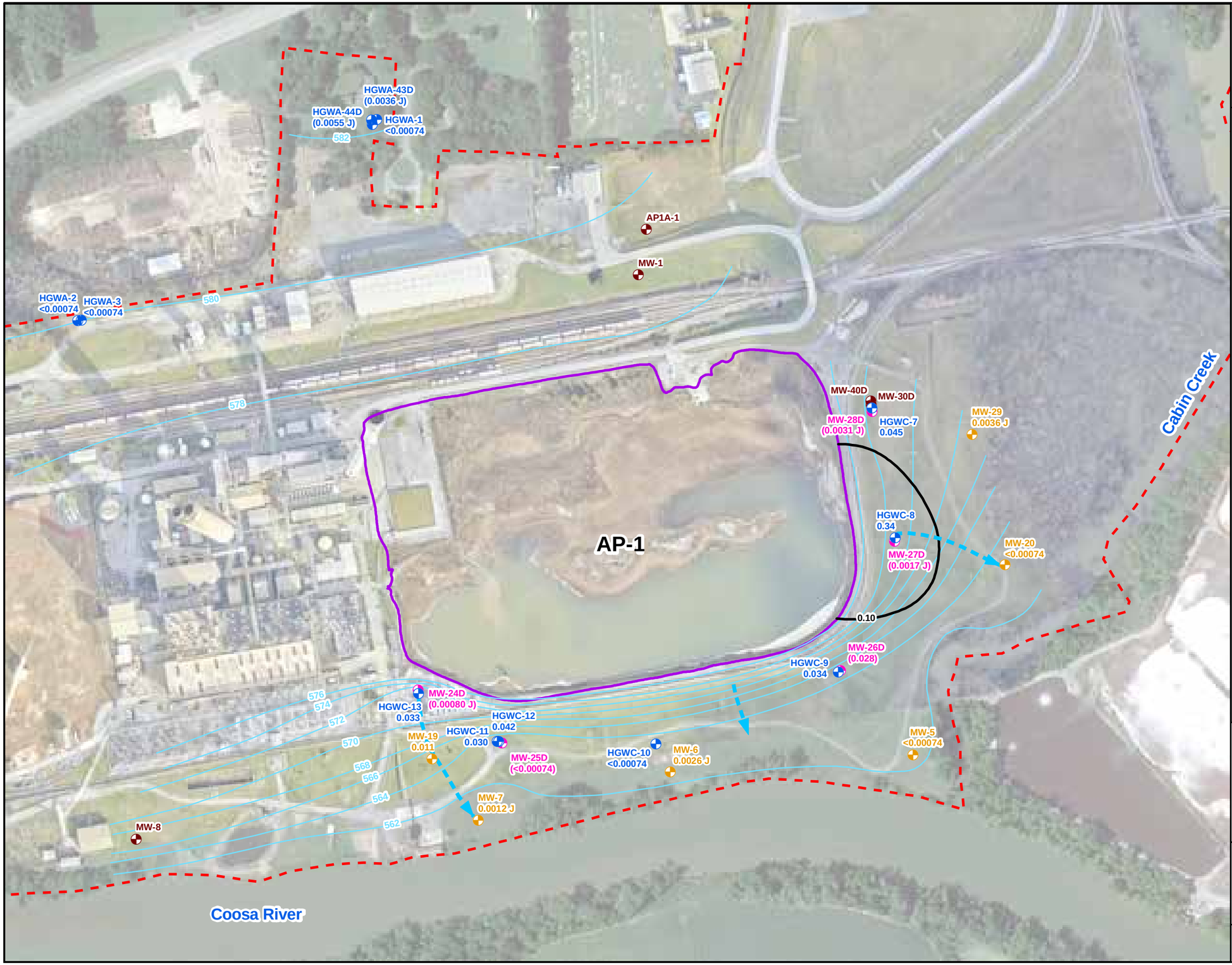
FIGURE 1



LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well (Not Used for Contouring)
- Piezometer
- GWPS Molybdenum Iso-Concentration Contour (mg/L)
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Notes:

1. Concentration data from groundwater samples collected during the February 2022 semiannual monitoring event. Data reported for wells screened deeper in the aquifer were not used to generate the iso-concentration contour (HGWA-43D, HGWA-44D, MW-24D, MW-25D, MW-26D, MW-27D, MW-28D). Concentrations are reported in mg/L.
2. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
3. The Groundwater Protection Standard (GWPS) for molybdenum is 0.10 mg/L.
5. Aerial photograph source: Google Earth Pro, August 2019, And Georgia Power Company, January 2022.

0 150 300 600

SCALE IN FEET

ISO-CONCENTRATION MAP
MOLYBDENUM - FEBRUARY 2022

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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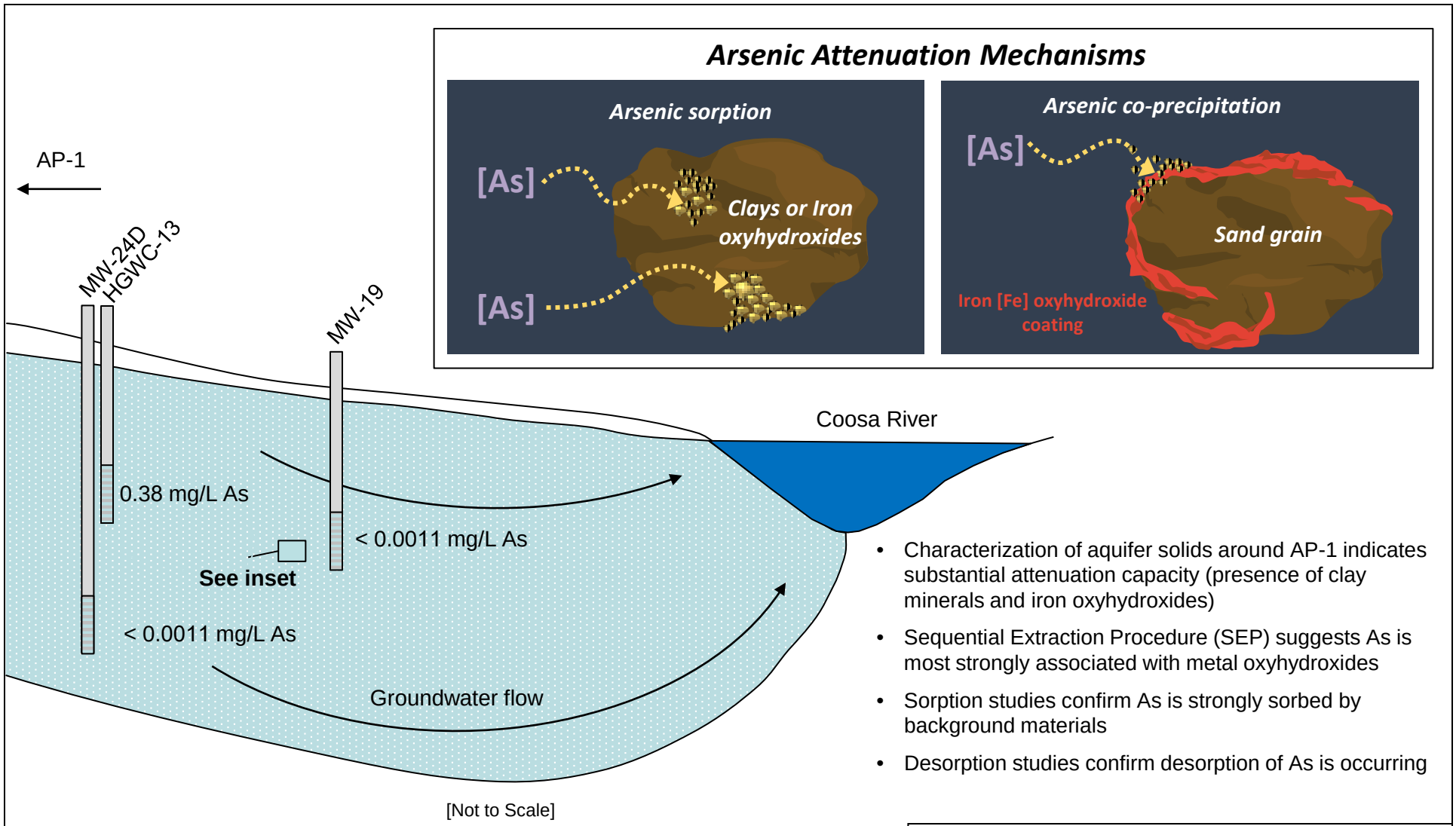
FIGURE 2



- Characterization of aquifer solids around AP-1 indicates substantial attenuation capacity (presence of clay minerals and iron oxyhydroxides)
- Sequential Extraction Procedure (SEP) suggests As is most strongly associated with metal oxyhydroxides
- Sorption studies confirm As is strongly sorbed by background materials
- Desorption studies confirm desorption of As is occurring

Notes:
1. Arsenic (As) concentrations in milligrams per liter (mg/L) measured in February 2022

GEOCHEMICAL CONCEPTUAL SITE MODEL ILLUSTRATION - ARSENIC
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Geosyntec consultants | Georgia Power | FIGURE 3

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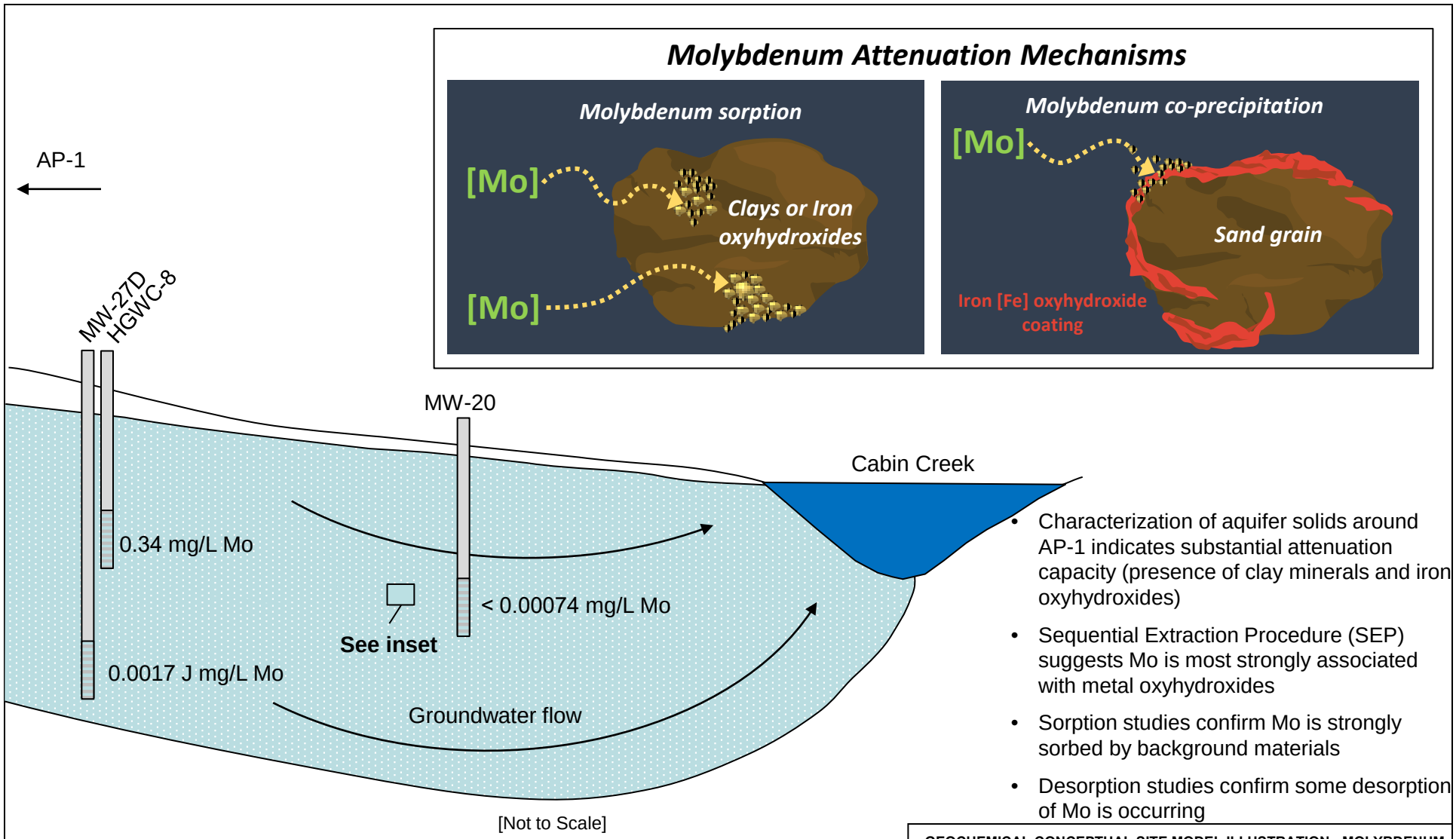

- Characterization of aquifer solids around AP-1 indicates substantial attenuation capacity (presence of clay minerals and iron oxyhydroxides)
- Sequential Extraction Procedure (SEP) suggests Mo is most strongly associated with metal oxyhydroxides
- Sorption studies confirm Mo is strongly sorbed by background materials
- Desorption studies confirm some desorption of Mo is occurring

Notes:

1. Molybdenum (Mo) concentrations in milligrams per liter (mg/L) measured in February 2022
2. J = estimated (detected between the method detection limit and reporting limit)

GEOCHEMICAL CONCEPTUAL SITE MODEL ILLUSTRATION - MOLYBDENUM

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Geosyntec consultants | Georgia Power | FIGURE 4

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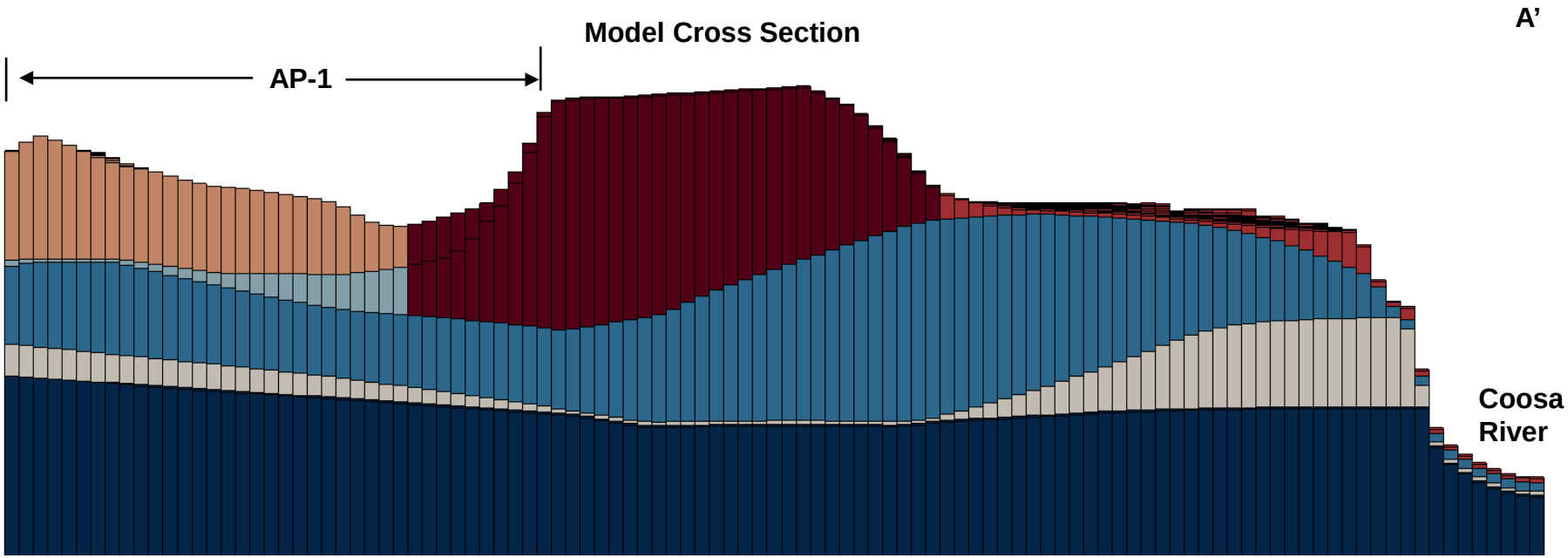
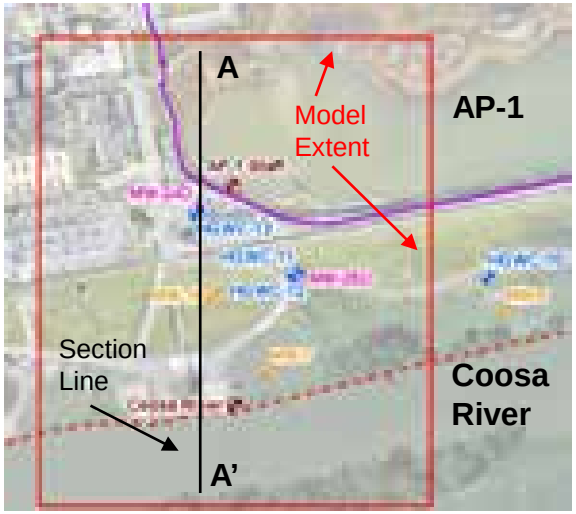
Model Cross Section



Notes:
1.) PWR = Partially Weathered Rock.
2.) Layer 5 is present in the cross section above. However, at the location shown above, it is a very thin layer and not easily distinguishable at the scale presented.

Model Cross Section Location Map



Model Layering	
Material	**Model Layer**
Clean Fill Inside of AP-1	1
Fill Outside of AP-1	1 & 2
Dike	1 & 2
Alluvium	2 & 3
Alluvium & Residuum	4
PWR	5
Bedrock	6

Model Cross Section Legend

- Layer 1: Clean Fill Inside AP-1
- Layer 1 & 2 : Fill Outside AP-1
- Layer 1 & 2: Dike
- Layer 2: Alluvium
- Layer 3: Alluvium
- Layer 4: Alluvium & Residuum
- Layer 5 & 6: PWR & Bedrock

HGWC-13 FOCUSED FLOW MODEL: LAYERING & CROSS SECTION

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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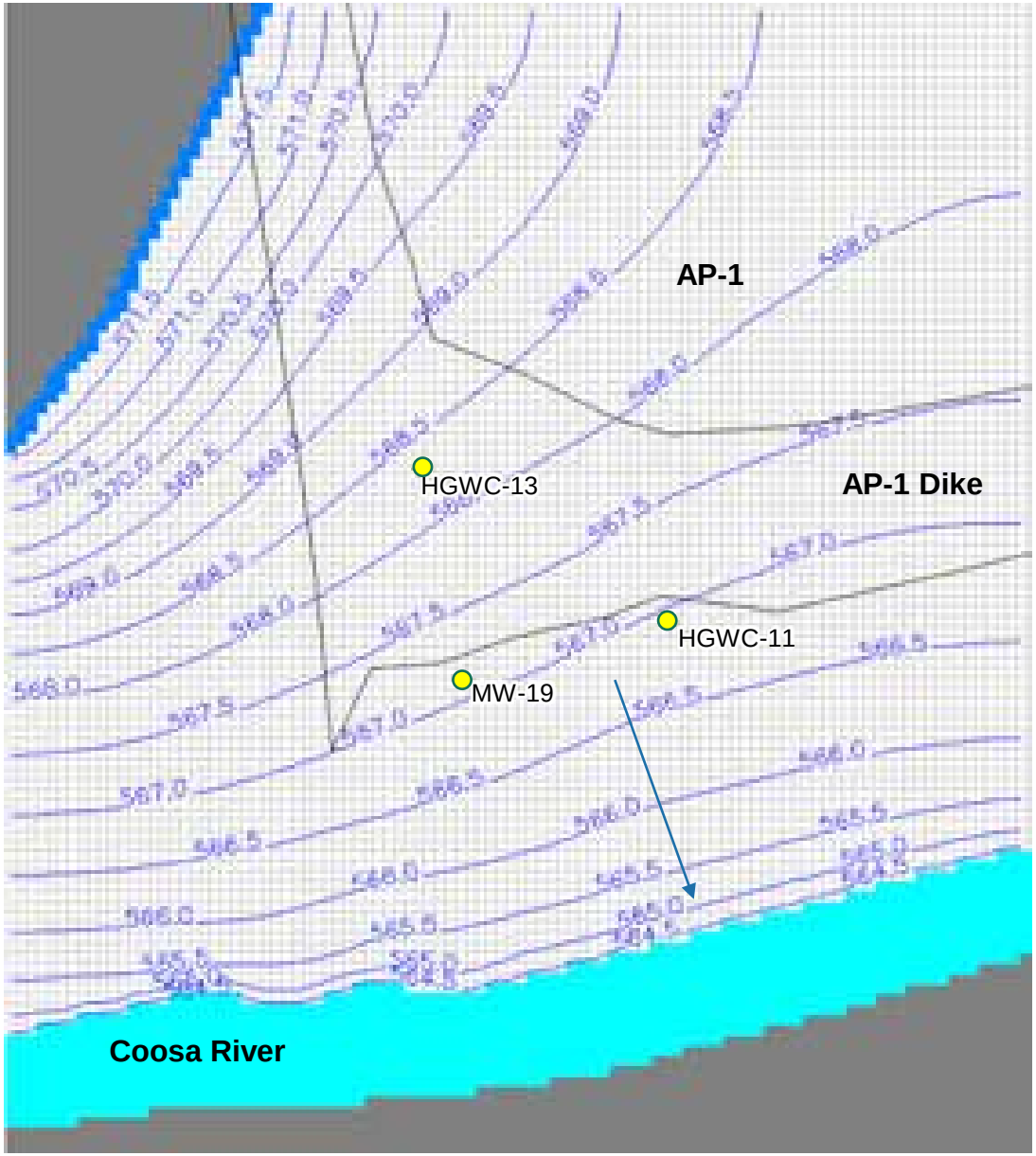
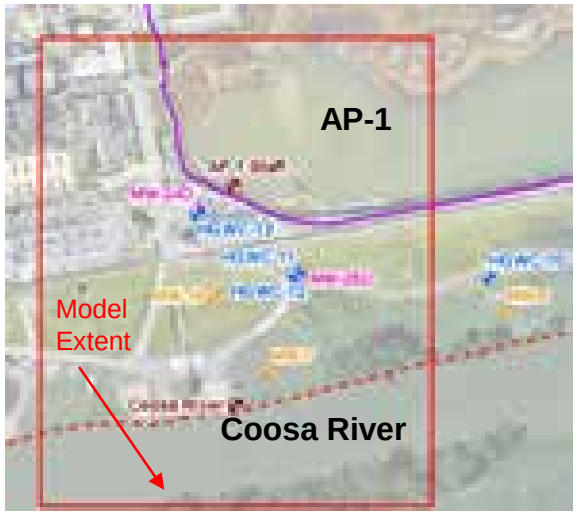
FIGURE 5a



Model Extent Legend

- Modeled Groundwater Contour Elevation (ft)
- Modeled Groundwater Flow Direction
- Inactive Cells
- River Boundary Cells
- General Head Boundary Cells
- Monitoring Well

Model Location Map



Boundary	MODFLOW Package	Model Layer	Elevation (ft)	Conductance (ft^2/d)
General Head	General Head	1 to 2	576	10 to 100
General Head	General Head	3	572	100
General Head	General Head	4	571	100
General Head	General Head	5 to 6	570	100
Coosa River	River	1 to 3	564.1	1400 to 144

Notes:
1.) Contour Interval is 0.5 ft.
2.) Model extent shown above is from layer 3.

HGWC-13 FOCUSED FLOW MODEL: BOUNDARY CONDITIONS
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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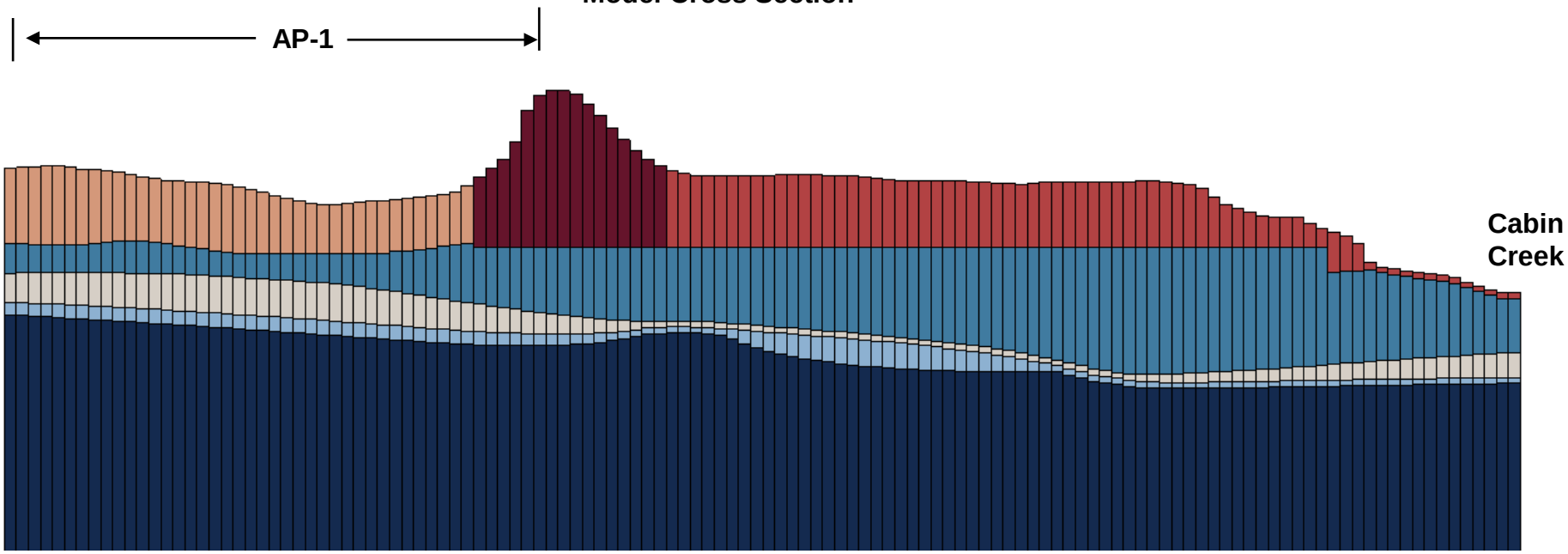
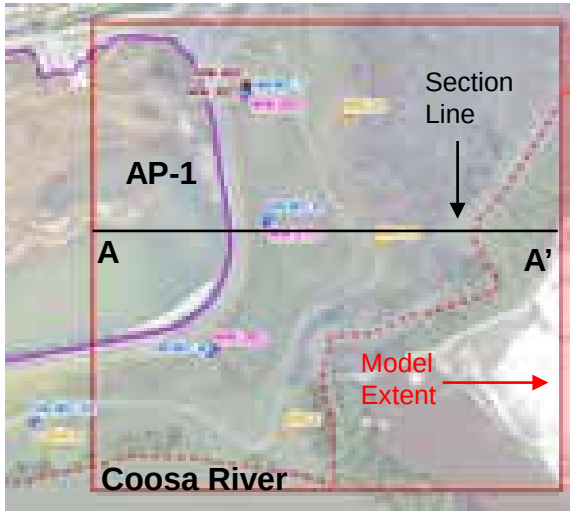
FIGURE 5b

Model Cross Section



Notes:
1.) PWR = Partially Weathered Rock.

Model Cross Section Location Map



Model Layering	
Material	**Model Layer**
Clean Fill Inside of AP-1	1
Fill Outside of AP-1	1
Dike	1
Alluvium	2
Alluvium & Residuum	3
PWR	4
Bedrock	5

Model Cross Section Legend

- Layer 1: Clean Fill Inside AP-1
- Layer 1: Fill Outside AP-1
- Layer 1: Dike
- Layer 2: Alluvium
- Layer 3: Alluvium & Residuum
- Layer 4: PWR
- Layer 5: Bedrock

HGWC-8 FOCUSED FLOW MODEL: LAYERING & CROSS SECTION
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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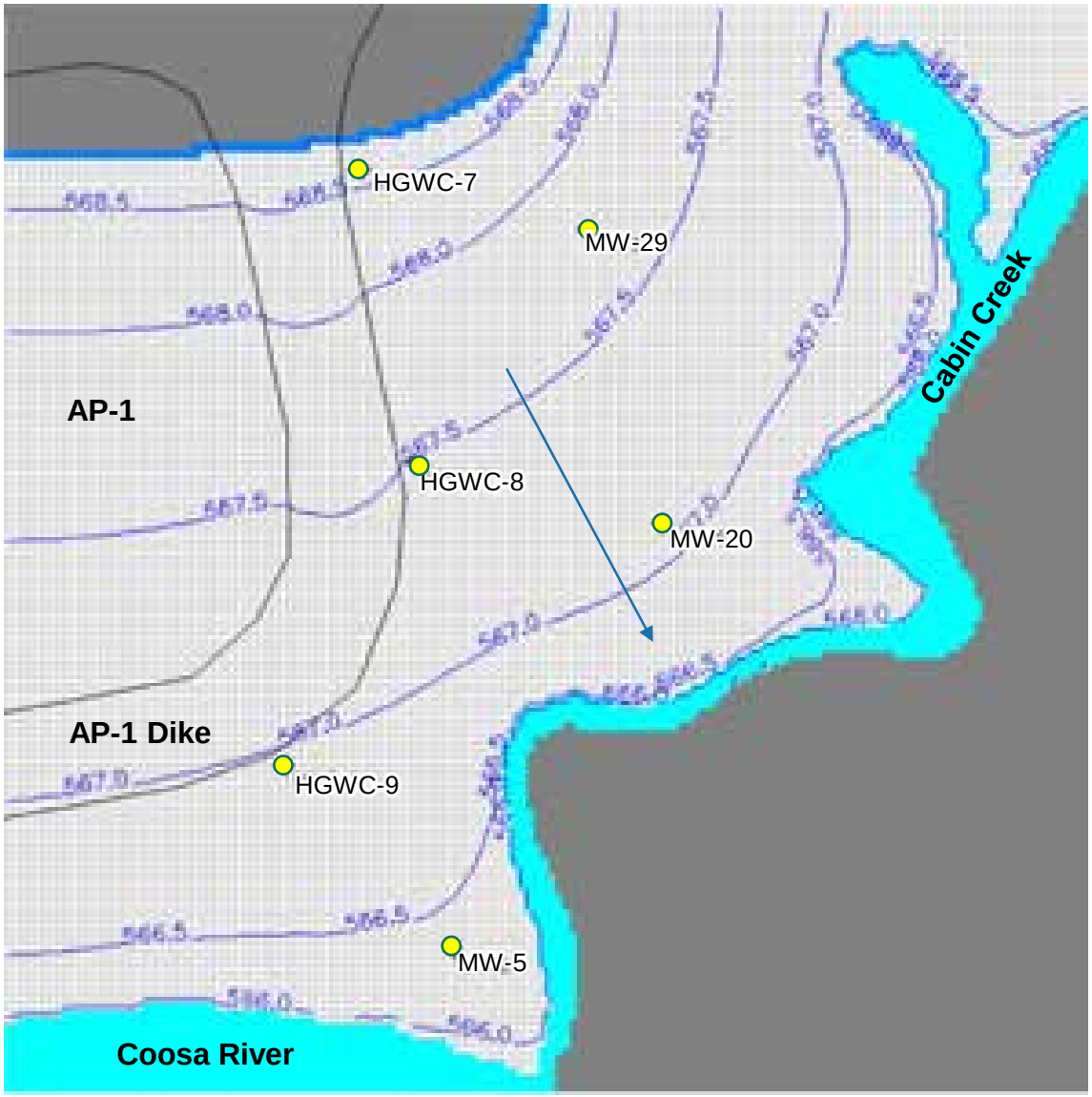
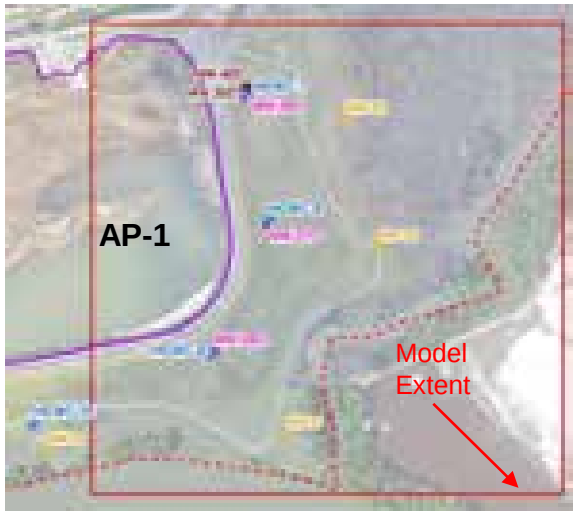
FIGURE 6a



Model Extent Legend

- Modeled Groundwater Contour Elevation (ft)
- Modeled Groundwater Flow Direction
- Inactive Cells
- River Boundary Cells
- General Head Boundary Cells
- Monitoring Well

Model Location Map



Boundary	MODFLOW Package	Model Layer	Elevation (ft)	Conductance (ft^2/d)
General Head	General Head	1 to 5	569	50
Cabin Creek	River	1	565.7	14
Coosa River	River	1	565.3	144

Notes:
1.) Contour Interval is 0.5 ft.
2.) Model extent shown above is from layer 1.

HGWC-8 FOCUSED FLOW MODEL: BOUNDARY CONDITIONS
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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FIGURE 6b

Plume A: Contoured Groundwater Arsenic Plume

Plume B: Limited Footprint Groundwater Arsenic Plume

Abbreviations:
mg/L = milligrams per liter

INITIAL GROUNDWATER PLUME LAYOUTS – ARSENIC MODEL

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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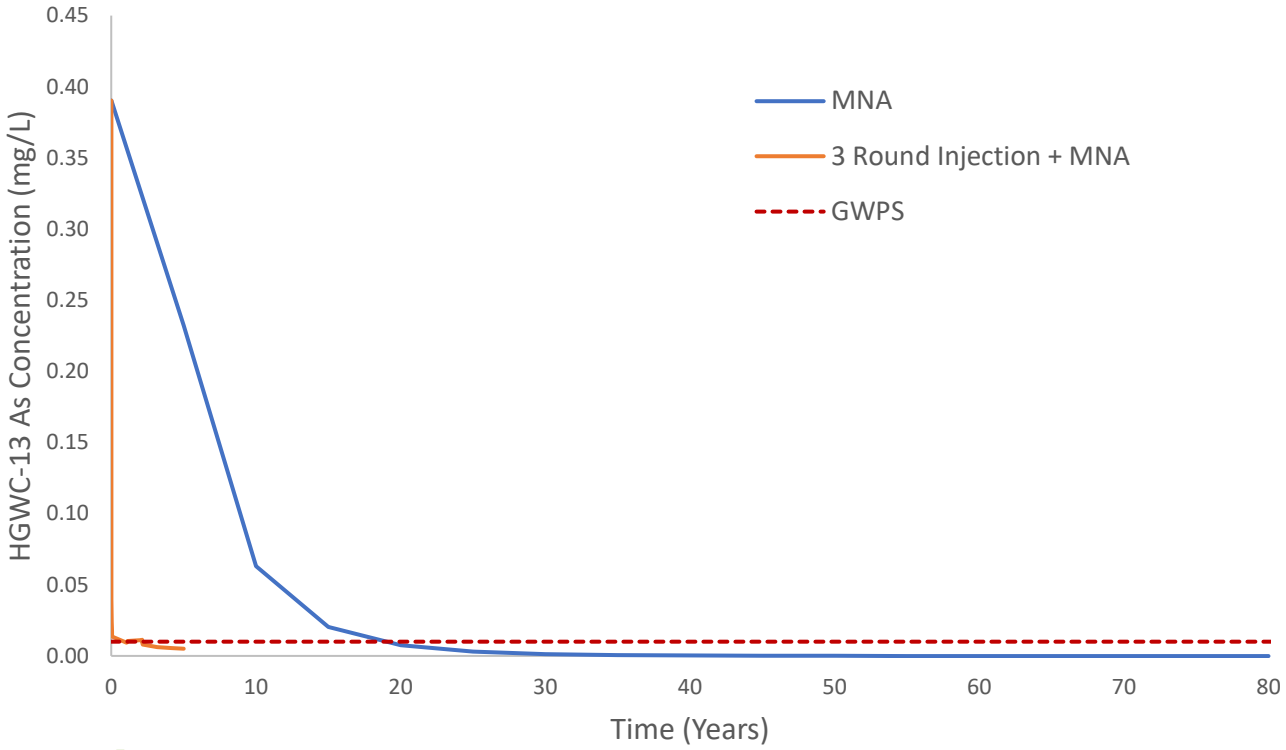
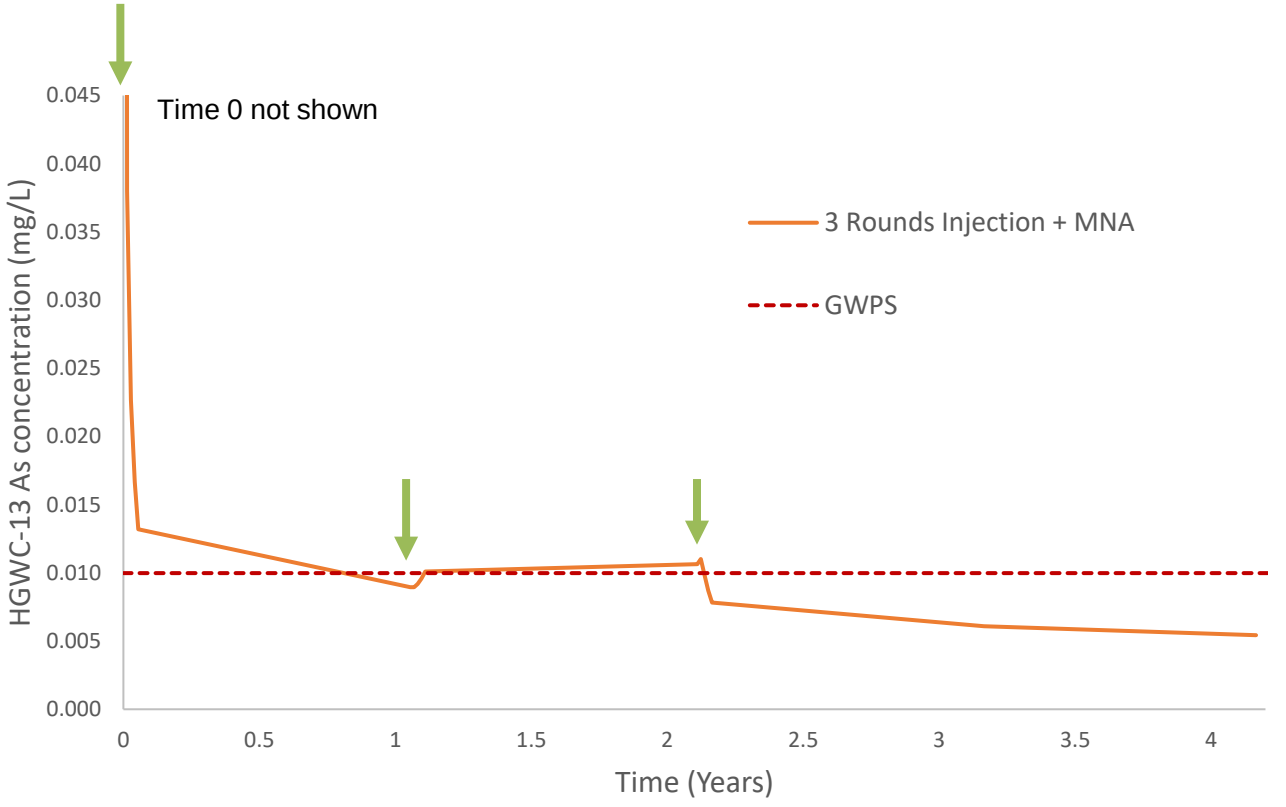
FIGURE 7





Notes:
The arsenic GWPS is 0.01 mg/L.
Green vertical arrows indicate the initiation of each round of injection.
The results shown in the plots above are the same although presented with two different time scales to show a shorter time frame for the injection model scenario.

Abbreviations:
GWPS = groundwater protection standard mg/L = milligrams per liter
As = arsenic
MNA = monitored natural attenuation

MODEL RESULTS – ARSENIC CONCENTRATION TIME SERIES
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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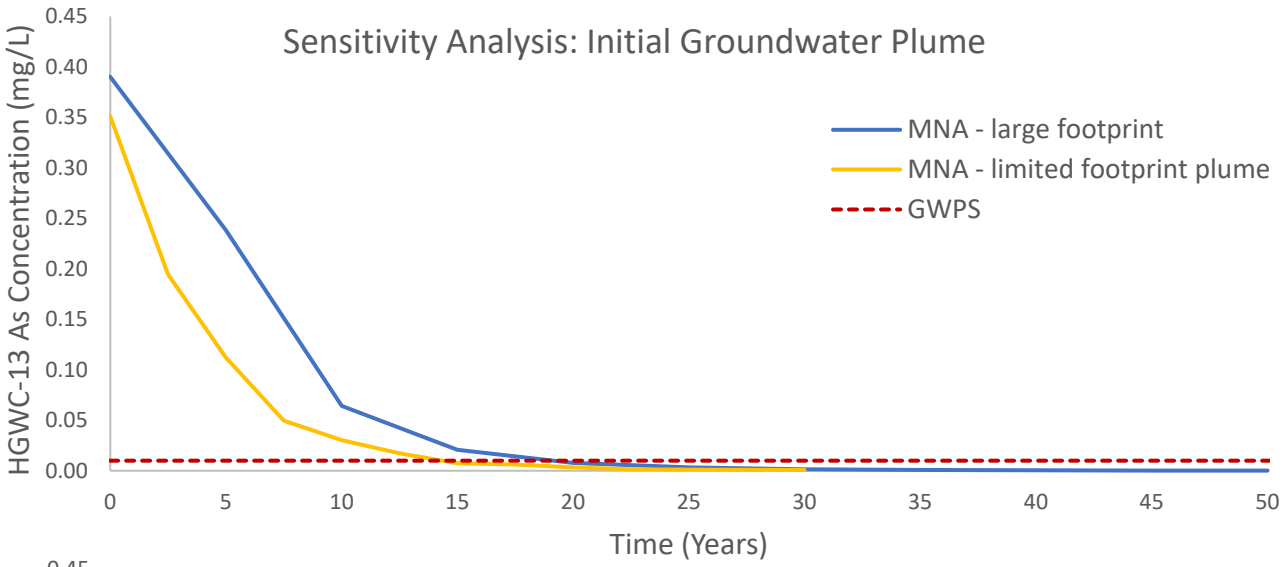
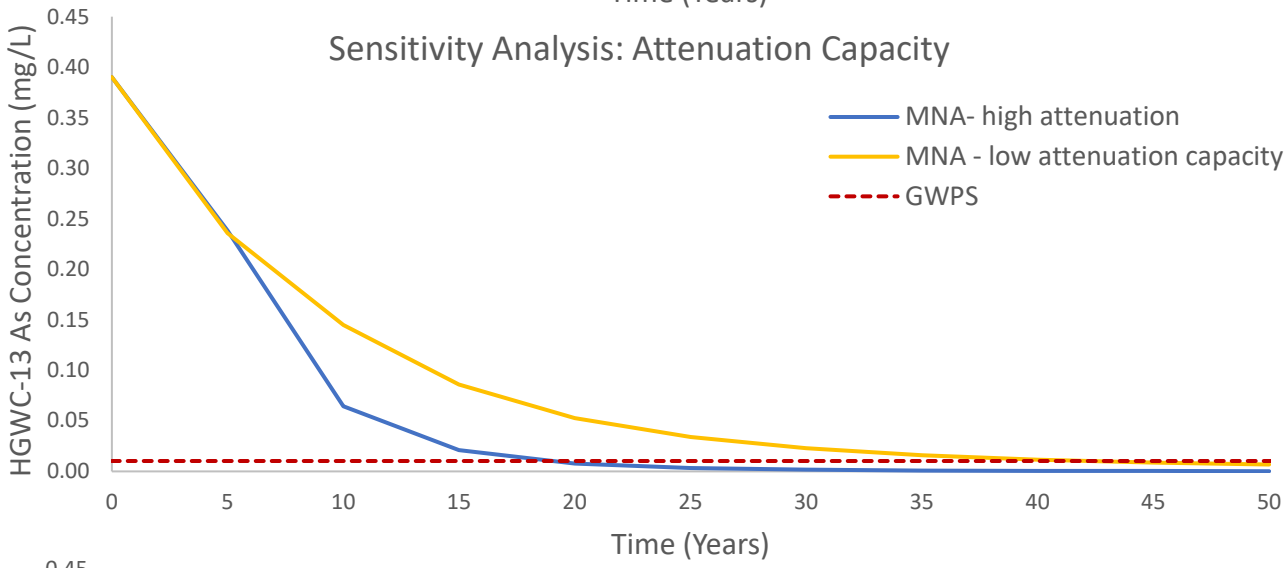
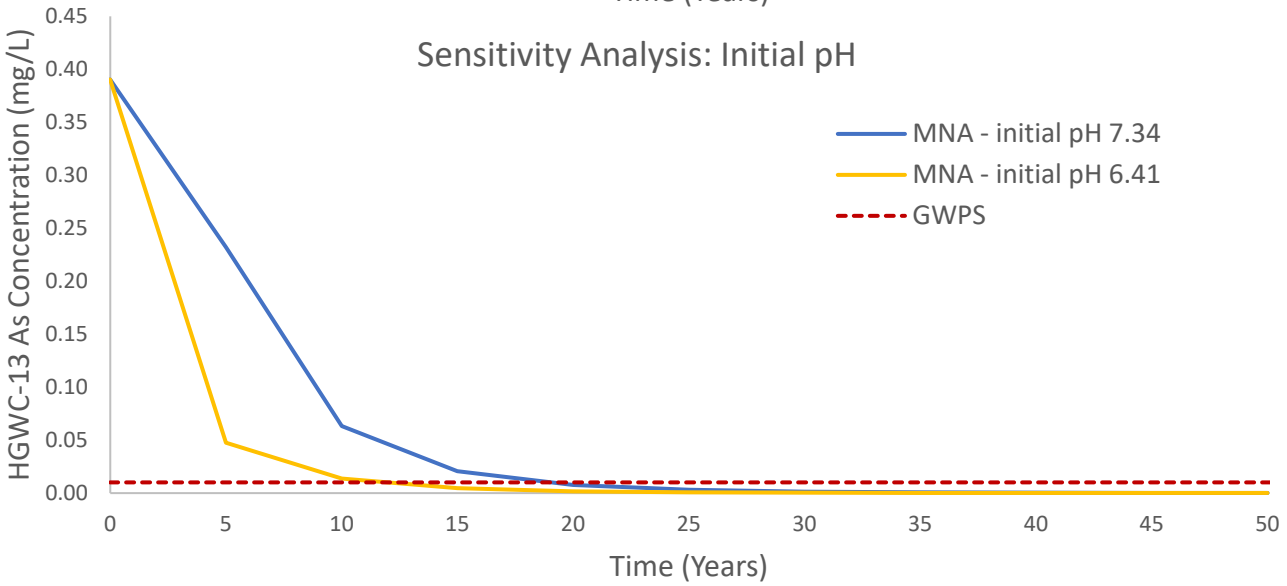
FIGURE 8







Notes:
The arsenic GWPS is 0.01 mg/L.

Abbreviations:
GWPS = groundwater protection standard
As = arsenic
MNA = monitored natural attenuation
mg/L = milligrams per liter

SENSITIVITY ANALYSIS RESULTS – ARSENIC CONCENTRATION TIME SERIES

GEORGIA PPOWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COIUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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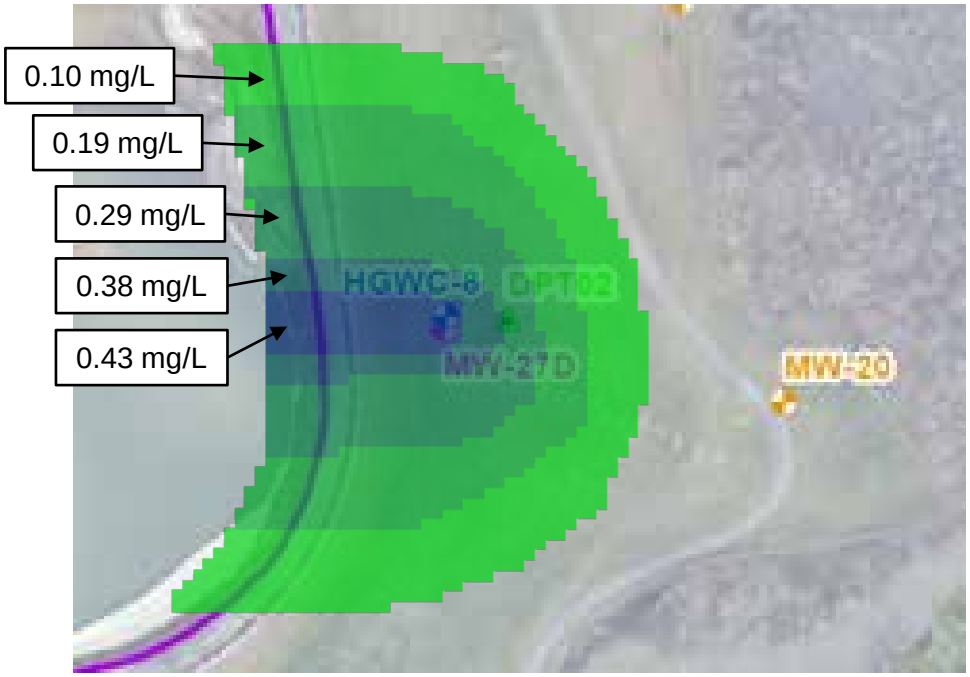
FIGURE 9

Plume A: Contoured Groundwater Molybdenum Plume



Plume B: Limited Footprint Groundwater Molybdenum Plume

Abbreviations:
mg/L = milligrams per liter

INITIAL GROUNDWATER PLUME LAYOUTS – MOLYBDENUM MODEL

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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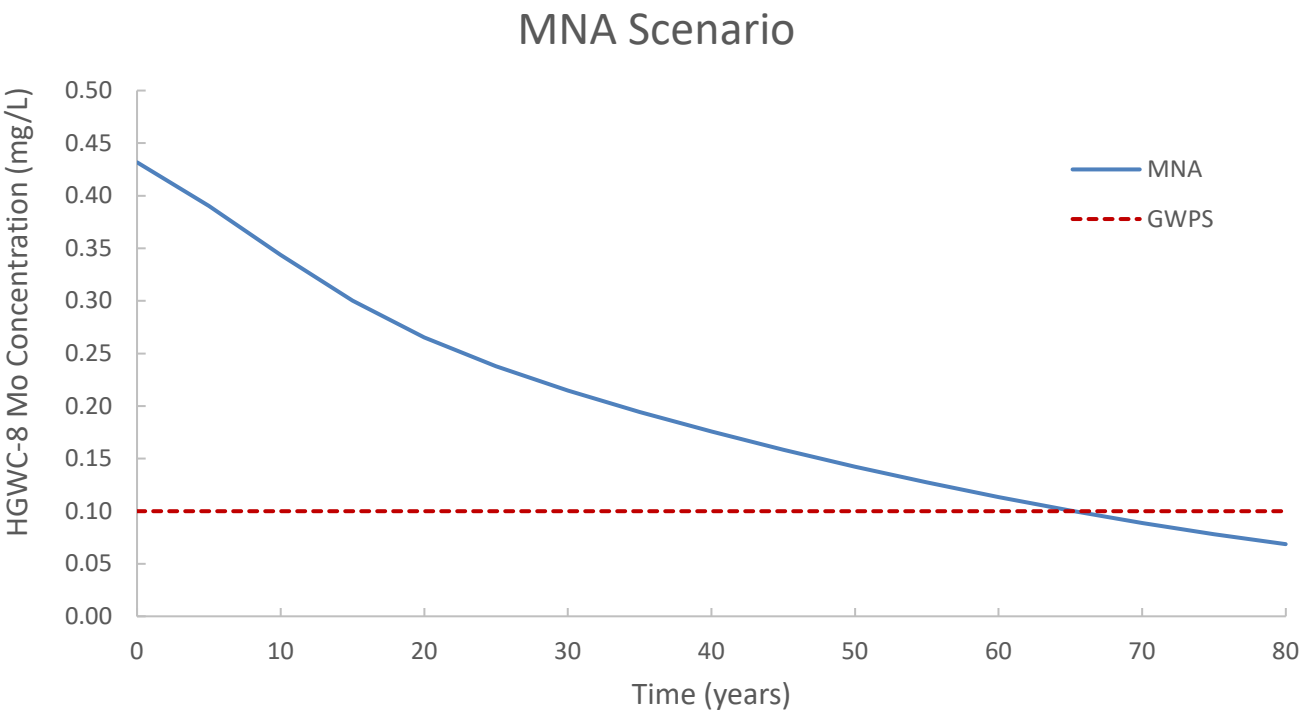
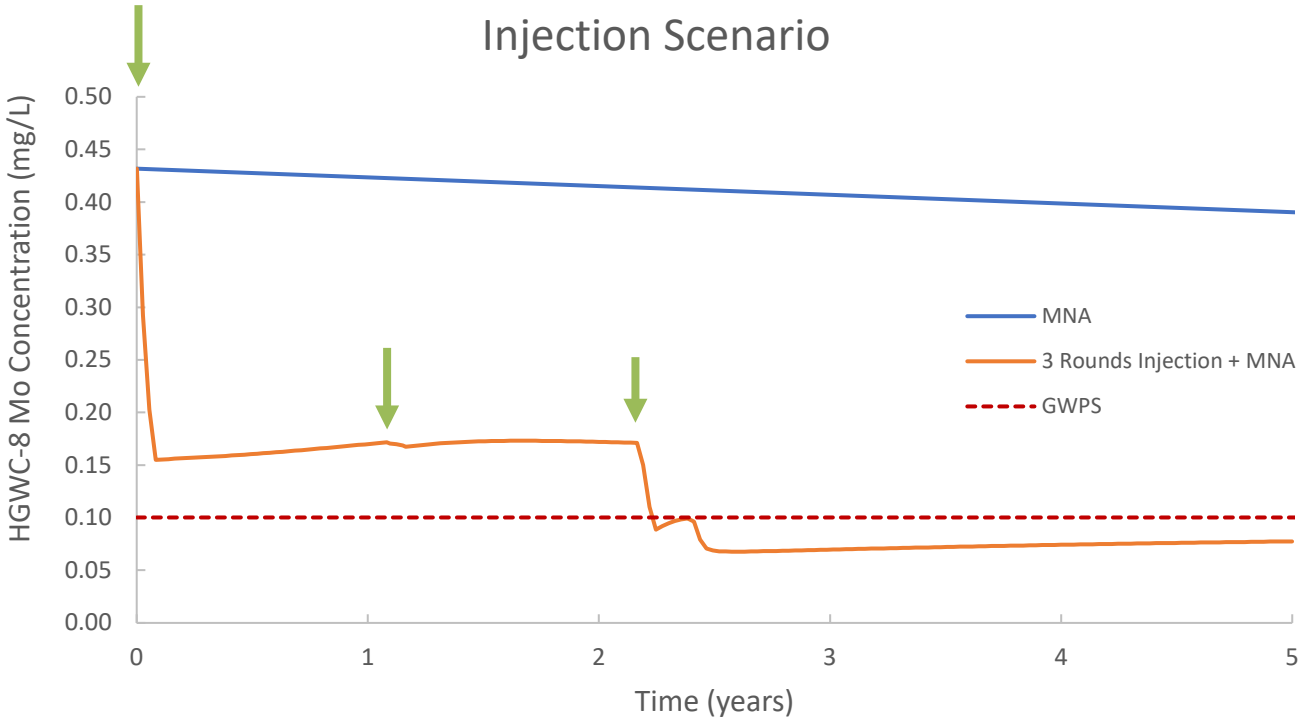
FIGURE 10





Notes:
The molybdenum GWPS is 0.1 mg/L.
Green vertical arrows indicate the initiation of each round of injection.

Abbreviations:
GWPS = groundwater protection standard
Mo = molybdenum
MNA = monitored natural attenuation
mg/L = milligrams per liter

MODEL RESULTS – MOLYBDENUM CONCENTRATION TIME SERIES
GEORGIA POWER CIMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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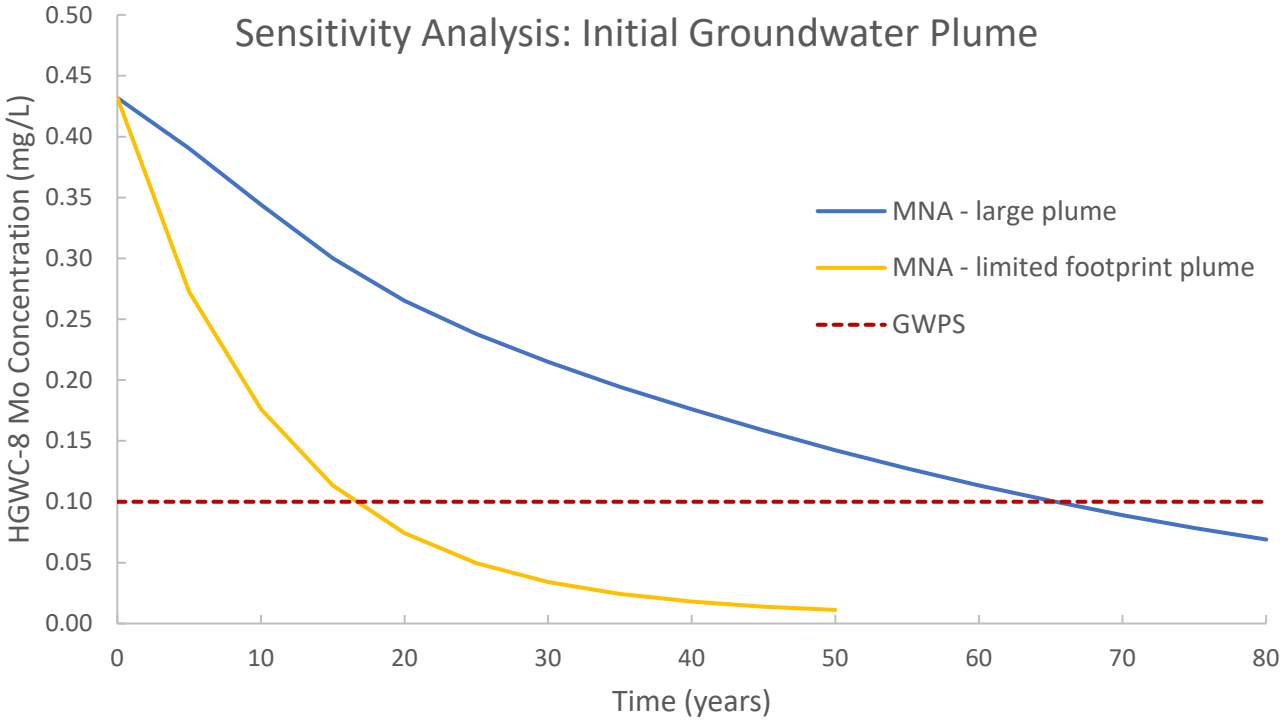
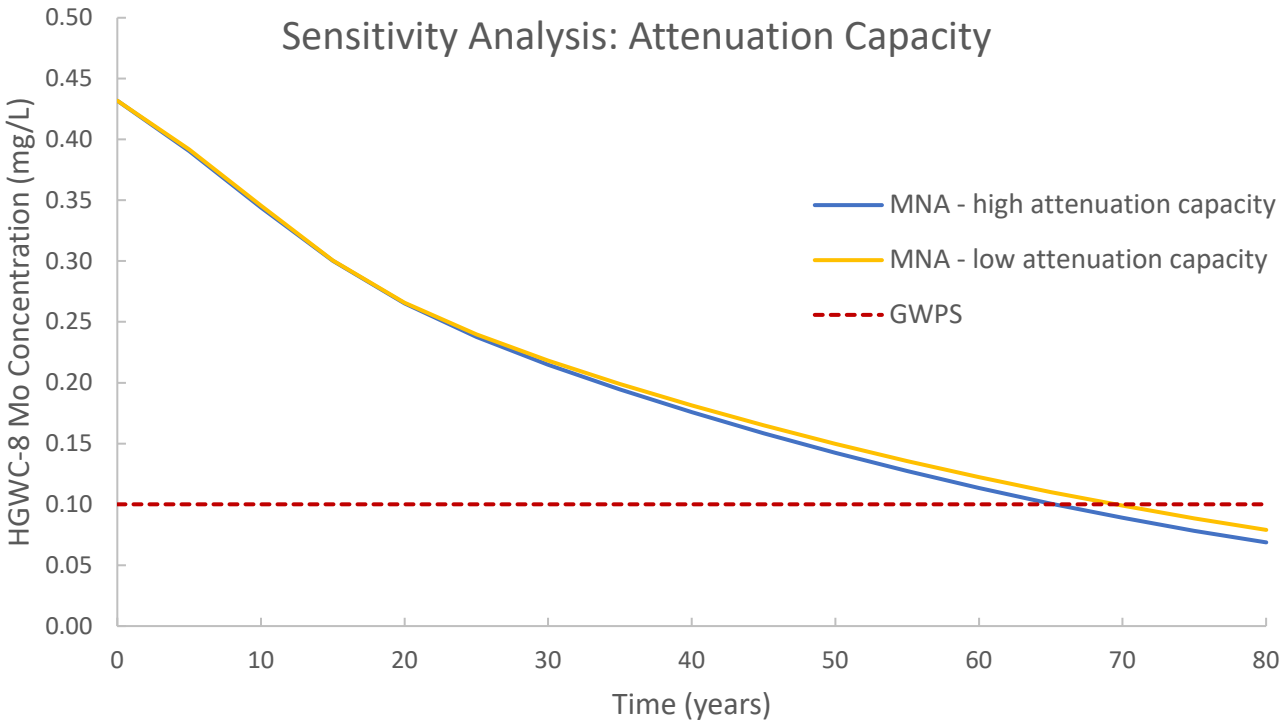
FIGURE 11





Notes:
The molybdenum GWPS is 0.1 mg/L.

Abbreviations:
GWPS = groundwater protection standard
Mo = molybdenum
MNA = monitored natural attenuation
mg/L = milligrams per liter

SENSITIVITY ANALYSIS RESULTS – MOLYBDENUM CONCENTRATION TIME SERIES
GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power
Prepared By: Geosyntec consultants

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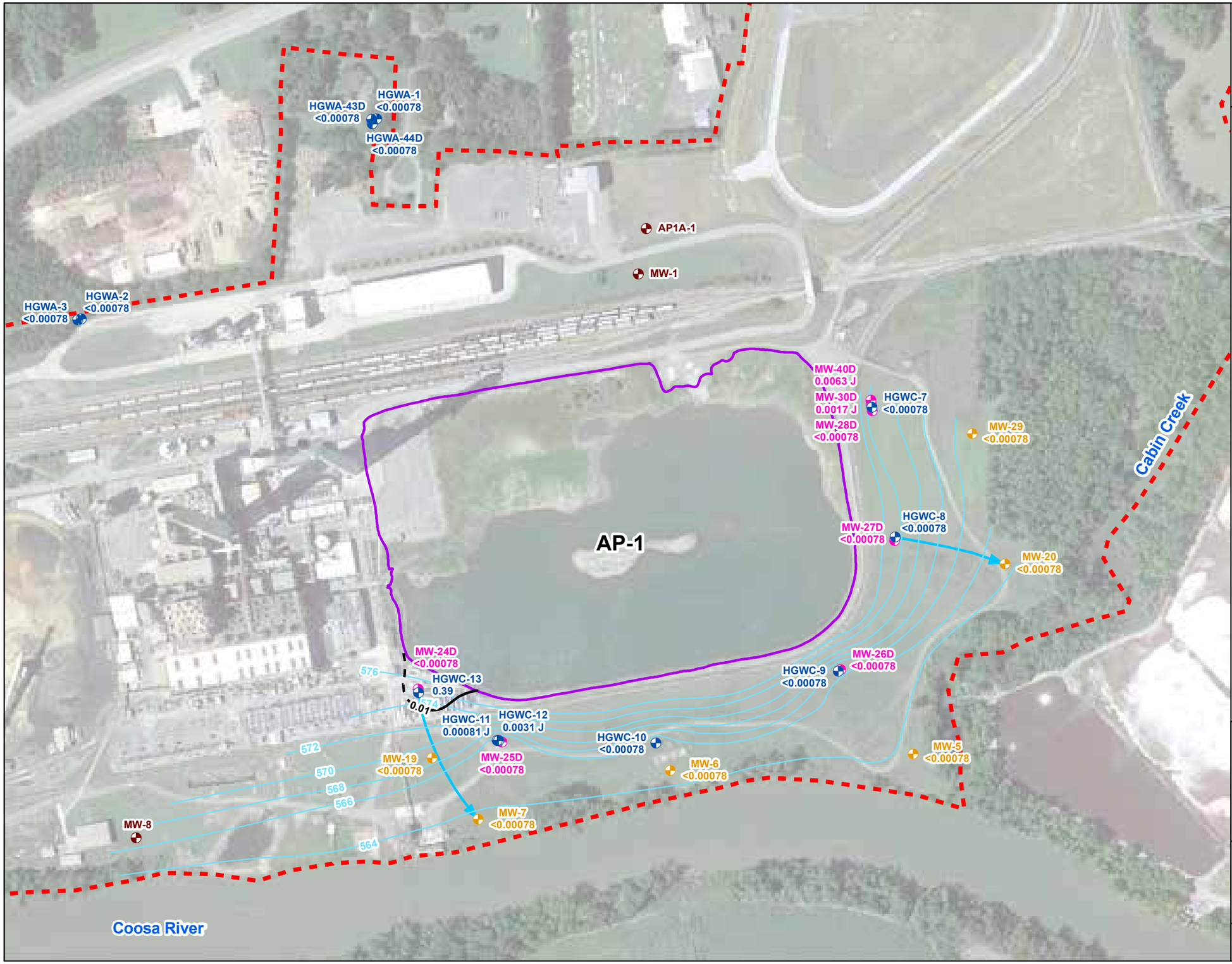
FIGURE 12

APPENDIX A

September 2020 Iso-Concentration Maps for Arsenic and Molybdenum



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Monitoring Well
- Vertical Delineation Monitoring Well (not used for contouring)
- Piezometer
- GWPS Arsenic Iso-Concentration Contour (mg/L) (dashed where inferred)
- September 2020 Groundwater Elevation Iso-Contour (ft)
- Approximate Groundwater Flow Direction
- Approximate AP-1 Boundary
- Approximate Plant Hammond Property Boundary

Notes:
1. Concentration data is from the September 2020 semiannual groundwater monitoring event. Concentrations are reported in mg/L.
2. Groundwater Protection Standard (GWPS) for arsenic is 0.01 mg/L.
3. Aerial photograph source: Google Earth Pro, August 2019.

0 150 300 600
Feet

SCALE IN FEET

ISO-CONCENTRATION MAP ARSENIC - SEPTEMBER 2020

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE A-1

N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Monitoring Well
- Vertical Delineation Monitoring Well (not used for contouring)
- Piezometer
- GWPS Molybdenum Iso-Concentration Contour (mg/L)
- September 2020 Groundwater Elevation Iso-Contour (ft)
- Approximate Groundwater Flow Direction
- Approximate AP-1 Boundary
- Approximate Plant Hammond Property Boundary

Notes:
1. Concentration data is from the September 2020 semiannual groundwater monitoring event. Concentrations are reported in mg/L.
2. The Groundwater Protection Standard (GWPS) for molybdenum is 0.10 mg/L.
3. "*" - The molybdenum concentration reported in well MW-30D is believed to originate from a natural source rather than AP-1 based on available data. Additional analyses are being pursued in support of preparing an Alternate Source Demonstration for the well.
4. Aerial photograph source: Google Earth Pro, August 2019.

0 150 300 600
Feet

SCALE IN FEET

ISO-CONCENTRATION MAP MOLYBDENUM- SEPTEMBER 2020

GEORGIA POWER COMPANY
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE A-2

APPENDIX C

Risk Evaluation Report

RISK EVALUATION REPORT
PLANT HAMMOND
ASH POND 1
ROME, FLOYD COUNTY, GEORGIA

Prepared for

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August 2022

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LIST OF ACRONYMS AND ABBREVIATIONS

Amsl	Above Mean Sea Level
AP	Ash Pond
CCR	Coal Combustion Residual
CEM	Conceptual Exposure Model
CFR	Code of Federal Regulations
COI	Constituent of Interest
COPI	Constituent of Potential Interest
EPC	Exposure Point Concentration
EPD	[Georgia] Environmental Protection Division
ft	feet
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
HSRA	Hazardous Site Response Act
IRIS	Integrated Risk Information System
MCL	Maximum Contaminant Level
mg/L	Milligrams per liter
ProUCL	ProUCL software version 5.1
PZ	Piezometer
RAGS	Risk Assessment Guidance for Superfund
RME	Reasonable Maximum Exposure
RRS	Risk Reduction Standards
RSL	Regional Screening Level
SSL	Statistically Significant Level
UCL	95 Percent Upper Confidence Limit of the Arithmetic Mean
USEPA	United States Environmental Protection Agency
VRP	Voluntary Remediation Program

EXECUTIVE SUMMARY

Georgia Power's Plant Hammond (site) is a former four-unit coal-fired, electric generating facility owned and operated by Georgia Power that was retired on July 29, 2019. The site is located along the Coosa River, approximately 10 miles west of Rome, Floyd County, Georgia. Coal combustion residual (CCR) material resulting from such power generation has historically been transferred and stored in four ash ponds (AP) AP-1, AP-2, AP-3, and AP-4 and the Huffaker Road Landfill in compliance with applicable regulations. This report focuses on AP-1.

AP-1 is a 35-acre surface impoundment located at Plant Hammond that received CCR material from its commission in 1952 until 1969. After 1969, AP-1 was utilized as a cotreatment pond to handle return water flows from the other ponds and for recycling of process water for plant operations. Georgia Power will close AP-1 through removal of the CCR material from the unit. The CCR material will be disposed of in a permitted landfill or transported off-site for beneficial use. AP-1 is subject to the Federal CCR Rule, 40 C.F.R. § 257, Subpart D (USEPA, 2020) and the State CCR Rule, Ga. Comp. R. & Regs. 391-3-4-.10 (EPD, 2022) . Closure permit No. 057-023D (CCR) (Closure Permit) was approved by Georgia Environmental Protection Division (EPD) on June 22, 2020. Semiannual groundwater monitoring and reporting is required for at least 5 years following CCR removal per AP-1's Closure Permit.

This report presents the results of a risk evaluation for CCR constituents[1] exhibiting statistically significant levels (SSLs) in groundwater at AP-1 from samples collected by Georgia Power in compliance with the Federal and State CCR Rules between 2016 and February 2022. The risk evaluation was performed in support of the *Draft Remedy Selection Report*, which is an attachment to the *2022 Semiannual Groundwater Monitoring & Corrective Action Report – Plant Hammond - Ash Pond 1 (AP-1)* (Geosyntec, 2022a). A conservative, health-protective approach was used that is consistent with United States Environmental Protection Agency (USEPA) risk assessment guidance, Georgia EPD regulations and guidance, and standard practice for risk assessment in the State of Georgia. Arsenic and molybdenum have been identified as SSL-related constituents using the groundwater protection standards (GWPS) established for AP-1 in accordance with the Federal and State CCR Rules (Geosyntec, 2022a).

[1] The constituents included in the risk evaluation also occur naturally in the site geologic setting.

Consistent with USEPA guidance, this risk evaluation used a tiered approach to evaluate potential risks, which included the following steps:

1. Development of a conceptual exposure model (CEM) for AP-1.
2. Initial groundwater risk screening: Comparison of groundwater concentrations of SSL-related constituents to conservative, health-protective criteria and/or background concentrations to assess whether they pose a risk to human health.
3. Refined groundwater risk evaluation: Perform a more refined analysis of Constituents of Potential Interest (COPIs) that were not screened out in the initial risk screening to assess whether they pose a potential risk to human health.
4. Development of risk conclusions and identification of associated uncertainties.

Using this approach that includes multiple conservative assumptions, SSL-related constituents evaluated from AP-1 are not expected to pose a risk to human health or the environment. The SSL-related constituents are delineated to concentrations below analytical detection limits that are less than the applicable health-protective screening levels in on-site groundwater monitoring wells. Therefore, no further risk evaluation for groundwater is warranted. In addition, because SSL-related constituents in groundwater were delineated within the plant property boundary, evaluation of off-site ecological receptors associated with the surface water pathway was not necessary. Compliance monitoring for AP-1 will continue pursuant to the requirements of the Federal and State CCR Rules. Georgia Power will proactively evaluate the data and update this evaluation, if necessary.

1 INTRODUCTION

This report summarizes a risk evaluation of AP-1 at Georgia Power's Plant Hammond (site) located in Rome, Georgia (**Figure 1**). The risk evaluation was performed in support of the *Draft Remedy Selection Report* and is used to ensure that the proposed remedy will protect human health and the environment. AP-1 is located on the southeast side of the Plant and is bounded to the east by Cabin Creek and to the south by the Coosa River. Georgia Power will close AP-1 through removal of the CCR material from the CCR unit. Closure activities will be conducted in accordance with the Federal and State CCR Rules and as described in the AP-1 Closure Permit which was approved by EPD on June 22, 2020.

This risk evaluation provides additional technical review of the human health and environmental protectiveness associated with the planned closure of AP-1 with respect to constituent concentrations in groundwater identified at SSLs above the GWPS. USEPA revised the Federal CCR Rule on July 30, 2018, updating the GWPS for cobalt, lead, lithium, and molybdenum values. On February 22, 2022, EPD adopted the federal GWPS for cobalt, molybdenum, lithium, and lead under 40 CFR §257.95(h) (EPD, 2022), which established the GWPS for these constituents as the higher of background concentrations or 0.006 mg/L, 0.015 mg/L, 0.040 mg/L, and 0.100 mg/L, respectively.

The risk evaluation relies on a conservative, health-protective approach that is consistent with the risk approaches outlined in Voluntary Remediation Program (VRP) (Georgia Voluntary Remediation Act, O.C.G.A. § 12-8-100) and components of the Risk Assessment Guidance for Superfund (RAGS) as included in the USEPA Regional Screening Levels (RSLs) User's Guide (USEPA, 2022a). This evaluation also incorporates principles and assumptions consistent with the Federal and State CCR Rules.

The risk evaluation includes the development of a site-specific CEM and a stepwise risk screening process for identified SSL-related constituents for AP-1. Arsenic and molybdenum were identified as SSL-related constituents under the Federal and State CCR Rules in the following wells:

- Arsenic: HGWC-13; and
- Molybdenum: HGWC-8.

The remainder of the report is organized as follows:

- ***Section 2, Basis and Background for the Development of the Conceptual Exposure Model*** – Presents site-specific information related to the site history, monitoring network, topography and surface hydrology, geology and hydrogeology, potential transport pathways, and receptors that could potentially be exposed to SSL-related constituents.
- ***Section 3, Risk Evaluation Screening*** – Describes the process for the initial risk-based screening of SSL-related constituents to identify COPIs in groundwater.
- ***Section 4, Refined Risk Evaluation*** – Describes the risk screening process for the COPIs identified in groundwater, including calculation of exposure point concentrations (EPCs) and analysis of concentration trends over time.
- ***Section 5, Uncertainty Assessment*** – Describes the uncertainties associated with the risk screening process.
- ***Section 6, Conclusions*** – Presents the conclusions of the risk evaluation.
- ***Section 7, References*** – Provides reference information for the sources cited in this document.

2 BASIS AND BACKGROUND FOR THE DEVELOPMENT OF THE CONCEPTUAL EXPOSURE MODEL

This section provides a brief overview of the site location and operational history, site regulatory status, and geology/hydrogeology. A CEM representing the site-specific processes and conditions that are relevant to the potential migration of groundwater and potential exposure to SSL-related constituents has been developed based on a review and compilation of information previously presented in site documents, including the *Hydrogeologic Assessment Report (HAR) Revision 1 - Ash Pond 1* (Geosyntec, 2019), *2021 Semiannual Groundwater Monitoring & Corrective Action Report – Plant Hammond - Ash Pond 1 (AP-1)* (Geosyntec, 2021); *2021 Annual Groundwater Monitoring & Corrective Action Report – Plant Hammond - Ash Pond 1 (AP-1)* (Geosyntec, 2022b). The CEM includes a conservative evaluation of assumed potential transport pathways, exposure pathways and potential human and ecological receptors.

2.1 Site Description

The site is located in Floyd County, Georgia, approximately 10 miles west of the city of Rome. The site occupies approximately 1,100 acres 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. A site location map is included as **Figure 1**.

AP-1 is a 35-acre surface impoundment located at Plant Hammond that received CCR material from its commission in 1952 until 1969. After 1969, AP-1 was utilized as a cotreatment pond to handle return water flows from the other ponds and for recycling of process water for plant operations. Georgia Power will close AP-1 through removal of the CCR material from the CCR unit; closure activities will be conducted in accordance with 40 C.F.R. § 257.102 and corresponding Georgia EPD Rule 391-3-4-.10(7)(b). The CCR material will be disposed of in a permitted landfill or transported off-site for beneficial use. AP-1's Closure Permit was aproved by EPD on June 22, 2020. Details of the closure approach are provided in the Closure Permit. Semiannual groundwater monitoring and reporting is required for at least 5 years following CCR removal per AP-1's Closure Permit.

As detailed in the *2021 Annual Groundwater Monitoring & Corrective Action Report – Plant Hammond - Ash Pond 1* (Geosyntec, 2022b), the groundwater monitoring network at AP-1 consists of 28 monitoring wells for the upgradient and downgradient groundwater monitoring system at the site. Five of these wells (HGWA-1, HGWA-2, HGWA-3, HGWA-43D, and HGWA-44D) are designated for monitoring of background conditions upgradient of the the ash ponds, seven compliance monitoring wells (HGWC-7, HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, and HGWC-13), and 11 delineation monitoring wells (MW-5, MW-6, MW-7, MW-19, MW-20, MW-24D, MW-25D, MW-26D, MW-27D, MW-28D, and MW-29)

are designated for monitoring downgradient of AP-1. There are five wells (AP1A-1, MW-1, MW-8, MW-30D, and MW-40D) that are designated as piezometers.

The monitoring well network for AP-1 is shown on **Figure 2**. Based on the conceptual site model and the observed hydrogeologic conditions at the site, downgradient well locations are distributed along the eastern and southern perimeter of the site in the direction of groundwater flow. Both background and downgradient wells are screened in the same water-bearing horizon along the zone of primary groundwater transport within the highly weathered bedrock and upper portion of the competent bedrock.

2.1.1 Topography and Surface Hydrology

AP-1 is located in the eastern portion of the Plant Hammond property. The area surrounding AP-1 slopes gently south towards the Coosa River and southeast towards Cabin Creek. Topographic relief across the site is approximatly 13 feet (ft), with a natural topographic high at an elevation of nearly 592 ft above mean sea level (amsl) occurring at the upgradient well HGWA-1, and with a topographic low at the banks of the Coosa River and Cabin Creek at approximately 575 ft amsl (Geosyntec, 2019).

2.1.2 Geology and Hydrogeology

The following information is provided in the *2021 Annual Groundwater Monitoring & Corrective Action Report – Plant Hammond - Ash Pond 1* (Geosyntec, 2022b) and presented below:

> *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-1 is underlain by the middle units of the Cambrian age Conasauga Formation, consisting of mostly shaley limestone. Subsurface investigations at AP-1 describe the bedrock as limestone or shaley limestone. AP-1 is underlain primarily by five lithologic units: (i) fill, (ii) terrace alluvium, (iii) residuum, (iv) highly weathered/fractured shaley limestone bedrock, and (v) competent shaley limestone bedrock.*
>
> . . . .
>
> *The uppermost aquifer at AP-1 is a regional groundwater aquifer that occurs in the terrace alluvium, residuum, and the weathered and fractured bedrock. The uppermost aquifer is considered to be unconfined; however, localized, semi-confined conditions may be encountered due to the low-permeability clayey nature of the residual soils, or as a result of perched groundwater or poorly interconnected fracture networks in the*

bedrock. Based on observations of soil types and horizontal conductivity values, the movement of groundwater in the soil, and to some degree the highly weathered bedrock zone, can be characterized as low-to moderate permeability, porous media flow. Groundwater flow in the more competent underlying bedrock is characterized as fracture flow. Groundwater flow in the vicinity of AP-1 is to the east and south.

The potentiometric surface contours provided in the *2022 Semiannual Groundwater Monitoring & Corrective Action Report – Plant Hammond - Ash Pond 1* (Geosyntec, 2022a) are provided on **Figure 3.**

2.2 Potential Transport Pathways

A variety of geologic, hydrogeologic, and geochemical mechanisms can occur in the subsurface and serve to attenuate constituent concentrations in groundwater such as soil or rock characteristics, the local geology and hydrogeology, and the distance the groundwater must travel before reaching a potential receptor. A summary of the potential transport pathways is shown on the CEM in **Figure 4**.

Cabin Creek and the Coosa River abut AP-1 to the east and south, respectively. The surface water flow direction for Cabin Creek is south where it enters the Coosa River which flows from east to west. A conservative assumption for this assessment was made that the groundwater from the site flows to either Cabin Creek or the Coosa River. In addition, for the purposes of this evaluation, both Cabin Creek and the Coosa River were assumed to represent a hydraulic discharge boundary for groundwater flow in the upper aquifer from the nearby region.

Concentrations of SSL-related constituents were below the health-protective screening levels in wells on-site and upgradient of surface water bodies, as shown by the findings of the risk evaluation in Section 4.1.4. Therefore, evaluation of surface water was not necessary.

2.3 Potential Exposure Pathways and Receptors

The exposure pathways for groundwater were assumed to be complete for purposes of this risk evaluation and were used to identify potential receptors and estimate potential risk. The CEM (**Figure 4**) depicts the conservative potential exposure pathways and receptors included in the risk evaluation.

The following potential exposure pathways and receptors were considered:

- On-site industrial worker: The groundwater exposure pathway for the on-site industrial worker was considered incomplete because there are no wells on-site that are classified for use as potable wells.

- On-site construction worker: While there is a potential for limited exposure to groundwater by a future construction worker through dermal contact with on-site shallow groundwater during subsurface activities, future construction workers would be expected to have little to no direct contact with on-site groundwater due to safety procedures outlined in their site-specific health and safety plans.

- On-site resident: The groundwater exposure pathway for on-site residents was considered incomplete because the site is zoned heavy-industrial and there is no residential use on-site under current site conditions and future residential use of the site is considered unlikely (Floyd County, 2022).

- Off-site industrial/construction worker: The potential for off-site worker exposure through direct contact with groundwater was addressed qualitatively through the evaluation of hypothetical off-site residential receptors. Health-protective screening levels for residential receptors would be more conservative than industrial and construction worker screening levels.

- Off-site resident: The groundwater exposure pathway for hypothetical off-site residential receptors was conservatively assumed to be potentially complete. Nearby zoning is Agricultural Residential with the exception of some Community Commercial zoning across Alabama Highway to the north of the site (Floyd County, 2022). An off-site well survey of potential groundwater wells within a three-mile radius of the site (AP-1, AP-2, AP-3, and AP-4) was conducted and consisted of reviewing federal, state, and county records and online sources, in addition to conducting a windshield survey of the area (Newfields, 2020). The off-site well survey is included as **Appendix A**. A desktop review was performed in January 2022 to search for additonal wells added since 2020. Results of the survey and the January 2022 update are presented on **Figure 5**. Hypothetical off-site residential receptors in the downgradient groundwater flow direction identified in the well survey are located on the opposite side of the Coosa River or Cabin Creek, which for the purpose of this risk evaluation were assumed to represent hydraulic discharge boundaries for groundwater downgradient of AP-1.

  Concentrations of SSL-related constituents in on-site groundwater monitoring wells and piezometers are below health-protective screening levels in wells on-site and upgradient of surface water bodies at AP-1. As a conservative measure, hypothetical off-site residential exposure to the SSL-related constituents was evaluated using data collected from on-site groundwater wells between 2016 and February 2022 downgradient of AP-1. This comparison makes the conservative assumption that on-site groundwater has the potential to migrate to off-site drinking water wells through advective transport in groundwater without any attenuation in the aquifer media through factors such as dilution, dispersion, or adsorption, and disregards the presence of Cabin Creek and the

Coosa River which represent assumed hydraulic discharge boundaries for groundwater downgradient of AP-1. Accordingly, the risk evaluation screening assumed the hypotehtical off-site residential receptor could be exposed by ingestion and dermal contact with SSL-related constituents in groundwater through its use as a future potable water source.

- Rrecreational surface water receptors: The surface water exposure pathway for hypothetical recreational receptors was addressed qualitatively through the evaluation of on-site groundwater data. SSL-related constituent concentrations are below the health-protective screening criteria in on-site groundwater. Therefore, evaluation of the surface water pathway was not necessary.

- Ecological surface water receptors: The surface water exposure pathway for off-site ecological receptors was addressed qualitatively through the evaluation of on-site groundwater data. SSL-related constituent concentrations are below health-protective screening criteria in on-site groundwater. Therefore evaluation of the surface water pathway was not necessary.

3 RISK EVALUATION SCREENING

The CEM developed in Section 2 was used to identify the potential exposure pathways to human receptors that should be considered in the risk evaluation. The initial step in the risk evaluation is the comparison of SSL-related constituent concentrations from groundwater samples collected between 2016 and February 2022 to relevant, health-protective levels. The approach used is consistent with the Georgia EPD regulations and guidance, USEPA guidance, and standard practice for risk assessment in the State of Georgia. The Georgia EPD allows for the site-specific evaluation of risk in programs such as the Voluntary Remediation Program (VRP) (EPD, 2009).

The initial risk evaluation screening was performed for the potential groundwater exposure pathway by comparing the concentrations of SSL-related constituents in groundwater samples from wells determined to have SSL-related constituents to appropriate health-protective screening criteria. These criteria included the risk reduction standards (RRS)[2] established under the Hazardous Site Response Act (HSRA) for drinking water and site-specific background for the protection of human health. If the maximum concentration of a SSL-related constituent exceeded the screening criterion, the constituent was identified as a COPI for further evaluation in the refined risk evaluation. The methodology and screening criteria used were identified in accordance with regulatory guidance and standard risk assessments practices using an approach designed to conservatively overestimate possible exposures and risks, providing an additional level of confidence in the conclusions. The methodology is summarized on **Figure 6** and discussed in more detail below.

3.1 Data Used in Risk Evaluation Screening

This section provides information on the groundwater dataset used in the risk evaluation screening.

3.1.1 Groundwater Data

For the initial risk screening evaluation, groundwater data from samples collected between 2016 and February 2022 from the on-site wells that were identified to have SSL-related constituents were used in the risk screening evaluation for hypothetical off-site residential exposure.

The list of wells identified in the *2022 Semiannual Groundwater Monitoring & Corrective Action Report – Plant Hammond Ash Pond 1 (AP-1)* with SSL-related constituents identified under the Federal and State CCR Rules is as follows:

- Arsenic: HGWC-13; and

[2] HSRA was amended in 2018 to make the methods used for calculating RRSs consistent with USEPA's RAGS for the calculation of RSLs.

- Molybdenum: HGWC-8.

The data for the wells were screened against the relevant health-protective screening criteria. The location of wells with SSL-related constituents included in the risk screen are provided on **Figure 7**.

Groundwater data used in the risk screening level evaluation were collected from the uppermost aquifer and are considered to be representative of groundwater conditions at the site. The groundwater dataset used in the risk evaluation is presented in **Appendix B**. Method detection limits for the groundwater datasets used in the risk evaluation were reviewed and confirmed to be less than the screening levels.

3.1.2 Background Groundwater Quality

Statistical analysis of groundwater monitoring data is performed at the site pursuant to §257.93-95 following the professional engineer certified Statistical Analysis Method Certification (October, 2017, revised January 2020) (Geosyntec, 2020) and the Unified Guidance (USEPA, 2009) for AP-1; background values are routinely updated under the program. For the data set presented, five monitoring wells in the certified monitoring well network are designated as upgradient (background) locations for AP-1, HGWA-1, HGWA-2, HGWA-3, HGWA-43D, and HGWA-44D. The statistical analyses performed on the groundwater data were described in the *2021 Annual Groundwater Monitoring & Corrective Action Report Plant Hammond Ash Pond 1* (Geosyntec, 2022b); and text from that document is presented below.

> *The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package, that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA document Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance (Unified Guidance) (USEPA, 2009). Time series plots generated by Sanitas are used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters are formally tested using Tukey's box plot method and not used to establish statistical limits. Background well data were updated following the Unified Guidance recommendation, evaluating recent background data using Tukey's box plot method for outliers and Sen's Slope/Mann-Kendall methods for potential trends.*

3.2 Groundwater Screening Evaluation

The process of screening constituents detected in groundwater against human health screening levels for groundwater is discussed below and presented in **Figure 6**. The HSRA RRSs

evaluated under the VRP approach presented herein include Type 1 (arsenic) and Type 2 (molybdenum) RRS for off-site residential receptors. The Hazardous Site Response Act Rule 391-3-19.07(1) notes that "*[a]ll risk reduction standards will, when implemented, provide adequate protection of human health and the environment.*" In addition, Rule 391--3--19-.07(3) notes a corrective action, if needed, may be considered complete when "*a site meets any or a combination of the applicable risk reduction standards described in Rule 391--3--19-.07."*

In accordance with standard methodologies approved by the Georgia EPD, the screening level hierarchy for the SSL-related constituents is as follows:

- The higher of the Type 1 or Type 2 RRS for hypothetical off-site residential exposure, which are considered protective of human health for those constituents regulated under HSRA. The Type 1 RRS was used for arsenic in the evaluation which is the Georgia drinking water criteria presented in Appendix III, Table 1 of the HSRA rule (EPD, 2018).

- In accordance with standard methodologies approved by the Georgia EPD and because an RRS for molybdenum has not already been established under HSRA, a site-specific risk-based screening value was calculated using the default exposure factors for residential receptors and the methodology found in Appendix III of the HSRA rule (EPD, 2018). Accordingly, the calculated screening value is equivalent to a Type 2 groundwater RRS protective of residential exposures. Toxicity values for molybdenum used in the calculations were identified in the Integrated Risk Information System (IRIS) (USEPA, 2022b). The risk-based screening value was calculated using USEPA's RSL calculator (USEPA, 2022a) assuming a target hazard quotient of 1, consistent with Georgia EPD guidance applicable in other contexts (EPD, 2018). The calculation of a risk-based screening value for molybdenum is presented in **Appendix C**. Based on the foregoing, the site-specific screening level was used for molybdenum.

- If site-specific background concentrations are greater than the criteria described above, then the site-specific background concentration is used as the screening level in accordance with the CCR methodology for development of groundwater protection standards (USEPA, 2020). Background was not used as a screening level in this evaluation.

In summation, based on the hierarchy above, groundwater data collected from the wells identified to have SSL-related constituents were compared to residential screening criteria for groundwater.

Table 1 presents the maximum detected concentration of each SSL-related constituent, arsenic 0.52 milligrams per liter (mg/L) and molybdenum (0.55 mg/L), which was used to represent potential off-site groundwater quality for comparison to the selected screening levels for arsenic

(0.01 mg/L) and molybdenum (0.1 mg/L), for hypothetical off-site residential receptors. As noted in **Table 1**, arsenic and molybdenum were detected at concentrations that exceeded their screening levels and were retained as COPIs for further evaluation in a refined risk evaluation.

4 REFINED RISK EVALUATION

A refined risk evaluation was conducted for the groundwater COPIs (arsenic and molybdenum) that were detected at concentrations that exceeded the health-protective screening criteria. The refined risk evaluation identified EPCs for arsenic and molybdenum for the purposes of characterizing potential risk to human receptors.

4.1 Refined Groundwater Risk Evaluation

Potential risk associated with exposure to arsenic and molybdenum by hypothetical off-site residential receptors was refined using the methodology described in HSRA and VRP and other supporting guidance (EPD, 2018; EPD, 2009, EPD, 2015) and is presented in the following section and on **Figure 8**.

For the refined risk evaluation, groundwater data from samples collected between 2016 and February 2022 from the on-site wells that were identified to have a SSL-related constituent and downgradient monitoring wells/piezometers that represent groundwater flow in the same hydraulically downgradient direction were used to evaluate hypothetical off-site residential exposure.

As noted above, groundwater data used in the risk screening level evaluation were collected from the uppermost aquifer and are considered to be representative of groundwater conditions at the site. The groundwater dataset used in the refined risk evaluation is presented in **Appendix B.**

4.1.1 Groundwater Exposure Point Calculation

The refined risk evaluation for arsenic and molybdenum included the development of an EPC for each constituent. The EPC is a conservative estimate of potential exposure that is selected to address uncertainty and variability in the dataset (USEPA, 2002). Consistent with guidance for developing groundwater EPCs (USEPA, 2014), 95 percent upper confidence limits of the arithmetic mean (UCLs) were calculated using USEPA ProUCL 5.1 software (ProUCL) (USEPA, 2016) and ProUCL user's guide (USEPA, 2015).

For the refined risk evaluation, the UCLs for the COPIs in groundwater were calculated for datasets with the following characteristics:

- UCLs for the individual well(s) with an SSL-related constituent;
- UCLs based on combined data from the well(s) with an SSL-related constituent and other well(s)/piezometer(s) in the general vicinity to include additional downgradient monitoring well(s)/piezometer(s) that represent groundwater flow in the same hydraulically downgradient direction; and

- UCLs based on the combined data from the farthest downgradient well(s)/piezometer(s) that are hydraulically downgradient of the well(s) with an SSL-related constituent.

Other assumptions made in the calculation of the UCLs include:

- Primary samples (no duplicates) were used to calculate EPCs as duplicate samples were analyzed for quality assurance purposes.

- If the calculated UCL exceeded the maximum detected concentration, then the maximum detected concentration was used as the EPC.

ProUCL software calculates multiple UCLs and provides a recommended UCL which was selected as the EPC. If there were multiple UCLs recommended by ProUCL, the maximum UCL value was selected as a conservative assumption. **Appendix D-1** provides a detailed summary of the UCLs calculated using the methods described above, and **Appendix D-2** presents figures showing the wells used in the calculation of the EPCs for each groundwater COPI. **Appendix D-3** provides the input and output files associated with the ProUCL software.

Table 2 summarizes the groundwater EPCs selected for the COPIs. This table shows the number of samples, the maximum detected concentrations, the UCLs recommended by ProUCL software, and the selected EPCs.

4.1.2 COPI Concentration Trend Analysis

Concentration trends over time were evaluated as one line of evidence in the refined risk evaluation for arsenic and molybdenum. The Mann-Kendall trend test with an alpha value equal to 0.05 and the Theil-Sen line test were conducted on the data from HGWC-13 for arsenic and HGWC-8 and MW-27D for molybdenum to evaluate the trends in concentrations over time. The tests were conducted using the USEPA ProUCL 5.1 software (USEPA, 2016).

The Mann-Kendall and Thiel-Sen test results are presented on time series graphs in **Appendix D-4** and indicated:

- There is a statistically significant increasing trend in arsenic concentrations over time in HGWC-13. However as discussed in Section 4.1.3.1, arsenic concentrations in samples collected from MW-24D (the deep delineation well for HGWC-13) and MW-7 (the farthest hydraulically downgradient delineation well for HGWC-13) are below analytical detection limits that are less than the screening level;

- There are no statistical trends in molybdenum concentrations over time in HGWC-8. Additionally, as discussed in Section 4.1.3.2, molybdenum concentrations in samples

collected from MW-20 (the farthest hydraulically downgradient well for HGWC-8), are below analytical detection limits that are less than the screening level; and

- There is a statistically significant decreasing trend in molybdenum concentrations over time in MW-27D (the deep delineation well for HGWC-8). The detected molybdenum concentrations and the analytical detection limits have all been less than the screening level.

Mann Kendall trend analysis requires four data points with at least three detections. Trends may be evaluated at the farthest downgradient piezometers from the well(s) with SSL-related constituents, if necessary, after additional sampling events are conducted at downgradient locations.

4.1.3 Refined Groundwater Risk Evaluation Results

Arsenic and molybdenum were identified as groundwater COPIs in the initial risk screening. In the refined risk evaluation, comparison of the calculated EPC to the screening level was used to identify constituents of interest (COIs) that may pose a potential risk to hypothetical off-site residential receptors exposed through the potential use of groundwater as potable water. If the EPC from the farthest downgradient well(s) is greater than the respective screening level, then the constituent is identified as having the potential for risk that warrants additional evaluation (e.g., performing a surface water evaluation).

4.1.3.1 Arsenic

Arsenic concentrations were detected in 21 out of 21 groundwater samples in well HGWC-13 at concentrations that exceeded the off-site groundwater screening level for residential receptors. For the refined risk evaluation, the following EPCs were calculated for arsenic using the wells shown in **Appendices D-1** and **D-2a**:

- Data from HGWC-13 were used to determine if the UCL is less than the screening level (EPC Step 1 in **Appendix D-1**).

- Data from HGWC-13 and the downgradient wells MW-24D, MW-19 and MW-7 were combined to represent potential groundwater exposure associated with the SSL well and hydraulically downgradient wells (EPC Step 2 in **Appendix D-1**).

- Data from MW-7 were used to represent groundwater exposure using the well that is the farthest hydraulically downgradient of well HGWC-13 (EPC Step 3 in **Appendix D-1**).

Although the EPC Step 1 (0.41 mg/L) and the EPC Step 2 (0.28 mg/L) exceeded the screening level, the EPC Step 3 (< 0.005 mg/L), which includes the farthest downgradient well[3], was less than the health-protective screening level.

Table 3 presents the results of the refined screening comparing the farthest hydraulically downgradient EPC to the screening criterion. As arsenic was non-detect, with a maximum reporting limit half the screening level, in the farthest hydraulically downgradient well on the site, arsenic was not identified as a COI in groundwater for hypothetical off-site residential receptors and is not expected to pose a risk to human health through potable water use.

4.1.3.2 Molybdenum

Molybdenum concentrations were detected in 22 out of 22 groundwater samples in well HGWC-8 at concentrations that exceeded the off-site groundwater screening level for residential receptors. For the refined risk evaluation, the following EPCs were calculated for molybdenum using the wells shown in **Appendices D-1** and **D-2b**:

- Data from HGWC-8 were combined to determine if the UCL is lower than the screening level (EPC Step 1 in **Appendix D-1**).

- Data from HGWC-8 and the downgradient wells MW-27D and MW-20 were combined to represent groundwater potential exposure associated with the SSL well and hydraulically downgradient wells (EPC Step 2 in **Appendix D-1**).

- Data from MW-20 were combined to represent groundwater exposure using the well that is the farthest hydraulically downgradient of well HGWC-8 (EPC Step 3 in **Appendix D-1**).

Although the EPC Step 1 (0.48 mg/L) and the EPC Step 2 (0.47 mg/L) exceeded the screening level, the EPC Step 3 (< 0.01 mg/L), which includes the farthest downgradient well, was less than the health-protective screening level.

Table 3 presents the results of the refined screening comparing the farthest hydraulically downgradient EPC to the screening criterion. As molybdenum was not detected, with a maximum reporting limit approximately ten times less than the screening level in the farthest hydraulically downgradient wells on the site, molybdenum was not identified as a groundwater COI for hypothetical off-site residential receptors and is not expected to pose a risk to human health through potable water use.

[3] All of the samples collected from MW-7, the farthest downgradent well, were non-detect for arsenic and the reporting limit was below the screening level.

4.1.4 Refined Groundwater Risk Evaluation Summary and Conclusions

Detections of the SSL-related constituents arsenic and molybdenum were reported at concentrations above the applicable groundwater screening values. However, the results of the refined groundwater risk evaluation indicate the following:

- Arsenic and molybdenum are not expected to pose a risk to hypothetical off-site residential receptors.

- The individual data points used to calculate the arsenic and molybdenum EPCs to represent potential groundwater exposure for hypothetical off-site residential receptors based on the farthest hydrologically downgradient monitoring wells were below the health-protective screening level.

Accordingly, based on the multiple lines of evidence and various conservative assumptions, further risk evaluation for groundwater is not warranted. Compliance monitoring under the Federal and State CCR Rules will continue.

5 UNCERTAINTY ASSESSMENT

USEPA guidance stresses the importance of providing an analysis of uncertainties so that risk managers are better informed when evaluating risk assessment conclusions (USEPA, 1989). The uncertainty assessment provides a better understanding of the key uncertainties that are most likely to affect the risk assessment results and conclusions.

The potential uncertainties associated with the risk evaluation are as follows:

Health-Protective Screening Criteria Uncertainties:

- In accordance with standard methodologies approved by the Georgia EPD, the higher of the Type 1 or Type 2 standard was selected for screening criteria. Selection of the screening criteria per industry standards is considered appropriate for risk quantification for Plant Hammond. The Hazardous Site Response Act, Rule 391-3-19.07(1) notes that "*[a]ll risk reduction standards will, when implemented, provide adequate protection of human health and the environment*". Thus, this approach is likely to overestimate hypothetical risks for off-site receptors.

- Screening criteria based on RRSs, including arsenic and molybdenum, represent the reasonable maximum exposure (RME), which are the highest exposures that are reasonably expected to occur at a site. The RME is defined as "*the highest exposure that is reasonably expected to occur at a site but that is still within the range of possible exposures*" (USEPA, 1989). Further, USEPA (1989) states that the "*intent of the RME is to estimate a conservative exposure case (i.e., well above the average case) that is still within the range of possible exposures.*" Potential receptors will likely have lower exposures than those presented in this risk evaluation (i.e., a majority of the site concentrations will be less than the UCL), which overestimates potential exposure.

Exposure Uncertainties:

- The maximum detected concentrations of arsenic and molybdenum were compared to conservative risk-based screening criteria to identify the COPIs. Use of the maximum detected concentration is consistent with standard practice; however, use of the maximum detected concentration for exposure likely overestimates potential risk.

- The constituents included in the risk evaluation may occur naturally in the site geologic setting. Although background concentrations were evaluated, contributions to exposure and risk were assumed to be entirely CCR-related and natural

background sources were not quantified. Thus, SSL concentration-related exposures were likely overestimated.

- Hypothetical off-site residential exposure was evaluated using on-site groundwater data from wells around the perimeter and downgradient of AP-1. This comparison makes the conservative assumption that on-site groundwater may potentially migrate to off-site drinking water wells through advective transport in groundwater, but without any attenuation within the aquifer media through factors such as dilution, dispersion, or adsorption. This assumption may overestimate potential exposure and risk to hypothetical off-site receptors.

- EPCs for metals in groundwater were assumed to be 100 percent bioavailable by ingestion and dermal contact. This assumption may tend to overestimate risk.

- An off-site well survey of potential groundwater wells within a three-mile radius of Plant Hammond was conducted by NewFields in 2020 and updated in January of 2022. The survey consisted of reviewing publicly available federal, state, and county records as well as a windshield survey of the area (**Appendix A**). Geosyntec relied on the data collected by NewFields.

- The evaluation used on-site groundwater data to represent hypothetical off-site exposure, which is a conservative approach that likely results in overestimation of assumed exposure and assumed potential risk. Although off-site potable wells identified in the well survey were not included in the risk evaluation, the presence of these wells do not appear to impact the conclusions of the risk evaluation because concentrations of COPIs are delineated in on-site groundwater.

Toxicity Uncertainties:

- Toxicity factors used to calculate health-protective criteria are established at conservative levels to account for uncertainties and often result in criteria that are many times lower than the levels observed to cause effects in human or animal studies. Therefore, a screening level exceedance does not necessarily equate to an adverse effect.

6 CONCLUSIONS

This risk evaluation for SSL-related constituents in groundwater at AP-1 was conducted using methods consistent with Georgia EPD and USEPA guidance and included multiple conservative assumptions. Based on this evaluation, constituents evaluated from AP-1 (arsenic and molybdenum) are not expected to pose a risk to human health or the environment.

Accordingly, no further risk evaluation of groundwater is warranted. Compliance monitoring for AP-1 under the Federal and State CCR Rules will continue. Georgia Power will proactively evaluate the data and update this evaluation, if necessary.

7 REFERENCES

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TABLES

Table 1
SSL-Related Constituent Groundwater Screening
Plant Hammond AP-1 Risk Evaluation Report[1]
Plant Hammond, Rome, GA

CCR Rule Designation	Constituent	CAS No.	Detection Frequency	Exceedance Frequency[2]	Maximum Concentration (mg/L)	Screening Level (mg/L)	Screening Level Source[3]	Site-Specific Background (mg/L)	COPI? (Y/N)	Rationale[4]
Appendix IV	Arsenic	7440-38-2	21 / 21	21 / 21	0.52	0.01	Type 1 RRS	0.005	Y	ASL
	Molybdenum	7439-98-7	22 / 22	22 / 22	0.547	0.1	Site-Specific	0.01	Y	ASL

Notes:

[1] Evaluation includes 2016 to Feburary 2022 groundwater analytical data from wells HGWC-13 (for arsenic) and HGWC-8 (for molybdenum).

[2] The exceedance frequency is based on the number of samples with detected concentrations that exceed the identified screening level.

[3] The screening levels are the maximum value from the following sources:

- Type 1 RRSs listed in HSRA Appendix III, Table 1 (HSRA-regulated substances only).
- Type 2 RRSs calculated using the EPA RSL calculator with default residential exposure factors listed in the RSL Users Guide (HSRA-regulated substances only).
- Site-Specific values calculated using the EPA RSL calculator with default residential exposure factors listed in the RSL Users Guide.
- EPA Maximum Contaminant Levels (MCLs).
- Site-specific background levels were calculated as described in the document "Statistical Analysis Method Certification, 40 CFR §257.93(f), Plant Hammond- Ash Pond 1 (AP-1)" (Geosyntec, 2020).

[4] Rationale for classification of constituent as a COPI or exclusion as a COPI:

- ASL = Above respective screening level
- BSL = Below respective screening level

Definitions:

Grey shading = Constituent concentration(s) exceeded its respective screening level in the dataset.
CAS = Chemical Abstract Service
CCR = Coal Combustion Residuals
COPI = Constituent of Potential Interest
EPA = United States Environmental Protection Agency
GA EPD= Georgia Environmental Protection Division
GWPS = Groundwater Protection Standard
HSRA = [GA EPD] Hazardous Site Response Act
mg/L = milligram(s) per liter
RRS = [GA EPD] Risk Reduction Standard
RSL = [EPA] Regional Screening Level

Table 2
Groundwater Exposure Point Concentration Summary
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

CCR Rule Designation	Constituent	CAS No.	Detection Frequency	Maximum Concentration (mg/L)	Wells Included in 95% UCL Calculation	95% UCL[1,2] (mg/L)	Recommended UCL Method	Selected EPC (mg/L)
Appendix IV	Arsenic	7440-38-2	0 / 10	<0.005	MW-7	NA	NA	<0.005
	Molybdenum	7440-48-4	0 / 10	<0.01	MW-20	NA	NA	<0.01

Notes:

[1] EPCs calculated in accordance with USEPA, 2014. Memorandum for Determining Groundwater Exposure Point Concentrations, Supplemental Guidance. OSWER Directive 9283.1-42, February 2014. Located at: https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236917. For further detail on the selected EPC, refer to Appendix D-1.

[2] NA = Not available. The 95% upper confidence limit on the mean (UCL) was not calculated because the dataset had fewer than 5 values or fewer than 4 detections.

[3] The presented value is the method detection limit (MDL) for the constituent.

Definitions:

CAS = Chemical Abstract Service

CCR = Coal Combustion Residuals

COPI = Constituent of Potential Interest

EPA = United States Environmental Protection Agency

EPC = Exposure Point Concentration

mg/L = milligrams per liter

"<" = Constituent was not detected at the shown reporting limit

Table 3
Downgradient Groundwater Refined Evaluation
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

CCR Rule Designation	Constituent	CAS No.	Detection Frequency	Exceedance Frequency[1]	Selected EPC (mg/L)	Screening Level (mg/L)	SL Source[2]	Site-Specific Background (mg/L)	COI? (Y/N)	Rationale[3]
Appendix IV	Arsenic	7440-38-2	0 / 10	0 / 10	<0.005	0.01	Type 1 RRS	0.005	N	ND/BSL
	Molybdenum	7440-48-4	0 / 10	0 / 10	<0.01	0.1	Site-Specific	0.01	N	ND/BSL

Notes:

[1] The exceedance frequency is based on the number of samples with detected concentrations that exceed the identified screening level.

[2] The screening values are the maximum value from the following sources:

- Type 1 RRSs listed in HSRA Appendix III, Table 1 (HSRA-regulated substances only).
- Type 2 RRSs calculated using the USEPA RSL calculator with default residential exposure factor listed in the RSL Users Guide (HSRA-regulated substances only).
- Site-Specific values calculated using the USEPA RSL calculator with default residential exposure factor listed in the RSL Users Guide.
- Site-specific background levels for each constituent were calculated as described in the document "Statistical Analysis Method Certification, 40 CFR §257.93(f), Plant Hammond - Ash Pond 1 (AP-1)" (Geosyntec, 2020).

[3] Rationale for classification of constituent as a COI:

- ASL = Above respective screening level
- BSL = Below respective screening level
- ND/BSL = Non-detect and below respective screening level

Definitions:

CAS = Chemical Abstract Service
CCR = Coal Combustion Residuals
COI = Constituent of Interest
EPA = United States Environmental Protection Agency
GA EPD= Georgia Environmental Protection Division
HSRA = [GA EPD] Hazardous Site Response Act
mg/L = milligram(s) per liter
RRS = [GA EPD] Risk Reduction Standard
RSL = [EPA] Regional Screening Level
"<" = Constituent was not detected at the shown reporting limit

FIGURES

N

Notes:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 250 500 1,000
Feet

SITE LOCATION MAP

GEORGIA POWER
PLANT HAMMOND AP-1
FLOYD COUNTY, GEORGIA

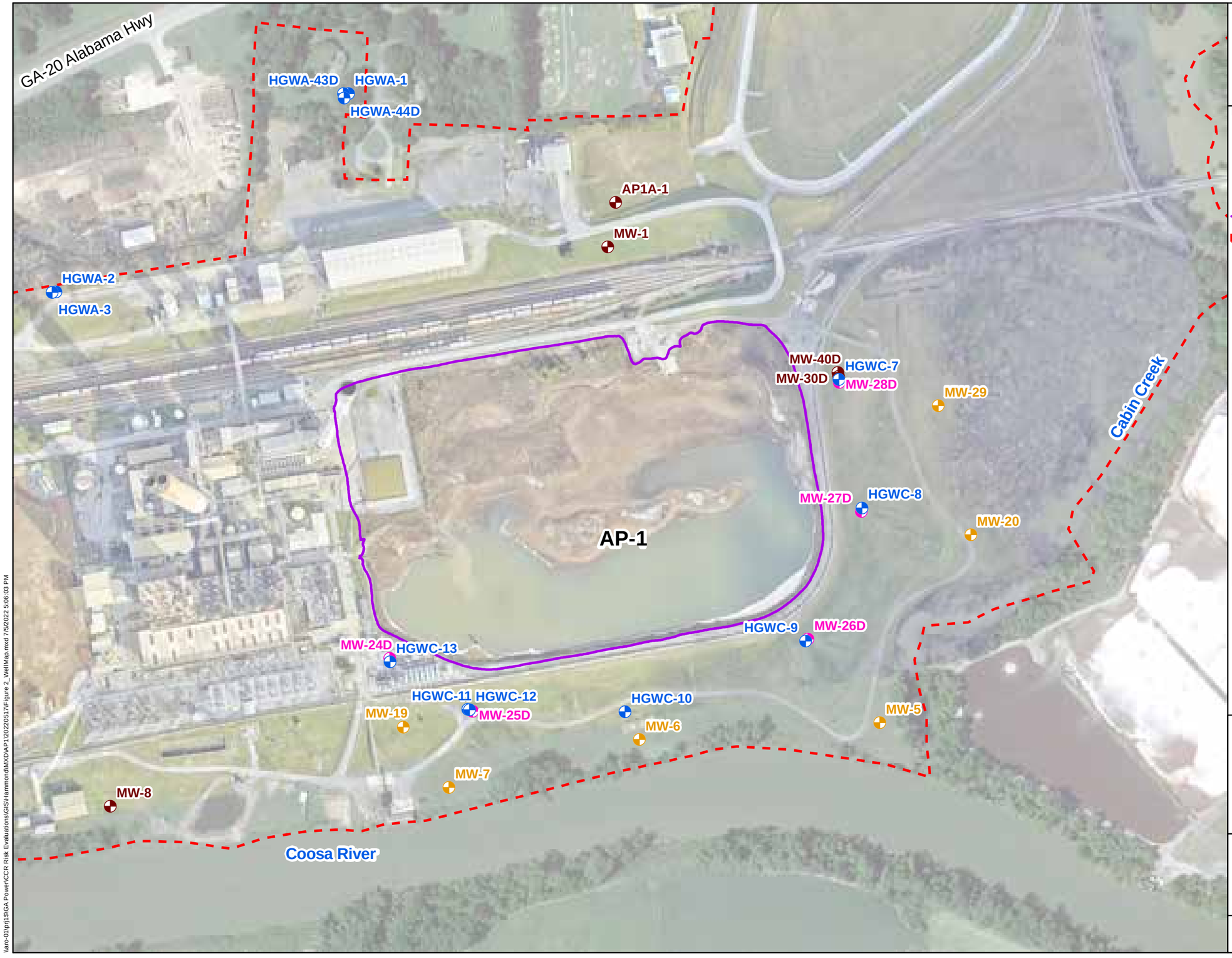
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 1

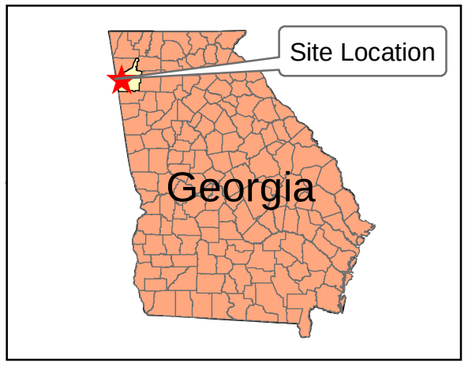
\\aro-01\prj1$\GA Power\CCR Risk Evaluations\GIS\HammondMXD\AP1\20220517\Figure 1_SiteMap.mxd 7/5/2022 5:12:39 PM



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary



Note:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600
Feet

SITE LAYOUT AND MONITORING WELL NETWORK MAP

GEORGIA POWER
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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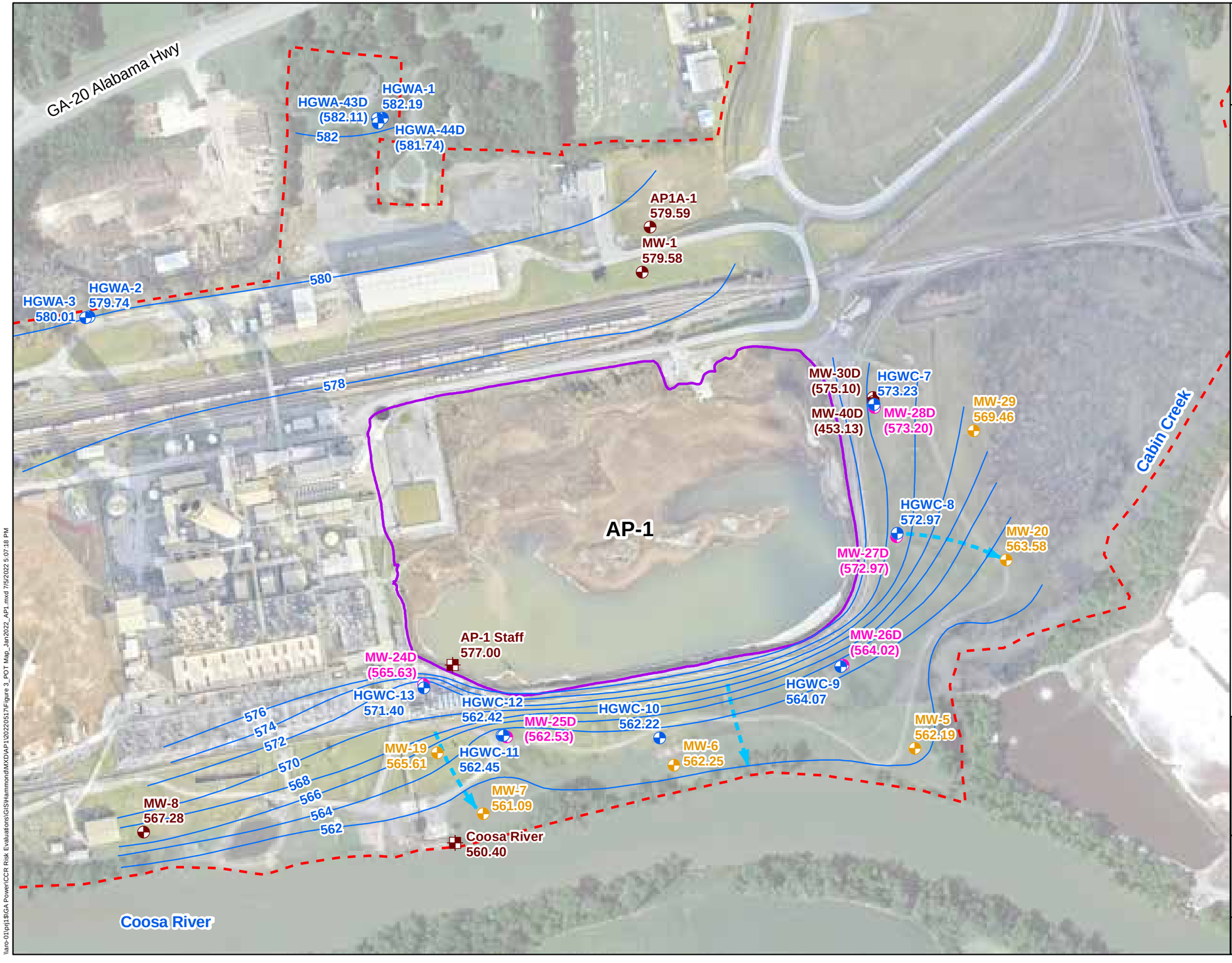
FIGURE 2

\\aro-01\prj\15\GA Power\CCR Risk Evaluations\GIS\Hammond\MXD\AP1\20220517\Figure 2_WellMap.mxd 7/5/2022 5:06:03 PM



N

LEGEND

- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Staff Gauge
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-1
- Plant Hammond Property Boundary

Notes:
1. Water level elevation recorded on January 31, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum of 1988 (NAVD 88).
2. Water elevation in parentheses were not used in development of groundwater contours due to wells being screened at a different elevation in the formation/aquifer.
3. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600
Feet

POTENTIOMETRIC SURFACE ELEVATION CONTOURS - JANUARY 2022

GEORGIA POWER
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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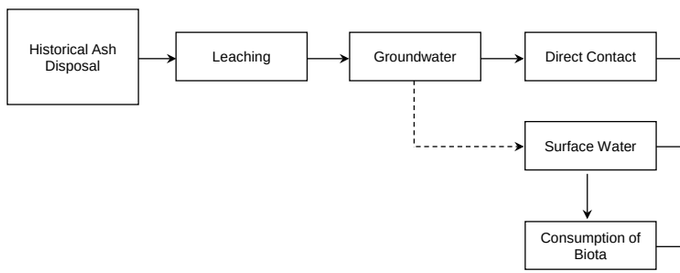
FIGURE 3

\\aro-01\prj1$\GA Power\CCR Risk Evaluations\GIS\Hammond\MXD\AP1\20220517\Figure 3_POT Map_Jan2022_AP1.mxd 7/5/2022 5:07:18 PM



	HUMAN HEALTH AND ECOLOGICAL RISK EVALUATION RECEPTORS									
	HUMAN									ECOLOGICAL
	Current				Future					Current / Future
	On-Site	Off-Site			On-Site		Off-Site			On- / Off-Site
EXPOSURE ROUTE	Worker[1]	Worker[2]	Child and Adult Resident	Child and Adult Recreator	Worker[1]	Child and Adult Resident	Worker[2]	Child and Adult Resident	Child and Adult Recreator	Aquatic Receptors[3]
Ingestion		○	●				○	●		
Dermal Contact		○	●				○	●		
Ingestion				○					○	○
Dermal Contact				○					○	○
Ingestion				○					○	

Legend

A conservative assumption for this assessment was made that groundwater from the site flows to the downgradient surface water.

● Indicates potentially complete pathway to receptors, which are evaluated quantitatively.

○ Indicates potentially complete pathway to receptors, which are evaluated qualitatively.

Footnotes

1. Industrial worker was considered to have no complete pathways because there are no wells on-site that are classified for use as potable wells. On-site construction workers would be expected to have little to no direct contact with on-site groundwater due to safety procedures outlined in their site-specific health and safety plans.

2. Off-site industrial/construction worker addressed through the evaluation of hypothetical off-site residential receptors as health-protective screening levels for residential receptors would be more conservative than industrial and construction worker screening levels.

3. Generalized receptor for ecological health risk evaluation.

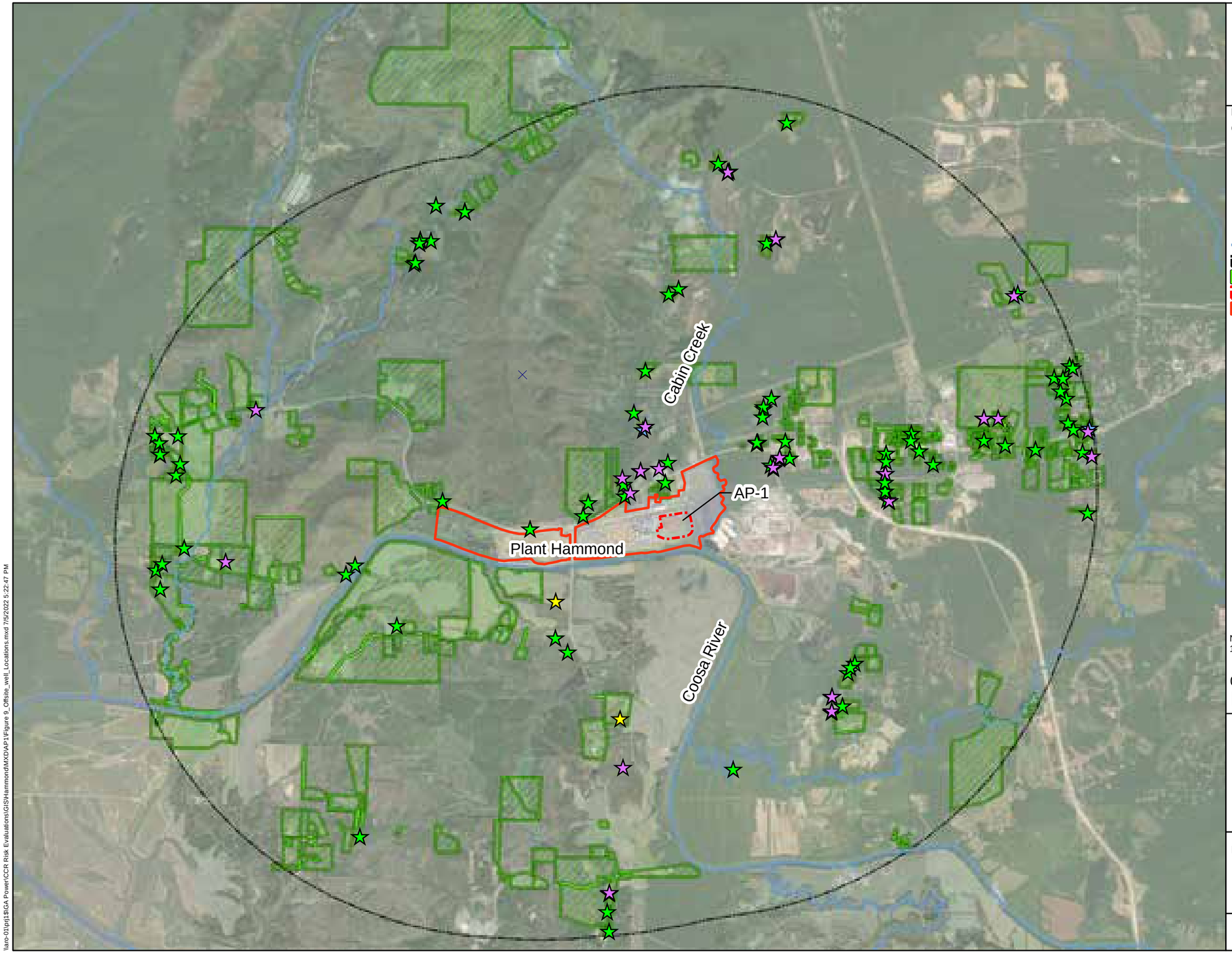
Conceptual Exposure Model

Georgia Power
Plant Hammond AP-1

Geosyntec consultants

Kennesaw, GA | August 2022

Figure 4

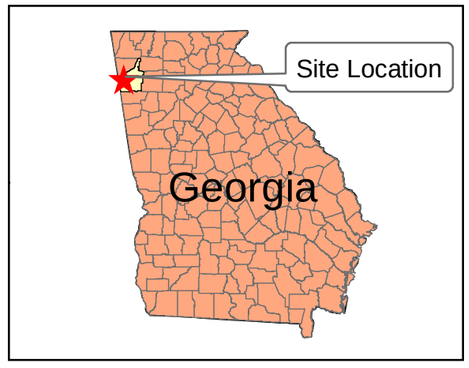


N

LEGEND

Off Site Wells

- Industrial Well
- Monitoring Well
- Private Drinking Well
- Private Irrigation Well
- River or Stream
- 3-Mile Radius
- Parcel Identified as Likely Having Well
- Approximate AP-1 Boundary
- Approximate Plant Hammond Site Boundary



Notes:
1. Aerial photograph source: ESRI World Imagery - Maxar, October 2017 and Georgia Power Company, January 2022.

0 0.5 1 2 Miles

OFF-SITE WELL SURVEY RESULTS

GEORGIA POWER
PLANT HAMMOND AP-1
FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

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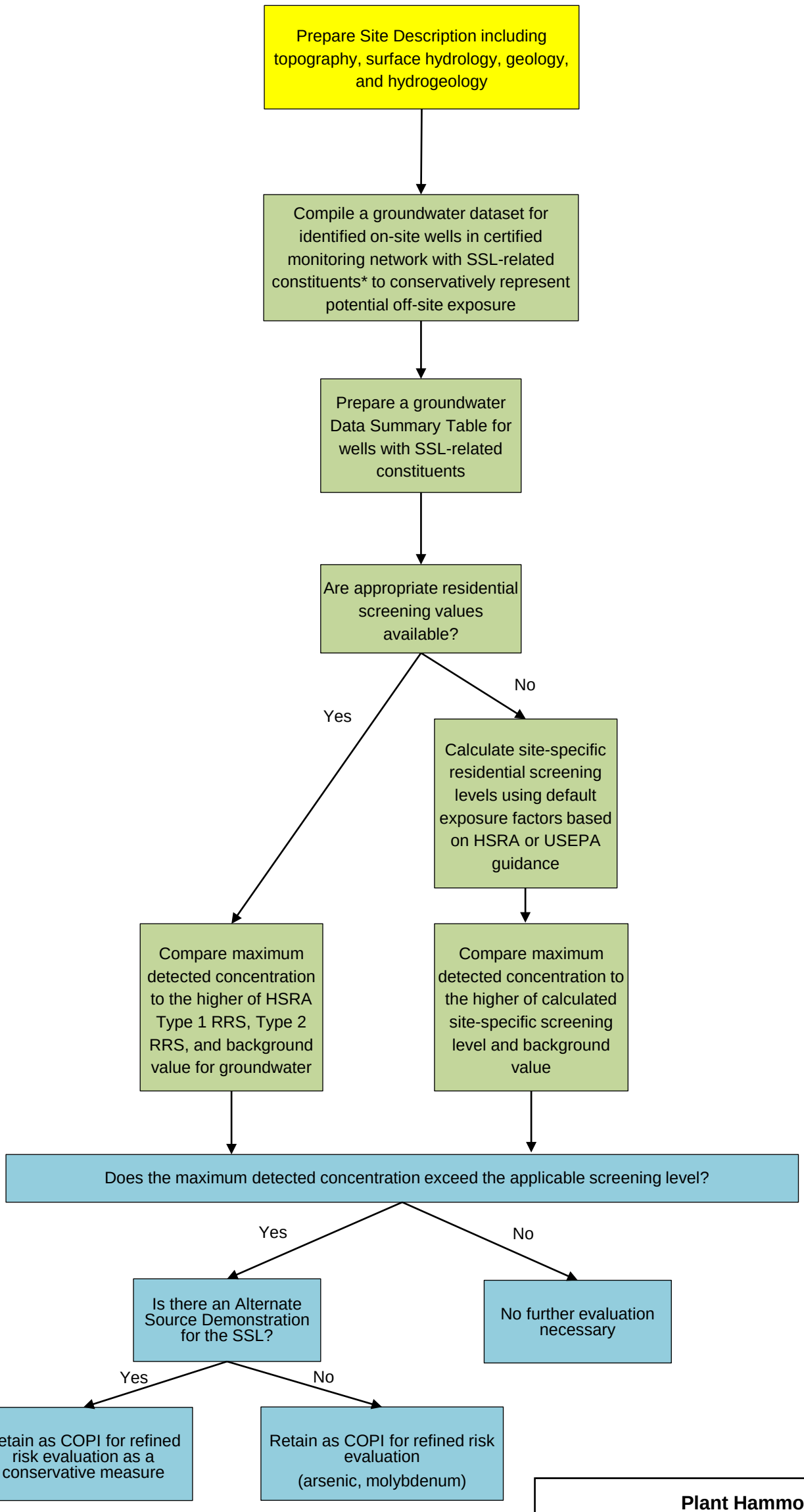
FIGURE 5

\\aro-01\pri1$\GA Power\CCR Risk Evaluations\GIS\Hammond\MXD\AP1\Figure 9_Offsite_well_Locations.mxd 7/5/2022 5:22:47 PM

Initial Risk Screening Approach (Groundwater) for AP-1



Notes:

- Initial screen evaluates wells at AP-1 with SSL-related constituents arsenic and molybdenum

SSL = Statistically Significant Level
COPI = Constituent of Potential Interest
HSRA = Hazardous Site Response Act
RRS = Risk Reduction Standard
USEPA = United States Environmental Protection Agency

Plant Hammond AP-1
Initial Groundwater Risk Screening Approach

Figure 6

Project Number: GZ7112H	August 2022

N

LEGEND

- Wells with SSL Related Constituents
- Compliance Monitoring Well
- Horizontal Delineation Well
- Vertical Delineation Well
- Piezometer
- Approximate AP-1
- Plant Hammond Property Boundary

Note:
1. Arsenic Federal and State CCR Rules SSL-Related Constituent: HGWC-13.
2. Molybdenum Federal and State CCR Rules SSL-Related Constituent: HGWC-8.
3. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600 Feet

MONITORING WELLS INCLUDED IN RISK SCREEN

GEORGIA POWER
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

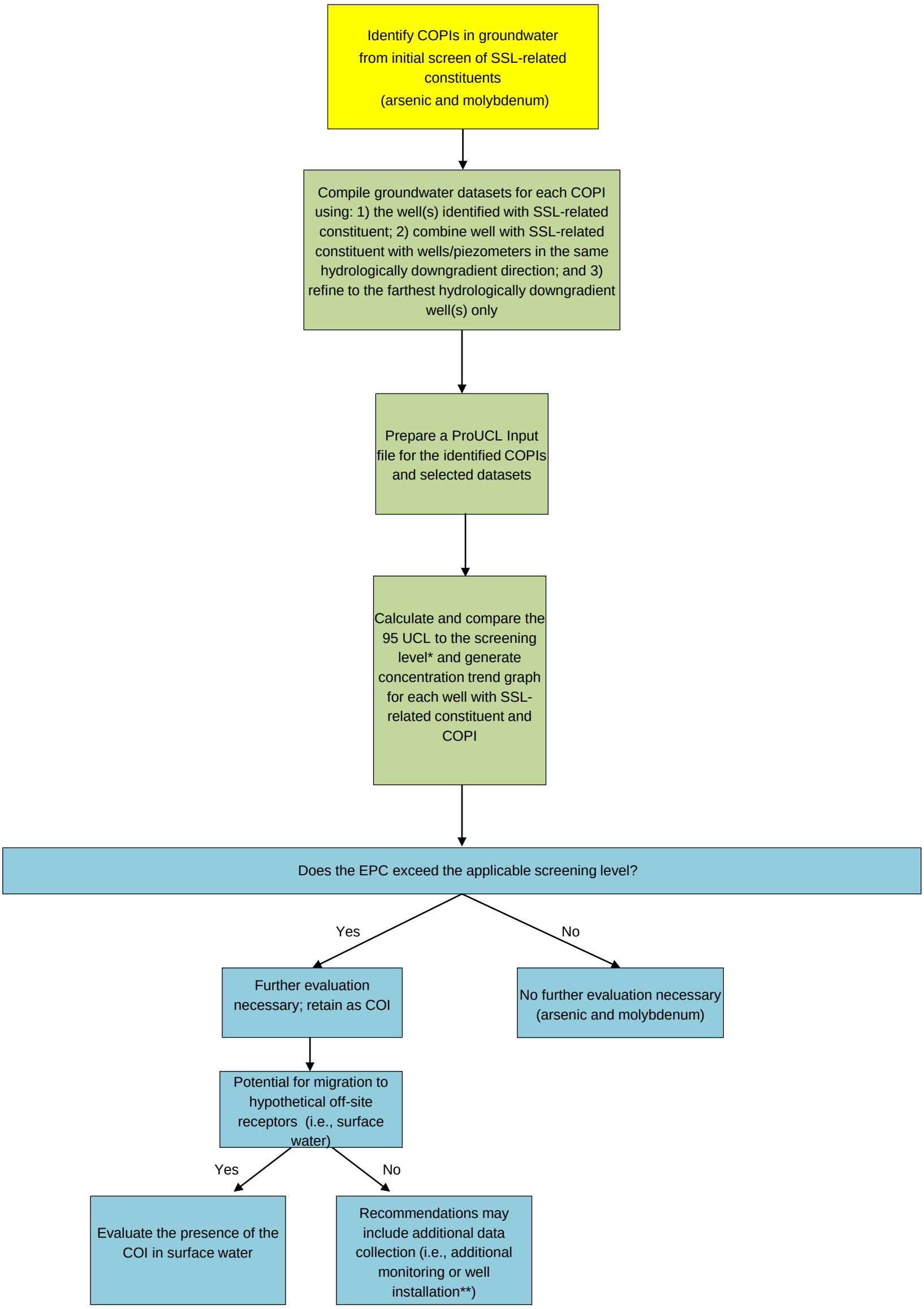
Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE 7

\\aro-01\prj1$\GA Power\CCR Risk Evaluations\GIS\Hammond\MXD\AP1\20220517\Figure 7_MonitoringWell.mxd 7/5/2022 5:08:34 PM

Approach for Refined Risk Evaluation (Groundwater) for AP-1



Notes:
*If the 95 UCL exceeds the maximum concentration, use the maximum as the EPC.
**This step is not necessary for Hammond AP-1.
SSL = Statistically Significant Level
COPI = Constituent of Potential Interest
EPC = Exposure Point Concentration
UCL = Upper Confidence Limit
COI = Constituent of Interest

Plant Hammond AP-1
Refined Groundwater Risk Evaluation Approach

Figure 8

Project Number: GZ7112H	August 2022

APPENDIX A

Plant Hammond Well Survey (Off-Site)

Well Survey

Plant Hammond

Ash Pond 1, Ash Pond 2, Ash Pond 3, Ash Pond 4

Rome, GA

Prepared for

Georgia Power Company

241 Ralph McGill Blvd., Atlanta, GA 30308

Prepared by

NewFields Companies, LLC

1349 W. Peachtree Street, Suite 2000

Atlanta, GA 30309

March 5, 2020

Introduction

Plant Hammond is located at 5963 Alabama Highway SW, Rome, GA 30165 and situated on an approximately 430-acre parcel along the Coosa River.

The Plant has four current and former ash ponds. Newfields conducted a well survey of potential drinking water wells within a three-mile radius of Ash Pond 1 (AP-1), Ash Pond 2 (AP-2), Ash Pond 3 (AP-3), and Ash Pond 4 (AP-4). This area, referred to in this report as the Investigated Area, is shown on Figure 1.

As part of the survey, NewFields reviewed information from a number of Federal, State, and County records and online sources, as well as a windshield survey of the Investigated Area. Information from each identified well was then compiled into a geographic information system (GIS) database.

Information Collection

This section summarizes the sources utilized to identify potential drinking water wells within the Investigated Area.

1. Federal Sources
    a. **United States Geological Survey (USGS)**. The USGS maintains an inventory database of wells sampled by a USGS-affiliated program for ground-water levels or water quality parameters at any time in the past.[1] Well information and coordinates were downloaded for the state of Georgia and compiled into the GIS database. All of the wells in this database in the Investigated Area were identified in the database simply as 'monitoring wells'; however, many of these appear to be co-located with drinking water wells. Some of these USGS monitoring wells may in fact be private drinking water wells utilized for monitoring purposes by USGS.

    b. **Safe Drinking Water Information System (SDWIS).** This EPA database has listings of public water systems but does not have well location information. SDWIS information was used to help identify the suppliers of public water in the vicinity of each facility. The water supplier for the Investigated Area is the Floyd County Water Utility.

2. State Sources

    Georgia Environmental Protection Division (EPD)

    a. **Drinking Water Branch.** EPD Drinking Water Branch maintains records about municipal and industrial wells, whose presence or absence within a radius of a site can be ascertained by contacting the agency. NewFields contacted Vicki Trent of EPD on October 3rd, 2019 requesting information about wells in the Investigated Area. Ms. Trent confirmed that there were no wells in the Investigated Area.

[1] http://waterdata.usgs.gov/ga/nwis/inventory?introduction

b. **EPD Pesticide Sampling Project.** From 2000 to 2004, EPD undertook a project to sample private drinking water wells for pesticides. EPD solicited volunteers state-wide to participate in the well sampling program. The final report includes the list of private water wells sampled, their coordinates, and depths when available.[2] Information about wells within the Investigated Area were compiled into the GIS database.

c. **Hazardous Site Inventory (HSI) Files.** EPD maintains files for Hazardous Site Inventory files for site which are undergoing state-led corrective action. These files usually contain groundwater data and well surveys. The EPD's online, interactive HSI map was reviewed. The only nearby HSI site is the Berryhill Landfill, 1.3 miles to the northwest of the northern impoundment. This site was added to the GIS databases. Reports associated with this site were reviewed, and wells identified in site files were added to the GIS database.

d. **Hazardous Site Response Act (HSRA) Notifications.** EPD maintains non-HSI HSRA notification reports (i.e., notifications submitted after releases of reportable substances). NewFields reviewed reports associated with sites in Floyd County within a 5-mile radius of Plant Hammond were scanned. Wells identified on these surveys were compiled into the GIS database. NewFields omitted the four monitoring wells shown to be located on Plant Hammond's property by past non-HSI well surveys, as we considered it unlikely Georgia Power would be utilizing their monitoring wells for irrigation or drinking purposes.

3. Floyd County Sources

a. **Health Department Records.** Floyd County Health Department (DOH) maintains records of the permits for "on-site sewage management systems" (septic tanks). These permits indicate whether the permittee has private or public water supply, and often identify the exact location of the well on a map. NewFields communicated with Timothy Hendrix with the Department of Environmental Health, who stated that it was not feasible for the DOH to search the septic records themselves, and they would not allow NewFields direct access to the files. However, Mr. Hendrix said he did not believe there was any public water available to the west of Huffaker Road.

b. **Floyd County Water Department.** NewFields communicated with Floyd County Utilities Administrator Stephen Hulsey who stated, "[w]e have nothing in the Coosa area west from Hwy 100 South." Hwy 100 South, also known as Foster Mill Road, is the road that runs between AP-2 and AP-4 and is the next major road to the west of Huffaker Rd. Mr. Hulsey stated he was not sure exactly how long the water system has been in place, but that he believed it was operating "since the 1970s."

c. **Tax Assessor Records.** Floyd County GIS department provided parcel data for the county that was joined with full WINGap data from the tax assessor's office. The tax assessor's data included improvement values for parcels (indicating the presence of a structure) and the

[2] https://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/PR-55.pdf

year of construction. Parcels with structures built prior to 1970 were identified as potentially containing active or abandoned drinking water wells.

4. Windshield Surveys
    a. A windshield survey of the Investigated Area was conducted on October 9th, 2019. During the survey a number of wells were visually identified, which were subsequently compiled into the GIS database. It is impossible to determine whether the wells seen are irrigation wells, drinking water wells, or are currently active.

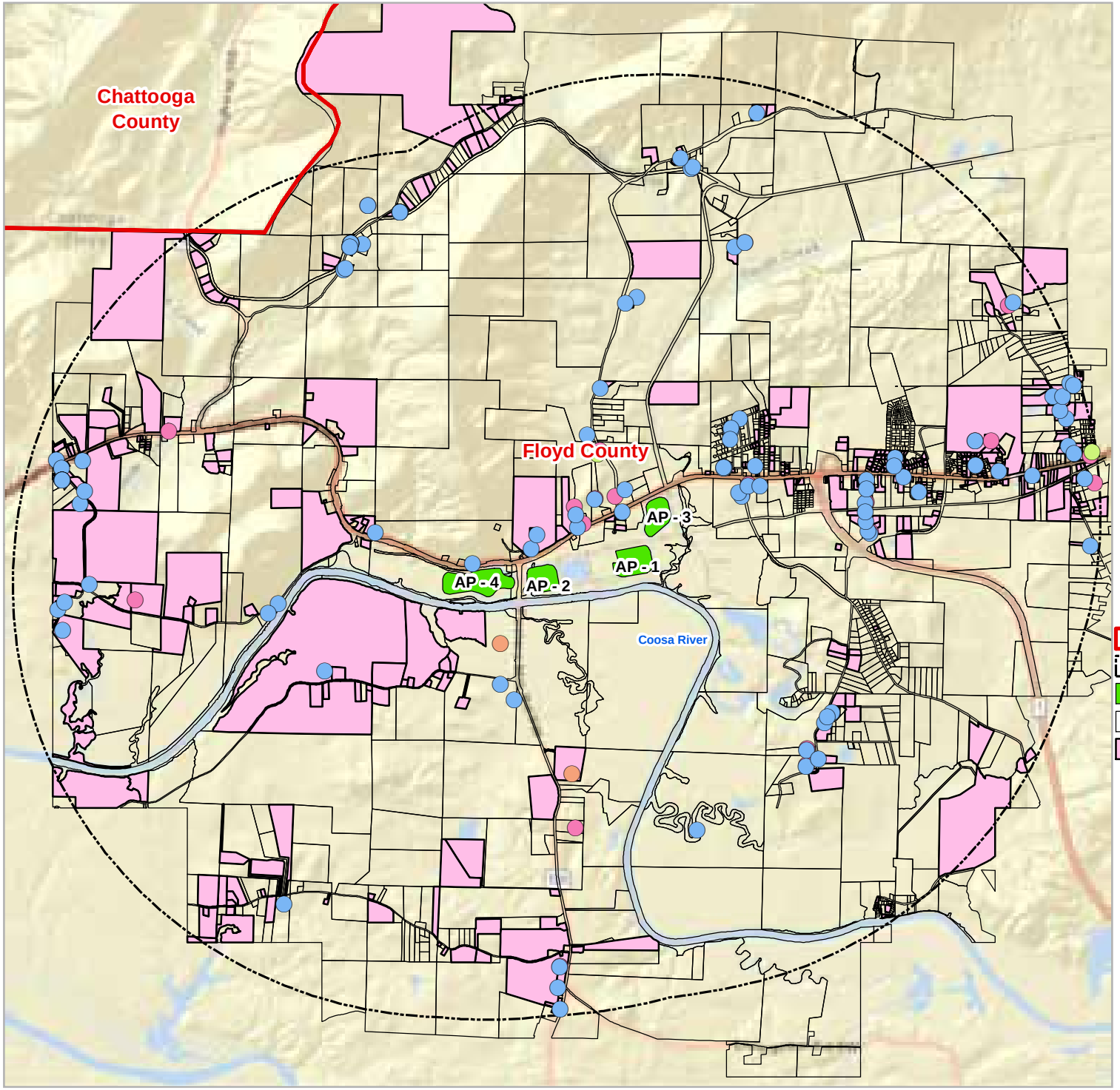
Summary

In addition to identifying specific wells from the above listed sources, NewFields used a combination of parcel data and information about the presence and age of public water infrastructure to identify parcels that most likely are using well water as their drinking water source or had drinking water wells at some time. Parcels may be (or have been) sharing wells, so a well may not exist for each identified parcel. These wells may or may not be active for drinking water and/or irrigation. Many wells were visible in the windshield surveys.

NewFields identified 707 actual and potential wells within the Investigated Area, the majority of which are likely private drinking water wells, but also some monitoring wells and commercial wells.[3] There were no public drinking water wells within the Investigated Area.

Figure 1 shows points for identified wells in the Investigated Area. The shaded parcels are parcels that were identified from parcel data as likely to contain wells. When viewed as a PDF file, the figure is interactive, and wells identified using different sources can be turned on and off.

[3] USGS monitoring wells located on Georgia Power property were considered not to be drinking water wells and omitted from the figures and tables in this report.



N
W E
S

Commercial Well
Private Drinking Well
Irrigation Well
Monitoring Well
County Line
3-Mile Radius
Ash Pond
Parcels
Parcel identified as likely having a well

0 2,500 5,000 10,000
Feet

Title	Plant Hammond - Ash Ponds 1 - 4
Project	GPC Plants Georgia
NewFields	Two Midtown Plaza 1349 W. Peachtree St, #2000 Atlanta, Georgia 30309 Tel: 404-347-9050
Date	02/13/2020
Rev. No.	2
MXD	gpc_ccr_2019/agis
Figure No.	1

APPENDIX B
Data Used in Risk Evaluation

Appendix B
Groundwater Data
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

Well ID	Sample Date	Constituent	Arsenic	Molybdenum
		Units	mg/L	mg/L
		Ash Pond		
HGWC-13	5/23/2016	Ash Pond 1	**0.329**	**0.027**
HGWC-13	7/12/2016	Ash Pond 1	**0.297**	**0.0316**
HGWC-13	9/1/2016	Ash Pond 1	**0.314**	**0.0336**
HGWC-13	10/24/2016	Ash Pond 1	**0.334**	**0.0352**
HGWC-13	12/7/2016	Ash Pond 1	**0.35**	**0.0383**
HGWC-13	1/26/2017	Ash Pond 1	**0.424**	**0.041**
HGWC-13	3/22/2017	Ash Pond 1	**0.419**	**0.0426**
HGWC-13	5/24/2017	Ash Pond 1	**0.393**	**0.04**
HGWC-13	4/4/2018	Ash Pond 1	**0.49**	**0.027**
HGWC-13	6/5/2018	Ash Pond 1	**0.38**	**0.027**
HGWC-13	10/5/2018	Ash Pond 1	**0.34**	**0.033**
HGWC-13	3/13/2019	Ash Pond 1	**0.42**	**0.033**
HGWC-13	4/5/2019	Ash Pond 1	**0.36**	**0.03**
HGWC-13	9/26/2019	Ash Pond 1	**0.44**	**0.026**
HGWC-13	3/4/2020	Ash Pond 1	**0.52**	**0.03**
HGWC-13	3/30/2020	Ash Pond 1	**0.47**	**0.029**
HGWC-13	9/21/2020	Ash Pond 1	**0.39**	**0.032**
HGWC-13	2/22/2021	Ash Pond 1	**0.45**	**0.036**
HGWC-13	3/17/2021	Ash Pond 1	**0.39**	**0.035**
HGWC-13	8/19/2021	Ash Pond 1	**0.31**	**0.032**
HGWC-13	2/10/2022	Ash Pond 1	**0.38**	**0.033**
HGWC-8	5/20/2016	Ash Pond 1	<0.005 (ND)	**0.446**
HGWC-8	7/12/2016	Ash Pond 1	<0.005 (ND)	**0.455**
HGWC-8	9/1/2016	Ash Pond 1	<0.005 (ND)	**0.481**
HGWC-8	10/20/2016	Ash Pond 1	<0.005 (ND)	**0.472**
HGWC-8	12/6/2016	Ash Pond 1	<0.005 (ND)	**0.52**
HGWC-8	1/25/2017	Ash Pond 1	<0.005 (ND)	**0.478**
HGWC-8	3/21/2017	Ash Pond 1	<0.005 (ND)	**0.547**
HGWC-8	5/23/2017	Ash Pond 1	<0.005 (ND)	**0.482**
HGWC-8	4/3/2018	Ash Pond 1	<0.005 (ND)	**0.44**
HGWC-8	6/6/2018	Ash Pond 1	<0.005 (ND)	**0.49**
HGWC-8	10/2/2018	Ash Pond 1	<0.005 (ND)	**0.47**
HGWC-8	3/12/2019	Ash Pond 1	<0.005 (ND)	**0.5**
HGWC-8	4/3/2019	Ash Pond 1	<0.005 (ND)	**0.5**
HGWC-8	9/24/2019	Ash Pond 1	<0.005 (ND)	**0.54**
HGWC-8	3/3/2020	Ash Pond 1	<0.005 (ND)	**0.44**
HGWC-8	3/27/2020	Ash Pond 1	<0.005 (ND)	**0.42**
HGWC-8	6/16/2020	Ash Pond 1	--	**0.45**
HGWC-8	9/16/2020	Ash Pond 1	<0.00078 (ND)	**0.43**
HGWC-8	2/16/2021	Ash Pond 1	<0.00078 (ND)	**0.46**
HGWC-8	3/15/2021	Ash Pond 1	<0.00078 (ND)	**0.41**
HGWC-8	8/18/2021	Ash Pond 1	<0.0011 (ND)	**0.48**
HGWC-8	2/10/2022	Ash Pond 1	**0.002 JB**	**0.34**
MW-19	3/14/2019	Ash Pond 1	<0.005 (ND)	**0.057**
MW-19	4/3/2019	Ash Pond 1	<0.005 (ND)	**0.04**
MW-19	9/27/2019	Ash Pond 1	<0.005 (ND)	**0.063**
MW-19	3/4/2020	Ash Pond 1	**0.00045 J**	**0.032**
MW-19	3/26/2020	Ash Pond 1	<0.005 (ND)	**0.033**
MW-19	9/21/2020	Ash Pond 1	<0.00078 (ND)	**0.064**
MW-19	2/12/2021	Ash Pond 1	<0.00078 (ND)	**0.046**
MW-19	3/17/2021	Ash Pond 1	<0.00078 (ND)	**0.043**
MW-19	8/18/2021	Ash Pond 1	<0.0011 (ND)	**0.032**
MW-19	2/9/2022	Ash Pond 1	<0.0011 (ND)	**0.011**

Appendix B
Groundwater Data
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

Well ID	Sample Date	Constituent	Arsenic	Molybdenum
		Units	mg/L	mg/L
		Ash Pond		
MW-20	3/13/2019	Ash Pond 1	**0.0023 J**	<0.01 (ND)
MW-20	4/2/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-20	9/25/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-20	3/2/2020	Ash Pond 1	**0.00038 J**	<0.01 (ND)
MW-20	3/27/2020	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-20	9/17/2020	Ash Pond 1	<0.00078 (ND)	<0.00069 (ND)
MW-20	2/11/2021	Ash Pond 1	**0.00094 J**	<0.00069 (ND)
MW-20	3/15/2021	Ash Pond 1	<0.00078 (ND)	<0.00069 (ND)
MW-20	8/17/2021	Ash Pond 1	<0.0011 (ND)	<0.00074 (ND)
MW-20	2/10/2022	Ash Pond 1	<0.0011 (ND)	<0.00074 (ND)
MW-24D	3/13/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-24D	4/8/2019	Ash Pond 1	<0.005 (ND)	0.00027 J
MW-24D	9/26/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-24D	3/4/2020	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-24D	3/30/2020	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-24D	9/21/2020	Ash Pond 1	<0.00078 (ND)	0.00099 J
MW-24D	2/16/2021	Ash Pond 1	<0.00078 (ND)	0.00096 J
MW-24D	3/17/2021	Ash Pond 1	<0.00078 (ND)	0.001 J
MW-24D	8/19/2021	Ash Pond 1	<0.0011 (ND)	0.00087 J
MW-24D	2/10/2022	Ash Pond 1	<0.0011 (ND)	0.0008 J
MW-27D	3/13/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-27D	4/4/2019	Ash Pond 1	**0.0002 J**	**0.0018 J**
MW-27D	9/26/2019	Ash Pond 1	<0.005 (ND)	**0.0042 J**
MW-27D	3/4/2020	Ash Pond 1	**0.00069 J**	**0.0058 J**
MW-27D	4/2/2020	Ash Pond 1	<0.005 (ND)	**0.003 J**
MW-27D	9/18/2020	Ash Pond 1	<0.00078 (ND)	**0.0018 J**
MW-27D	2/16/2021	Ash Pond 1	**0.001 J**	**0.0019 J**
MW-27D	3/12/2021	Ash Pond 1	<0.00078 (ND)	**0.0008 J**
MW-27D	8/17/2021	Ash Pond 1	<0.0011 (ND)	**0.0016 J**
MW-27D	2/10/2022	Ash Pond 1	<0.0011 (ND)	**0.0017 J**
MW-7	3/13/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-7	4/3/2019	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-7	9/26/2019	Ash Pond 1	<0.005 (ND)	**0.0033 J**
MW-7	3/3/2020	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-7	3/30/2020	Ash Pond 1	<0.005 (ND)	<0.01 (ND)
MW-7	9/21/2020	Ash Pond 1	<0.00078 (ND)	**0.0015 J**
MW-7	2/15/2021	Ash Pond 1	<0.00078 (ND)	**0.0015 J**
MW-7	3/15/2021	Ash Pond 1	<0.00078 (ND)	**0.0015 J**
MW-7	8/17/2021	Ash Pond 1	<0.0011 (ND)	**0.003 J**
MW-7	2/8/2022	Ash Pond 1	<0.0011 (ND)	**0.0012 J**

Notes:
Bold = the constituent was detected in the sample.
"**--**" = No analysis conducted.
mg/L milligrams(s) per liter
< = Non-detect result; the reporting limit is presented
J = Estimated value; the presented value is below the reporting limit but above the method detection limi
(ND) = Non-detect result; the reporting limit is presented

APPENDIX C

USEPA RSL Calculator Generated Residential Screening Levels

Appendix C
USEPA RSL Calculator Generated Residential Screening Levels
Plant Hammond AP1 Risk Evaluation Report
Plant Hammond, Rome, GA

Variable	Value
THQ (target hazard quotient) unitless	1
TR (target risk) unitless	0.00001
LT (lifetime) years	70
K (volatilization factor of Andelman) L/m3	0.5
lsc (apparent thickness of stratum corneum) cm	0.001
EDres (exposure duration - resident) years	26
EDres-c (exposure duration - child) years	6
EDres-a (exposure duration - adult) years	20
ED0-2 (mutagenic exposure duration first phase) years	2
ED2-6 (mutagenic exposure duration second phase) years	4
ED6-16 (mutagenic exposure duration third phase) years	10
ED16-26 (mutagenic exposure duration fourth phase) years	10
EFres (exposure frequency) days/year	350
EFres-c (exposure frequency - child) days/year	350
EFres-a (exposure frequency - adult) days/year	350
EF0-2 (mutagenic exposure frequency first phase) days/year	350
EF2-6 (mutagenic exposure frequency second phase) days/year	350
EF6-16 (mutagenic exposure frequency third phase) days/year	350
EF16-26 (mutagenic exposure frequency fourth phase) days/year	350
ETevent-res-adj (age-adjusted exposure time) hours/event	0.67077
ETevent-res-madj (mutagenic age-adjusted exposure time) hours/event	0.67077
ETres (exposure time) hours/day	24
ETres-c (dermal exposure time - child) hours/event	0.54
ETres-a (dermal exposure time - adult) hours/event	0.71
ETres-c (inhalation exposure time - child) hours/day	24
ETres-a (inhalation exposure time - adult) hours/day	24
ET0-2 (mutagenic inhalation exposure time first phase) hours/day	24
ET2-6 (mutagenic inhalation exposure time second phase) hours/day	24
ET6-16 (mutagenic inhalation exposure time third phase) hours/day	24
ET16-26 (mutagenic inhalation exposure time fourth phase) hours/day	24
ET0-2 (mutagenic dermal exposure time first phase) hours/event	0.54
ET2-6 (mutagenic dermal exposure time second phase) hours/event	0.54
ET6-16 (mutagenic dermal exposure time third phase) hours/event	0.71
ET16-26 (mutagenic dermal exposure time fourth phase) hours/event	0.71
BWres-a (body weight - adult) kg	80
BWres-c (body weight - child) kg	15
BW0-2 (mutagenic body weight) kg	15
BW2-6 (mutagenic body weight) kg	15
BW6-16 (mutagenic body weight) kg	80
BW16-26 (mutagenic body weight) kg	80
IFWres-adj (adjusted intake factor) L/kg	327.95
IFWres-adj (adjusted intake factor) L/kg	327.95
IFWMres-adj (mutagenic adjusted intake factor) L/kg	1019.9
IFWMres-adj (mutagenic adjusted intake factor) L/kg	1019.9
IRWres-c (water intake rate - child) L/day	0.78
IRWres-a (water intake rate - adult) L/day	2.5
IRW0-2 (mutagenic water intake rate) L/day	0.78
IRW2-6 (mutagenic water intake rate) L/day	0.78
IRW6-16 (mutagenic water intake rate) L/day	2.5
IRW16-26 (mutagenic water intake rate) L/day	2.5
EVres-a (events - adult) per day	1
EVres-c (events - child) per day	1
EV0-2 (mutagenic events) per day	1
EV2-6 (mutagenic events) per day	1
EV6-16 (mutagenic events) per day	1
EV16-26 (mutagenic events) per day	1
DFWres-adj (age-adjusted dermal factor) cm2-event/kg	2610650
DFWMres-adj (mutagenic age-adjusted dermal factor) cm2-event/kg	8191633
SAres-c (skin surface area - child) cm2	6365
SAres-a (skin surface area - adult) cm2	19652
SA0-2 (mutagenic skin surface area) cm2	6365
SA2-6 (mutagenic skin surface area) cm2	6365
SA6-16 (mutagenic skin surface area) cm2	19652
SA16-26 (mutagenic skin surface area) cm2	19652

Output generated 17MAY2022:13:42:16

Appendix C
USEPA RSL Calculator Generated Residential Screening Levels
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

Chemical	Molybdenum
CAS Number	7782-49-2
Mutagen?	No
Volatile?	No
Chemical Type	Inorganics
Sfo (mg/kg-day)-1	-
Sfo Ref	
IUR (ug/m3)-1	-
IUR Ref	
RfD (mg/kg-day)	0.005
RfD Ref	I
RfC (mg/m3)	0.002
RfC Ref	C
GIABS	1
Kp (cm/hr)	0.001
MW	95.94
B (unitless)	0.00377
t* (hr)	0.87
τevent (hr/event)	0.362
FA (unitless)	1
In EPD?	Yes
DAevent (ca)	-
DAevent (nc child)	0.0123
DAevent (nc adult)	0.0212
MCL (ug/L)	-
Ingestion SL TR=1E-05 (ug/L)	-
Dermal SL TR=1E-05 (ug/L)	-
Inhalation SL TR=1E-05 (ug/L)	-
Carcinogenic SL TR=1E-05 (ug/L)	-
Ingestion SL Child THQ=1 (ug/L)	100
Dermal SL Child THQ=1 (ug/L)	22800
Inhalation SL Child THQ=1 (ug/L)	-
Noncarcinogenic SL Child THI=1 (ug/L)	99.8
Ingestion SL Adult THQ=1 (ug/L)	167
Dermal SL Adult THQ=1 (ug/L)	29900
Inhalation SL Adult THQ=1 (ug/L)	-
Noncarcinogenic SL Adult THI=1 (ug/L)	166
Screening Level (ug/L)	9.98E+01 nc

Notes

I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; G = see user's guide; U = user provided; ca = cancer; nc = noncancer; * = where: nc SL < 100X ca SL; ** = where nc SL < 10X ca SL; SSL values are based on DAF=1; max = ceiling limit exceeded; sat = Csat exceeded.

APPENDIX D

Support for Refined Risk Evaluation

Appendix D-1

Exposure Point Concentration Calculation Results

Appendix D.
Appendix D-1
Exposure Point Concentration Calculation Results[1]
Pland Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

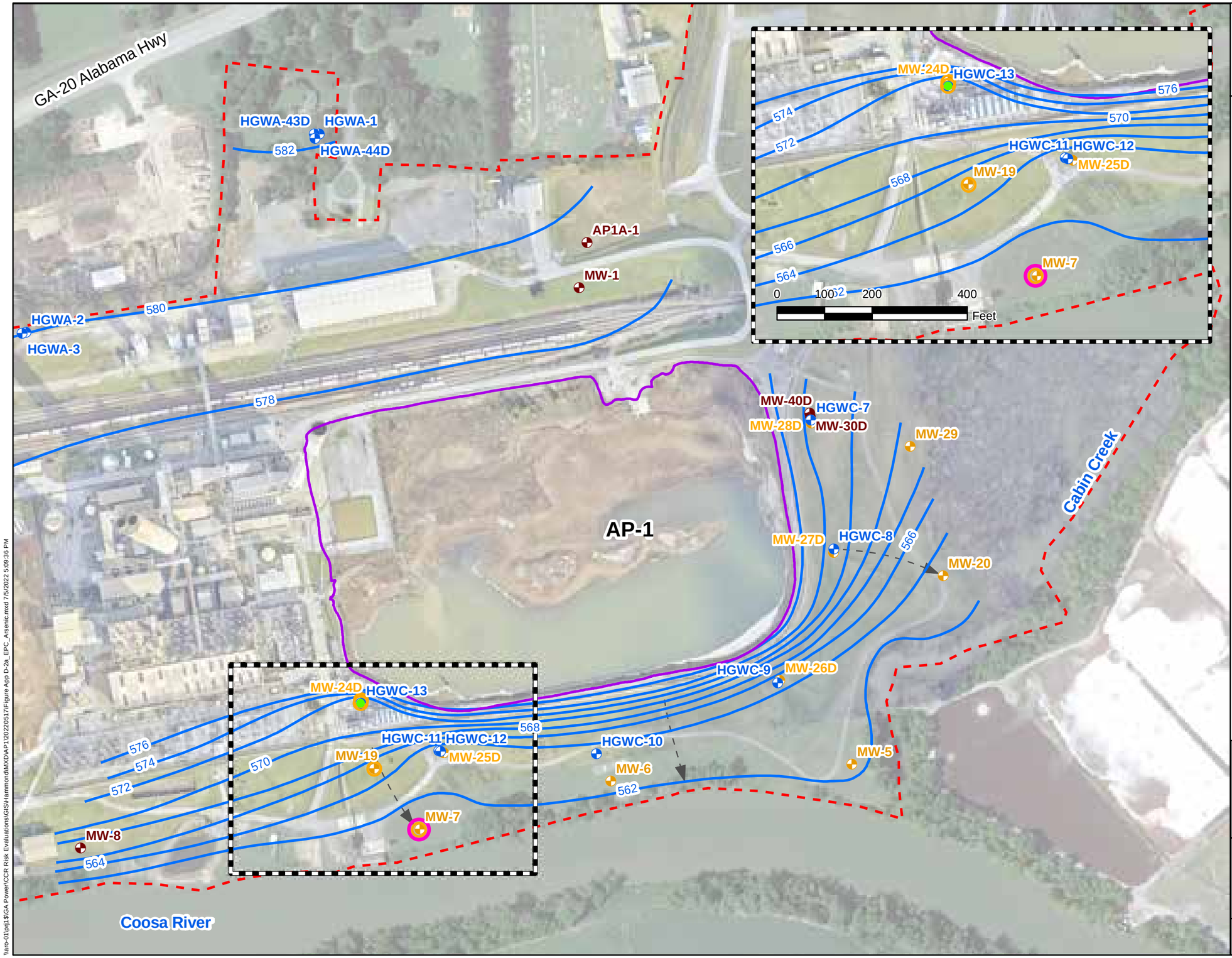
CCR Rule Designation	Constituent	Well IDs Included	Maximum Concentration (mg/L)	Detection Frequency	Exceedance Frequency	EPC Step 1 Target Well(s) 2016-2022 (mg/L)	EPC Step 2 Target Well(s) + Nearby Well(s) + Downgradient Well(s) 2016-2022 (mg/L)	EPC Step 3 Farthest Downgradient Well(s)[2] 2016-2022 (mg/L)
Appendix IV	Arsenic	HGWC-13	0.52	21 / 21	21 / 21	0.41		
		HGWC-13 MW-19 MW-24D MW-7	0.52	22 / 51	21 / 51		0.28	
		MW-7	<0.005	0 / 10	0 / 10			<0.005
	Molybdenum	HGWC-8	0.55	22 / 22	22 / 22	0.48		
		HGWC-8 MW-20 MW-27D	0.55	31 / 42	22 / 42		0.47	
		MW-20	<0.01	0 / 10	0 / 10			<0.01

Notes:
Highlighted cells indicate the EPCs selected in the refined risk evaluation.
[1] EPCs calculated in accordance with USEPA, 2014. Memorandum for Determining Groundwater Exposure Point Concentrations, Supplemental Guidance. OSWER Directive 9283.1-42, February 2014. Located at https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=236917
[2] The presented value is the method detection limit (MDL) for the constituent.

Definitions:
EPC = Exposure Point Concentration
mg/L = milligrams per liter

Appendix D-2

Exposure Point Concentration Figures



N

LEGEND

- Compliance Monitoring Well
- Delineation Monitoring Well
- Groundwater Level Monitoring Piezometer
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Exposure Point Concentration Wells

- Step 1 Well
- Step 2 Well
- Step 3 Well

Notes:
1. Exposure Point Concentration (EPC).
2. EPC Step 1 - Individual Target Well(s) 2016-2022.
3. EPC Step 2 - Target Well(s) & Adjacent Well(s) & Downgradient Well(s) 2016-2022.
4. EPC Step 3 - Farthest Downgradient Well(s) 2016-2022.
5. Water elevation contours are based on measurements shown on Figure 3. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88.
6. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600 Feet

EXPOSURE POINT CONCENTRATION MAP ARSENIC

GEORGIA POWER
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

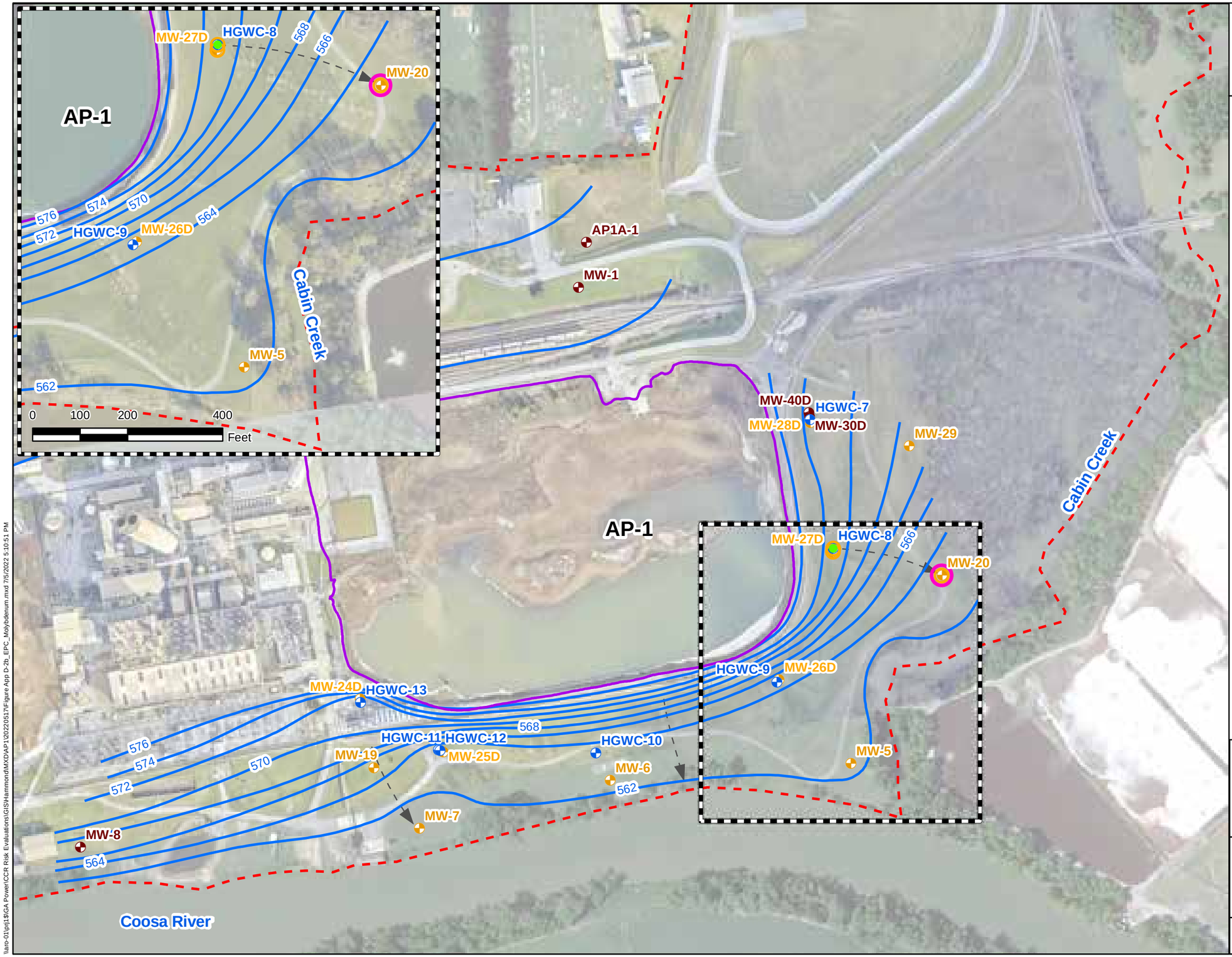
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE D-2a

\\aro-01\prj1$\GA Power\CCR Risk Evaluations\GIS\HammondMXD\AP1\20220517\Figure App D-2a_EPC_Arsenic.mxd 7/5/2022 5:09:36 PM



\\aro-01\prj1$\GA Power\CCR Risk Evaluations\GIS\Hammond\MXD\AP1\20220517\Figure App D-2b_EPC_Molybdenum.mxd 7/5/2022 5:10:51 PM

N

LEGEND

- Compliance Monitoring Well
- Delineation Monitoring Well
- Groundwater Level Monitoring Piezometer
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-1 Boundary
- Plant Hammond Property Boundary

Exposure Point Concentration Wells

- Step 1 Well
- Step 2 Well
- Step 3 Well

Notes:
1. Exposure Point Concentration (EPC).
2. EPC Step 1 - Individual Target Well(s) 2016-2022.
3. EPC Step 2 - Target Well(s) & Adjacent Well(s) & Downgradient Well(s) 2016-2022.
4. EPC Step 3 - Farthest Downgradient Well(s) 2016-2022.
5. Water elevation contours are based on measurements shown on Figure 3. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88.
6. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, January 2022.

0 150 300 600
Feet

EXPOSURE POINT CONCENTRATION MAP MOLYBDENUM

GEORGIA POWER
PLANT HAMMOND AP-1
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | AUGUST 2022

FIGURE D-2b

Appendix D-3

ProUCL Input/Output Files

Appendix D
Appendix D-3
ProUCL Input
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

Step 1 EPC Calculation Input				Step 2 EPC Calculation Input			
Step1_Arsenic_AP1	D_Step1_Arsenic_AP1	Step1_Molybdenum_AP1	D_Step1_Molybdenum_AP1	Step2_Arsenic_AP1	D_Step2_Arsenic_AP1	Step2_Molybdenum_AP1	D_Step2_Molybdenum_AP1
0.329	1	0.446	1	0.329	1	0.446	1
0.297	1	0.455	1	0.297	1	0.455	1
0.314	1	0.481	1	0.314	1	0.481	1
0.334	1	0.472	1	0.334	1	0.472	1
0.35	1	0.52	1	0.35	1	0.52	1
0.424	1	0.478	1	0.424	1	0.478	1
0.419	1	0.547	1	0.419	1	0.547	1
0.393	1	0.482	1	0.393	1	0.482	1
0.49	1	0.44	1	0.49	1	0.44	1
0.38	1	0.49	1	0.38	1	0.49	1
0.34	1	0.47	1	0.34	1	0.47	1
0.42	1	0.5	1	0.42	1	0.5	1
0.36	1	0.5	1	0.36	1	0.5	1
0.44	1	0.54	1	0.44	1	0.54	1
0.52	1	0.44	1	0.52	1	0.44	1
0.47	1	0.42	1	0.47	1	0.42	1
0.39	1	0.45	1	0.39	1	0.45	1
0.45	1	0.43	1	0.45	1	0.43	1
0.39	1	0.46	1	0.39	1	0.46	1
0.31	1	0.41	1	0.31	1	0.41	1
0.38	1	0.48	1	0.38	1	0.48	1
		0.34	1	0.005	0	0.34	1
		0.005	0	0.005	0	0.01	0
		0.005	0	0.005	0	0.01	0
		0.005	0	0.00045	1	0.01	0
		0.005	0	0.005	0	0.01	0
		0.005	0	0.00078	0	0.01	0
		0.00078	0	0.00078	0	0.00069	0

Appendix D
Appendix D-3
ProUCL Input
Plant Hammond AP-1 Risk Evaluation Report
Plant Hammond, Rome, GA

Step 1 EPC Calculation Input				Step 2 EPC Calculation Input			
Step1_Arsenic_AP1	D_Step1_Arsenic_AP1	Step1_Molybdenum_AP1	D_Step1_Molybdenum_AP1	Step2_Arsenic_AP1	D_Step2_Arsenic_AP1	Step2_Molybdenum_AP1	D_Step2_Molybdenum_AP1
		0.00078	0	0.00078	0	0.00069	0
		0.00078	0	0.0011	0	0.00069	0
		0.0011	0	0.0011	0	0.00074	0
		0.0011	0	0.005	0	0.00074	0
				0.005	0	0.01	0
				0.005	0	0.0018	1
				0.005	0	0.0042	1
				0.005	0	0.0058	1
				0.00078	0	0.003	1
				0.00078	0	0.0018	1
				0.00078	0	0.0019	1
				0.0011	0	0.0008	1
				0.0011	0	0.0016	1
				0.005	0	0.0017	1
				0.005	0		
				0.005	0		
				0.005	0		
				0.005	0		
				0.00078	0		
				0.00078	0		
				0.00078	0		
				0.0011	0		
				0.0011	0		

Notes:
EPC= Exposure point Concentration

UCL Statistics for Data Sets with Non-Detects

User Selected Options			
Date/Time of Computation	ProUCL 5.16/14/2022 10:25:07 AM		
From File	WorkSheet.xls		
Full Precision	OFF		
Confidence Coefficient			95%
Number of Bootstrap Operations			2000

Step1_Arsenic_AP1

General Statistics

Total Number of Observations	21	Number of Distinct Observations	19
		Number of Missing Observations	0
Minimum	0.297	Mean	0.39
Maximum	0.52	Median	0.39
SD	0.0613	Std. Error of Mean	0.0134
Coefficient of Variation	0.157	Skewness	0.397

Normal GOF Test

Shapiro Wilk Test Statistic	0.971	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.908	Data appear Normal at 5% Significance Level	
Lilliefors Test Statistic	0.103	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.188	Data appear Normal at 5% Significance Level	

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	0.414	95% Adjusted-CLT UCL (Chen-1995)	0.414
		95% Modified-t UCL (Johnson-1978)	0.414

Gamma GOF Test

A-D Test Statistic	0.182	**Anderson-Darling Gamma GOF Test**	
5% A-D Critical Value	0.742	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.0849	**Kolmogorov-Smirnov Gamma GOF Test**	
5% K-S Critical Value	0.189	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	43.28	k star (bias corrected MLE)	37.13
Theta hat (MLE)	0.00902	Theta star (bias corrected MLE)	0.0105
nu hat (MLE)	1818	nu star (bias corrected)	1559
MLE Mean (bias corrected)	0.39	MLE Sd (bias corrected)	0.0641
		Approximate Chi Square Value (0.05)	1469
Adjusted Level of Significance	0.0383	Adjusted Chi Square Value	1462

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	0.415	95% Adjusted Gamma UCL (use when n<50)	0.417

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.98	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk Critical Value	0.908	Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0819	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.188	Data appear Lognormal at 5% Significance Level

Data appear Lognormal at 5% Significance Level

Lognormal Statistics

Minimum of Logged Data	-1.214	Mean of logged Data	-0.952
Maximum of Logged Data	-0.654	SD of logged Data	0.156

Assuming Lognormal Distribution

95% H-UCL	0.415	90% Chebyshev (MVUE) UCL	0.43
95% Chebyshev (MVUE) UCL	0.449	97.5% Chebyshev (MVUE) UCL	0.474
99% Chebyshev (MVUE) UCL	0.523		

Nonparametric Distribution Free UCL Statistics

Data appear to follow a Discernible Distribution at 5% Significance Level

Nonparametric Distribution Free UCLs

95% CLT UCL	0.412	95% Jackknife UCL	0.414
95% Standard Bootstrap UCL	0.412	95% Bootstrap-t UCL	0.415
95% Hall's Bootstrap UCL	0.413	95% Percentile Bootstrap UCL	0.412
95% BCA Bootstrap UCL	0.415		
90% Chebyshev(Mean, Sd) UCL	0.431	95% Chebyshev(Mean, Sd) UCL	0.449
97.5% Chebyshev(Mean, Sd) UCL	0.474	99% Chebyshev(Mean, Sd) UCL	0.524

Suggested UCL to Use

95% Student's-t UCL	0.414

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Step1_Molybdenum_AP1

General Statistics

Total Number of Observations	32	Number of Distinct Observations	23
Number of Detects	22	Number of Non-Detects	10
Number of Distinct Detects	20	Number of Distinct Non-Detects	3
Minimum Detect	0.34	Minimum Non-Detect	7.80E-04
Maximum Detect	0.547	Maximum Non-Detect	0.005
Variance Detects	0.00206	Percent Non-Detects	31.25%
Mean Detects	0.466	SD Detects	0.0454
Median Detects	0.471	CV Detects	0.0975
Skewness Detects	-0.651	Kurtosis Detects	1.793
Mean of Logged Detects	-0.768	SD of Logged Detects	0.102

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.957	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.911	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.102	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.184	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.321	KM Standard Error of Mean	0.0396

KM SD	0.219	95% KM (BCA) UCL	0.378
95% KM (t) UCL	0.388	95% KM (Percentile Bootstrap) UCL	0.38
95% KM (z) UCL	0.386	95% KM Bootstrap t UCL	0.384
90% KM Chebyshev UCL	0.439	95% KM Chebyshev UCL	0.493
97.5% KM Chebyshev UCL	0.568	99% KM Chebyshev UCL	0.714

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.361	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.741	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.111	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.185	Detected data appear Gamma Distributed at 5% Significance Level	

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	104.2	k star (bias corrected MLE)	89.99
Theta hat (MLE)	0.00447	Theta star (bias corrected MLE)	0.00518
nu hat (MLE)	4583	nu star (bias corrected)	3960
Mean (detects)	0.466		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.335	Mean	0.436
Maximum	0.547	Median	0.443
SD	0.0601	CV	0.138
k hat (MLE)	53.25	k star (bias corrected MLE)	48.28
Theta hat (MLE)	0.00818	Theta star (bias corrected MLE)	0.00902
nu hat (MLE)	3408	nu star (bias corrected)	3090
Adjusted Level of Significance (β)	0.0416		
Approximate Chi Square Value (N/A, α)	2961	Adjusted Chi Square Value (N/A, β)	2955
95% Gamma Approximate UCL (use when n>=50)	0.454	95% Gamma Adjusted UCL (use when n<50)	0.455

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.321	SD (KM)	0.219
Variance (KM)	0.0478	SE of Mean (KM)	0.0396
k hat (KM)	2.148	k star (KM)	1.968
nu hat (KM)	137.5	nu star (KM)	125.9
theta hat (KM)	0.149	theta star (KM)	0.163
80% gamma percentile (KM)	0.481	90% gamma percentile (KM)	0.626
95% gamma percentile (KM)	0.764	99% gamma percentile (KM)	1.072

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (125.93, α)	101	Adjusted Chi Square Value (125.93, β)	99.82
95% Gamma Approximate KM-UCL (use when n>=50)	0.4	95% Gamma Adjusted KM-UCL (use when n<50)	0.404

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.925	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.911	Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.122	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.184	Detected Data appear Lognormal at 5% Significance Level	

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.436	Mean in Log Scale	-0.839
SD in Original Scale	0.0591	SD in Log Scale	0.137

95% t UCL (assumes normality of ROS data)	0.454	95% Percentile Bootstrap UCL	0.453
95% BCA Bootstrap UCL	0.453	95% Bootstrap t UCL	0.453
95% H-UCL (Log ROS)	0.455		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-2.765	KM Geo Mean	0.063
KM SD (logged)	2.962	95% Critical H Value (KM-Log)	5.357
KM Standard Error of Mean (logged)	0.536	95% H-UCL (KM -Log)	87.49
KM SD (logged)	2.962	95% Critical H Value (KM-Log)	5.357
KM Standard Error of Mean (logged)	0.536		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.321	Mean in Log Scale	-2.669
SD in Original Scale	0.222	SD in Log Scale	2.908
95% t UCL (Assumes normality)	0.387	95% H-Stat UCL	74.52

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL 0.388

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Step2_Arsenic_AP1

General Statistics

Total Number of Observations	51	Number of Distinct Observations	23
Number of Detects	22	Number of Non-Detects	29
Number of Distinct Detects	20	Number of Distinct Non-Detects	3
Minimum Detect	4.50E-04	Minimum Non-Detect	7.80E-04
Maximum Detect	0.52	Maximum Non-Detect	0.005
Variance Detects	0.0105	Percent Non-Detects	56.86%
Mean Detects	0.373	SD Detects	0.102
Median Detects	0.385	CV Detects	0.275
Skewness Detects	-2.233	Kurtosis Detects	8.091
Mean of Logged Detects	-1.259	SD of Logged Detects	1.448

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.8	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.911	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.184	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.184	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.161	KM Standard Error of Mean	0.0281
KM SD	0.196	95% KM (BCA) UCL	0.207
95% KM (t) UCL	0.208	95% KM (Percentile Bootstrap) UCL	0.206
95% KM (z) UCL	0.207	95% KM Bootstrap t UCL	0.209
90% KM Chebyshev UCL	0.245	95% KM Chebyshev UCL	0.283
97.5% KM Chebyshev UCL	0.336	99% KM Chebyshev UCL	0.44

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	5	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.756	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.428	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.188	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.988	k star (bias corrected MLE)	1.747
Theta hat (MLE)	0.188	Theta star (bias corrected MLE)	0.213
nu hat (MLE)	87.46	nu star (bias corrected)	76.87
Mean (detects)	0.373		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	4.50E-04	Mean	0.282
Maximum	0.52	Median	0.252
SD	0.107	CV	0.381
k hat (MLE)	3.201	k star (bias corrected MLE)	3.025
Theta hat (MLE)	0.088	Theta star (bias corrected MLE)	0.0931
nu hat (MLE)	326.5	nu star (bias corrected)	308.6
Adjusted Level of Significance (β)	0.0453		
Approximate Chi Square Value (308.59, α)	268.9	Adjusted Chi Square Value (308.59, β)	267.8
95% Gamma Approximate UCL (use when n>=50)	0.323	95% Gamma Adjusted UCL (use when n<50)	0.325

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.161	SD (KM)	0.196
Variance (KM)	0.0383	SE of Mean (KM)	0.0281
k hat (KM)	0.677	k star (KM)	0.65
nu hat (KM)	69.04	nu star (KM)	66.31
theta hat (KM)	0.238	theta star (KM)	0.248
80% gamma percentile (KM)	0.265	90% gamma percentile (KM)	0.411
95% gamma percentile (KM)	0.563	99% gamma percentile (KM)	0.927

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (66.31, α)	48.57	Adjusted Chi Square Value (66.31, β)	48.13
95% Gamma Approximate KM-UCL (use when n>=50)	0.22	95% Gamma Adjusted KM-UCL (use when n<50)	0.222

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.313	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.911	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.467	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.184	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.183	Mean in Log Scale	-2.547
SD in Original Scale	0.181	SD in Log Scale	1.592
95% t UCL (assumes normality of ROS data)	0.225	95% Percentile Bootstrap UCL	0.224
95% BCA Bootstrap UCL	0.225	95% Bootstrap t UCL	0.227
95% H-UCL (Log ROS)	0.545		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-4.925	KM Geo Mean	0.00726

KM SD (logged)	3.326	95% Critical H Value (KM-Log)	5.423
KM Standard Error of Mean (logged)	0.477	95% H-UCL (KM -Log)	23.46
KM SD (logged)	3.326	95% Critical H Value (KM-Log)	5.423
KM Standard Error of Mean (logged)	0.477		

DL/2 Statistics

DL/2 Normal		**DL/2 Log-Transformed**	
Mean in Original Scale	0.162	Mean in Log Scale	-4.456
SD in Original Scale	0.197	SD in Log Scale	3.038
95% t UCL (Assumes normality)	0.208	95% H-Stat UCL	10.03

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

95% KM (Chebyshev) UCL	0.283

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Step2_Molybdenum_AP1

General Statistics

Total Number of Observations	42	Number of Distinct Observations	31
Number of Detects	31	Number of Non-Detects	11
Number of Distinct Detects	28	Number of Distinct Non-Detects	3
Minimum Detect	8.00E-04	Minimum Non-Detect	6.90E-04
Maximum Detect	0.547	Maximum Non-Detect	0.01
Variance Detects	0.0472	Percent Non-Detects	26.19%
Mean Detects	0.331	SD Detects	0.217
Median Detects	0.446	CV Detects	0.655
Skewness Detects	-0.871	Kurtosis Detects	-1.185
Mean of Logged Detects	-2.329	SD of Logged Detects	2.5

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.702	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.929	Detected Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.319	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.156	Detected Data Not Normal at 5% Significance Level	

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.245	KM Standard Error of Mean	0.0367
KM SD	0.234	95% KM (BCA) UCL	0.305
95% KM (t) UCL	0.307	95% KM (Percentile Bootstrap) UCL	0.303
95% KM (z) UCL	0.305	95% KM Bootstrap t UCL	0.31
90% KM Chebyshev UCL	0.355	95% KM Chebyshev UCL	0.405
97.5% KM Chebyshev UCL	0.474	99% KM Chebyshev UCL	0.61

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	6.078	**Anderson-Darling GOF Test**	
5% A-D Critical Value	0.808	Detected Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.41	**Kolmogorov-Smirnov GOF**	
5% K-S Critical Value	0.167	Detected Data Not Gamma Distributed at 5% Significance Level	

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.516	k star (bias corrected MLE)	0.488
Theta hat (MLE)	0.642	Theta star (bias corrected MLE)	0.679
nu hat (MLE)	32.01	nu star (bias corrected)	30.24
Mean (detects)	0.331		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	8.00E-04	Mean	0.295
Maximum	0.547	Median	0.375
SD	0.196	CV	0.663
k hat (MLE)	0.656	k star (bias corrected MLE)	0.625
Theta hat (MLE)	0.45	Theta star (bias corrected MLE)	0.472
nu hat (MLE)	55.1	nu star (bias corrected)	52.5
Adjusted Level of Significance (β)	0.0443		
Approximate Chi Square Value (52.50, α)	36.85	Adjusted Chi Square Value (52.50, β)	36.39
95% Gamma Approximate UCL (use when n>=50)	0.42	95% Gamma Adjusted UCL (use when n<50)	0.426

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.245	SD (KM)	0.234
Variance (KM)	0.0548	SE of Mean (KM)	0.0367
k hat (KM)	1.096	k star (KM)	1.033
nu hat (KM)	92.05	nu star (KM)	86.81
theta hat (KM)	0.224	theta star (KM)	0.237
80% gamma percentile (KM)	0.393	90% gamma percentile (KM)	0.559
95% gamma percentile (KM)	0.725	99% gamma percentile (KM)	1.11

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (86.81, α)	66.33	Adjusted Chi Square Value (86.81, β)	65.69
95% Gamma Approximate KM-UCL (use when n>=50)	0.321	95% Gamma Adjusted KM-UCL (use when n<50)	0.324

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.632	**Shapiro Wilk GOF Test**	
5% Shapiro Wilk Critical Value	0.929	Detected Data Not Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.401	**Lilliefors GOF Test**	
5% Lilliefors Critical Value	0.156	Detected Data Not Lognormal at 5% Significance Level	

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.246	Mean in Log Scale	-3.347
SD in Original Scale	0.236	SD in Log Scale	2.825
95% t UCL (assumes normality of ROS data)	0.307	95% Percentile Bootstrap UCL	0.305
95% BCA Bootstrap UCL	0.305	95% Bootstrap t UCL	0.308
95% H-UCL (Log ROS)	16.34		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-3.521	KM Geo Mean	0.0296
KM SD (logged)	2.928	95% Critical H Value (KM-Log)	5.026
KM Standard Error of Mean (logged)	0.462	95% H-UCL (KM -Log)	21.4
KM SD (logged)	2.928	95% Critical H Value (KM-Log)	5.026
KM Standard Error of Mean (logged)	0.462		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.245	Mean in Log Scale	-3.421
SD in Original Scale	0.236	SD in Log Scale	2.913
95% t UCL (Assumes normality)	0.307	95% H-Stat UCL	22.12

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

97.5% KM (Chebyshev) UCL	0.474

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

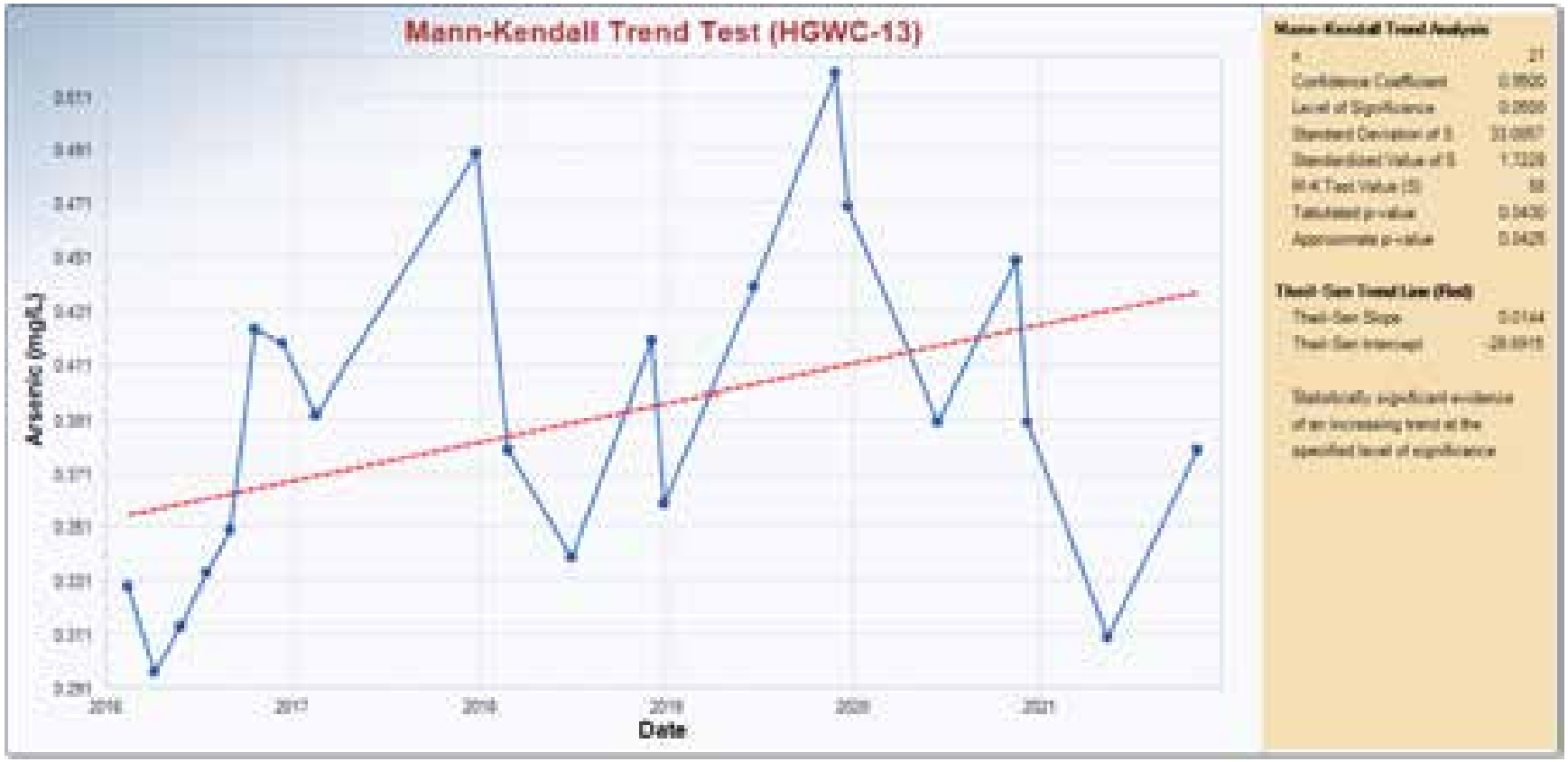
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

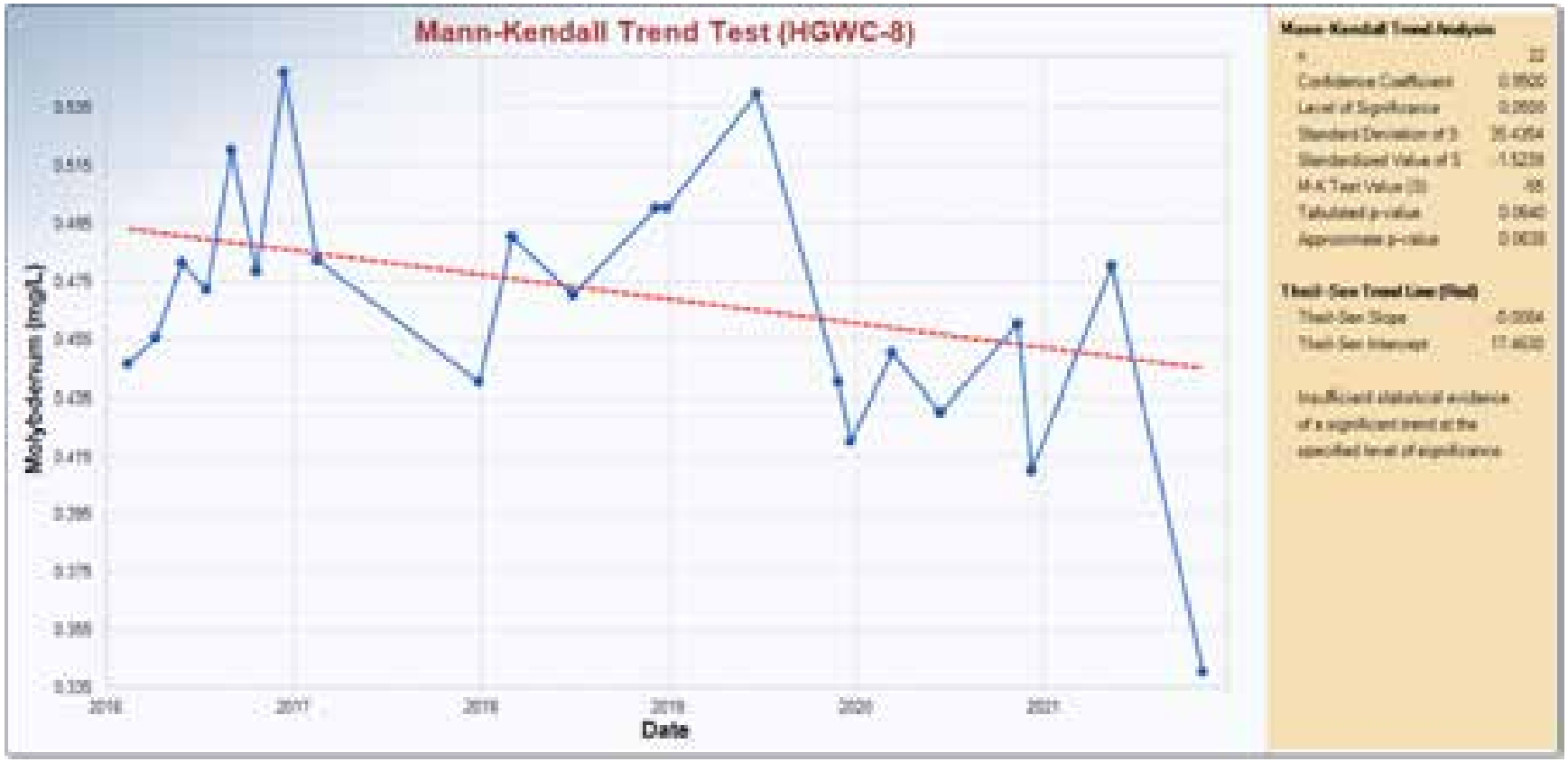
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

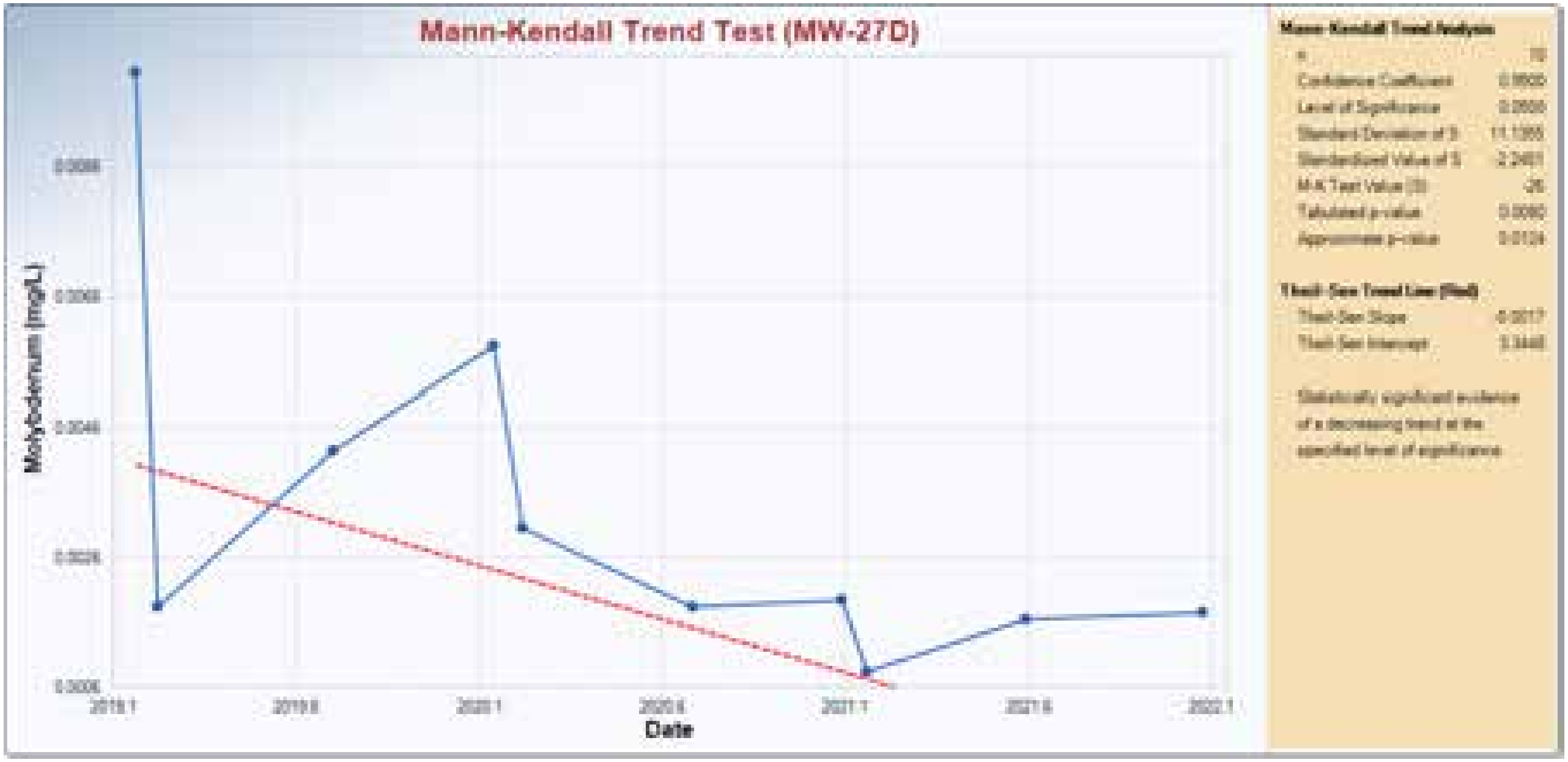
Appendix D-4

Groundwater Trend Graphs

Appendix D
Appendix D-4
Groundwater Trend Graphics
Hammond AP-1




Mann-Kendall Trend Test (HGWC-8)
Molybdenum (mg/L)
0.535
0.515
0.495
0.475
0.455
0.435
0.415
0.395
0.375
0.355
0.335
2016
2017
2018
2019
2020
2021
Date
Mann-Kendall Trend Analysis
n 22
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 35.4354
Standardized Value of S -1.5239
M-K Test Value (S) -55
Tabulated p-value 0.0640
Approximate p-value 0.0638
Theil-Sen Trend Line (Red)
Theil-Sen Slope -0.0004
Theil-Sen Intercept 17.4630
Insufficient statistical evidence
of a significant trend at the
specified level of significance


Mann-Kendall Trend Test (MW-27D)
Molybdenum (mg/L)
Date
2019.1
2019.6
2020.1
2020.6
2021.1
2021.6
2022.1
Mann-Kendall Trend Analysis
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S
Standardized Value of S
M-K Test Value (S)
Tabulated p-value
Approximate p-value
Theil-Sen Trend Line (Red)
Theil-Sen Slope
Theil-Sen Intercept
Statistically significant evidence
of a decreasing trend at the
specified level of significance